2016 consultation on possible Special Areas of Conservation for harbour porpoise

Post-Consultation Report

JNCC Report 597

Harbour porpoise © Neil Golding

September 2016

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Advice to Government **Summary**

2016 consultation on possible Special Areas of Conservation for harbour porpoise

Below is a summary of recommendations following the public consultations carried out by the Joint Nature Conservation Committee (JNCC) and Natural Resources Wales (NRW), with support from Natural England (NE) between 19 January and 3 May 2016 on behalf of themselves and the Department of Agriculture, Environment and Rural Affairs (DAERA), regarding proposals for five Special Areas of Conservation for harbour porpoise submitted to Government in June 2015. The consultation documents are available here:
http://jncc.defra.gov.uk/sacconsultation
www.naturalresources.wales/mn2k

The consultations concerned:

1. **The scientific case for the designation of:**
   Bristol Channel Approaches / Dynesfeydd Môr Hafren pSAC
   West Wales Marine / Gorllewin Cymru Forol pSAC
   North Anglesey Marine / Gogledd Môn Forol pSAC
   North Channel pSAC
   Southern North Sea pSAC

2. **The assessment of the likely economic and social impact of the designation of each site as well as the network of sites.**

This summary should be used in conjunction with the full advice in Section 6 of this report.

Summary of Advice:

Responses were received from organisations and businesses covering the breadth of relevant interest groups, individuals, and campaigns from two Non-Governmental Organisations (NGOs). We thank all those who took time to respond and for the comments received. These comments have been fully considered and the joint responses of the Country Nature Conservation Bodies (CNCBs) are presented. In light of this process, the CNCBs make the following advice to Ministers to inform their decision on designation:

There was a majority of support for the designation of the five pSACs from those who responded. For individual sites, the majority of respondents agreed that the scientific evidence supported the designations. Some of the agreement was caveated. As a result, the summary recommendations are as follows:

Bristol Channel Approaches / Dynesfeydd Môr Hafren pSAC
No boundary changes are recommended to the original proposals. Issues were raised through the consultation regarding data and modelling for this site. Further data were offered during the consultation, but assessment of these data concluded that a new analysis was not justified. CNCBs believe that these data would not increase the confidence in the model output enough for the area of interest to be included in the boundary.

West Wales Marine / Gorllewin Cymru Forol pSAC
No boundary changes are recommended to the original proposals.

North Anglesey Marine / Gogledd Môn Forol pSAC
No boundary changes are recommended to the original proposals.

North Channel pSAC
No boundary changes are recommended to the original proposals.

Southern North Sea pSAC
No boundary changes are recommended to the original proposals. Issues were raised through the consultation regarding data and modelling for this site. Further data were offered. Assessment of these issues and data concluded that a new analysis was not justified. CNCBs agreed that there would be little change in the identified boundary by inclusion of these data.

Impact Assessment
All responses received with regard to the Evidence Base supporting the Impact Assessment were fully considered by the CNCBs and our expert contractor (ABPmer). Where necessary, the Evidence Base was updated. However, these updates have resulted in no significant changes to the Impact Assessment and it remains as per the consultation.

Cyngor i Lywodraeth
Crynodeb

Ymgynghoriad 2016 ynghylch Ardaloedd Cadwraeth Arbennig ar gyfer llamidyddion.

Isod ceir crynodeb o argymhellion yn dilyn yr ymgynghoriadau cyhoeddus a gynhaliwyd gan y Cydbwyllgor Gwarchod Natur (JNCC) a Cyfoeth Naturiol Cymru (CNC), gyda chymorth gan Natural England (NE) rhwng 19 Ionawr a 3 Mai 2016 ar eu rhan eu hunain a'r Adran Amaethyddiaeth, yr Amgylchedd a Materion Gwledig (DAERA), ynghylch cynigion ar gyfer pum Ardal Cadwraeth Arbennig ar gyfer llamidyddion a gyflwynwyd i'r Llywodraeth ym mis Mehefin 2015. Mae'r dogfennau ymgynghori i'w cael yma:
http://jncc.defra.gov.uk/sacconsultation
www.cyfoethnaturiol.cymru/mn2k

Yr oedd yr ymgynghoriadau ynghylch:

1. **Y sail wyddonol ar gyfer dynodi:**

   ACAa Bristol Channel Approaches / Dynesfeydd Môr Hafren
   ACAa West Wales Marine / Gorllewin Cymru Forol
   ACAa North Anglesey Marine / Gogledd Môn Forol
   ACAa North Channel
   ACAa Southern North Sea

2. **Asesiad o effaith economaidd a chymdeithasol tebygol dynodi pob safle yn ogystal â'r rhwydwaith o safleoedd.**

Dylai'r crynodeb hwn gael ei ddefnyddio ar y cyd â'r cyngor llawn yn Adran 6 yr adroddiad hwn.

Crynodeb o'r Cyngor:

Cafwyd ymatebion gan sefydliadau a busnesau sy'n cwmpasu amrywiaeth o grwpiau perthnasol â budd, unigolion, ac ymgyrchoedd dau Sefydliad Anllywodraethol. Diolch i bawb a gymerodd amser i ymateb ac am y sylwadau a gafwyd. Mae'r sylwadau hyn wedi'u hystyried yn llawn a chaiff cydymatebion Cyrff Cadwraeth Natur y Gwledydd eu cyflwyno. Yng ngoleuni'r broses hon, mae Cyrff Cadwraeth Natur y Gwledydd yn cyflwyno'r cyngor canlynol i'r Gweinidogion i'w cyfarwyddo yn eu penderfyniad ynghylch dynodi:

Roedd mwyafrif y rhai a ymatebodd yn gefnogol i ddynodi'r pum ACAa. Ar gyfer safleoedd unigol, cytunodd y rhan fwyaf o'r ymatebwyr fod y dystiolaeth wyddonol yn cefnogi'r dynodiadau. Roedd amodau ynghlwm wrth gefnogaeth rhai ymatebwyr i'r dynodiadau. O ganlyniad, mae'r argymhellion cryno fel a ganlyn:

ACAa Bristol Channel Approaches / Dynesfeydd Môr Hafren
Nid oes unrhyw newidiadau i'r ffiniau'n cael eu hargymell i'r cynigion gwreiddiol. Crybwyllwyd materion drwy'r ymgynghoriad ynghylch data a modelu ar gyfer y safle hwn. Cynigwyd rhagor o ddata yn ystod yr ymgynghoriad, ond wedi asesu'r data daethpwyd i'r casgliad na ellid cyfiawnhau cynnal dadansoddiad

newydd. Nid yw Cyrff Cadwraeth Natur y Gwledydd yn credu y byddai'r data'n gwella hyder yng nghanlyniadau'r model yn ddigonol ar gyfer cynnwys yr ardal o ddiddordeb yn y ffin.

ACAa West Wales Marine / Gorllewin Cymru Forol
Nid oes unrhyw newidiadau i'r ffiniau'n cael eu hargymell i'r cynigion gwreiddiol.

ACAa North Anglesey Marine / Gogledd Môn Forol
Nid oes unrhyw newidiadau i'r ffiniau'n cael eu hargymell i'r cynigion gwreiddiol.

ACAa North Channel
Nid oes unrhyw newidiadau i'r ffiniau'n cael eu hargymell i'r cynigion gwreiddiol.

ACAa Southern North Sea
Nid oes unrhyw newidiadau i'r ffiniau'n cael eu hargymell i'r cynigion gwreiddiol. Crybwyllwyd materion drwy'r ymgynghoriad ynghylch data a modelu ar gyfer y safle hwn. Cynigwyd rhagor o ddata yn ystod yr ymgynghoriad. Aseswyd y materion a'r data a daethpwyd i'r casgliad na ellid cyfiawnhau cynnal dadansoddiad newydd. Mae Cyrff Cadwraeth Natur y Gwledydd wedi cytuno mai ychydig o newid a fyddai yn y ffin a bennwyd trwy gynnwys y data yma.

Asesiad o'r Effaith
Cafodd yr holl ymatebion a dderbyniwyd mewn perthynas â'r Sylfaen Tystiolaeth sy'n ategu'r Asesiad o'r Effaith eu hystyried yn llawn gan Gyrff Cadwraeth Natur y Gwledydd a'n contractwr arbenigol (ABPmer). Lle bo angen, diweddarwyd y Sylfaen Tystiolaeth. Fodd bynnag, nid yw'r diweddariadau hyn wedi arwain at unrhyw newidiadau sylweddol i'r Asesiad o'r Effaith ac mae'n parhau i fod yn unol â'r ymgynghoriad.

Acknowledgements:

The Inter-Agency Marine Mammal Working Group (IAMMWG) comprises representatives of the UK Country Nature Conservation Bodies (CNCBs). The following people were involved in the work that led to this report, on behalf of their organisations, and are acknowledged as follows:

Joint Nature Conservation Committee, JNCC
Mark Tasker – IAMMWG chair
Eunice Pinn
Kelly Macleod
Lindis Bergland
Nikki Taylor
Alice Doyle

Natural England, NE
Jim Robinson
Rebecca Walker
Fiona McNie

Natural Resources Wales, NRW
Adam Cole-King
Tom Stringell
Ceri Morris

Department of Agriculture, Environment and Rural Affairs (Northern Ireland), DAERA
Stephen Foster
Carol O'Boyle

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Finally, acknowledgement goes to the Project Board, comprised of representatives of the Governments of the UK and their agencies who steered and advised IAMMWG on the project.

Contents

1 Introduction and background

The European Union's 'Habitats Directive'[1] provides for the creation of a network of protected areas for important or threatened wildlife habitats and species listed within the annexes of the Directive, including harbour porpoise (*Phocoena phocoena*). The Joint Nature Conservation Committee (JNCC) is responsible for recommending and advising on Special Areas of Conservation (SAC) for UK offshore waters and the relevant Country Nature Conservation Body[2] (CNCB) is responsible for advising their respective Government on inshore SACs.

This document provides Governments with the final recommendations from the CNCBs for five possible Special Areas of Conservation (pSACs)[3] for the conservation of harbour porpoise following the formal consultation process undertaken by JNCC and Natural Resources Wales (NRW), with support from Natural England (NE) and the Northern Ireland Department of Agriculture, Environment and Rural Affairs (DAERA)[4]. The five pSACs are:

- **Bristol Channel Approaches / Dynesfeydd Môr Hafren pSAC**
- **West Wales Marine / Gorllewin Cymru Forol pSAC**
- **North Anglesey Marine / Gogledd Môn Forol pSAC**
- **North Channel pSAC**
- **Southern North Sea pSAC**

This document addresses the responses received during the consultations, with particular focus on those relating to the scientific basis and draft impact assessment of the site proposals. Comments received on subject areas not undergoing consultation were also considered. Within this report, issues highlighted by stakeholders are addressed through detailed responses made jointly by JNCC and the CNCBs. The Selection Assessment Documents (SAD) for each pSAC have been updated and finalised based on the recommendations to Governments. The Impact Assessment and the associated Evidence Base has been updated based on information submitted by stakeholders through the consultation.

The proposed sites were recommended to the UK Government and devolved Administrations in Wales and Northern Ireland in June 2015. Following approval by the relevant Government Ministers, formal consultation on these five sites commenced on 19 January 2016 and closed on 3 May 2016. The documents published for the consultation remain accessible through the JNCC and NRW websites until the decision to designate is taken and the information is updated:
(http://jncc.defra.gov.uk/sacconsultation and www.naturalresources.wales/mn2k).

A total of 10,766 responses to the consultations were received; 216 via the online forms, post or email, of which 140 were through JNCC and 76 through NRW, although 14 of these were considered to be duplicates sent to both consultations (28 responses in total). The remainder were received through two campaigns regarding the proposals which ran during the consultation period by the Marine Conservation Society and by Whale and Dolphin Conservation, resulting in 2,061 and 8,503 responses respectively.

[1] Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora

[2] Natural England (NE); Northern Ireland Department of Agriculture, Environment and Rural Affairs (DAERA); Natural Resources Wales (NRW).

[3] All the sites cover both territorial waters (out to 12 nautical miles from the baseline) and offshore waters (from 12 nautical miles from the coast out to 200 nautical miles or to the UK Continental Shelf limit) and are joint sites between JNCC and relevant CNCBs.

[4] DAERA, formerly the Department of the Environment, Northern Ireland.

2 Purpose of the consultation and how it was carried out

2.1 The purpose of the consultation

The purpose of the dual consultations was to seek the view of all interested parties on:

i) The scientific case for the designation of:

- Bristol Channel Approaches / Dynesfeydd Môr Hafren pSAC;
- West Wales Marine / Gorllewin Cymru Forol pSAC;
- North Anglesey Marine / Gogledd Môn Forol pSAC;
- North Channel pSAC; and
- Southern North Sea pSAC

and;

ii) The assessment of the likely economic and social impact of the designation of each site as well as the network of sites.

All views submitted not relating to these points will be noted to inform future work, should the sites be designated. It is important to note that the decision of the Ministers on whether to propose a candidate SAC to the European Commission should only be made on the basis of the scientific evidence and may not take account of 'social or economic considerations'. Social and economic information will be used to inform the development of advice on the management of activities for each site, to ensure the sites achieve their conservation objectives. However, draft Conservation Objectives, Advice on Activities and Management Options for each site were also made available to assist stakeholders in assessing and understanding the likely effects of the site designation on their activities.

2.2 How the consultation was carried out

Two consultations were undertaken covering the five possible SACs. JNCC led the consultation for the sites in English inshore/offshore and Northern Ireland inshore/offshore waters and NRW led the consultation on sites in Welsh inshore/offshore waters (**Figure 1**), both with support from NE. The consultation for Bristol Channel Approaches pSAC was split between NRW and JNCC as illustrated in **Figure 1.**

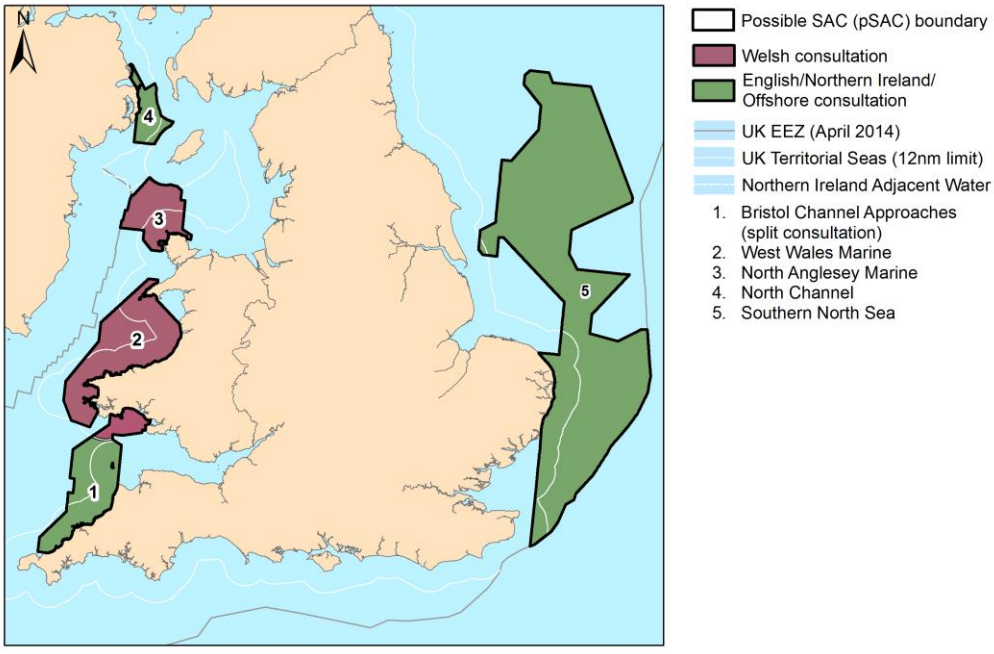

Figure 1: The two public consultations for five possible SACs were led by JNCC (green) and NRW (red). Bristol Channel Approaches pSAC was split between the Welsh and JNCC consultations.

2.2.1 Conduct of the consultations

The consultations were conducted as follows:

- The consultations adhered to the published Code of Practice on Consultation[5], taking into consideration the criteria defined to ensure an effective consultation process. The consultation ran for 15 weeks[6], allowing adequate time for consideration of the information and formation of responses. No extensions beyond the closing date were requested or given to stakeholders – all responses included in the analysis were received during the allocated consultation period.

- All consultation documents were published on the JNCC and NRW websites. This included 'Selection Assessment Documents', which set out the case for designation of each site, together with other supporting information including background scientific reports, draft conservation objectives, a list of questions and answers and short site summary leaflets. The NRW consultation was conducted bilingually in English and Welsh.

- A draft Impact Assessment of the proposed sites was published illustrating the initial consideration of the potential regulatory impacts of the sites, if designated.

- Several hundred stakeholders known to JNCC, NRW and DAERA received an email or letter informing them of the consultation and inviting them to access the documents online, or to request hard copies. Stakeholders were also encouraged to disseminate the information in order to reach as wide an audience as possible. Press notices and social media were used to publicise the start of the consultation.

- Stakeholders were encouraged to submit consultation responses using online response forms through the NRW and JNCC websites, but it was made clear that emails or letters would also be accepted. All those responding were informed that their responses would be shared across Agencies and Governments and may be published, and that such sharing or publication would be in full compliance with the Data Protection Act. A copy of the JNCC online response form is included in Annex III. The NRW online response form followed a very similar format and is available on request from NRW.

- Consultees were invited to contact JNCC and/or NRW with any queries before submitting consultation responses. Contact details were provided throughout the consultation documentation and website information.

- During the consultation period JNCC held a series of open events at different locations in England in order to allow opportunity for face-to-face dialogue with stakeholders. In Wales a similar series of events was held in 2015 as part of an informal pre-consultation engagement with stakeholders. Further dialogue with stakeholder groups was organised by JNCC and the CNCBs on request, in order to ensure the process was transparent and understood (**Table 1**).

- Alongside the consultation on the harbour porpoise pSACs, NRW and JNCC also consulted on a number of proposed marine Special Protection Areas. The results of those consultations will be reported separately.

- A separate consultation was undertaken in relation to a proposed SAC for harbour porpoise in Scottish waters. Some comments on Scottish waters were received in the NRW and JNCC responses: these have been passed to those preparing the report on the Scottish consultation.

[5] Code of Practice on Consultation: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/100807/file47158.pdf

[6] The standard consultation period in the Code of Practice is 12 weeks. The consultation was initially planned for 13 weeks to allow an extra week given that it spanned the Easter holiday period. It was subsequently extended by an additional two weeks after a minor technical error was discovered in some of the documentation and explained in a short supplementary advice note published on the JNCC and NRW websites, to allow further time for consultees to consider the additional information.

Table 1: List of stakeholder engagement events held by NRW and JNCC prior to or during the two consultations, with support from NE and the IFCA.

Date	Event/Meeting
February- May 2015	
23/02	NRW stakeholder drop-in event in Holyhead. Open to all stakeholders as opportunity to meet the teams and discuss queries or concerns.
25/02	NRW stakeholder drop-in event in Bangor. Open to all stakeholders as opportunity to meet the teams and discuss queries or concerns.
22/04	NRW stakeholder drop-in event in Milford Haven. Open to all stakeholders as opportunity to meet the teams and discuss queries or concerns.
29/04	NRW stakeholder drop-in event in Llwyncelyn. Open to all stakeholders as opportunity to meet the teams and discuss queries or concerns.
12/05	NRW stakeholder drop-in event in Carmarthen. Open to all stakeholders as opportunity to meet the teams and discuss queries or concerns.
14/05	NRW stakeholder drop-in event in Pwllheli. Open to all stakeholders as opportunity to meet the teams and discuss queries or concerns.
February 2016	
09/02	RenewableUK meeting to discuss pSACs and the consultation documents. Meeting attended by the renewables industry, JNCC, NE and NRW, based in London.
22/02	Seabed User and Developer Group, SAC project update based in London. JNCC represented the CNCBs
23/02	Wales stakeholder meeting: meeting of the Wales Marine Stakeholder Advisory Group (WMSAG) led by Welsh Government and attended by NRW, including an update on the SAC process.
23/02	IFCA, MMO and regional NE team project update – led by JNCC via teleconference.
March 2016	
01/03	JNCC stakeholder drop-in event in Bridlington, supported by the NE regional team: open to all stakeholders as opportunity to meet the teams and discuss queries or concerns.
02/03	JNCC stakeholder drop-in event in Ramsgate, supported by the NE regional team: open to all stakeholders as opportunity to meet the teams and discuss queries or concerns.
03/03	JNCC stakeholder drop-in event in Lowestoft, supported by the NE regional team: open to all stakeholders as opportunity to meet the teams and discuss queries or concerns.
17/03	Devon and Severn IFCA meeting, based in Brixham: harbour porpoise SAC project update.
17/03	JNCC stakeholder drop-in event in Hayle, supported by NE and the regional IFCA: open to all stakeholders as opportunity to meet the teams and discuss queries or concerns.
18/03	Cornwall IFCA meeting, based in Truro: harbour porpoise SAC project update.
21/03	JNCC stakeholder drop-in event in Padstow, supported by NE and the regional IFCA: open to all stakeholders as opportunity to meet the teams and discuss queries or concerns.
22/03	JNCC stakeholder drop-in event in Bideford, supported by NE: open to all stakeholders as opportunity to meet the teams and discuss queries or concerns.
22/03	DECC (Oil&Gas and Renewables) and MMO – SAC project update meeting in London.
23/03	RenewableUK – consultation and SAC proposal overview in London.
April 2016	
05/04	Oil and Gas UK, project update meeting in London

Following the end of the consultation two meetings have been held to discuss the responses to the consultations and the CNCB initial reactions and to outline the next steps.

May 2016	
31/05	RenewableUK and regulators, held in London
June 2016	
24/06	NGO stakeholder meeting in London, addressing the concerns and queries submitted through the consultation.

2.2.2 Consultation documentation and supporting information

The documents presented for consultation for each site were:

- **SAC Selection Assessment Document**;
- **Draft Impact Assessment:** *A report assessing the potential positive and negative impacts associated with the pSAC proposals regarding the interaction of the proposals with human activities.*

In addition, the following supporting documentation and information was made available on the JNCC and NRW websites during the consultation:

- **Invitation to respond**
  A *Letter sent to an identified list of stakeholders from JNCC, NRW and DAERA either via post or email (see Annex I).*
- **Consultation Overview Document**
  A document summarising the key points relating to the conduct of the consultation, materials available and how to respond.
- **Site Summary Document**
  Leaflets produced to summarise the key information for the proposed SACs.
- **Draft Conservation Objectives, Advice on Activities and Management Options**
  A draft of the initial Conservation Objectives, the Advice on Activities and possible Management Options for each proposed SAC.
- **Evidence Base supporting the draft Impact Assessment:**
  Contractors working on behalf of the CNCBs drafted an assessment of the potential social and economic impact of the pSACs.
- **JNCC report 543: Land-based data analyses report**
  A report analysing all available land-based data in order to establish persistently important UK coastal areas for harbour porpoise.
- **JNCC report 544: DHI Water and Environment data analyses and modelling report**
  A report analysing all available at-sea data, in order to model the persistently important areas of UK waters for harbour porpoise.
- **JNCC report 547: Management Units for cetaceans in UK waters**
  Description of the Management Units (MUs) for the seven most common cetacean species in UK waters, including harbour porpoise.
- **JNCC report 565: The use of harbour porpoise sightings data to inform the development of Special Areas of Conservation in UK waters**
  A report summarising the process undertaken by the CNCBs, using the results of Reports 543 and 544 to identify the significant areas to propose as possible harbour porpoise SACs.
- **JNCC Report 566: A Conservation Literature Review for the Harbour Porpoise (*Phocoena phocoena*)**
  A comprehensive review of relevant literature to support our understanding of behaviours, needs and threats regarding harbour porpoise in UK waters.
- **Questions and Answers**
  A document summarising some common questions and answers
- **Supplementary note with information regarding the extended consultation period**

All documents will remain available on the JNCC/NRW websites (http://jncc.defra.gov.uk/sacconsultation and www.naturalresources.wales/mn2k) until the decision on whether to designate is taken, when the information online will be updated relative to the decision. Some documents that supported the process were unpublished due to becoming obsolete or superseded by other reports.

GIS shapefiles of the pSAC boundaries and seasonal (summer/winter) areas within the pSACs were also available on request, and remain available by contacting the JNCC Marine Species Advice Team at porpoise@jncc.gov.uk.

2.3 Process for post-consultation report and advice to Government

Following drafting of the report, a period of review was established in order to agree the joint recommendations of the relevant CNCBs. After internal review with the Inter-Agency Marine Mammal Working Group (IAMMWG), the report has been circulated to relevant groups for comment:

Figure 2: Diagram of the review and submission process for the post-consultation report and advice to Government

3 Statistical summary of the responses

A total of 10,766 responses were made to the consultation through various means. Of these, 10,564 were submitted through campaigns initiated by Whale and Dolphin Conservation (WDC) and Marine Conservation Society (MCS) and 202 via the CNCB designated format. The WDC campaign resulted in 8,503 consultation responses sent to both the JNCC and NRW consultation email addresses. The MCS campaign generated 2,061 consultation responses, 595 of which were sent to both NRW and JNCC, with a further 1,028 to JNCC and 438 to NRW only.

In addition to the campaign responses, 216 responses were made via the CNCB online submission forms, email or post; however, 14 of these were duplicates where identical responses had been submitted to both the JNCC and NRW consultations by the same individual/organisation. The 14 duplicated responses have been removed from the statistics in this report given the combined approach to reporting of the two consultations, resulting in a total of 202 responses received in this form. Responses submitted by the same organisation or individual to both consultations, but different in content, were considered as separate responses. Each response was logged and an acknowledgement sent to the consultee.

The responses to the consultation were received from the following stakeholder sectors:

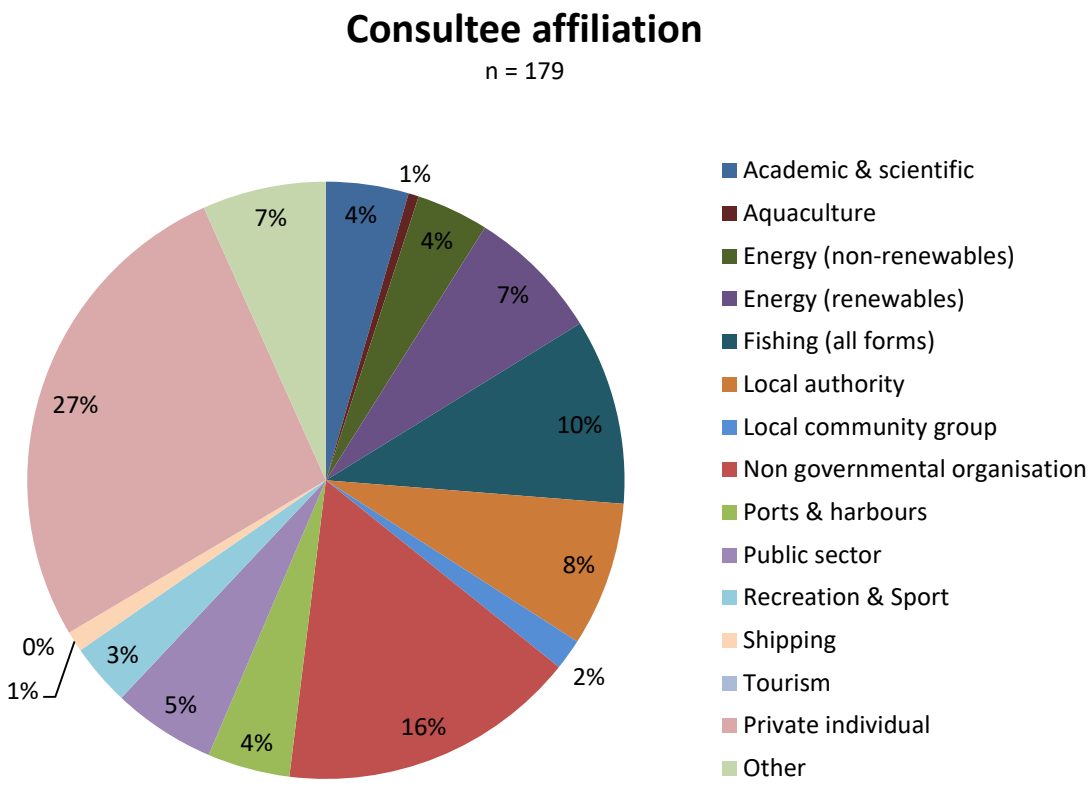

Figure 3: Illustration of affiliation of consultees
Note that this information was not mandatory therefore we do not have the affiliation of all consultees. The number of responses including the information is stated under the graph title.

Level of support for the proposals is illustrated below:

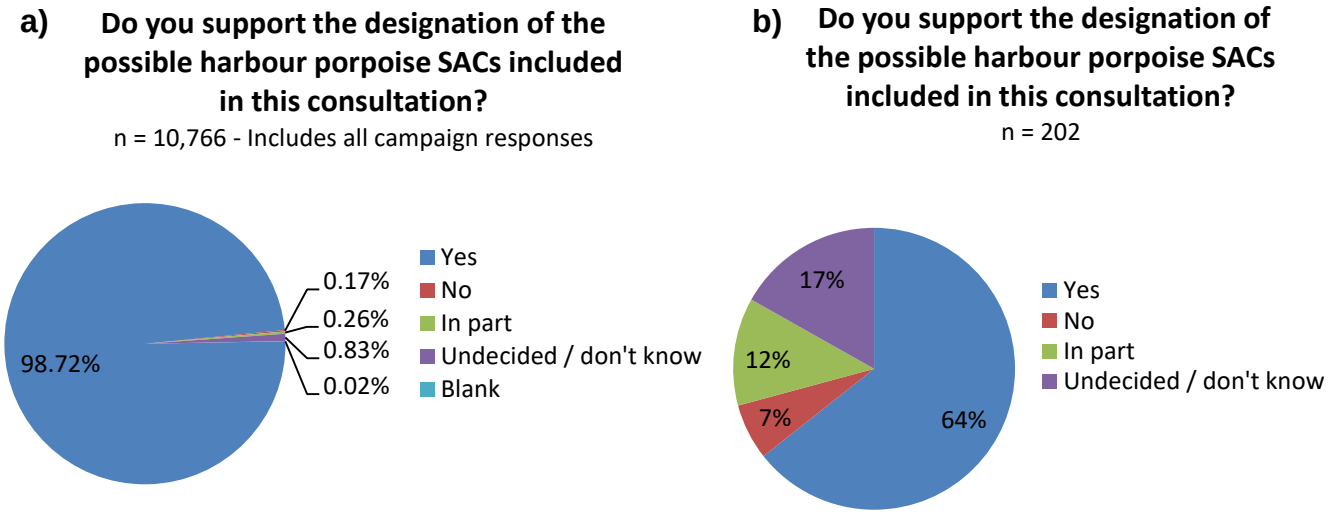

Figure 4. Proportion of a) all responses including the campaign responses; and b) non-campaign responses; that were supportive, not supportive, partly supportive or undecided regarding the designation of the possible harbour porpoise SACs.
(n=number of responses included in the chart)

A more detailed summary of the responses, including site-specific information, can be found in Annex II.

4 The consultation response assessment process

Responses to the consultation were received through the dedicated Smartsurvey online response form developed by the CNCBs, by email, or by post. The majority of email responses were submitted through third party websites of the Marine Conservation Society (MCS) and Whale and Dolphin Conservation (WDC). Those submitted via email or post were manually inputted into the online software in order to support the post-consultation analysis process. In these circumstances, care was taken to ensure the correct views were represented, and all original responses were attached to the database entry.

Care was taken to remove any duplicate responses where the same submission had been made to both the JNCC and NRW consultations. Where responses differed, both were treated as individual responses.

Responses were individually reviewed and all issues, comments and queries (termed 'issues' in this report) were collated into a spreadsheet, with a unique reference associated with each respondee. All issues were then grouped according to theme. Issues within a theme that were similar or the same were grouped. At this stage, the issues were extracted from the spreadsheet and responses formed for each individual or grouped issue, for inclusion in the report. Consequently, the exact wording of consultee responses is not necessarily included in this report. Care was taken to ensure that responses were given to all issues raised by consultees.

Responses were reviewed internally across the CNCBs working on the project. The report has then followed the review procedure detailed in Section 2.3 of this report.

All responses received with regard to the Evidence Base supporting the draft Impact Assessment were fully considered by the CNCBs and our expert contractor (ABPmer). Where necessary, the Evidence Base document was updated. However, the updates to the Evidence Base have resulted in no significant changes to the draft Impact Assessment published as part of the consultation, which will form the final Impact Assessment submitted along with the final recommendations to Governments. Minor amendments have been made to the SAC Selection Assessment Documents for each site.

5 CNCB analysis of consultation responses

In this section the issues (encompassing all issues, comments and queries submitted through the consultation) are addressed. Issues that are not directly related to the consultation such as management of the sites or comments on draft documents that were not part of the consultation are considered at the end, where responses have been noted for future consideration. A joint CNCB response is provided for each issue.

5.1 Frequent comments in response to the consultations on harbour porpoise pSACs

There were some reoccurring comments received during the consultation period which the CNCBs would like to address in order to remove any misconceptions or misunderstandings regarding the species or the proposed sites.

- **Comment: The Conservation Status of harbour porpoise**

There were frequent comments received through the consultation, concerned that harbour porpoise were in decline, or that the assignment of Favourable Conservation Status is not appropriate for the species.

Response: The formal "Conservation Status" of harbour porpoise in UK waters is assessed and updated every 6 years as part of the UK's obligations to report under the Habitats Directive. The previous two reports on the status of harbour porpoise in UK waters (JNCC, 2007; JNCC, 2013) concluded favourable condition, which is based on the best available evidence at the time of the assessment. The UK assessment of the species is based on data within the UK range. New evidence will be taken into account for the next reporting cycle (2019). Harbour porpoise is also listed in the IUCN Red List of Threatened Species as a species of 'Least Concern', which is means that the species is 'widespread, abundant and that it is not considered to be threatened or conservation dependent and therefore does not qualify for Critically Endangered, Endangered, Vulnerable or Near Threatened'.

Due to the mobility of the species, international large scale population level surveys are required to confidently determine abundance and trends over time. Prior to the 1994 SCANS survey, no comprehensive scientifically-based abundance estimations for harbour porpoise were available (SCANS II background http://biology.st-andrews.ac.uk/scans2/inner-background.html). SCANS II was conducted in July 2005 and SCANS III in July 2016. There are limitations to the SCANS data, which occurs over a condensed period of time and therefore produces a 'snapshot' of distribution in European waters at that point in time. However, the survey design and area coverage allow high confidence in the outputs and determination of population level abundance estimate and trends which are not possible from smaller more localised surveys (even those covering the waters of a single nations).

The UK management of harbour porpoise is based on the UK range of the species alone, whilst other Member States have their own responsibilities to do the same within their waters. Conservation of the species is already a consideration through European Protected Species (EPS) licensing as well as bycatch monitoring efforts, which are also required under the Habitats Directive. These measures, along with any mitigation put in place as a result of any SAC designations, will be reactive regarding any changes to the status of the species following the 6 yearly reporting cycle and will take into account additional evidence published between reporting years (e.g. Murphy et al. 2015).

- **Comment: UK legal obligation to designate the sites.**

Comments were received regarding the UK legal obligation under the Habitats Directive, to designate Special Areas of Conservation (SAC) for harbour porpoise and therefore these sites should be designated.

Response: The UK, as a Member State of the EU, is party to the requirements of the Habitats Directive. It has an obligation to designate SACs for species listed in Annex II of the Directive, where evidence supports each designation. Previously sufficient evidence has not been available for harbour porpoise, but the current process has identified areas of importance which have been developed into the proposed SACs

across the UK. Further detail of this issue can be found in the relevant issue response in section 5.2.3 of this report.

- **<u>Comment:</u> Level of protection of MCZs versus SACs**.

Comments were received stating that MCZs offer more protection than SACs.

Response: Management of marine protected areas in UK waters, regardless of the type of designation, is undertaken using a risk based approach, prioritising those pressures that are of greatest risk to achievement of the conservation objectives of the site. Marine Conservation Zones (MCZ) and Special Areas of Conservation (SAC) are two different types of marine protected area designation driven by two different pieces of legislation; MCZs are driven by national legislation (MACA) and SACs by EU legislation (The Habitats Directive). MCZs aim to protect particular broad-scale habitats found in the UK, as well as other habitats and species of conservation importance (HOCI and SOCI) which come from other legislation such as BAP (now Biodiversity 2020), and the Wildlife and Countryside Act. Whereas SACs are designed to protect a proportion of the best quality examples of habitats and species listed on Annex I and II of the Habitats Directive across Europe. The species and habitats protected through the two designation types are different. Measures taken to protect the two types of designation are guided by the conservation objectives of the site. Whilst the description of these objectives sound similar, they are adhered to through a different set of legislation with differing principles which drive decision making and assessment processes. The importance of features in a European context, the role of the EU in managing sites, and an underpinning "precautionary" approach in the Habitats Directive does in fact lean to a stronger level of protection overall. However, both types of designation contribute to the UK's network of marine protected areas, as well as the wider OSPAR network for the northeast Atlantic.

- **<u>Comment:</u> Level of impact on activities**

Comments were submitted through the consultation, concerned that all activities impacting harbour porpoise will be halted within the sites.

Response: The purpose of the SAC designation is not to stop or halt activities occurring within the site. The proposed sites were identified as the top 10% of areas of persistently higher harbour porpoise density despite being already subjected to a wide range of marine activities. The purpose of the designation is to ensure that such activities consider, and are undertaken in a way that is compatible with the Conservation Objectives of that site. Possible options for management of activities are considered in the draft Impact Assessment, provided as part of the consultation package (Section 2.2.2).

- **<u>Comment:</u> The proposals are not ambitious enough**

Comments were received that the proposals are not ambitious enough in order to conserve harbour porpoise, and that the sites should cover more of UK waters.

Response: The network of sites proposed around the UK is the result of an ambitious process using all available evidence, collected over 18 years, to identify the most important areas for harbour porpoise throughout their UK range. The sites, which are a direct result of that analysis, are large and geographically spaced throughout the Management Units. Given the sites were delineated based on the top 10% of porpoise densities and high confidence in the model output, they cannot be made bigger (or smaller) in a scientifically robust and justifiable way. The sites will compliment measures already in place through UK waters offering further opportunity to better manage the relationship between porpoises and human activity. The scale of the proposed SACs is not currently matched anywhere else in the EU, with all designated SACs for harbour porpoise outside of the UK, having a combined total area of slightly less than the Southern North Sea pSAC alone.

- **<u>Comment:</u> SACs will provide safe havens for porpoises and other marine wildlife.**

Comments were received through the consultation which regarded SACs as dedicated 'safe havens' for harbour porpoise and other marine wildlife.

Response: SACs are not 'safe havens' for porpoise. Instead, SACs provide added management and scrutiny of activities occurring within the sites. Harbour porpoises are highly mobile animals which range throughout the UK continental shelf area, and beyond into the waters of adjacent countries. They will not frequent the SACs alone; however, the SACs will protect key areas of importance which have been identified for this species. The sites and their conservation objectives have been identified specifically for the harbour porpoise and as a result, any management measures put in place will be based on maintaining those conservation objectives. While there may be de-facto benefits for the other species as a result of any mitigation or management, these would be consequential and not a primary consideration.

- **Comment: Harbour porpoise are not protected unless the SACs are designated.**

Comments were submitted through the consultation, concerned that harbour porpoise are not protected unless the SACs are designated.

Response: Harbour porpoises are protected across their UK range irrespective of whether the SACs are designated or not. They are a European Protected Species (EPS) (Annex IV of the EU Habitats Directive) and as such it is an offence to deliberately kill, injure or disturb them.

- **Comment: Threats to harbour porpoise.**

Comments were submitted stating the most significant threats to harbour porpoise, including:

Entanglement (Bycatch)
Starvation
Pollution
Attack from other species

Response: The harbour porpoise conservation literature review (IAMMWG et al., 2015), which was provided as a supporting document within the consultation information, identified the key anthropogenic pressures of greatest risk to be:

- bycatch in static net fisheries
- chemical pollution, notably persistent organic pollutants
- acoustic disturbance through impulsive sound (e.g. pile driving, seismic surveys)

Other anthropogenic pressures do occur, but were considered to be of lesser importance as there was relatively little evidence of occurrence, the activity is relatively new or because the impact on the population was perceived to be low. These were:

- Acoustic deterrent devices (ADDs), although the use, and therefore potential risk, of these is much greater in some regions than others
- Acoustic disturbance through continuous sounds (e.g. shipping)
- Collisions with vessels
- Collisions with renewable energy installations

Interactions with other species is noted as natural threat to the species.

The draft assessment of anthropogenic threats to harbour porpoise, and the level of risk they pose is within the draft Conservation Objectives, Advice on Activities and Management Options papers, provided as part of the supplementary information to support the consultation: http://jncc.defra.gov.uk/sacconsultation.

- **Comment: Reduction in commercial exploitation.**

Comments were received regarding the capacity of the sites in reducing commercial exploitation of the sea to make it a safer refuge for marine wildlife.

Response: If designated, activities within the sites will be managed where necessary to ensure the sites' Conservation Objectives are achieved. This may or may not include a reduction in commercial exploitation of resources within the site. SAC identification is based on scientific evidence; management also requires evidence but does also take account of socio-economics. Therefore any measures put in place would need

to consider how to achieve the conservation objectives of the site in relation to ongoing or planned human activity.

- **<u>Comment:</u> CNCBs need to work more closely together to achieve conservation aims.**

There were comments regarding the need for the CNCBs to work more closely together in order to achieve conservation aims, both of the harbour porpoise SACs and wider UK marine conservation work.

Response: The development of the pSACs for harbour porpoise has been a collaborative effort with expertise from all CNCBs working together through the Inter-Agency Marine Mammal Working Group (IAMMWG) co-ordinated by JNCC. This collaboration has led to a single set of Conservation Objectives, to apply management consistently across devolved administrations. Whilst it could be improved, there is also collaboration in other areas of work, such as marine licensing for example, through inter agency industry groups and discussion between CNCBs. Cross boundary sites are not new and exist for other features and designations, for which CNCBs regularly work together to advise on.

5.2 CNCB analysis of issues submitted through the consultation

5.2.1 Summary of level of support for the sites

The majority of respondents were in support of the sites, or of a particular site identified in the consultation response. Of those who were unsure or not in support, the majority submitted further detail regarding their concerns, which are detailed in the remainder of Section five below.

Those in support made comments such as:

- *The sites are essential for the survival of harbour porpoise;*
- *The sites will support the preservation of UK biodiversity;*
- *The sites will contribute to a well-managed, ecologically coherent network of marine protected areas, and help to achieve and maintain Good Environmental Status, as required of the EU Marine Strategy Framework Directive, by 2020, and;*
- *The sites should be designated at the earliest opportunity, with appropriate management, monitoring and enforcement in place.*

These sites have been proposed in order to contribute to the conservation of harbour porpoise populations in UK waters. The boundaries identify important areas for the species, allowing management of activities, where necessary, that may adversely affect the species in those areas. However, a SAC will not be the only protection afforded to harbour porpoise. Harbour porpoise is a European Protected Species (EPS) listed under Annex IV of the EU Habitats Directive alongside other species (including all cetacean species and some turtles). It is an offence to deliberately kill, injure, capture or disturb EPS. In the UK, good practice guidelines and protocols have been produced for marine industries on how to reduce their impact on EPS and explaining the risk of committing an offence under the legislation.

In addition, bycatch monitoring and reduction is undertaken in order to meet the requirements of Article 12 of the Habitats Directive with respect to incidental killing and capture of the species. EU Regulation 812/2004 requires cetacean observers on-board certain types of commercial fishing vessels in certain areas to record cetacean (including harbour porpoise) bycatch from fisheries utilising particular types of gear. The regulation also requires the use of acoustic deterrent devices (‘pingers’) for specified fisheries and in certain areas. Together, these measures support a cumulative, proportionate, reactive approach to conservation of harbour porpoise, to which any harbour porpoise SACs would contribute.

5.2.2 Consultation Process

1.1 Process – Conduct of the consultation
Concern that stakeholders were not involved in the process of identifying the proposed Special Areas of Conservation.

Response: SACs must be identified and designated only on the basis of relevant scientific information therefore stakeholder input was requested at the start of the process through collation of available data to be used in the analysis (Heinänen and Skov, 2015). The data used met a defined standard and came from all admissible sources available through the Joint Cetacean Protocol (JCP) (submitted by stakeholders) and only where necessary permission to use the data was given. The JCP data were analysed through a contract with DHI (Heinänen and Skov, 2015); a separate contract was let for analysis of land-based data collated by SeaWatch (Evans *et al*, 2015). The relevant outputs were used by the CNCBs to identify and propose the site boundaries. The process involved many levels of review and scrutiny including the 15-week public consultation being reported upon here in order to gain feedback on the process applied from all stakeholders, which allows for critique of the suitability of the process used. Looking forward, we would hope to be able to make further use of local and national expertise in developing approaches to managing and monitoring the sites, should they be designated.

1.2 Process – Complexity of Consultation Documentation
There was concern that the number of documents associated with the SAC proposals and level of detail within the consultation information was too much to adequately review and comment on in the time available. There was question as to whether this format facilitates or even allows for a meaningful consultation.

Response: It is accepted that there is a high level of information supporting the harbour porpoise SAC proposals and that some is technical. It was necessary to provide all the relevant information pertaining to the proposals for transparency of the process and ensure it was made available to all stakeholders. The information was laid out in the most accessible way possible on the JNCC/NRW web pages, as well as through the production of a paper (JNCC Report No. 565 'The use of sightings data to inform the development of SACs'), which summarised the process with the aim of making the information more accessible to the wider public. A Question and Answer document was also provided to help answer some common questions.

Dedicated email addresses were provided by JNCC and NRW for stakeholders to contact the relevant teams directly with queries or issues. Furthermore, a series of open stakeholder events were held where stakeholders could speak directly to staff regarding the process or the proposals. As part of the stakeholder engagement, consultees were also invited to contact the agencies to arrange meetings, if required, in order to help clarify any queries. Only one stakeholder group took up this opportunity. The consultation period complied with the UK Government Consultation Code of Practice:
(UK Government Consultation Code of Practice). Lastly, the consultation period was longer than the 12 weeks stipulated in the UK Government Consultation code of practice.

1.3 Process – Timing of the consultation in relation to others
Concern expressed about the timing of the SAC consultation in relation to the consultation on proposals to extend scallop dredging in Cardigan Bay. The latter was set to conclude before the consultation on proposed SACs and feeling was that the SAC should be a material consideration when deciding whether or not to allow more scallop dredging in the area.

Response: The Welsh Government consultation paper on scallop dredging, issued in November 2015, clearly acknowledges the forthcoming proposal for a harbour porpoise SAC in and around Cardigan Bay. Furthermore, it is Welsh Government (WG) policy that possible SACs (that is, sites that are undergoing consultation and before Ministers have decided on whether to formally propose them to the EC as candidate SACs) should have the same level of protection as if they were formally designated. Therefore, unless and until a decision is taken not to proceed with the proposed harbour porpoise SACs around

Wales, all fishery management decisions by WG will take account of the potential implications for the harbour porpoise pSACs, alongside the existing series of marine SACs and Special Protection Areas (SPA).

1.4 Process – Data protection
It was understood that responses could be shared amongst the agencies, but there was comment regarding the lack of opportunity for anonymity beyond that.

Response: The UK Government, Welsh Government and Northern Ireland Administration have an open policy in the interest of transparency and access to information. The CNCBs were also keen to ensure that all responses and the identity of respondents were published in the interests of transparency and openness. In order to be able to do so, it was essential for us to make clear to stakeholders as to how consultation responses would be treated from the outset.

1.5 Process – Value of responses
Concern was expressed that comments received through the consultation would not be a consideration in the decision to designate.

Response: No decisions have yet been made on whether to designate these sites. The process of identifying the SACs was based on available scientific evidence and has been carefully reviewed by various expert groups throughout. SACs are *only* designated with support of sound evidence. The views of stakeholders have been requested through a 15-week public consultation in order to gain further feedback on the approach used. The decision on whether to designate any of the proposed SACs lies with Ministers, and will be made in view of the submissions made through the public consultation, and the subsequent advice from the CNCBs involved.

5.2.3 Legal basis for designation

2.1 Legal Basis – argument against designation

Concern that the sites should not be designated because:
• Harbour porpoise should not be an Annex II species under the Directive because:
  ○ It is considered to be at Favourable Conservation Status
  ○ FCS has been maintained over consecutive reporting cycles
  ○ There is no evidence that the FCS is likely to change in the foreseeable future
  ○ It no longer qualifies as a Species of Community Interest under Article 1
• There are no tangible benefits to harbour porpoise of designating these sites
• Porpoises are already protected throughout their European range
The sites will pose an unnecessary cost to the public purse through the exercise to collate the evidence, running a public consultation and the subsequent need for Habitats Regulations Assessment (HRA)

Response: The question of whether this species should be included in Annex II of the Directive was not part of the consultation on harbour porpoise pSACs. As a member of the European Union we have a legal obligation to implement the Habitats Directive, which includes harbour porpoise on Annex II and therefore sites need to be considered where there is evidence supporting their identification. All EU Member States with significant harbour porpoise populations, including the UK, have designated SACs for the species.

The conservation status of harbour porpoise is assessed every six years. The next reporting round will consider all new available evidence and the conservation status determined. Favourable Conservation Status (FCS) does not necessarily mean we do not need SACs for a species or habitat, as the Directive expresses the need to *Restore* or *Maintain* the feature at FCS. The overarching conservation objective is: *"To avoid deterioration of the habitats of the harbour porpoise or significant disturbance to the harbour porpoise, thus ensuring that the integrity of the site is maintained and the site makes an appropriate contribution to maintaining Favourable Conservation Status (FCS) for the UK harbour porpoise*". Pressures affecting harbour porpoise have been identified in UK Waters (see the draft Advice on Activities).

Therefore, in order to ensure they remain in FCS, the sites will offer a further scale at which to manage negative interactions with human activity in areas identified as particularly important for harbour porpoise.

Activities which have the potential to impact on harbour porpoise will be subject to an assessment irrespective of whether the proposed SACs are designated or not, either through Environmental Impact Assessment (EIA) or European Protected Species (EPS) licensing, which is generally funded by the relevant industries, not public funds. Also a site has already been designated for harbour porpoise in Northern Ireland, named Skerries and Causeway SAC. HRA and assessment of impacts is already a requirement in relation to this area.

Funding for monitoring, research and data collection is necessary to determine if the UK marine environment is being maintained in a healthy state. Funding is allocated where needs are identified, such as identification of the proposed sites in order to support the maintenance of harbour porpoise populations at their current, favourable status given the identified threats. Collation of data and public consultation are both key stages of the process and the latter is necessary to ensure transparency and accountability as well as being a statutory requirement. Assessment of the impact of potentially damaging activities is a requirement already in place for harbour porpoise across its UK range.

2.2 Legal Basis – Evidence for MPAs for highly mobile species
Comment received as to what evidence there is that designating protected areas for highly mobile species is beneficial, given that they do not respect the boundaries, nor do the threats. Suggestion that protection at the individual or population level is more appropriate, and that the sites are unnecessary.

Response: Harbour porpoise is a European Protected Species (EPS) and is therefore protected from deliberate killing and injury throughout the extent of their UK range as specified in the Directive. However, areas of particular importance have now been identified and proposed as possible SACs which will allow for an additional, more targeted approach to management of risk to the population where they occur persistently in higher densities. As highly mobile species, harbour porpoise will move in and out of protected areas but any management measures put in place will principally aim to protect the *habitat* of the animals using those areas. The pSACs have been identified as areas with persistently higher densities of porpoises over time, compared to other areas of UK waters, whether it is for feeding, nursing, resting or other activities (although details of their behaviours in these areas is not well understood). The areas were identified using a long-term data set spanning 18 years, which allowed the examination of patterns in density to identify areas where harbour porpoise were persistently found. From this, we are able to infer physical and biological factors essential to their life and reproduction. Although some pressures are more effectively addressed on a Management Unit or UK scale, some impacts can be addressed at site level in order to maintain quality and availability of the important areas. A Conservation Plan for all UK waters is already in place that will be reviewed in the future. A literature review that will support this update has already been prepared (Section 2.2.2).

2.3 Legal Basis – effectiveness of sites
The sites will not necessarily protect against the primary threats to harbour porpoise, which are entanglement in fishing nets and pollution, therefore question the appropriateness of the sites as an effective measure.

Response: The harbour porpoise pSACs will complement wider measures already in place through UK waters offering further opportunity to better manage the relationship between porpoises and human activity. The Conservation Objectives applied to the sites aim to protect harbour porpoise and their associated habitat within the site, as well to contribute to maintaining Favourable Conservation Status (FCS) on a UK scale. Furthermore, given the geographic scale of most of the pressures affecting harbour porpoises, combined with the mobility of the species, larger sites are likely to enable site based measures to make a more effective contribution than would smaller sites.

Management measures will be developed for the SACs, if designated, to address all manageable activities which pose a risk to a site achieving its Conservation Objectives. Bycatch (incidental capture of harbour

porpoise in fishing gear) has been identified as a threat to the species and would therefore require an assessment to establish if measures are required within sites. Bycatch is currently monitored and mitigated to some level through use of pingers on static gears (>12m fleet only). However, the sites would allow assessment of risk at site level in the areas identified as important for harbour porpoise with persistent use over time, with possible measures also applied at that scale as opposed to throughout their UK range. The effects of pollution are not currently possible to mitigate at site level, but where evidence of impact is available, it may be managed under the existing provisions.

5.2.4 Site Identification Process

3.1 Process – Economic Conflicts
Designation of SACs may conflict with onshore prospects linked to the renewable energy sector and the economies of local communities dependent on important harbours and waterways. However, SACs can bring about enhanced tourism to areas. Socio-economic data should not be a consideration in the designation.

Response: In accordance with Article 4 and Annex III of the Habitats Directive, sites to be proposed as SACs must be based on scientific evidence alone. The scientific evidence gathered for identification of harbour porpoise pSACs is given in JNCC Report 544 and 543 (Section 2.2.2) and this forms the basis of the identification of site boundaries. However, it is Government policy that an Impact Assessment on proposed sites also be prepared and consulted upon; the information in this latter document may help inform future management decisions. Decisions on management measures to be implemented within a site will be risk-based and proportionate.

Once sites have been designated based on scientific evidence, the Habitats Directive (Article 6.4) provides a derogation for social or economic considerations to supersede the conservation requirements of SACs, where there are imperative reasons of over-riding public interest (IROPI) in a plan or project proceeding, despite potential adverse effects on the features of the site, and an absence of alternative, less damaging ways of achieving those social or economic objectives. Any IROPI case has to be reported to the European Commission and compensation measures outside the site are required to retain the overall coherence of the network at a European scale.

3.2 Process – NGO Data Contribution
The majority of data utilised in the analysis of Heinänen and Skov (2015) were collected by NGOs. The significant contribution of NGOs to this analysis needs to be acknowledged. However, this has also raised a concern that the analysis is reliant on data collected by charities with an interest in conservation of harbour porpoise.

Response: Through the Joint Cetacean Protocol (JCP), 39 data sources with effort-related at-sea data from at least 545 distinct survey platforms (ships and aircraft) were collated for the period 1994-2011. Together, these datasets represented over 1.1 million km of survey effort throughout the northwest European continental shelf. Data were contributed from industry, academia and the NGO sector; the NGO sector contributed directly the largest amount of data in terms of survey effort over the 18-year period. This contribution, and all others, is gratefully received. From the data submitted, it appears that NGOs contributed a maximum of 75% of all data; however, some NGOs may actually have collected data under contract to other stakeholders (e.g. industry) and so their exact contribution cannot be discerned but is likely to be less than 75%. The JCP was initiated before the UK Government started the process to identify SACs for harbour porpoise. While NGOs may have an interest in the conservation and protection of the harbour porpoise, the data collected over the last 18 years was not driven by the objective of identifying harbour porpoise SACs. Data have been collected by many different sources, in different areas and for different purposes. A primary aim of the JCP was to link up these disparate datasets and gain a broad-scale picture of marine mammal distribution and relative abundance.

3.3 Process – Bias of Survey Distribution
Concern about the use of modelled outputs, particularly when dependent on data derived from observations where the associated effort is biased towards the reporting of positive sightings (such as whale watching, boating trips etc).

Response: All of the sightings data that were used were effort-related which means sections of survey effort with (positive) and *without* (negative) sightings were included in the analysis. Data contributors were from a range of bodies including NGOs, some of which did contribute survey effort as a result of sea-going wildlife trips. However, a large proportion of NGO effort came from systematic surveys (particularly from aircraft in more recent years) that were designed to survey rather than find cetaceans. Other sources of data were industry, academia and publicly funded systematic surveys.

3.4 Process – Use of Socio-Economic Data
Respondents reminded CNCBs and Governments that socio-economic impacts cannot be taken into account when considering site designation and questioned the inclusion of the variable 'shipping intensity' in the modelling work undertaken by Heinänen and Skov (2015). This would appear to contradict Article 4 of the Habitats Directive which requires SACs to be selected based on scientific evidence only and not take into account socio-economic factors.

Response: Models that aim to predict species density need to accurately reflect variability within the observed densities. This variability is driven by a wide range of environmental factors. The harbour porpoise environment includes more or less continuous shipping activity in many areas and therefore, given the availability of good data on this pressure, it was included as a variable in the model to determine whether it contributed to the patterns seen in harbour porpoise density. Sufficient data on other pressures was not available. Boundaries were not altered to exclude shipping lanes. The boundaries around persistent high density areas were based on the patterns driven by this and multiple other environmental variables and in some cases e.g. in the Southern North Sea, the boundaries included busy shipping lanes. Should evidence become available that shipping poses a significant risk within SACs, the need for measures will be reviewed.

3.5 Process – Treatment of continental shelf versus non-shelf data
Concern that there is an ecological and data sampling division between shelf and non-shelf areas, with a suggestion that separate models for both would be more appropriate. There is also a need to describe core habitat areas for the species as well as specific environmental connections to processes and drivers where possible.

Response: The JCP collated datasets with coverage of both shelf and non-shelf areas; the latter for example from the CODA survey (Hammond et al., 2009), providing a dataset that may be used for a variety of different species, applying relevant parameters to the data such as depth. The harbour porpoise models developed by Heinänen and Skov (2015) were concerned with data overlapping the shelf area only; given that harbour porpoises are primarily distributed in shelf waters within 200m depth (see e.g. Reid et al, 2003). The distribution of harbour porpoise is predominantly driven by prey resource and habitat modelling was undertaken using variables that are synonymous with prey known to be taken by harbour porpoise.

3.6 Process – Modelling: Survey Data Distribution
There does not seem to be sufficient account of the potential for equally high density populations in areas that have never been surveyed, thus a lack of objectivity. It is unclear exactly how the environmental variables used in the analysis actually relate to the habitat and prey at specific sites, if the sites are being designated as 'harbour porpoise habitats'. It is complex enough associating physical variables to determine habitats for benthic species; for mobile species, the complexity is even greater, and so without that explanation, the evidence is less conclusive.

Response: The modelling approach used enables harbour porpoise density to be predicted in areas that have little or no survey effort, because the survey effort gives representative coverage of the range of available habitats throughout the continental shelf. This approach has been widely used in the scientific,

peer-reviewed literature to better visualise and understand drivers of species distribution. The analysis was a habitat driven model that explicitly linked both static (water depth; seabed slope; coarseness of seabed sediments) and dynamic (current speed, gradient and strength throughout the water column; eddy activity, the presence of fronts and upwellings; temperature differences; surface salinity) environmental factors to the distribution of harbour porpoise density. The greater importance of certain environmental variables compared with others, as found in the models for each Management Unit (Heinänen and Skov, 2015), is probably because those variables increase the probability of harbour porpoises encountering prey. Evidence in the wider scientific literature shows relationships between features of the marine environment (such as fronts and seabed sediment) with the distribution and abundance of fish species (e.g. Wright et al., 2000; Maravelias, 2001; Holland et al., 2005). The important environmental variables highlighted by the modelling of Heinänen and Skov (2015) infers that these are likely proxies for prey distribution. As a small marine mammal, harbour porpoises need to feed frequently and access to prey is paramount.

3.7 Process – Data Collection: Need for Dedicated Marine Mammal Surveys
SAC identification calls for dedicated marine mammal surveys with a representative coverage of the relevant waters as has been adopted in other North Sea countries. There is no coordinated attempt to monitor harbour porpoise around the UK coast on a regular basis.

Response: Despite the extent of UK waters, dedicated surveys that cover the majority of UK waters have been undertaken as part of the international summer decadal SCANS surveys (Hammond et al. 2002, 2013) to which the UK is the major contributor. The SCANS surveys have also been repeated this summer (July 2016).The identification of SACs for harbour porpoise required seasonal data and a long term dataset so that persistency in patterns of density could be identified. The only means of achieving this was through the collation of all available suitable datasets to ensure as good a spatial and temporal coverage as possible; CNCBs were content that the coverage of the final datasets was representative of the various habitats available to harbour porpoise in each of the Management Units. Some other countries with North Sea coastlines have fairly recently collected data from systematic triennial surveys, but these countries' EEZs are a fraction of the size of UK waters and, notably, also the range of harbour porpoise.

3.8 Process – Data: Availability and Cut-Off
The identification of sites must be based on the best available evidence. This is not the case because: • The UK's coastline and territorial waters is vast and largely unmonitored. • difficult to identify [individuals]or to prove that any particular animal might be resident in any particular place • their unobtrusive habit and small size makes counting them difficult Additional data that was not included or has been collected since the cut-off date for data contributions to the analysis needs to be included. The data used by Heinänen and Skov (2015) dates back to 1994 which means the designations are based on old data rather than most recent.

Response: The entirety of UK waters is surveyed approximately every decade as part of the SCANS project. These large scale and infrequent surveys are insufficient for analyses that aim to determine whether harbour porpoises are persistently more numerous in some areas more than others. However, coupled with the many smaller scale surveys, these data do provide adequate coverage of UK shelf waters (see Heinänen and Skov, 2015: Appendix 2, page 77). The Habitats Directive does not require proof of 'residency' for mobile species as the basis of site selection but does set out criteria in Annex III. Further guidance has also been provided for marine species (EC, 2007). Surveying harbour porpoise is challenging but methods that try to account for some of these challenges were used to correct data prior to the distribution modelling. It is important to realise that the approach undertaken by Heinänen and Skov (2015) was not designed to estimate population numbers but to predict 'important' habitats for harbour porpoise and identify persistently higher density areas.
All potential data providers were contacted and permission sought to re-use those data from Phase-III (Paxton et al. 2016) for the DHI analysis; some providers did not give permission and their data could therefore not be used. Due to the timeframe and complexity of the analysis, the cut-off date for data submissions was mid-2011 and therefore, data collected since then were not incorporated in the DHI

analysis. Had we chosen to focus only on very recent data, there would have been an undue weight on data collected by the renewable energy industry which would have led to unacceptable bias towards areas subject to surveys connected with proposed renewable energy developments. We accept that the analysis is partly based on old data, but believe this to be a strength as the long time-span of the data (18 years) makes the analysis more robust in identifying areas *persistently* used by harbour porpoises over the long-term. Any data post mid-2011 was invited for submission as part of the consultation process. Full consideration of any such data was given by CNCBs with a view to how/if inclusion of these data in the DHI analysis would have impacted the final boundaries of the identified pSACs. The Heinänen and Skov (2015) analysis could not be repeated with additional datasets; the nature of the availability and permissions to use data may mean that some used in the current analysis could be withheld from future analysis, therefore not producing a comparable result. Re-analysis would also result in substantial delay to the process.

3.9 Process – Further Data to Include
The evidence supporting the proposed SACs is sound. However there was concern that reports such as the Wildlife Trust's *'Megafauna Hotspots'* paper and the WDCS *'Towards Marine Protected Areas for Cetaceans in Scotland, England and Wales: A scientific review identifying critical habitat with key recommendations', strandings data, C-Pod data* (to name a few) were not included in the analysis process.

Response: The pSAC proposals were based on the modelling of data, not on the contents of reports. The data that underpinned the analysis to identify the proposed SACs for harbour porpoise used all available and admissible evidence that was submitted through the Joint Cetacean Protocol (JCP) from a variety of sources, up until 2010/2011. Any data not submitted to the JCP following the initiation of the project and request for data, or where permission for use of data in the harbour porpoise process was not given, were not used. Many of these data in the JCP also feature in other reports such as the two mentioned above by the Wildlife Trusts and WDC, as data providers included NGOs such as the Wildlife Trusts. i.e. the data that informed these reports (up to 2010/2011) were used in the SAC identification process.

CNCBs do not consider that strandings data are useable for identification of sites. The locations where cetaceans strand are influenced by many factors, particularly the weather and tides/currents of the sea, and they are, therefore, an unreliable indicator of density and abundance of animals offshore. The data from the UK strandings schemes (contract managed by JNCC) is used predominantly to report to ASCOBANS regarding the causes of mortality in cetaceans.

Acoustic data from C-PODs are available from some discrete locations in the UK; however, the scale of the analysis required to identify SACs means that these data cannot be used in comparing areas at the broad scale. It may be possible to use such data in future decision-making at the fine scale. There is also no established method of combining acoustic and visual data in a single analysis to generate density estimates on which habitat models can be built. Some of the suggested data 'owners' have contributed to the analysis through the submission of appropriate effort-related visual survey datasets for the required time frame (e.g. Cornish Wildlife Trust and Marine Life boat-based surveys are included in the analysis of Heinänen and Skov, 2015; land-based data from Morte Point are included in the analysis of Evans et al. 2015).

Fisheries data at the right spatial scale (Management Unit) were not available for the modelling undertaken by DHI (Heinänen and Skov, 2015). ORCA data are already included for 2009 and 2010 from their regular ferry surveys to the Isles of Scilly. Available land-based data were also collated through a contract with SeaWatch Foundation and Morte Point was one such location for which data were made available.

3.10 Process – Data: Lack of Offshore Windfarm Data
Criticism that offshore wind farm (OWF) project data were not used as part of the baseline. There are numerous OWF projects, built and under application, that have extensive harbour porpoise survey and monitoring data. This represents a missed opportunity

Response: The data collated through the Joint Cetacean Protocol (JCP) and used in the Phase III analysis (Paxton et al. 2016) were identified as the most comprehensive available for the analysis by DHI pSAC work (Heinänen and Skov, 2015). The collated JCP data were sourced from industry, NGOs, academia and publicly funded surveys. The industry data were from many offshore wind developers who agreed to contribute to the JCP process. All potential data providers were contacted for the pSAC analysis and permission sought to re-use those data from Phase-III for the DHI analysis; some providers did not give permission and their data were therefore not used.

3.11 Process – Data: Overreliance on Offshore Windfarm Data
The modelling of Heinänen and Skov (2015) appears to rely disproportionately on datasets from the offshore windfarm surveys and land-based sightings data that are of limited value for identification of key marine areas.

Response: The data used in the analysis of Heinänen and Skov (2015) were collated through the Joint Cetacean Protocol. The JCP identified 39 data sources with effort-related at-sea data from at least 545 distinct survey platforms (ships and aircraft) and these were collated for the period 1994-2011. As little as 5% of these data (by length of survey effort) used by Heinänen and Skov (2015) came direct from industry sources and their contribution was greater than other sources in only one year (2010) of the eighteen analysed. Overall, NGOs contributed the greatest amount of data.

The main evidence used for the identification of the pSACs came from Heinänen and Skov (2015). Land based data were only used as further evidence to support boundaries where persistent top 10% areas abutted the coast (Evans et al, 2015).

3.12 Process – Use of SCANS Data
SCANS: Much of the data used to create the model used to identify proposed sites is over 10 years old, some over 20, such as the SCANS data. Given the differences in porpoise distribution as illustrated by SCANS I in 1994 and SCANS II in 2005, it would be difficult to justify using this data as a basis for identifying likely areas as holding high densities of porpoises. As these surveys were conducted over a single month in each case, they can take no account of any seasonal variation. SCANS surveys were tasked with trying to assess abundance not densities.

Response: Abundance is a product of density and area – so a survey to derive abundance is based on estimating density first. SCANS and SCANS-II are only two of 39 data sources used for the analysis. Data from these sources were pooled so that there were data for all seasons and years, which over the entire time period of 18 years were spread throughout the UK continental shelf. Because of the mobility of harbour porpoise and the large scale shifts that were observed in the North Sea between SCANS surveys, the longevity and recency of patterns in harbour porpoise density are crucial. SACs need to be identified based on high density areas that have been repeatedly identified over long periods of time (i.e. through the 18-year dataset which is equivalent to approximately 3 generations) to give confidence that those areas will continue to be important. The modelling approach of Heinänen and Skov (2015) was capable of showing the temporal and spatial changes in density within each Management Unit (MU). The models fitted an interaction term between geographic coordinates and time periods as a factor variable in addition to habitat variables. This enabled harbour porpoise density to be predicted through space and time, importantly capturing seasonal and inter-annual changes in density in each MU.

3.13 Process – Data: SCANS Limitations
The use of SCANS-II estimates to derive abundance estimates within pSACs is inappropriate. The SCANS surveys take place in summer only (July) and the approach taken has assumed uniform density across the UK continental shelf which does not reflect the higher densities within the sites. A robust site population abundance estimate is needed and these estimates should be reassessed.

Response: Due to their mobility, harbour porpoise abundance in an area varies and is not fixed. The abundance within a site varies with the year/month/day it was surveyed. The abundance estimates from the SCANS-II survey (Hammond et al. 2013) represent the most robust and consistent estimates (with

known precision) available for this species. It was agreed by CNCBs that they would be the most appropriate from which to derive nominal estimates of abundances within sites. There are shortcomings in doing this and these are acknowledged in the Selection Assessment Documents for each site. When new estimates become available, sites estimates may be reviewed. The concept of 'site population' or 'site abundance' is fraught with problems for harbour porpoise; the sites represent a small area of a much larger range and will 'contain' varying numbers of harbour porpoise at any one time. It is impossible to detect a real change in site numbers from site based monitoring in isolation without the context of what is happening to abundance at the wider scale; i.e. at least at the Management Unit scale. It is not possible to differentiate a change in abundance from a change in distribution within a small part of the range of a wide-ranging species such as harbour porpoise.

3.14 Process – Data: Land-based Data
The analysis of land-based data reported in JNCC Report 543 (Evans et al. 2015) should have been given greater weight in the process to identify pSACs.

Response: Land-based data were used as further evidence to support boundaries where persistent top 10% areas abutted the coast. The North Anglesey Marine and North Channel pSACs include areas identified as important for harbour porpoise based on the data reported in Evans et al (2015); however, land-based survey data in isolation are insufficient as the basis of SAC identification; the sighting rates observed are only relevant to the 1-2km from shore whereas harbour porpoises utilise the entire European continental shelf. This coastal fringe to 2km equates to just 4.5% of the harbour porpoise habitat area within UK waters.

3.15 Process – Modelling: Transparency of Data Use
Unclear as to how the Scottish and Northern Irish data has been considered in the modelling

Response: Modelling of harbour porpoise distribution in UK waters was conducted based on three Management Units (MU): i) North Sea, ii) West of Scotland and iii) Irish and Celtic Seas (Heinänen and Skov, 2015; IAMMWG, 2015). All data collated from around the UK were compiled and assigned to the relevant MU. These data were then used to build a model of harbour porpoise density based on the relationships with static and dynamic environmental variables. Scottish data for the North Sea were considered within that MU. Northern Irish and Scottish data that fell within the Celtic and Irish Seas Management Unit (MU) would have contributed to the modelling work completed for that MU. Data within the West Scotland MU were also analysed by Heinänen and Skov (2015), the outputs of which were then used by SNH and Marine Scotland in a process to develop a site in this MU (www.snh.gov.uk/porpoiseSAC).

3.16 Process – Modelling: Use of Habitat Data
Not all of the large southern North Sea area will likely remain important to cetaceans in the long-term. More emphasis should be placed upon associations between porpoises and physical features – such as undersea topography and substrate type (e.g. those linked to sand eel spawning grounds).

Response: The harbour porpoise models developed for each Management Unit (MU) used both static (water depth; seabed slope; coarseness of seabed sediments) and dynamic (current speed, gradient and strength throughout the water column; eddy activity, the presence of fronts and upwellings; temperature differences; surface salinity) environmental variables, together with observed harbour porpoise density, to predict harbour porpoise density throughout the Management Units. In all MUs, the final models of porpoise distribution included static variables. The use of a long-term dataset of effort-related harbour porpoise observations for the analysis (1994-2011) is important to ensure that the features of harbour porpoise habitat that persistently support higher densities of harbour porpoise over time are identified. This 18-year data set is equivalent to approximately 3 generations of harbour porpoise.

3.17 Process – Modelling: Reliance on modelled outputs
Concern about the reliance on modelling to support the site designation process. However, the challenge in generating reliable long-term datasets for harbour porpoise is recognised.

Response: Key to the designation of SACs is Article 4(1) of the Habitats Directive, the relevant part of which states: '…*For aquatic species which range over wide areas, such sites will be proposed only where there is a clearly identifiable area representing the physical and biological factors essential to their life and reproduction*'. The need for an area to be '*clearly identifiable*' is plainly of importance in identifying SACs for harbour porpoise. The European Commission issued further guidance to expand on the characteristics of areas that would qualify as 'clearly identifiable' sites; one such was the need for *good population density (in relation to neighbouring areas).* The scale of the analysis is therefore predicated by the Habitats Directive, and there is clear need for data to cover the entire harbour porpoise range within UK waters. This was achieved through the JCP initiative which collated data from 39 data sources over 18 years (1994-2011). Even with this wealth of data (largest collation of cetacean datasets in Europe), there remained gaps in space and time. Habitat models allow those gaps to be filled by determining the relationship between harbour porpoise density with environmental variables such as depth, seabed sediment, current speed, eddy activity, the presence of fronts and upwellings; temperature differences, and surface salinity. Without such modelling, not only would we be excluding useful information (on key environmental variables) from the analysis, we would be basing site identification purely on actual observations of harbour porpoise. This could artificially bias the analysis towards selecting areas with the most observation effort.

3.18 Process – Modelling: Limitations
A clearer description of model limitations for predicted harbour porpoise distribution is required.

Response: We consider that sections 2.5 and 4 of Heinänen and Skov (2015) together provide a clear description of the model limitations.

3.19 Process – Modelling Process and Review
Support was given for the general approach of modelling harbour porpoise density with environmental variables over time. However, there was expectation that there would be presentation of an in depth and independent review by experts in statistical methods and modelling techniques to have validated the findings and ensured: • There are no problems or issues with the statistics; • The modelling is robust and fit for purpose, particularly for predictions that go beyond surveyed areas; • Assess whether other data sets or emerging approaches could be better used to assess key porpoise habitats.

Response: A number of different modelling approaches were assessed, based upon standard statistical performance indicators. There are many different ways to model data, some methods being favoured by some statisticians and others being favoured by others. Differences in views with regard to the modelling approach were reflected in the consultation responses, where the approach was both criticised by some but supported by others.

The modelling contract was overseen by a Project Steering Group (PSG) that comprised all the CNCBs and an independent statistical advisor, contracted to ensure a robust and objective approach was taken in the modelling required. The contract and Evidence and Quality Assessment were managed by JNCC, with the PSG meeting regularly to discuss progress and provide feedback to the contractors. In addition to the PSG, the draft report was also peer reviewed by two independent experts (who wish to remain anonymous), one in the UK and one from overseas. The project objectives were achieved and analysis conducted to a high standard, particularly given the limitations in the dataset. Following peer review, the changes required were largely to do with providing a better description and interpretation of the work. The outputs from this project including uncertainty associated with the evidence have been seen and approved by the CNCBs Chief Scientist Group (CSG, February 2014). Meetings are also held with Defra and the Devolved Administrations (February 2014) through the Intergovernmental Harbour Porpoise Project Board to ensure that they are fully aware of the results, the uncertainty in those results and to obtain agreement on the next steps to be taken by the CNCBs in order to identify potential SACs. The outputs were also

reviewed by the MPA Sub Group (March 2014), Defra's Chief Scientist (April 2014) and the Joint Committee (November 2014).

3.20 Process – Size of the SACs
Harbour porpoise are protected through the EU Habitats Directive, the Wildlife and Countryside Act and the UK Biodiversity Action Plan. The added conservation value of SACs is therefore questionable. The SACs have been identified on the notion that they are important habitats (for breeding, calving and feeding) but there is no evidence to support this claim. It is surprising that more has not been done to investigate discrete habitat use and implement smaller or series of linked SACs. Such large SACs may not be effective in attaining conservation objectives and will be challenging to manage. This is especially true when considering pressures and potential impacts from pollution and bycatch.

Response: Harbour porpoise have two forms of protection within the Habitats Directive; they are strictly protected as Annex IV species throughout their range (as European Protected Species) and also through their listing on Annex II by the designation of SACs. The Directive also provides criteria by which sites should be identified. The modelling undertaken by DHI (Heinänen and Skov, 2015) aimed to determine the important habitats for harbour porpoise over an 18-year period. The modelling approach effectively considered site-selection criterion IIIa of the Habitats Directive and associated sub-criteria in the guidance (EC, 2007). The approach predicted densities throughout the UK shelf (by Management Unit) to identify areas of persistent (sub-criterion i) and higher density relative to other areas (sub-criterion ii). The modelling also identified the environmental variables that supported higher densities of porpoise, thereby providing information on *physical and biological factors essential to their life and reproduction*. The process to identify sites relied on using the areas defined on the basis of the modelling and these, were in general large. The large sizes will present challenges for managing the range of activities within SACs but the scientific evidence and the nature of this mobile species, show that large sites are more logical. The importance of the habitat in areas selected as pSACs is inferred from the fact that harbour porpoise density was persistently higher in those areas than elsewhere. The habitat is characterised by static (water depth; seabed slope; coarseness of sediment) and dynamic variables (e.g. current speed and strength; eddy potential; surface salinity). We do not currently have any information about discrete population structuring of harbour porpoises in the UK.

Management measures deemed necessary within sites, in order to achieve the Conservation Objectives for the site, will complement wider measures already in place in UK waters, such as those to tackle bycatch. The UK currently has a conservation strategy for harbour porpoise (DETR, 2000), supported by the UK Small Cetacean Bycatch Response Strategy which was developed in 2003 and updated in 2009 (Defra, 2009). Together these take a risk-based approach to harbour porpoise conservation. The Conservation Strategy was reviewed in 2009 as part of a consideration of the best approaches to maintaining Favourable Conservation Status of the species in UK waters (Pinn et al., 2010). At that time, it was concluded that the risk based approach adopted was still valid and no update was therefore required. More recently, a harbour porpoise conservation literature review has been undertaken (IAMMWG et al., 2015) with a view to developing a revised harbour porpoise conservation plan. The CNCBs acknowledge that SACs alone cannot ensure that harbour porpoises maintain Favourable Conservation Status in UK waters in terms of European wide pressures such as pollution or bycatch.

3.21 Process – Data preparation support
With little in the way of funding efforts have been made to mobilise data in the past year by some stakeholders to try and help with the SAC process. Requests were sent to JNCC for support but none was forthcoming.

Response: This issue relates to the request for land-based data for the contract with SeaWatch Foundation to deliver JNCC Report 543. Unfortunately, neither JNCC nor any other CNCB was able to assist with processing of raw data due to resource limitations. The role of the CNCBs within this process was to coordinate the scientific analyses (carried out by contractors) and the development of advice to Governments based on those analyses.

5.2.5 Scientific Basis for designation

4.1 Scientific Basis for Designation - Approval of scientific approach
The evidence clearly shows that the pSACs have been identified to contain persistent high densities of harbour porpoises, based on statistical modelling combining species occurrence data and environmental spatial data. This type of modelling approach is one frequently utilised in the analysis of distribution and density data and the belief is that the process is both scientifically robust and makes use of the best available evidence. The stakeholders would like to see the pSACs designated at the earliest possible opportunity, supported by clear conservation objectives and effective management at the site level to ensure maintenance of Favourable Conservation Status (FCS).

Response: The decision to designate lies with Ministers, on submission of CNCB advice. If designated, Conservation Objectives and management will be developed by the relevant regulators with input from relevant stakeholders.

4.2 Scientific Basis for Designation - Question regarding the scientific approach
Stakeholders were concerned that a coarse grained computer model has been used to define the boundaries and that this employs a number of calculations relating to habitat components and geographic area in order to predict presence of harbour porpoise. Further, that this is used in conjunction with existing survey data and records for the area which are far from exhaustive given the size of the proposed designations. It is therefore possible (even with confidence levels expressed by modelling) that some areas within the potential designation boundary could in fact be of limited or no interest to the species. Careful consideration should be given to the whether the proposed boundaries can be scientifically justified.

Response: Density surface modelling is used widely in the science of understanding the distribution of organisms and similar processes have been used for other countries and species around the world in identifying Marine Protected Areas. The scientific process was quality assured by a panel of UK experts (IAMMWG) and scrutinised by external referees (peer review), which is a process routinely applied to projects of this nature. The modelling work undertaken by DHI (Heinänen and Skov, 2015) is based on two “datasets”:

1) The observed density of harbour porpoise from effort-related at sea surveys
2) Modelled hydrodynamic data to depict ‘habitat’ variables.

The observed density, as the response variable, was modelled with a suite of predictor habitat variables comprising both static and dynamic features. The sightings datasets were patchy in space and time but in general there was good coverage across the continental shelf and throughout the 18-year time period. Models were fitted for each of the three Management Units (MUs) and the model was chosen that best predicted the density of harbour porpoises across a 5x5km grid for each year and season. These annual, seasonal layers were then processed to identify those that persistently contained the top 10% of density within the MU over the time period. These areas were the basis of identifying Areas of Search which were subsequently refined to give the pSAC boundaries; this process included assessment not only of the model confidence but interpretation of it in the context of underlying sightings and survey effort within the pSAC.

4.3 Scientific Basis for Designation - Does not support/conflicting
The DHI analysis indicated a preference for water depths between 30 and 40m throughout the year. However, Jenkins (2007) linked porpoise distribution to the 20m contour between Carmarthen Bay, the Gower coast and Swansea Bay.

Response: Under the results section for Celtic and Irish Seas MU of the DHI report (Section 3.3, Heinänen and Skov, 2015), the following is stated: "The responses to water depth indicate that high densities of harbour porpoise are associated with the shallowest areas (areas shallower than 40m) in summer and high probability of presence in the same areas in winter." This indicates a preference for waters shallower than 40m, which does not contradict the Jenkins (2007) conclusions.

4.4 Scientific Basis for Designation – Flaws in the methodology
Stakeholders outlined inaccuracies in the method which was used to base the SACs on. 1. The model fails to comprehensively predict areas which are verified by proven research. 2. Report 544 (Heinänen and Skov, 2015) does not meet the requirements of the Habitats Directive in respect of identifying sites essential for the life and reproduction of the species: no breeding sites were identified; and with its identified failings, the Report does not pass the test of robust scientific evidence as required. 3. It is appropriate to use Report 544 as a basis of identifying areas for further research and study but inappropriate to use it as prime evidence in the selection of potential Special Areas of Conservation in fulfilment of the requirements of the Habitats Directive.

Response: Collecting scientifically robust data on a wide ranging, highly mobile species, such as harbour porpoise, is costly in time and money. The cetacean dataset used for the process described in the consultation documentation is the largest in Europe with multiple sources of data collated through the Joint Cetacean Protocol (http://jncc.defra.gov.uk/page-5657). These data were used to build a distribution model of porpoise density based on their relationships with environmental parameters such as water depth and seabed type. From this it was possible to identify areas with persistently higher densities of harbour porpoise in UK waters over the 18 years for which data were available (1994-2011). This process has been rigorously peer reviewed and is considered by the CNCBs as sufficiently robust to define areas as SACs.

A steering group consisting of CNCB staff was established to oversee and review the work throughout. An external expert statistician provided advice and review of the analysis and draft reports. The draft report was also subject to review by two international experts in the field of marine mammal science. On the basis of all comments, the draft report was reviewed by the contractors before the final report was accepted by the steering group. We therefore consider Report 544 to be suitable in providing evidence to justify the selection of pSACs for harbour porpoises.

As far as can be ascertained, breeding behaviours occur in all waters inhabited by harbour porpoises. One of the guidelines published by the European Commission (EC, 2007) suggests using elevated proportions of calves to identify such areas. If it were possible to consistently record calf presence (and that has not been the case), this approach would only identify nursery areas, not necessarily all areas that are required for breeding. It is assumed therefore that areas with persistently raised abundance are at least representative of areas essential to the life and reproduction of the species.

5.2.6 Boundaries and Sufficiency

Response to some of the common themes reoccurring regarding the pSAC boundaries:
Harbour porpoise are widely distributed throughout UK continental shelf waters. The work undertaken to identify sites needed to consider this entire range and not just the locations of small-scale, local boat-based or land-based surveys. The analysis, completed by contractors, incorporated all available datasets collected over an 18-year period (equating to approximately 3 generations), which were modelled to predict areas with persistently higher densities of porpoises over time. Data for which permission had not been given could not be included in the process. The report and outputs have been peer reviewed and are a robust basis on which to develop the proposed site boundaries. The areas derived from the modelling were developed through a series of criteria, which resulted in pSAC boundaries identifying areas with higher confidence in the model outputs. JNCC Report 565 (IAMMWG, 2015) explains this process, and outlines the principles for further refining the boundaries, including the determination of high, medium and low confidence.

To consider inclusion of any of the additional areas suggested, we would need published evidence of the importance of these areas in relation to neighbouring waters at a larger scale. Additional available data (not already used in the analysis) also have the potential to inform future management or may be considered for use if, in the future, a further process was undertaken to identify protected areas.

5.1 Boundaries – Queries or suggested changes / relevant evidence
Other types of marine protected area adjacent to the proposed SACs and with harbour porpoise sightings should be considered for inclusion in the harbour porpoise SACs. Having umbrella protection would make it easier to monitor and clearer for people to understand. Generally legislation works better if it is easy for people to understand and it would provide a better outcome for the harbour porpoises. Suggestions include: 1) The MCZs: The Bideford to Foreland; the Mannacles; Lizard & western Channel; Coquet to St Mary's; North East of Farnes Deep; Farnes East; Runswick Bay; Holderness Inshore; Cromer Shoal Chalk Beds; Silver Pit Recommended MCZ; Wash Approach Recommended MCZ; and Orford Inshore Suffolk proposed MCZ 2) Dogger Bank SAC 3) Nearby Special Protection Areas (SPAs) designated under the Birds Directive

Response: The analysis by DHI highlighted the top 10% of areas with persistent higher densities. We would therefore need very strong evidence to be able to justify an expansion of the boundary to include the suggested existing MPAs. These MPAs are designated under different legislation and for different reasons than to protect harbour porpoises. The inclusion of overlapping MPAs was considered at an early stage of the identification process. It was concluded that such a process would lead to the inclusion of areas that have not been identified scientifically as 'most important' for the species. Although umbrella protection (covering multiple species or habitats) might make boundaries clearer, such an approach would, scientifically, be difficult to justify, unless existing boundaries coincide with areas of importance as identified by the model. Once harbour porpoise SACs have been designated, it may be desirable for management frameworks to be developed to deal with all types of MPA in a given area in an integrated way. This already happens for example where adjacent or overlapping SPAs and SACs are the responsibility of a single relevant authority management structure and/or stakeholder advisory group. However, these are separate considerations to the legal process of defining harbour porpoise SAC boundaries.

1) The MCZs mentioned have not been designated for harbour porpoise and sightings of porpoises alone do not qualify as significant evidence for designation as a SAC. All of the suggested MCZs, with the exception of Orford Inshore MCZ, are located away from the top 10% areas identified by the DHI analysis and there is insufficient evidence to justify any further extensions of the sites. Orford Inshore MCZ is already located fully within the Southern North Sea pSAC boundary. Figure 5 illustrates the location of the designated MCZs in relation to the pSAC boundaries:

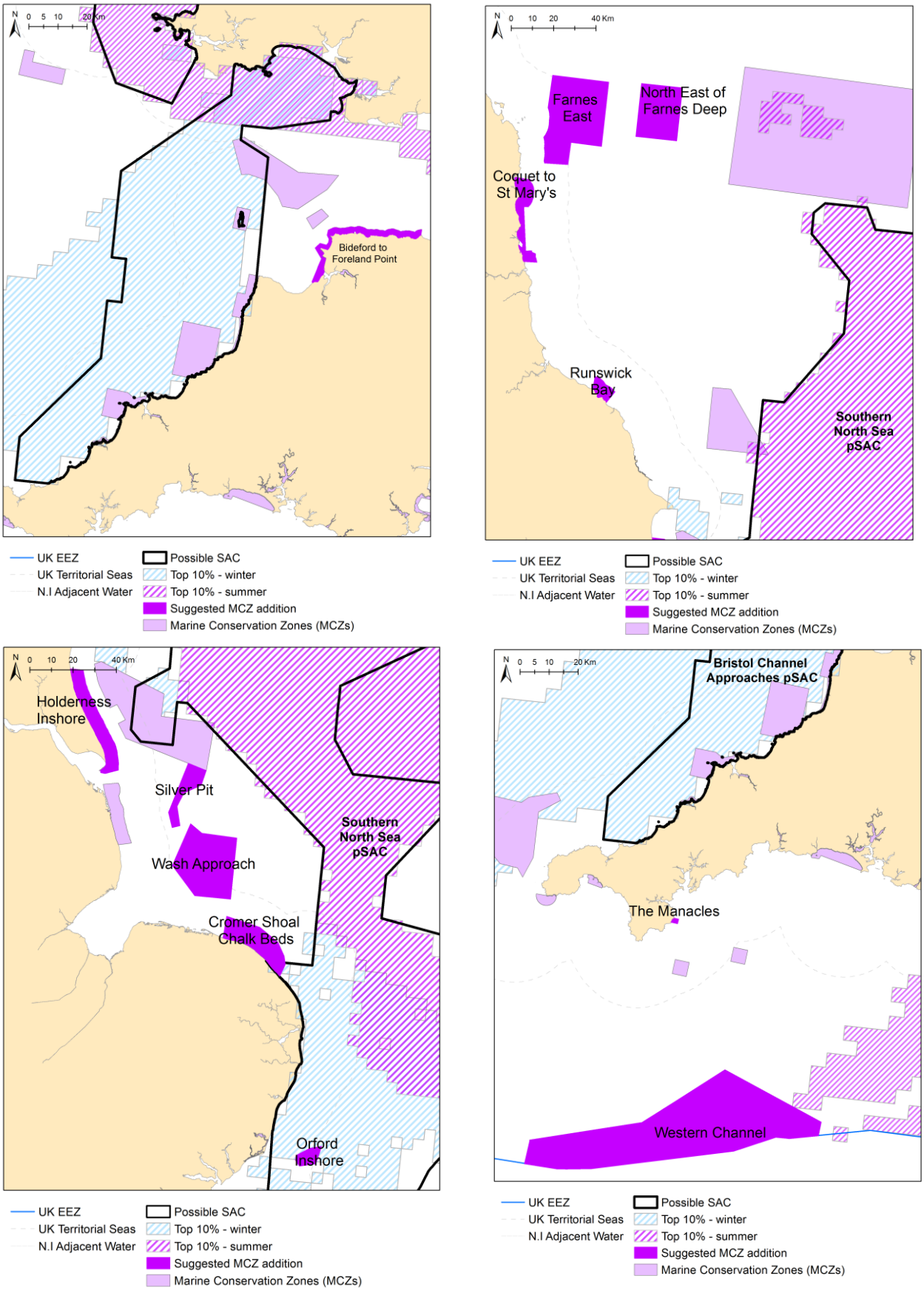

Figure 5.Location of the designated MCZs in relation to the pSAC boundaries

2) The inclusion of the entire Dogger Bank SAC into the Southern North Sea pSAC boundary was considered during the identification process (the western part of the Dogger Bank SAC lies within the pSAC). The outputs from the DHI analysis (Heinänen and Skov, 2015) show that it is the west and south of the Dogger Bank area that is persistently populated with the higher densities of porpoise and not the eastern part that lies in UK waters. It is noted that the Dutch and German sections of the Dogger have been designated by The Netherlands and Germany for their importance for harbour porpoise within their waters.

3) SPAs are designated for the protection of wild birds. The selection criteria and management approaches are different from those applied to SACs for harbour porpoise. Therefore, there is insufficient, scientific evidence to justify an extension to the pSAC boundaries.

5.2 Boundaries - Queries or suggested changes / relevant evidence
Local knowledge suggests that the following areas should be considered for inclusion in designated pSAC: St Ives Bay (as an area with commercial sand eel fisheries and so available prey); Isles of Scilly (ORCA survey sightings), Morte Point (routine area for sighting harbour porpoise); Runnel Stone and Gwennap (routine area for sighting harbour porpoise); the Fal (CPOD data from Chelonia). Others suggested Woolacombe Bay extending into the Bristol Channel due to observations being made of porpoises almost every day, as well as the presence of a sandeel fishery, which is understood to be an important food source for porpoises.

Response: Along with their response, one stakeholder submitted a report from the Polzeath Seal Photo Identification Project (POLPIP) (Sayer and Millward, 2016), that includes harbour porpoise distribution data from an area within the Bristol Channel Approaches pSAC. The report covers surveys between 2011 and 2016 and concludes that harbour porpoise abundance was greatest during winter (September-November). The Bristol Channel Approaches pSAC is identified as important during the winter season, so use of these more recent data would not change the pSAC boundaries; rather it further supports the proposal. The stakeholders also recommend additional data for the areas listed below, but no raw data or summary of these data were submitted.

- St Ives Bay was suggested for inclusion due to a current sandeel fishery. The DHI model included variables that were believed to relate to the habitat of certain prey species, including sandeel. The local feeding habits of harbour porpoises are not known, and therefore, the presence of sandeel fisheries (and therefore sandeels) is not sufficient evidence to state that St Ives Bay provides an important feeding area for porpoises.
- Isles of Scilly were suggested due to Orca survey sightings. Orca survey sightings to the Isle of Scilly from 2009/2010 were included in the analysis. This area was not within the area holding the top 10% of persistent high densities illustrated in Report 544 and the area had low confidence in the model outputs, due to only one to two years of survey effort. There is therefore insufficient evidence to extend the boundaries in this area.
- Morte Point was suggested due to being a routine area for spotting harbour porpoise. This area is located near to the Downend point land-based station that did fall within the top 10% land-based stations (Evans *et al*, 2015). Morte Point occurs outside of the top 10% area identified by DHI and too far away from the BCA boundary to justify an extension in that direction due to the visibility range of land-based observations.
- Runnel stone & Gwennap - as for Morte Point.
- The Fal was suggested due to cPOD data from Chelonia. This data was not submitted by the stakeholder, nor has it been found by JNCC. Therefore, there is not enough evidence to justify considering a pSAC around the Fal. There is no established method of combining acoustic and visual data in a single analysis to generate density estimates on which habitat models can be built.

5.3 Boundaries - Queries or suggested changes / relevant evidence
A request was made that the boundaries of the pSACs are not extended further than the current proposals.

Response: All available scientific evidence was used to identify the proposed boundaries. Any changes to a boundary outside of the proposals will need to be supported by appropriate scientific evidence. Socio-economics cannot be taken into account when defining the site boundaries, therefore any changes will need to have the appropriate scientific evidence to support them.

5.4 Boundaries - Queries or suggested changes / relevant evidence
A range of stakeholders were concerned about the boundaries being complex and recommendations were made to simplify the boundaries to delineate offshore areas and include key locations inshore to allow for clearly identifiable site boundaries and to ease management implementation.

Response: The shape of the sites is driven by the modelled persistent high density areas (predicted on a 5 x 5 km grid) that resulted from the work of Heinänen and Skov (2015). The areas derived from the modelling were developed through a series of criteria. This resulted in areas within the site boundaries that were associated only with higher model confidence. These were based on the existing guidelines for defining SAC boundaries[7], and were smoothed to reduce the effects of the 5 x 5 km grid (IAMMWG, 2015). The boundaries were drawn closely around the modelled areas persistently containing the top10% of harbour porpoise density and, where possible, the seaward boundaries were drawn using straight lines, whilst land boundaries followed the Mean Low Water Line. However, a balance was needed between reducing the complexity of the boundary towards more simple shapes, minimising the inclusion of areas which were not identified as important for harbour porpoises, and not excluding areas that were identified as important.

5.5 Boundaries - Queries or suggested changes / relevant evidence
Request for the inclusion of Liverpool Bay.

Response: Although the work of Heinänen and Skov (2015) identified Liverpool Bay as an area of persistent high densities of harbour porpoise (i.e. top 10%), it was not underpinned by sufficient confidence in the model and was therefore rejected as an Area of Search. No evidence was submitted to support the respondents view and therefore there remains insufficient evidence available to justify inclusion of Liverpool Bay in the pSAC network.

5.6 Boundaries - Queries or suggested changes / relevant evidence
Since the delineation of the site boundaries relate to characteristics of the water column and the seabed, will the boundaries change once the data describing those characteristics are improved and changes potentially emerge?

Response: There is no present intention to review the boundaries of the sites in the future. Should a major change occur however, no doubt the possibility to re-examine boundaries will be considered, but at present this is a hypothetical question.

5.7 Boundaries - Queries or suggested changes / relevant evidence
Concerns were raised over the reliance of historic data (with the most recent data recorded in 2011, and much from 2005) to define the boundaries of the possible SACs given the mobile nature of the species. Concerns were also raised of the potential of large scale surveys, such as SCANS-III (July 2016), providing conflicting evidence that could undermine the boundary definitions of the possible SACs.

Response: Although the distribution of mobile animals can change over time (and in the case of harbour porpoises, has done), the boundaries defined are based on the best available data at the time of the analysis. The sites are based on a range of surveys (large and small scale) over 18 years and therefore took account of some change. The SCANS-III survey may identify changes in the distribution and density since previous surveys in 1994 and 2005. However, although the SCANS-III survey is large scale, it is only of one month in one year and does not capture the long-term inter-annual and seasonal changes in the

[7] SAC boundary guidelines: http://jncc.defra.gov.uk/pdf/SACHabBoundaryGuidance_2012Update.pdf

distribution and density of harbour porpoise. The outputs from SCANS-III are therefore a snapshot of summer (July/August) 2016 distribution and density. However, SCANS-III will also offer the best basis for determining up-to-date abundance estimates. The data used for the baseline analysis to identify the possible SACs spans approximately three generations of harbour porpoise. This was considered necessary to provide sufficient evidence of distribution over time.

5.8 Boundaries – Queries or suggested changes / relevant evidence
The proposed SAC boundaries do not meet the criteria of being special and could easily be refined to areas where there is sufficient empirical data to justify inclusion such as Swansea Bay and adjacent Headlands, The Pembrokeshire Islands, Head and Point Lynas. If data, such as ours and that of other knowledgeable stakeholders was included the integrity of these areas as harbour porpoise SACs would be much stronger. Places like Strumble Head, the Pembrokeshire Islands and others such as Point Lynas in Anglesey in the North and Swansea Bay in the south should be given SAC status. They are accessible and relatively data rich. These sites could become the paradigm for others that might be identified in the future.

Response: The analyses were part of a rigorous process completed by the contractors using all suitable effort-related data available at the time the work was carried out. Data for which permission had not been given, could not be included. The report and outputs have been peer reviewed and provides a sufficient and robust basis on which to develop the proposed site boundaries.

Most of the Pembrokeshire Islands are contained within the West Wales Marine pSAC. Point Lynas is contained within North Anglesey Marine pSAC.

Accessibility of sites, here referring to land-based data sites, is one of the reasons that land-based surveys are inherently biased: most observers go to places where they are likely to see animals rather than distribute observation locations in a random, unbiased way. In addition, land-based observations can only cover 1-2 km of the sea from the shore, a small fraction of the range of harbour porpoises on the UK continental shelf. JNCC Report 543 (Evans et al, 2015) identified the most important locations where land-based sightings were recorded and certain locations around Anglesey, Pembrokeshire and Swansea bay were identified within the top 10% of the most important areas based on modelled likelihood of occurrence.

5.9 Boundaries - Additional sites
There was concern that there are no proposed SAC sites for harbour porpoises along the South Coast giving no protection for harbour porpoises along this coast. Suggestion to create a new SAC around Lyme Bay.

Response: Harbour porpoise are protected throughout their range as an Annex IV species listed in the Habitats Directive. SACs provide an additional pillar to this protection, focusing on important habitat areas. The process for selecting sites was to use the top 10% areas as identified within the modelled outputs from DHI (Heinänen and Skov, 2015). Three small Areas of Search (AoS; as explained in IAMMWG, 2015) were identified on the southeast side of Devon; 'Start Point' and two offshore AoS named 'Start Point Offshore' and 'Start Point Offshore 1'. In the approach chosen, the two offshore AoS (summer) were removed due to only moderate confidence in the modelling (Figure 6) and low observations, despite good survey effort (3+ years). The remaining Start Point AoS was removed due to the small size (125 km²) and low confidence in the modelling. It was agreed that areas less than 500 km^2 would be removed as they would provide little conservation value given the mobility of the species. For example, some individuals have been found to cover 1000s km within a month (Sveegaard et al, 2011). Lyme Bay had 5-7 years of survey effort, but a low observation rate. Lyme Bay is not within the top 10% areas identified by DHI and it is in a low confidence area of the model for both seasons (**Figure 6**). There is therefore not sufficient evidence to justify an additional pSAC in this area.

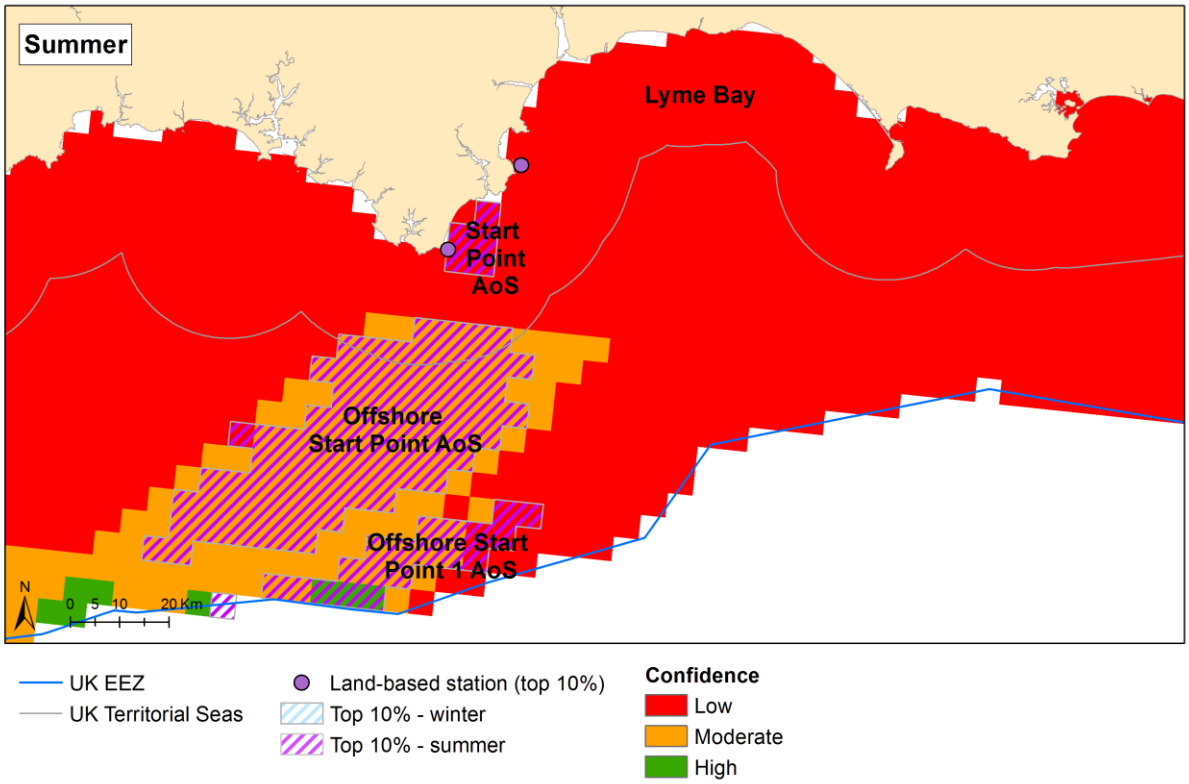

Figure 6. Lyme bay with confidence intervals for the summer season

5.10 Boundaries - Clarity with regard features in/out boundaries
It is not clear from proposal maps whether Skerries Lighthouse, Bardsey Lighthouse, Smalls Lighthouse, Skokholm lighthouse, Caldey Island Lighthouse, Lundy North Lighthouse and Lundy South Lighthouse are excluded from the designation.

Response: The locations of the landmass (islands) that these lighthouses are built on are within the pSACs. However, the pSAC follows the mean low water line and thus excludes the emergent parts of these rocks and islands. However, a Habitat Regulations Assessment (HRA) will need to be completed to assess any operations that might have an adverse impact on the sites. This is already routinely done for the nesting seabird features on the lighthouse islands within SPAs.

5.11 Boundaries - Seasonality
Some stakeholders did not agree with the separation of sites into summer and winter season or believed there was not enough evidence to make the seasonal distinction. Clarity was requested around how the survey data supported the seasonal divide (and associated potential management) and whether the divide implied exclusivity to specific months. A comment was also made that the monthly divide of the seasons was arbitrary and that further evidence, which should be linked with the ecology of the species, was needed to justify these.

Response: The identification of persistent high density areas was undertaken on a seasonal basis (i.e. separate analyses based on data collected during the winter months (defined as October to March) and summer months (April to September) over the 18-year period). These areas are not used exclusively. The harbour porpoise is a highly mobile species that is ubiquitous throughout the European continental shelf in all seasons. No assumptions can (or will) be made that porpoises are using the seasonal elements of the sites exclusively during that given season. It is expected that the sites will be used throughout the year, but with a higher relative importance during the identified season. The pSACs proposed represent the most important areas in UK waters used over several harbour porpoise generations for the two seasons.

If a seasonal approach to management is taken, this may mean that there is no additional management required if undertaking an operation in the season for which that part of the site was not identified as holding persistently high densities. i.e. if undertaking an operation in summer when the area is identified as important in winter. However, this would be further developed in the management guidance papers for the sites. Although the seasonal component may be a consideration in developing management measures, advice is still being developed and relevant stakeholders can contribute to ongoing discussions.

Whilst numbers at a small local scale may not show any significant difference between seasons, at the broader scale of the Management Unit, different areas are relatively more important to the species at some times of the year than others. The analysis of Heinänen and Skov (2015) incorporated large-scale data from 18 years for which seasonality within the sites was identified. The data were grouped into a summer and winter season. The data did not support finer scale definitions of seasons, and they are similar to the months used to define seasons in other UK studies (e.g. Booth, 2010; Paxton et al. 2016). More data were, and generally are, collected during summer, although sufficient amounts of data were collected in the North Sea and the Celtic and Irish Seas Management Units during winter. It is common practise to divide datasets into seasons; this is also the case for studies related to harbour porpoise distribution. Multiple studies have looked at harbour porpoise distribution patterns across seasons and, although these were split into four seasons where data allowed (Spring: March – May; Summer: June – August; Autumn: September – November; Winter: December – February), differences were found to be particularly clear between the winter and summer season (Gilles et al. 2009; Gilles et al. 2016; Sveegard et al. 2011). The variables, such as current speed, eddy activity and temperature, included in the Heinänen and Skov (2015) model also differ between summer and winter and gives further justification for the seasonal split.

5.12 Sufficiency - Sufficiency targets

Concern was raised stating that the sufficiency targets of 20% abundance of UK MU population in SACs have not been met. The North Sea MU falls short with 18% and the Celtic and Irish Seas MU is well below at 14%. Overall, for the two MUs, the coverage is only 16%. These sites alone should not be considered adequate to meet the requirements of the Habitats Directive and may therefore not be considered sufficient by the European Commission. It is unclear how the Commission has considered sufficiency for other Member States.

Given the shortfalls, the possibility of enlarging the sites selected should be considered. Suggested changes were

- Enlargement of the sites within the Celtic and Irish Seas Management Unit or identifying a potential further site in South West English waters in the future.
- Upgrade the grade D Harbour Porpoise non-qualifying features of the North Norfolk Sandbanks and Saturn Reef SAC, and the Haisborough, Hammond and Winterton SCI and create smaller discrete pSACs, or sub-sites proposed to improve the sufficiency within the North Sea MU.

The sufficiency figures [for abundance] are based on SCANS-II survey figures from 2005, collected during the summer season, and assuming uniform density across the UK marine area within 200m depth. These figures are therefore likely to be underestimates of the site-based populations, given that these areas by their very identification have been shown to have higher densities than the waters around them. We would like to point out that following the change in possible Scottish SACs and updated JNCC sufficiency estimates, the revised percentage of harbour porpoise population protected under SACs in the Celtic and Irish Seas Management Unit has fallen from 23% to 14%. This is well below the minimum 20% threshold. We ask that further work be taken to identify measures whereby the percentage of feature population in the North Sea and Celtic and Irish Seas Management Units covered by SACs is increased.

Response: The analyses were a rigorous process completed by the contractors using all suitable data available at the time the work was carried out. The analysis incorporated a large-scale dataset over 18 years and identified areas with persistently higher densities of porpoises over time. Assessments of sufficiency are conducted intermittently by the European Topic Centre during Biogeographical Seminars, but also annually using the Natura 2000 database. No precise targets have been provided for ‘sufficiency’,

but UK's CNCB Chief Scientist Group proposed its own 'targets' based on principles expressed at the Marine Natura 2000 Seminar for the Atlantic Sea Region held in Galway in 2009 and on available information from other Member States. The UK therefore proposed that sites derived from Areas of Search should aim to cover 10-14% of the available habitat (water depths 200m or less) and 20% of the population abundance within the national part of each MU. It is also not clear whether sufficiency for mobile species, as interpreted by the European Commission, is based on the amount of 'habitat for the species' or the 'abundance of the species' within the network; for this reason CNCBs presented calculations based on both. It should be noted that although the sufficiency of the sites fall short for targets based on abundance, they do not for habitat. Once the pSACs are submitted to the Commission, there follows a moderation process involving the EC and the Member State to decide whether or not the network of UK pSACs is sufficient for harbour porpoise under the Habitats Directive.

To consider inclusion of other specific areas (including those listed), we would need published evidence of the importance of these areas in relation to neighbouring areas at a larger scale. The outputs of Heinänen and Skov (2015) do not provide evidence for defining these areas; identification of sites must be supported by robust evidence.

The site-based population was calculated for grading and sufficiency calculation purposes and is a nominal estimate only. The SCANS-II strata with their associated abundance estimates were used to determine the abundance of harbour porpoise within the sites as these are currently the only source of robust abundance estimates. The shortcomings in using the SCANS estimates for site abundance are recognised in the Selection Assessment Documents for each site. However, it also needs to be recognised that the abundance of harbour porpoise within the sites varies at any point in time because they are mobile. The abundance estimates derived for a site will depend on when the survey was undertaken and repeat surveys through time will generate varying abundance estimates.

We accept that it is likely that the estimates of abundances within the sites will be biased downwards, but this in fact means that the actual abundances will be closer to or above the abundance thresholds set internally in the UK for site sufficiency.

5.2.7 Draft Impact Assessment

6.1 Impact Assessment - Inclusion of benefits in the Draft IA and Evidence Base
The Impact Assessment reflects the costs of designating sites, particularly the need for site monitoring, Habitat Regulations Assessment of plans and projects, and the possibility of mitigation to reduce various human impacts on the species. However, the cost/benefit analysis was considered too dismissive of the potential benefits the sites could bring and are not comparable (i.e. numeric for costs and descriptive for benefits). There are a range of methodologies available for calculating the monetary benefits associated with for example marine tourism and recreational activities (e.g. as applied in the 'Wales Activity Mapping: Economic Valuation of Marine Recreation Activity'4 project commissioned by Welsh Government). Whilst an attempt to monetise the benefits was made by the consultants, these do not appear to have been included within Defra's draft Socio-Economic Impact Assessment. The assessment of benefits appears to be predicated on the idea that harbour porpoise would not be protected if the sites were not designated.

Response: Harbour porpoise is already protected throughout UK (and European waters) as a European Protected Species listed on Annex IV of the Habitats Directive. This strict protection occurs throughout the harbour porpoise range, whether the animal is within a protected site or not. This level of protection is the major pillar in maintaining FCS for harbour porpoise. The designation of sites adds a further pillar of protection in the form of conservation measures for the habitat of the species within the sites. Management of these sites will ensure that they contribute to maintaining FCS.

Impact Assessments (IAs) are a requirement of the UK Governments. The structure is developed by Governments and requires consideration of a range of policy options including a baseline/do nothing and

an implementation option as a minimum. These are presented in the draft IA. For the evidence base, however, three levels of management scenario were considered: lower (baseline/no additional management), intermediate (most likely way in which management is expected to develop) and upper (extremely high level of management). The draft IA for the proposed harbour porpoise SACs is a key document primarily intended to inform stakeholders about how the proposals may impact them, and to ensure that Ministers are made aware of the potential implications of any decisions to designate the sites. It is extremely challenging to identify and quantify non-tangible benefits, particularly in the offshore environment, that designation might bring over and above the existing wider measures for harbour porpoise conservation, especially when these are likely to reflect changes in non-use values over time. There would also be a need to distinguish between benefits of the sites purely for harbour porpoise, rather than the benefits regarding all marine mammals. One respondent referred to the '*Wales Activity Mapping: Economic Valuation of Marine Recreation Activity'* report as providing an example of how the monetary benefits associated with tourism and recreation could be calculated. Unfortunately, this example does not consider how the benefits change over time which was an essential element of the work required from ABPmer. Given the paucity of the information available a more qualitative approach was necessary.

6.2 Impact Assessment - Baseline scenario
We question the assumption within the impact assessment that the baseline scenario would be unchanged into the future without designation. We believe therefore that the impact assessment should assume a deteriorating environmental baseline without designation, which further increases the benefits of designation.

Response: Harbour porpoise are already protected throughout their range with measures in place to protect them from incidental killing and capture (e.g. bycatch) and disturbance (e.g. associated with industrial developments). This is recognised in the baseline scenario and provides the threshold against which the cost benefit of the additional designation is measured. Impact assessments use a standard approach, and using a deteriorating environmental baseline would need to be evidence-based and without such evidence, would be misleading.

6.3 Impact Assessment - General – evidence based approach to management
We support evidence based management of European Marine Sites, which does not imply we advocate the blanket exclusion of all activities. However, activities must be considered in the light of the conservation objectives and their management changed if necessary. This is in line with the precautionary approach embodied within the Habitats Directive. The wording of the preferred option as outlined in the consultation Impact Assessment; "designation that enable activities to continue at minimum costs and with site management options only when necessary", we feel, turns this approach on its head and risks not ensuring that the designated features achieve and/or maintain Favourable Conservation Status.

Response: There are no SACs within UK waters where a blanket ban on activities has been imposed. Management of the pSACs will take a risk-based approach, focusing on human activities that pose the greatest risk to achievement of the Conservation Objectives and will utilise the most appropriate mitigation measures. This is what is meant by the phrase '*designation that enable activities to continue at minimum costs and with site management options only when necessary'*. For activities that pose little risk, there will be no management measures imposed. For each pSAC, the costs and benefits of designation were compared against a counterfactual of what would happen in the absence of the designations (e.g. the wider conservation measures for harbour porpoise remain in place with no additional SAC designation). These pSACs would add a new feature to be considered by a number of existing management arrangements (e.g. the Habitats Regulations Assessment process and fisheries management) rather than creating new frameworks for management. The evidence base (particularly appendices E and G) provides a detailed description of this approach. The CNCBs are already working with Regulators and industry to determine effective and pragmatic approaches for management and mitigation within the pSACs for activities that may pose a risk to achievement of the conservation objectives of the site.

6.4 Impact Assessment - General – evidence based approach to management
We do not agree with anthropogenic underwater sound only posing a medium risk. The mentioned impacts do not include displacement or any cumulative effects. Also, these impacts should be assessed at site level, not at a UK level. We also disagree with the assessment of medium/low for tidal energy installations. This should be unknown, as there are currently no devices in harbour porpoise habitat, so this cannot be assessed. Commercial fishing methods should be subject to an assessment to determine their environmental impact on these proposed harbour porpoise SACs to ensure the appropriate management measures are put in place to protect the sites. The assessment that noise is mediated by animals' individual behaviour is not an adequate mitigation measure within the pSAC. Dredging and disposal are considered to pose a low risk and management is unlikely to be required. We disagree with this statement. There is not enough information to make an informed decision on management. Impacts are likely to be localised, but may be problematic in-combination. We agree that seismic surveys require an EPS license and that management needs to extend to beyond site boundaries for impacts within the site. We request a detailed review of military activities within the vicinity of the pSAC, including in-combination impacts. There needs to be consideration of in-combination impacts. IAMMWG, Camphuysen & Siemensma (2015) state 'It should be noted that the cumulative effect of any combination of these pressures may result in more deleterious consequences than any single pressure in isolation'.

Response: The conservation literature review (IAMMWG et al., 2015), which was part of the supporting documentation for the public consultation, clearly outlined all available evidence for different anthropogenic pressures that harbour porpoise may experience. This included an assessment of available evidence of the effects of the pressures and a review of effective mitigation methods. This assessment aligns closely with that undertaken by an ICES expert group for harbour porpoise within each ICES regional sea (ICES 2015). Management of the pSACs will take a risk-based approach, focusing initially on human activities that pose the greatest risk to achievement of the conservation objectives and utilise the most appropriate mitigation measures. The management of fisheries utilising static nets has been identified as a priority, with any additional site based management taken forward through the current fisheries management frameworks. The Evidence Base clearly outlines proposed noise mitigation measures that could be considered under three different management scenarios. These were:

Table 2: Impact Assessment Management Scenarios

Lower scenario	***Intermediate scenario***	***Upper scenario***
No further management within site boundaries	Reduce or limit the pressure i.e. employing spatio-temporal conditions to piling or reducing the sound levels at source within site boundaries	Remove or avoid this pressure, i.e. prohibit the use of pile driving within a suitable buffer zone of site.

None of these are considered by the CNCBs to represent a mitigation measure that is '*mediated by animals' individual behaviour*'. Based on current evidence, the impact of aggregate and other dredging on harbour porpoise is considered to be low.

All military activities adhere to the EPS guidance to avoid harm and disturbance of cetaceans with mitigation following a 'plan, look, listen, act' process which involves the use of dedicated visual and PAM monitoring around the source immediately prior to transmission to determine whether cetaceans are present in the area. As part of its Marine Environment and Sustainability Assessment Tool (MESAT), the Royal Navy has produced an interactive military layer for use on its electronic charts to provide advice on the suitability of military activities in the vicinity of designated marine protected areas across the UK's marine area. The Royal Navy uses a computerised modelling and risk assessment tool to guide ship commanders on the minimisation of the environmental impacts from use of active sonar. The science which goes into the sonar risk assessment tool and that which UK Regulators are utilising to underpin their guidance and advice is independently reviewed to ensure that the risk assessment process for military activities remains valid and capable of meeting regulatory requirements. In summary, management decisions have to be made based on the available evidence and utilising a risk-based approach.

Consideration of the cumulative effects of activities is in the developmental stage and includes modelling approaches such as iPCoD (interim Population Consequences of Disturbance model) and DEPONS (disturbance effects on the harbour porpoise population in the North Sea model (http://depons.au.dk/). These models need further improvement (currently being progressed) and evaluation before they can be used in a robust exploration of the potential cumulative effects at the population level from activities such as the pile driving and geophysical surveys. In addition, the UK Noise Registry (http://jncc.defra.gov.uk/page-7070) will also help assess the cumulative impact of activities generating impulsive noise. There is also an intergovernmental initiative (Intergovernmental Offshore Wind Forum) to develop a common assessment framework for the effects of offshore wind on marine mammals and birds between different countries, which will also be addressing cumulative effects.

6.5 Impact Assessment - Costs to public sector
The impact on the public sector, particularly in terms of preparing Marine Management Schemes and implementing management schemes, has been stated as zero, however this is not correct. There will be costs to the public sector, particularly local authorities, associated with these requirements.

Response: We consider that it is unlikely that specific new management schemes will need to be developed for any of the proposed SACs. For some sites which substantially overlap existing European marine sites, it may be possible to integrate the management of the site within existing management schemes, but we consider that the administrative costs of doing so would be very small, which is why they have been valued at £0. The draft IA does identify substantial potential costs to the public sector associated with preparation of new regulations/statutory instruments, monitoring and survey, and additional regulatory and advisory costs including in relation to Habitats Regulations Assessments.

6.6 Impact Assessment - Fisheries/pingers
Most costs under the intermediate (preferred) scenario are associated with applying mitigation measures on bottom-set gillnets for boats under 12m in length. Due to lack of knowledge related to the number of possibly affected vessels and the lengths of nets used, there is a high degree of uncertainty and speculation in these assessments. There are no costs are associated with fisheries management under the intermediate scenario, and no predicted reduction in effort of set nets unless more restrictive measures are taken. The upper scenario is based on prohibiting static nets and reducing trawling effort by 10%. In the case of reducing trawling effort, we are not aware yet of such a management measure being applied to an MPA and therefore this would raise questions over whether such an approach would be considered to be a viable proposition.

Response: Management measures within the site should ensure site integrity is maintained. No decisions have been made with regard to future site based management, but we are required to use three potential scenarios in the Evidence Base. The future management of the pSACs will take a risk-based approach to management, focusing on the human activities that pose the greatest risk to the Conservation Objectives in the individual site.

Impact Assessments try to predict future impacts based on assumptions and are therefore inherently uncertain. However, information on the costs for compliance and enforcements is given in the Evidence Base for the draft IA (e.g. see Appendices E and G). Due to the framework for fisheries management, a reduction in set net fishing effort within the pSACs was not considered a feasible option under the intermediate management scenario.

The upper management scenario was included in the Evidence Base because some stakeholders had already proposed this level of management be applied to the proposed sites (e.g. see Dolman et al, 2015). As such the CNCBs felt these should be considered but also recognise that such management scenarios have never been applied to any MPAs in UK waters. A ban on static net fishing would require very strong evidence of risk to the conservation objectives of the site. This is particularly important as such a ban may itself have adverse conservation impacts. The banning of static net use within sites will likely lead to

displacement of fisheries to other areas, which could lead to increased overall bycatch of harbour porpoise because greater fishing effort (e.g. longer nets or soak times) might be used to compensate for displacement into grounds with lower catch per unit effort of target species. Management within sites needs to take account of the overall effects on Favourable Conservation Status.

6.7 Impact Assessment - Offshore wind
The socio-economic assessment appears to significantly under-estimate the potential cost and impact on consented projects attempting to secure funding and financial close in tight timeframes and fails to address the possible costs to the offshore wind industry of potential management measures. It is based on an assumption of an offshore wind farm programme delivering (only) two to three projects with driven piling in the Southern North Sea pSAC per year within the next five years.

Response: The costs outlined in the Evidence Base recognise the uncertainty in cost impacts and clearly state the assumptions on which the estimates have been made. At the time the assessment was made there was significant uncertainty on the timing and scale of the developments. Where appropriate, these have been updated with the additional information received during the consultation process (e.g. see tables 5.2 and 5.4 of appendix B to the Evidence Base).

The assumption that the offshore wind farm programme will deliver two to three projects with driven piling in the Southern North Sea pSAC per year within the next five years is based on evidence of activity to date. In the absence of other information on which to base the Impact Assessment, this was considered the best available evidence to inform the IA.

6.8 Impact Assessment - Offshore wind
The Impact Assessment Evidence Base significantly underestimates the potential costs of the proposed designation to the offshore wind industry. There is a lack of clarity on which of the measures presented in the scenarios will be adopted. Until these measures have been decided the uncertainty may discourage investors, or cause project delays. The costs associated with a review of consents, HRAs for new developments should have been included whilst the use of mitigation measures for geophysical surveys should not be considered. The Evidence Base does not adequately consider the potential cost resulting from the uncertainty and delay. Some of the project status information presented in the Evidence Base was inaccurate. In addition, the IA Evidence Base assumes a 20 year operational life for offshore wind developments, while typical design life is 20-30 years (and a Crown Estate lease extends to 50 years): a 25 year operational life would therefore be more appropriate, with consideration given to decommissioning.

Response: It is not the purpose of the Impact Assessment to prescribe future management of the proposed sites. Impact Assessments try to predict future impacts based on assumptions and are therefore inherently uncertain. Such assessments are a requirement of Government and the structure developed requires consideration of the implication of three levels of management scenarios for proposed sites: lower, intermediate and upper. These management scenarios indicate a range of scenarios as to how management might develop purely for the purposes of providing a range of possible regulatory impact scenarios. No decisions have been made with regard to future site based management.

As a result of the information received during the consultation the Evidence Base has been updated. Specifically, tables B.5.2 and B.5.4 in Appendix B regarding East Anglia ONE, ONE North, TWO and THREE, and included Norfolk Vanguard and Boreas. This resulted in a small increase in total quantified costs under all scenarios due to inclusion of additional projects. However, there was a negligible change in terms of total cost impact to the offshore renewables sector. Because Impact Assessments are conducted over 20 years as standard practice, no consideration was given to decommissioning issues as this is expected to occur beyond the timeframe of the assessment.

The HRA for new developments and the costs associated with a review of consents have been considered under each scenario and are costed for each site (see appendix G of the Evidence Base). The socio-economic assessment includes the costs for *reducing sound levels at source* which were provided by

developers and the costs for geophysical surveys have been estimated based on evidence received from a survey company.

The CNCB understanding is that the renewables industry predominantly use sub-bottom profilers (e.g. pingers, sparkers, chirpers, and boomers) for their work rather than the larger seismic airgun arrays.

Sub-bottom profilers are used by oil and gas industry and by the renewables industry in similar ways. They are usually hull mounted or towed at different depths and are used for, shallow geological surveys, hazard surveys (such as for shallow gas), buried pipe location, bridge/piling scour survey, etc. As an example, the sound pressure level (SPL) reported for several of sub-bottom profilers to be used in a renewables industry related geophysical survey was 214 and 222 (Db re 1Pa-peak@1m) respectively and other examples from oil and gas related surveys ranged from 206-225 (Db re 1Pa-peak@1m), so the noise output is similar. Sub-bottom profilers are considered to have a more focussed narrow sound beam than airguns, which is recognised in the management scenarios. As there is no apparent difference in the equipment being used, the CNCBs have assumed for the purposes of this assessment that management measures are applied consistently regardless of the industry using them. Should these sites be designated we would anticipate further dialogue between industry and regulators on the development of management measures, and we hope that that would include improving our understanding of any differences in the detailed techniques and equipment used by different offshore sectors.

6.9 Impact Assessment - Offshore wind
The IA does not consider implications in terms of reductions in carbon dioxide emissions. Offshore renewables play a key role in contributing to the reduction of carbon dioxide emissions in the UK, and any scenario which implies a reduction in the deployment potential of these technologies should consider the increase in carbon dioxide emissions (and related climate change costs) associated with the deployment of alternative sources of energy.

Response: There may be additional costs required to meet carbon dioxide targets through alternative renewable energy sources. It would require a disproportionate effort to calculate these costs within this assessment but it is noted here as a possible additional impact.

6.10 Impact Assessment - Offshore wind
All proposed or current projects within the pSACs have already under gone rigorous EIA and HRA assessments, as well as review and examination by the planning inspectorate. The potential implications on the North Sea harbour porpoise population (by merit of their Annex II status) have already been considered (or will be considered) in determining the consents awarded. A conclusion of no adverse effect on the harbour porpoise population at the Management Unit level has been reached. The offshore renewables sector is also under pressure from government to deliver cost reduction, resulting in highly competitive bidding for contracts and tightening budgets. It is therefore of fundamental importance that management measures are both appropriate and proportionate. Appropriate measures should allow achievement of the conservation objectives of the site, but also not hinder development aspirations, thus taking into account the need for sustainable development.

Response: While the impact of any development on harbour porpoise will have already been considered as an Annex IV species (i.e. as European Protected Species) for the purposes of EPS licensing, Habitats Regulation Assessments (HRAs) have not been carried out for harbour porpoises in UK sites (except for the site off Northern Ireland). HRAs for harbour porpoise are now required for the proposed SACs in UK waters. Consequently, whilst HRAs have been conducted in relation to existing European sites (SACs and SPAs), prior to 19 January 2016 these assessments did not include the UK harbour porpoise pSACs. Past HRAs have included the harbour porpoise SACs in the waters of other Member States where activities in UK waters have a potential to affect site integrity.

Although the two assessment processes are different, the fact that harbour porpoise are already an EPS means that the additional regulatory impact of the proposed SACs is likely be less than if harbour porpoises

were not EPS. Management of the pSACs will take a risk-based approach, focusing on human activities that pose the greatest risk to achievement of the conservation objectives and utilise the most appropriate mitigation measures. These proposed SACs would add a new feature to be considered by a number of existing management arrangements (e.g. the HRA process and EPS licensing) rather than creating entirely new management and regulatory processes to be carried out. The CNCBs are working with Regulators and industry to determine effective and pragmatic approaches for management and mitigation in order to achieve sustainable development whilst meeting the UK's environmental commitments.

6.11 Impact Assessment - Offshore wind
We also question why the predicted costs of technical mitigation for the offshore wind sector are minor. This, along with references to measuring impacts against the Management Unit population level, rather than at a site level, leads us to believe that management of the site is likely to be light touch. We believe that some form of technical mitigation for noisy activities will realistically be required to keep noise levels below those associated with significant behavioural disturbance and to ensure site integrity is not adversely affected.

Response: The development of management measures for the proposed SACs was not the subject of the consultation, even though the consultation on the draft IA does necessitate making some assumptions about future management and identifying potential management scenarios. The Evidence Base for the IA outlines proposed noise mitigation frameworks that could be considered under three different management scenarios (see Table 2). These scenarios cover a range of minor to significant technical mitigation measures. The CNCBs are working with Regulators and the industry to assess effective and pragmatic approaches for management and mitigation that will enable site integrity and harbour porpoise favourable conservation status to be maintained.

6.12 Impact Assessment - Water and sewerage
The Socio-Economic Impact Assessment Evidence Base does not identify the sewerage sector amongst those that might face potential costs. We assume that the designations now being proposed will not trigger a new Review of Consents exercise nor, in particular, a tightening of any of the permits that apply to our coastal discharges. Request for NRW to formally confirm this position as soon as possible.

Response: Under the Habitats Regulations, if the proposed sites were to be formally submitted to the European Commission as candidate SACs, they would become European sites, and Regulation 63 of the Habitats Regulations would take effect. Under Regulation 63, if a consent issued before the date on which a site becomes a European site is considered likely to have a significant effect on the site, the competent authority concerned must review that consent as soon as reasonably practicable. However, the risk to harbour porpoises posed by existing sewage disposal is considered to be low (in relation to nutrient and organic enrichment and introduction of pathogens), because of the existing controls and standards already applied to most discharge consents. NRW consider it very unlikely that any current sewage discharges in Wales would be considered likely to have a significant effect on any of the proposed harbour porpoise SACs and consequently it is very unlikely that there would be a requirement for an appropriate assessment of their implications for harbour porpoises, or any modifications

6.13 Impact Assessment - Aggregate dredging
There is some ambiguity regarding potential requirement for mitigation and statements made in the draft conservation objectives and advice on activities package and the impact assessment (IA). The draft advice on operations states: "Aggregate extraction can cause disturbance leading to physical and acoustic behavioural changes. However, the risk is considered relatively low and additional management is unlikely to be required." The IA states: "The impacts [costs] are associated with…and the costs of mitigation measures to reduce or limit the impacts of geophysical surveys within site boundaries." We would welcome clarity on which statement is considered to represent statutory advice, as there are significant costs associated to the position outlined in the IA. We are assuming the former statement given that it is not believe that marine aggregate operations will have to consider mitigating

sound emissions whilst conducting sub-bottom profiling surveys and employing multi-beam echo sounders. Clarity would be welcomed here.

Response: The Conservation Objectives and Advice on Activities documents published as part of the consultation are a draft of what will in due course be developed into the CNCBs statutory advice under the Habitats Regulations. The Evidence Base is an attempt to quantify the possible social and economic impacts of the proposed SACs. In the Evidence Base, the sentence quoted by the respondent is immediately preceded by:

> "*For marine aggregates, the potential cost impacts associated with the designation of the five pSACs are relatively minor when compared to annual turnover and thus are unlikely to be significant in their own right or in combination with other initiatives*."

The Evidence Base does identify some small cost impact on the aggregates sector, and hence then describes how those costs are likely to arise. To be more explicit, the estimated cost impact on the marine aggregates sector of £142,000 over 20 years (under the intermediate scenario). This represents a tiny proportion of the industry's likely total turnover for the next 20 years.

We do not believe that these two documents are contradictory; rather that the Evidence Base is much more detailed and includes quantification of (minor) potential cost to the industry of the designation. However, we acknowledge the need for consistency and we will ensure that our formal advice on conservation objectives and operations makes clear that *significant* additional management is considered unlikely to be required, rather than that *no* additional management is likely to be required.

6.14 Impact Assessment - Aggregate dredging

We would challenge whether these costs are wholly realistic and representative, given they should encompass not only the production of HRAs and Review of Consent (RoC) assessments, but should also capture additional costs of using marine mammal observers and 'soft start' procedures to mitigate potential adverse effects from acoustic surveys for 20 years across approximately 36 marine aggregate areas. We consider it likely, based on the statement in the IA that marine aggregate operators will have to consider mitigating sound emissions whilst conducting sub-bottom profiling surveys and employing multi-beam echo sounders (MBES).

Response: The CNCB understanding is that the aggregates industry predominantly uses sub-bottom profilers (e.g. pingers, sparkers, chirpers, and boomers) for their work rather than the larger seismic airgun arrays. Our advice for the use of sub-bottom profilers for the oil and gas industry has been to use a single non-dedicated observer. It is not possible to initiate a soft start with such gear.

As there is no apparent difference in the equipment being used, the CNCBs have assumed for the purposes of the IA that management measures are applied consistently regardless of the industry using them. Should these sites be designated we would anticipate further dialogue between industry and regulators on the development of management measures, and we hope that that would include improving our understanding of any differences in the detailed techniques and equipment used by different offshore sectors.

6.15 Impact Assessment - Aggregate dredging

No current mention of pressures relating to impacts on habitats (e.g. through aggregate dredging) which support prey species. Is this likely to become a factor at some point, as this will potentially have large implications for management?

Response: Relative footprint of current aggregate activity is small and, therefore, considered low risk to harbour porpoises. Based on current evidence, the impact of aggregate dredging on the prey resource of harbour porpoise is also considered unlikely to have a significant negative impact on the species at this time. Future developments will be assessed when they are proposed.

6.16 Impact Assessment - Coastal Management/protection

The 26km pile driving limit is very high. This would affect many harbour construction activities. Whilst recognising the need for an extended assessment area, it should be appropriate to each situation and not defined as a single distance from the boundary.

The consultation documents do not consider the impact the designation will have on the operations for coastal management/protection operations or provide clear advice on such activities. Coastal management operations include day to day small scale maintenance and small scale projects alongside large projects where required. Such schemes should be excepted and outside the scope of consideration with regards to impacts to the proposed SAC. Therefore, an exemption should be made. Larger qualifying schemes outside of maintenance works already requires Marine Licenses below high water springs, therefore further consideration for management should not be necessary.

Response: There is little evidence describing the effects of coastal management/protection works on harbour porpoises. Monitoring of large harbour developments in Scotland has shown that there is local displacement of porpoise and bottlenose dolphins during construction activities. Where pile driving is used, similar effects can be expected to those observed for the same activities by other sectors. Previous studies have demonstrated that complete displacement of harbour porpoises occurring within an area equivalent to a radius of 26km during piling operations (the actual effects decline with distance from the site of operations) (Cartensen et al. 2006; Tougaard et al., 2009, 2014; ICES, 2010; Brandt et al. 2011; Dahne et al 2013). The CNCBs acknowledge that consideration of pile driving for coastal management/protection was not explicit within the Evidence Base, but that the pile driving for coastal management/protection often utilises much smaller piles than those used for offshore developments. The potential for any plan or project to affect SACs needs to be considered within a HRA. It may be that many smaller operations can be screened out from detailed assessment on the grounds that they are not likely to have a significant effect, but it would not be possible at present to exempt entire categories of operations from at least initial consideration under the Habitats Regulations. If mitigation is required, there are a range of options available, the suitability of which depends on the size of the pile and location of the piling operation. The CNCBs are working with Regulators and industry to determine effective and pragmatic approaches for management and mitigation.

The CNCBs will ensure that when the Conservation Objectives and Advice on Activities documents are formally issued, explicit reference to coastal management/protection work will be made where appropriate.

6.17 Impact Assessment – Oil and gas

It is unclear of the direct route to calculating the monetary values and the assigning of impact levels for the management measures. Potential management measures could have significant financial implications if they aim to curtail or limit activities to certain periods of time, in which we would perhaps see significant consequences. For example, activities such as seismic surveys can be weather dependent and may then be limited to certain times of the year or activities utilising heavy lift vessels are weather dependent and therefore can only be conducted in the summer weather window. Will industry get the opportunity to review proposed Management measures prior to the sites being designated? We are also interested as to when the DECC Strategic HRA will be available. Whilst we appreciate that the boundary applies to areas within 26 km (for certain activities), the proximity of the pSAC, although relatively distant to licensed blocks, may impact on the ability to perform Seismic Surveys in this area. We would like more information on what would be acceptable mitigations in these circumstances.

Response: The methodology for calculating the costs of the scenarios are given in the Evidence Base. The assumptions are stated in Appendices B and C and calculations are shown in the individual site assessments (Appendix G). DECC (now BEIS) will be able to advise on when the Strategic HRA will become available.

There is no provision for preparation and consultation over proposed management measures prior to decisions being made on whether the sites should be formally submitted to European Commission as candidate SACs. However, in practice there can be a long period between cSAC submission and final

designation as an SAC. During that period it is expected that Regulators, industry and other stakeholders would work together to develop management measures that meet requirements of the Habitats Directive in the most cost effective way for all concerned.

6.18 Impact Assessment – Oil and Gas
The impact assessment states "quantified impacts on operating costs for…oil and gas in relation to pSAC designations are assessed as being minor relative to annual turnover", whilst the quantified costs are relatively low, the potential costs due to the proposed management measures could have an impact on future investment decisions. Further detail on the management measures (other than general measures considered "most likely") would allow estimation of effort and time required to meet any new requirements. It is recommended that the impact assessment is revisited following designation and the introduction of management measures.

Response: It is not the purpose of the Impact Assessment to outline future management of the proposed sites and there is no current requirement to revisit the Impact Assessment following site designation. Impact Assessments try to predict future impacts based on assumptions and are therefore inherently uncertain. It is hoped that the scenarios used are representative, although no decisions have been made with regard to future site based management. The future management of the pSACs will take a risk-based approach, focusing on the human activities that pose the greatest risk to achieving the conservation objectives and maintaining site integrity, with utilisation of the most appropriate mitigation measures. The CNCBs are working with Regulators and industry to identify effective and pragmatic approaches for management and mitigation. There may be further appraisals of the regulatory impact of the management measures for the sites in relation to particular sectors, but this is separate to the process of finalising the draft IA prepared for the purposes of this consultation.

6.19 Impact Assessment – Oil and Gas
We do not agree with the comment that 'seismic surveys are likely to require an EPS licence'. In our experience as the Regulator for such surveys (oil and gas), an EPS is generally unlikely for a seismic survey and indeed, this section does not clarify that there is a significant variation in the types of seismic surveys undertaken which has a bearing on whether an EPS would be a consideration at all.

Response: It is unclear where the respondent has obtained this apparent quote from. It does not appear in the Evidence Base, the draft IA or the Q&A published for the consultation. There appears to have been a misunderstanding regarding the information provided as part of the consultation on seismic surveys and the need for EPS licensing or HRA. The CNCBs agree that seismic surveys are in most cases unlikely to require an EPS licence. During 2015, EPS licences were recommended only for 2 large surveys occurring on the UK continental shelf and similarly in 2016 there have been recommendations for two EPS licences associated with very large seismic surveys. In contrast, however, HRA may be required for some surveys occurring within the vicinity of the pSACs. The CNCBs note that in addition to the current mitigation measures applicable throughout UK waters, enhanced mitigation within the pSAC may require the use of passive acoustic monitoring (PAM) on all surveys regardless of the time (day or night) or season (summer or winter) if deemed appropriate. As part of the current licensing procedure, use of the JNCC Guidelines for minimising the risk of injury and disturbance to marine mammals from seismic surveys is required. (see http://jncc.defra.gov.uk/pdf/JNCC_Guidelines_Seismic%20Guidelines_Aug%202010.pdf).

6.20 Impact Assessment - Thermal Power
We note that there is no explicit mention of the thermal power sector in the impact assessment which we assume is recognition of the limited impact of our sector on harbour porpoise. One potential impact of the designation on our sector is via the suggestion that all piling within 26km of the pSAC boundary should require a HRA. We do not agree with the evidence used to estimate the potential impact on the ports and harbours sector which are likely to also impact on thermal power plant. Low costs appear to have been estimated because it is assumed that existing projects will not require review and work can be phased to avoid impacts. The draft objectives for the SAC will required an HRA for all percussive piling operations no matter the scale. This could be a significant cost to smaller projects such as maintenance work.

Response: As noted by this respondent, the impact of the thermal power sector on harbour porpoise is considered to be low. The CNCBs are, however, aware that construction (including 'maintenance construction') work may require the use of pile driving. The CNCBs recognise that such work would likely utilise much smaller piles than those used in offshore construction developments. We agree that the potential for any plan or project to affect SACs needs to be considered. It may be that many smaller operations can be screened out from detailed assessment on the grounds that they are not likely to have a significant effect. If mitigation is required, there are a range of options available, the suitability of which depends on the size of the pile and location of the piling operation. One such mitigation is to manage the timing of activities such that significant impact on harbour porpoise is avoided with minimal additional cost. The Evidence Base (Appendix B, page B108) also notes, however, that there is considerable uncertainty around this assumption and that if noise reduction measures are required, then costs may rise. The CNCBs are working with Regulators and industry to determine effective and pragmatic approaches for management and mitigation.

6.21 Impact Assessment - Wet renewables
The cost of management measures for the wet renewable sector have been underestimated based on our interpretation of the management measures cited and our knowledge of the number of potential projects that may come forward. No specific consideration of wave energy devices/sector is presented. Therefore, it is impossible to assess the scale of effect/cost. The costs encompass not only the production of HRAs and RoC assessments, but should also capture additional costs of using marine mammal observers and 'soft start' procedures to mitigate potential adverse effects from acoustic surveys, and installation related pile driving for a 20-year period.

Response: The offshore renewals sector is rapidly developing and this has required assumptions to be made in the Evidence Base. The assessment of impacts within this sector comes from the scale and nature of potential future development which is very uncertain. The Evidence Base focuses on known costs and does not speculate about costs associated with potential development. The assessment presented is based on ABPmer's best estimate (from their considerable knowledge of this sector) of the likely scale of development over the next 2 decades. This is inherently uncertain, and therefore it is possible that if the speed and number of proposed developments coming forward accelerates, the costs presented in the Evidence Base could be an underestimate. Equally, they could be an overestimate if the development of the industry is less rapid.

The methodology for calculating the costs of the scenarios presented in the Evidence Base are provided in section 3.2.5.2 and appendices B, D and G specifically for wet renewables. This includes the use of marine mammal observers and 'soft start' procedures where appropriate. Harbour porpoise are a European Protected Species (EPS) and therefore receive protection throughout their range from disturbance regardless of the presence of an SAC. It has been assumed that use of the Welsh collision risk management measures would already have been required under EPS licensing and therefore would not incur an additional cost in relation to the proposed designation of these sites.

6.22 Impact Assessment - Shipping
The draft Socio Economic Impact Assessment does not include reference to the impact on shipping.

Response: Shipping was not included within the Impact Assessment because the designation of SACs for harbour porpoise is not expected to have any impact on shipping and its management, noting that ports and harbours are considered separately. The Marine Management Organisation (MMO) has mapped UK shipping activity and routes from Automatic Identification System (AIS) data (MMO, 2014). Whilst there are some seasonal differences in inshore areas related to increased recreational seasonal use and a greater occurrence of offshore support work in the summer periods, the pattern largely remains static with very little variation in the use of the main shipping routes.

There is a known negative link between the distribution of harbour porpoise and high density shipping (Skov et al., 2014), but nevertheless modelling indicated that part of the major shipping lane in the Southern North Sea should be included within the Southern North Sea pSAC.

5.3 Site specific comments

5.3.1 Bristol Channel Approaches / Dynesfeydd Môr Hafren pSAC

7.1 Process – Data: Further Data to Include
Several stakeholders proposed to extend the Bristol Channel Approaches pSAC eastwards to include the researched areas (Swansea Bay and the Gower coast, SW Wales). They have concerns that the site in its present form does not adequately reflect the distribution of high densities of porpoise in this area or meet the site identification criteria (e.g. clearly identifiable) and that the proposed extension would improve this, as well as help addressing the shortfall of the sufficiency target for harbour porpoise abundance within the Celtic and Irish Seas MU. Specifically, concerns were raised regarding the process of analysis and identification of the best possible harbour porpoise SAC site locations, suggesting that these had not been adequately reviewed in advance of this consultation and key data sets have been ignored, overlooked or have not been obtained [referring to Oakley et al 2016 and Pierpoint 2006 and 2008 reports]. Had the University of Wales Trinity Saint David (UWTSD) data [Oakley et al 2016] and the Scarweather data [Pierpoint 2006, 2008] been properly considered, then the boundary mapping of draft SACs, particularly within the JNCC report no. 565 (IAMMWG, 2015), would look very different and would actually extend along the South Gower coast into Swansea Bay i.e. the Outer Bristol Channel. Further, the results of surveys in Swansea Bay show that harbour porpoise density was 1.8 animals/km^2 in June 2005 and 1.35 animals/ km^2 in July 2006. This report also proves that Scarweather Sands is the location of a breeding site.

Response: The areas proposed as SACs for harbour porpoise were selected from the areas of persistent high densities (top 10%) of harbour porpoise where confidence in the model prediction was moderate or high. The Bristol Channel Approaches site was identified as a proposed site because it showed persistent high winter densities of porpoise that coincided with high model confidence in winter.

It is clear from the Pierpoint (2006, 2008) reports and data that there are relatively high summer densities of porpoise measured in the year survey of the Swansea Bay area. During the site selection process the Carmarthen Bay and Swansea Bay area of the Bristol Channel Approaches site was identified as being in the top 10% of summer densities but the model confidence was low. As the area did not meet the confidence threshold for inclusion as a summer site it was excluded from further consideration in the process.

Models were developed specifically to describe spatial trends at the regional level and confidence was driven by variation in hydrodynamic conditions. Adding ‘local’ survey data consisting of moderate effort yet covering a small extent (such as the Pierpoint 2006, 2008 data) would most likely only be measurable in the model outputs as a slight increase in model confidence, provided relationships with hydrodynamics

were similar to the existing data off Wales. Conversely, if the relationship with the hydrodynamics in this local area were strikingly different from the rest of the data from this region, a slight decrease in model confidence would be expected. As the area already has existing data that were used in the modelling, we would expect the hydrodynamic relationship to be similar to that already described. As such, we believe that had these data been included from the outset, confidence in the model would be unlikely to increase enough to result in this area being included in the boundary. However, we cannot be certain of this unless these additional data were incorporated and models were rerun. A re-analysis could extend the site identification process by up to two years and at considerable further cost. The data submitted for the Swansea Bay area may be used to inform wider species management measures and potentially the development of the harbour porpoise conservation plan. The data might also be used to inform any future revision of the site network.

The data used in the model were the best available at the time (the Pierpoint data were not made available prior to analysis but during consultation, nor has the Oakley et al 2016 data been made available to JNCC or NRW and its resulting paper was published after the analysis of Heinänen and Skov 2015). NRW and JNCC have, therefore, recommended to the Welsh Government not to rerun the modelling using the newly available data. The data for the Swansea Bay area in the summer, however, may be used to inform wider species management measures and potentially the development of the Harbour Porpoise conservation plan.

NRW and JNCC considered incorporating the additional data without re-running the model by locally adjusting the eastward boundary of the Bristol Channel Approaches site. However, this approach was discounted as it introduces inconsistencies and a deviation from the agreed methodological approach across the joint Welsh/English sites.

The Bristol Channel Approaches pSAC has high model confidence in the winter area; and has been put forward as a winter only site. The Selection Assessment Document for the site has been updated to better reflect this.

7.2 Process – Grading
Queries why the specimen Natura 2000 Standard Data Form for the Outer Bristol Channel to be considered as a draft SAC is given on pages 67 – 70 of Evans and Prior, (2012) was not used. The Site Assessment gives presence in breeding season as Grade A, Overall Population Rating as Grade A/B, and Global Importance as Grade B.

Response: Defra obtained two independent international expert reviews of Evans and Prior (2012). Both of these reviews identified problems with the methodology utilised and noted that substantially improved analysis (that particularly takes account of the varying nature of the underlying data) would be required to justify the conclusions reached and in the subsequent application of the Annex III criteria to the proposed sites.

Two issues of particular relevance were:

- The presence of animals in the calving season does not automatically mean that the area is specifically important for reproduction. Information on the age composition, the sex-ratio of the population and why one particular area is more important for breeding/mating than another is also important and was completely lacking.
- Pooling data as counts per hour across a 30-year period takes no account of the spatial and temporal variability in harbour porpoise distribution or the different levels of recording rates due to factors other than density (e.g. varying areas of search due to factors such as different vessel speeds, fields of view or decay of detectability with distance). As such, the summarised data reflect where surveys have occurred rather than identifying the importance of one location over another for harbour porpoise.

As a result, the grading proposed by Evans and Prior (2012) was not considered sufficiently robust to adopt for the Bristol Channel Approaches and the other sites proposed by the CNCBs.

7.3 Boundaries – survey effort
Concerns were raised that areas with proven observed porpoise presence were not considered because there was less than three years of survey effort, when predicted areas included within the Bristol Channel Approaches pSACs have no direct observations at all. The evidence in the proposal documents suggests there are no sightings within the central area of the proposed BCA pSAC.

Response: All suitable effort-related data that fell within the analysis period and which had been granted permission for use was used in the modelling. The Bristol Channel Approaches pSAC area was defined from the persistent top 10% of density during winter (Heinänen and Skov, 2015). The entire area has high model confidence in the winter. An area further offshore to the west of the current pSAC boundary was removed as there was moderate or low confidence in the modelled output and not because there were less than three years of survey data. The criteria for area selection were primarily driven by confidence in the modelled outputs, with additional support from the amount of survey effort and sightings. A cut off of three years of survey effort was never applied. The presence of animals in the central channel is clearly shown in Figure 21 of the DHI report (Heinänen and Skov, 2015) during the winter months.

7.4 Boundaries – boundary change proposal
A number of stakeholders recommended that the boundary of Bristol Channel Approaches pSAC is moved eastward to include the south Gower coast and Swansea Bay as far as Port Talbot, based on the following evidence. Systematic baseline surveys carried out for Scarweather Sands offshore windfarm found that this area supported aggregations of harbour porpoise throughout the year, with approximately 30% of porpoise groups during the breeding season have calves. Estimates of porpoise density suggested that this area supports similar densities of porpoise to areas included in North Anglesey Marine pSAC and West Wales Marine pSAC. Inclusion of the sea states used in the data for the analysis and having emphasis on recent data sets which may not be good are an issue, whilst data for Scarweather Sands Offshore Wind Farm was not included in the analysis, all of which could have resulted in a boundary change into the Swansea Bay area. Clarity was therefore requested on how the eastern boundary line of the Bristol Channel Approaches pSAC has been delineated as it was considered to be confusing. The Evans and Prior (2012) report commissioned by the World Wide Fund for Nature (WWF) highlighted and recommended that the Outer Bristol Channel should be considered as a draft harbour porpoise SAC (Figure 7) rather than that proposed. The respondent suggested that this boundary makes more scientific sense than the one proposed in this consultation, as it incorporates the South Gower and Swansea Bay areas, linking South-west Wales harbour porpoise populations with those of North Devon. This boundary would give a better representation of the South-west Wales porpoise densities, and would also benefit from a northward extension into Carmarthen Bay.

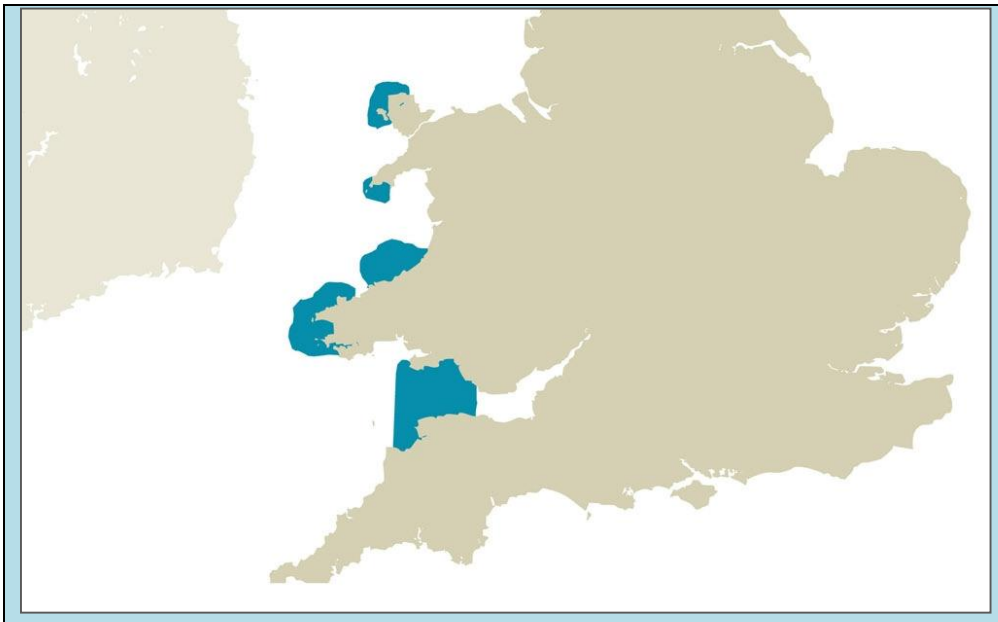

Figure 7 . **Proposal made by WWF as portrayed in Evans and Prior (2012).**

New data is also being made available in the future, which is currently buried within Environmental Impact Assessments (EIAs) undertaken for windfarm developments (e.g., Atlantic Array) within this area. We are aware of such data being reviewed by Tidal Lagoon Swansea Bay PLC within the Swansea Bay Tidal Lagoon EIA, but do not have access to the original data. However, this should not delay the designation of the current pSAC. Additionally, the proposed site appears not to have been adequately taken into account by Evans et al (2015) [land-based report] although there is reference to three land-based sites on the south Gower coast and in Swansea Bay where it is considered that there is a high probability of frequent harbour porpoise occurrence.

There is a weight of evidence of both sea and land based sightings of harbour porpoise to conclude that they are resident in the area and should be afforded protection. This data appears not to have been adequately taken into account by Evans et al (2015) [land-based report] although there is reference to three land based sites on the south Gower coast and in Swansea Bay where it is considered that there is a high probability of frequent harbour porpoise occurrence. Oakley et al., (2016) conclude that Swansea Bay and the south Gower coast contain “discrete and persistent areas of relatively high Harbour Porpoise density”. Porpoise in the Swansea Bay area must be considered as a discrete population.

Response: Harbour porpoise are widely distributed throughout continental shelf waters (i.e. they are not an exclusively coastal species). They are highly mobile, with some individuals moving 1000s of kilometres within weeks (Sveegaard et al., 2011) and their distribution largely related to the presence of prey species.

Collecting scientifically robust data on a wide ranging, highly mobile species, such as harbour porpoise, is costly in time and money. The dataset used for this process is the most comprehensive for cetacean data in Europe with multiple sources of data collated through the Joint Cetacean Protocol (JCP)[8]. These data had to meet certain technical standards, and JNCC had received permission from the various data owners for use their data in the analysis undertaken. The data collected for the Atlantic Array development was included within the JCP and utilised for the analysis undertaken. The Pierpoint data were not made available prior to analysis but during consultation. Neither were the Oakley et al (2016) data available to JNCC or NRW, and its resulting paper was published after the analysis of Heinänen and Skov (2015).

[8] http://jncc.defra.gov.uk/page-5657

Heinänen and Skov (2015) used the JCP data to build a distribution model of porpoise density based on their relationships with environmental parameters, such seabed type and the presence of upwelling, fronts and eddies. In addition, sea state is well known to affect the detection of harbour porpoises. Consequently, only survey data collected in sea states 0-2 were used in the analyses of Heinänen and Skov (2015). Additionally, the effects of sea states 0-2 on harbour porpoise detectability were modelled as part of the 'detection function' used to correct the number of animals observed during surveys. The details on the modelling of the detection function are given in Paxton et al. (2016). From the modelling undertaken by Heinänen and Skov (2015), it was possible to identify areas with persistently higher densities of harbour porpoise in UK waters over the 18 years for which data were available (1994-2011). The work undertaken to identify sites needed to consider this entire dataset and not just coastal data from the localised surveys highlighted in the responses. The identification and selection process of possible SACs could only take available data at the time into consideration. This process has been rigorously peer reviewed and the CNCBs consider the proposed boundaries to represent the outcome of a robust scientific approach.

Because harbour porpoise utilise the entire continental shelf waters and not just coastal areas, a greater weight was placed on the wider analysis of Heinänen and Skov (2015) in identifying site proposals than that of Evans et al (2015). The accessibility of land-based sites is one of the reasons that land-based surveys are inherently biased: most observers go to places where they are likely to see animals rather than distribute observation locations in a random, unbiased way. Report 543 (Evans et al, 2015) identified the most important locations where land-based sightings were recorded and certain locations around Anglesey, Pembrokeshire and Swansea Bay were identified within the top 10% of the most important areas based on modelled likelihood of occurrence.

Evaluation of individual reports/datasets that show harbour porpoise presence in a study area is insufficient in isolation as the significance of such data needs to be considered in relation to the wider UK population. Oakley et al (2016) does not provide evidence that indicates the harbour porpoise utilising Swansea Bay constitute a discrete population from that in the wider Celtic Sea area. All harbour porpoises in UK waters are afforded protection whether they are "resident" or not. Residence in an area is not a qualifying feature that automatically identifies the area as an SAC, nor is the presence of calves.

Regarding the suggestion to use the WWF proposed site in the Bristol Channel area, two independent international experts raised concerns regarding the soundness of the WWF analysis (Evans and Prior, 2012). The WWF report did not use a quantitative or robust modelling technique to delineate sites, and it is believed that the boundaries were subjectively drawn through author judgement rather than applying a robust, quantitative and objective approach. It was also noted that the authors used a version of the Standard Data Form (SDF) explanatory notes as a primary assessment tool, rather than for their intended purpose, which is as guidance for completing the SDF after carrying out an assessment of data in accordance with Article 4 of the Habitats Directive along with Annex III criteria. The WWF approach and the CNCBs approach to pSAC identification are therefore not comparable.

7.5 Boundaries – lack of inclusion of breeding grounds
In the UK, Swansea Bay area has long been identified as a hot spot for harbour porpoise, with the noted presence of calves. BCA pSAC has no identified breeding grounds.

Response: The pSACs have been identified on the basis of their relative importance compared to neighbouring waters within each Management Unit. Whilst the presence of harbour porpoise in Swansea Bay is acknowledged, it has not been identified as being more important to the species than surrounding waters.

The presence of calves does not mean that an area automatically qualifies as an SAC. The European Commission's guidance on identifying sites for harbour porpoise notes that 'high ratio of young to adults during certain periods of the year' could aid identification of sites. Harbour porpoise breed and nurture their young throughout their range, with calves being dependent upon their mother for 10 months (Lockyer, 2003). However, data on the presence of calves and young are not collected consistently during surveys and it is difficult to tell whether two porpoises swimming together are related or not. Therefore, although

some observations have been made of 'young animals', there are no reliable data over wider areas which could be used to identify areas specifically representing a 'high ratio of young to adults' in UK waters. CNCBs agreed that where data were available they would be used to further support the designation of a site but this criterion could not be used to delineate sites.

7.6 Boundaries - Seasonality
With specific regard to the Bristol Channel Approaches / Dynesfeydd Môr Hafren pSAC, it has been noted that the evidence presented within JNCC Report No 544 (Heinänen and Skov, 2015), identifies (both in terms of modelled outputs and also from the limited observational information) that there appears to be a clear seasonal element to the area, with winter presence acknowledged, but little evidence of a significant summer presence throughout this area. It is noted that these findings are consistent with those identified within the Atlantic Array Environmental Statement. As such it brings into question whether this site should only be a seasonal pSAC.

Response: The seasonality within the sites will be an important consideration for management of the site. Only the northern part, within Welsh waters, was within the top 10% densities during summer but did not meet the model confidence threshold, i.e. it was low. Thus the Bristol Channel Approaches pSAC has been identified as a winter site, although the area will be used year round by harbour porpoise, and it is likely that it will be managed as an important winter area. The Bristol Channel Approaches pSAC Selection Assessment Document has been updated to clarify this position.

7.7 Boundaries - Seasonality
Requests for further information on the seasonal differences between the whole site and the Carmarthen Bay section were made, to help identify what management may or may not be needed. Specifically, are there any ideas on what these could be attributed to, is it just the movement/availability of prey, or is one area used for breeding?

Response: Data on the presence of mother/calf pairs is not collected consistently across the datasets utilised in the DHI analysis. As such it is therefore not possible to provide information on areas used for breeding, nursing or other activities. It is believed that of the main drivers for harbour porpoise distribution is related to prey availability. However, little information is available on specific prey resources in localised areas. The seasonal components of the sites were identified through the persistent usage of those sites within the two seasons set for the model (summer: April-September and winter: October-March). The seasonal component will be incorporated into the management measures in due course. Only the northern part of the Bristol Channel Approaches (BCA) pSAC, within Welsh waters, was within the top 10% densities during summer, but this did not meet the model confidence threshold. Therefore, the BCA pSAC has been identified as a winter site and will be managed as such.

5.3.2 West Wales Marine / Gorllewin Cymru Forol pSAC

8.1 Process – Data: Further Data to Include
A report of research into harbour porpoise use of Ramsey Sound was submitted as part of a response to the NRW consultation, with a note that the data that this report describes would contribute to the scientific data available on which to consider the designation of the pSAC. The actual data were not submitted with the report.

Response: While the data associated with this report provide interpretation of the use of Ramsey Sound in various tidal states, which could be (and have been) used for local assessments, the data were collected from land and therefore are not compatible with the sea-based data used in the main analysis/modelling (Heinänen and Skov, 2015). Ramsey Sound is included in the West Wales Marine pSAC boundary.

8.2 Process – Modelling: Resolution
The 5x5km resolution of the modelling is considered insufficient to justify the boundary of the pSAC [West Wales Marine] that crosses the port limits [Milford Haven]

Response: We understand that this is a reference to the boundary of the West Wales Marine / Gorllewin Cymru Forol site extending into the entrance of Milford Haven. The modelling outputs (5km x 5km squares of persistently higher density of harbour porpoises) were used to define the pSAC boundaries at a broad scale. We then defined the detail of the landward boundary at a local level according to the principles for refining the landward boundaries of the proposed SACs as set out in JNCC Report 565. Accordingly, the landward boundary of the pSAC is generally mean low water mark, except where it crosses the entrance to rivers or estuaries where the width of the entrance is less than 2km and the modelled outputs do not indicate that the area should be included. The area immediately inside the outer entrance to Milford Haven was checked to ensure that its inclusion within the pSAC is justified by the modelled outputs, and the boundary was drawn from Great Castle Head to West Pill so as to include the majority of the relevant high density 5 x 5 km cell covering this area, up to where the width of the Haven narrows to 2 km.

8.3 Process – Use of Local Data
Comments concerning the age and uneven coverage of the data used for drawing up the boundaries of the proposed SAC for harbour porpoise were made, suggesting that more local data, where available, should be used to better inform the designation and any proposed management measures, and that the designation and proposed management of the site should be developed making use of the very considerable local expertise available in West Wales.

Response: Key to the designation of SACs is Article 4(1) of the Habitats Directive, the relevant part of which states: '…*For aquatic species which range over wide areas, such sites will be proposed only where there is a clearly identifiable area representing the physical and biological factors essential to their life and reproduction*'. The need for an area to be '*clearly identifiable*' is plainly of importance in identifying SACs for harbour porpoise. The Commission issued further guidance to expand on the characteristics of areas that would qualify as 'clearly identifiable' sites; one such was the need for *good population density (in relation to neighbouring areas).* The scale of the analysis is therefore predicated by the Habitats Directive, and the need for data – and a site identification process based on those data - to cover the entire harbour porpoise range within UK waters. 'Local data' in isolation are insufficient for the site identification process but were, when contributed to the analysis of collated data sets, very valuable. Data collection at a local scale, and local expertise more generally, can help to improve knowledge of the dynamics and ecology of harbour porpoise in particular pSACs (or parts of these areas) and therefore may contribute significantly to decisions on management.

8.4 Boundaries – West Wales Marine pSAC
A stakeholder questioned the necessity of overlapping the new proposed pSAC with the designated Pembrokeshire Marine SAC when this has no additional effect, but when it has the potential of introducing another layer of bureaucracy into decision-making. Suggestion was made to extend the possible SACs up to, and not beyond, the existing boundary of the Pembrokeshire Marine SAC.

Response: The areas of existing SACs show only limited overlap with the areas identified as having persistently elevated harbour porpoise densities throughout the UK. Therefore, adding harbour porpoise as a new feature to existing SACs would not be scientifically justified and sites would not represent most of the areas identified as having elevated harbour porpoise density. The existing SACs have been designated for specific habitats and species and boundaries designed for those qualifying features.

5.3.3 North Anglesey Marine / Gogledd Môn Forol pSAC

There were no comments made through the consultation pertaining only to this site.

5.3.4 North Channel pSAC

9.1 Scientific Basis for Designation - Disapproval of scientific approach
Clarity is needed as to why much of the North Channel pSAC covers areas significantly deeper than the shallow water (40m and less) that the harbour porpoise is meant to show preference for.

Response: The North Channel pSAC is an important winter site, which adds to the geographical spread and seasonality within the network of pSACs within the Celtic and Irish Seas (CIS) Management Unit (MU). The DHI analysis found that in the winter season, water depth and current speed are the major determinants for the probability of harbour porpoise presence, with some influence from surface salinity. Although the probability of presence peaks in waters shallower than 40m, the relationship predicts a positive probability of presence in water depths up to 100m. The observation data include sightings in waters greater than 100m within the pSAC and north of the pSAC, showing that porpoises do occur in the deeper waters. The model fitted all data throughout the Management Unit and porpoises observed in deep waters in one part of the MU will contribute to fitting the relationship to other parts of the MU with the same depths. There was less surveying in the offshore region of the pSAC than in the shallower region but despite the limited effort in the pSAC, the relationship between porpoises and environmental variables in the offshore environment was predicted with high confidence because there is adequate coverage from other deep areas of the MU. The retention of the deeper area was therefore justified. The 2-8km wide coastal strip was selected despite of low model confidence because it contained persistently high numbers of porpoises identified by systematic land-based observations.

9.2 Boundaries - Queries or suggested changes / relevant evidence
A suggestion was proposed to extend the North Channel pSAC out to the Northern Ireland Adjacent Water boundary. The 2-8km wide strip on the north end of the site aims to incorporate potential movement of individuals along the NI coastline; however, it does not incorporate potential movement across the channel. The proposed extension is based on data collected by the Irish Whale and Dolphin Group between 2006 and 2016 onboard commercial ferries from Larne – Cairnryan and Belfast-Cairnryan, which indicates that the relative abundance of harbour porpoise appears similar right across the North Channel, with little apparent difference in porpoise relative abundance between inshore and offshore areas, out to the limit of Northern Irish waters. The data shows average porpoise relative abundance per porpoise positive grid square was 1.7 animals per hour for the indicated inshore region (blue line) and 1.8 animals per hour for the offshore region (from blue line to the limit of NI waters). The percentage of porpoise positive squares was 50% for the inshore area and 62% for the offshore area. Additionally, the habitat within the proposed extension is defined by coarse sediments, strong tidal influence and reef features. Although the extension contains largely deeper waters of >100m, Heinänen and Skov (2015) reported that harbour porpoise show preference for the tidal and sediment features of this site.

Response: All the data submitted by IWDG (2001-2010) to the Joint Cetacean Protocol (JCP)[9] were included in the DHI analysis. The PDF map submitted by the stakeholder (**Figure 8**) includes parts of the data used in the DHI model (i.e. the Cairnryan-Larne ferry route), but also more recent data than the 2011 cut-off point. The Belfast-Cairnryan ferry data was not available to be used in the DHI modelling (
Figure 9). The DHI analysis included habitat variables, such as sediment type and currents, eddies, fronts and upwelling, yet the suggested extension across the channel to the Northern Ireland Adjacent Water Boundary was not supported by the DHI model outputs.

[9] http://jncc.defra.gov.uk/page-5657

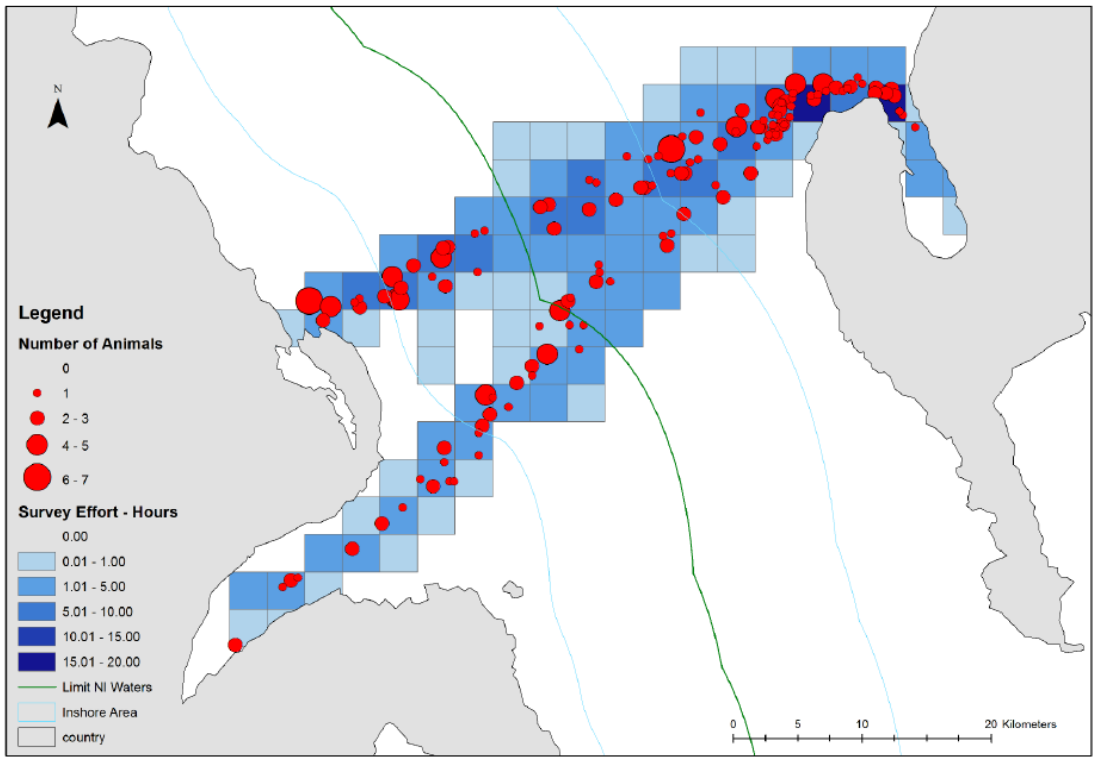

Figure 8: Map submitted by IWDC showing distribution of harbour porpoise sighting records and effort on surveys between 2006 and 2016.

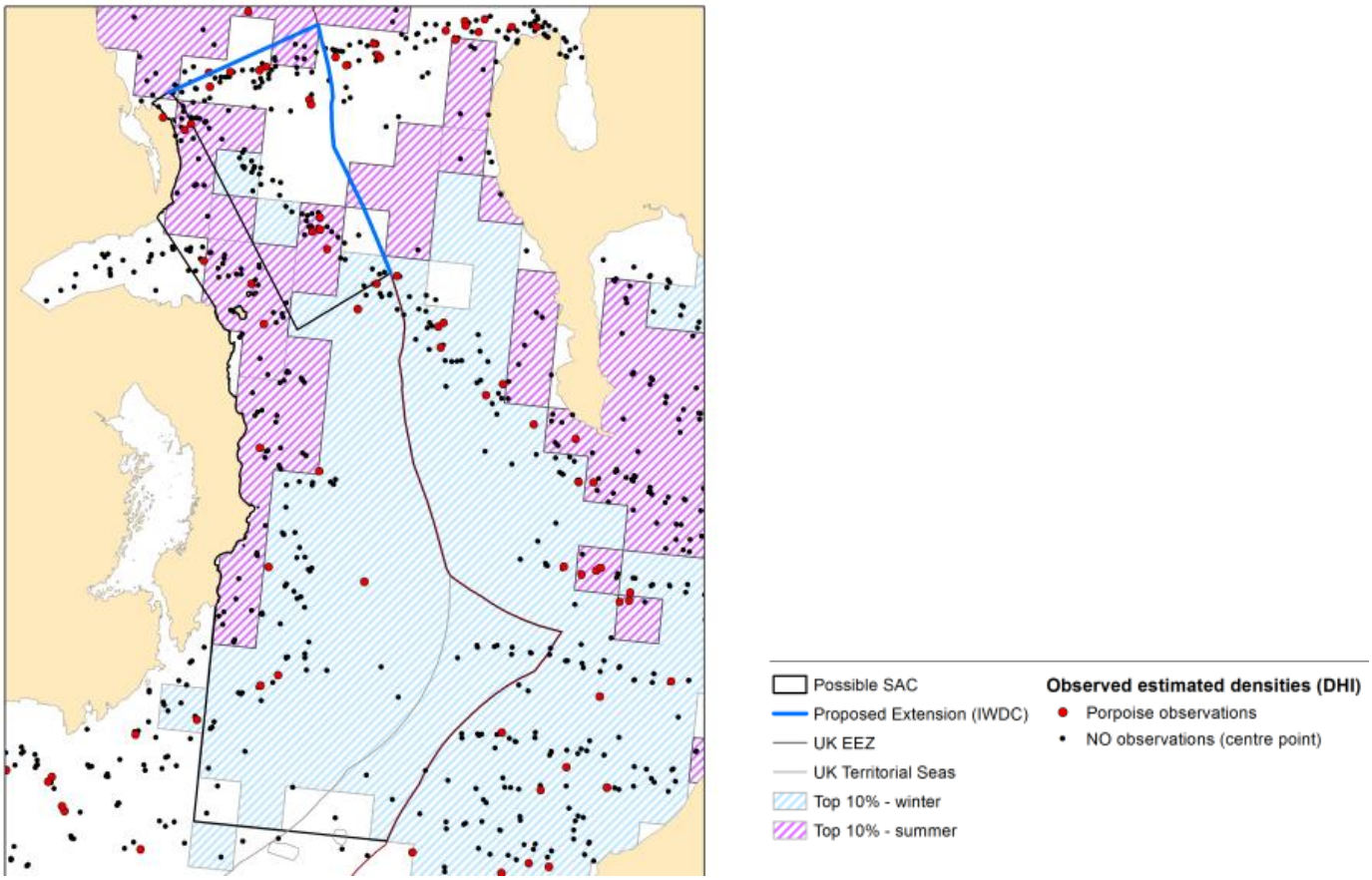

Figure 9. North Channel with suggested extension (in blue) and observations included in the DHI analysis.

Part of the extension included areas within the top 10%; however, the confidence for these areas was low during both summer and winter (**Figure 10**). Extending the boundary eastwards to the Northern Ireland Adjacent Water boundary was considered when defining the existing extension to the North Channel pSAC. However, as the extension was justified using land-based observations obtained from Portmuck, Black Head and the Copelands, it was considered that it could only be used to justify a boundary within which harbour porpoises could be reasonably well seen from land. In contrast to land-based sightings surveys elsewhere in the UK, those of Northern Ireland have been designed to achieve systematic consideration of the Northern Irish coastline. The 2-8km wide strip was selected because it contained persistently high numbers of porpoises rather than to specifically acknowledge the movement of these animals along the Northern Ireland coastline. We are content that the site boundary has been determined using a suitable model with best available data. The additional data could potentially increase the confidence in deeper waters, however, there is not sufficient data to extend the boundary further as the majority of this area is outside of the top 10% identified by DHI and the confidence is very poor. Given the complexity of the modelling undertaken, any additional reanalysis would significantly delay the proposal of potential sites at disproportionate cost in time and funds.

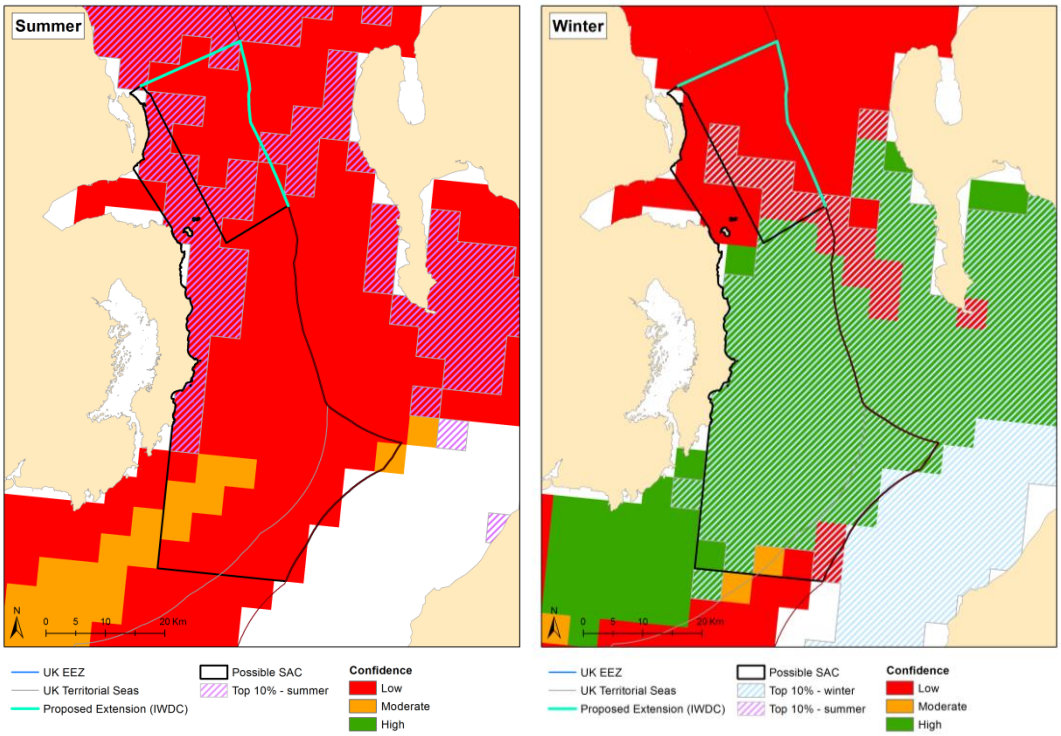

Figure 10. North Channel pSAC with suggested extension overlaying the top 10% areas with associated confidence (as identified in the DHI analysis) for summer and winter, respectively.

5.3.5 Southern North Sea pSAC

10.1 Process – Modelling: Bias
Respondent had significant concerns regarding the transparency and robustness of the data and modelling used to identify the proposed SACs. The respondent suggests there is uncertainty and apparent bias in the data and modelling, and consequently does not believe that the underlying data supports the proposed site boundary for the Southern North Sea pSAC.

Response: No detail was provided that suggested the bias exists in the data and modelling. However, the respondent did provide additional data. The boundaries of the pSACs are based on the outputs of Heinänen and Skov (2015) which show areas with harbour porpoise density that was persistently within the top 10% of density for the entire Management Unit. These areas were then assessed based on model confidence in the context of sightings and survey effort to ultimately define the pSAC boundaries. This process is summarised in the JNCC Report 565. The modelling process does not require lots of survey

effort everywhere; it simply requires survey effort that gives representative coverage of the various habitats throughout the Management Units. CNCBs were content that this was achieved through the collation of input datasets to the analysis through the Joint Cetacean Protocol. The modelling approach has undergone rigorous review both by independent experts and through consultation, with the consensus being that the approach is suitable and the outputs are robust.

10.2 Process – Modelling: Uncertainty
Concerns regarding the delimitation of the proposed SACs on persistency of modelled high density areas not supported by actual survey effort were raised, suggesting this will inevitably involve a high degree of uncertainty. It was noted that only a very small proportion of the proposed Southern North Sea SAC is supported by survey effort from three or more years. JNCC, in their approach to selection of areas of persistent high densities, have gone against the recommendation of Heinänen & Skov (2015) which is to only base selection on areas supported by three or more years of survey effort.

Response: The model was supported by extensive empirical data collated through the Joint Cetacean Protocol. The identification of Areas of Search (AoS) and ultimately SACs was heavily based on assessment of uncertainty in the model outputs, which was partially driven by the underlying data. The use of persistent high density areas only supported by 3 or more years of survey data was too restrictive for the identification of AoS and was partly duplicated in the assessment of model confidence and so the filter for years of survey effort was removed. However, subsequent refinement of AoS to sites, did consider the effects of the amount of survey effort on the uncertainty associated with predicted persistent high density areas. Areas that have high model confidence but low survey effort were retained in the sites because the implication of high confidence is that areas of similar habitat had received good effort and therefore the predicted density of harbour porpoise in low effort areas was sound (i.e. more survey effort would be likely to confirm model outputs).

10.3 Process – Data: Incorporation of Datasets
Concerns were raised regarding an area within the North Anglia offshore windfarm zone in the Southern North Sea pSAC where conflicting survey data exists, showing low densities across the zone with no areas of high density. The survey data had not been included in the DHI analysis (Heinänen and Skov, 2015), despite Ministerial assurances that the data would be considered. Respondent suggests that the designation process would be more robust and accurate should this data be incorporated. However, any re-analysis should not extend the designation process, continuing the uncertainty for developers.

Response: The formal consultation provided the most appropriate, fair and effective mechanism for all stakeholders and interested persons to have an equal opportunity to feed in additional information; and was reflected in the letter sent by the Secretary of State to the respondent in July 2015. The correspondence also states that the data provided would be 'taken into account'. JNCC received a copy of this letter in March 2016. The additional data received as part of its consultation response has been fully considered by JNCC and our advice supported by CNCBs and Government.

The data submitted by the respondent cover an area of harbour porpoise habitat which has previously been surveyed (**Figure 11**) and was identified in the DHI analysis (Heinänen and Skov, 2015) as persistently containing densities in the top 10% for the North Sea Management Unit. The associated confidence in the predicted densities was high and so the persistent top 10% area was retained within the pSAC boundary. The newly available data do increase the temporal scale of coverage and provide data for years 2011-2014 which were out with the DHI analysis time period (cut-off for data submission was 2010/2011). These new data cover an area of ~860km^2 which represents ~0.3% of the UK's harbour porpoise habitat in the North Sea Management Unit.

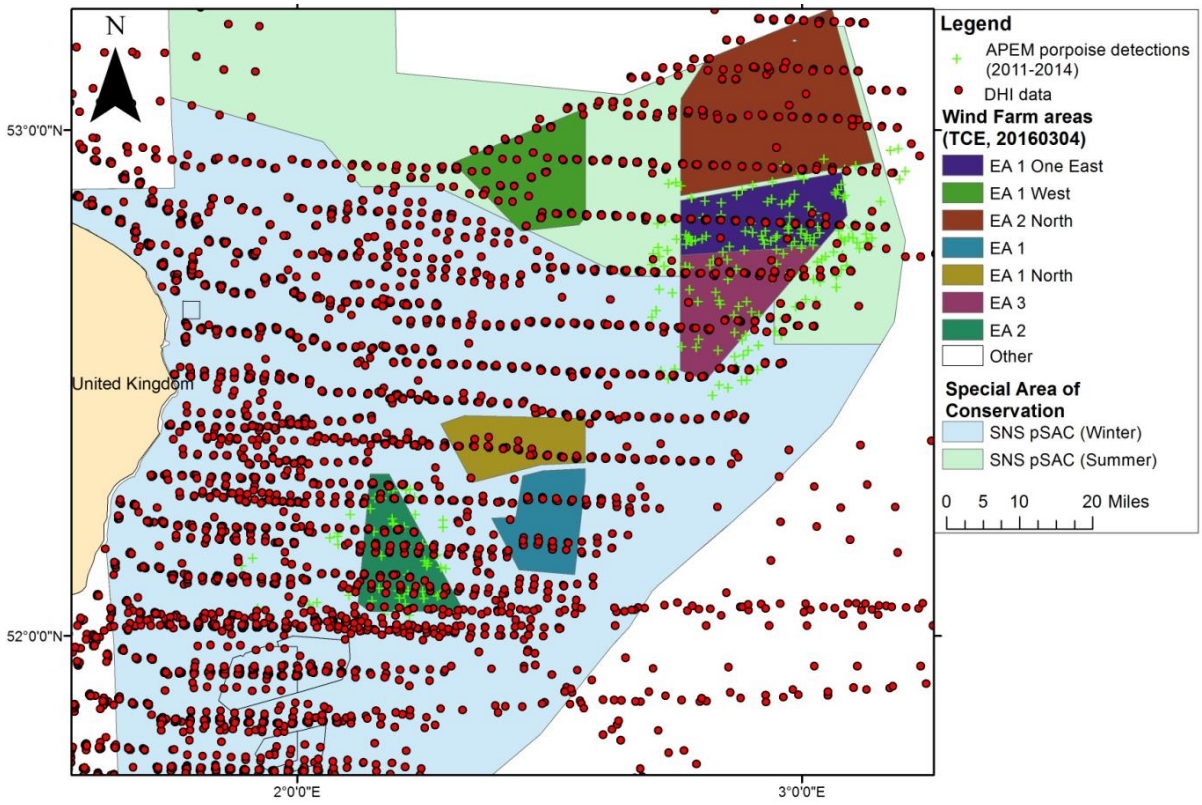

Figure 11: Data utilised by DHI (Heinänen and Skov, 2015) in the southern North Sea, 1994-2010 and additional data submitted for 2011 – 2014.

Because of the nature of the data (aerial photography) we know that the density estimates derived will probably be biased low; comparable data from 2010 were incorporated into the Phase-III analysis of the JCP and for this purpose, the detection probability was assumed to be one (the reality is that it is less than this because of animal availability to detection - some animals will be out of sight below the surface as the aircraft passes overhead). For a repeat analysis, the new data would have to be treated in the same way and so density estimates for these data would likely be lower than true, given corrections cannot currently be applied. However, because of the high frequency of repeated surveys within the area and the patchy nature of porpoise distribution, there is some evidence to suggest that the probability of encountering larger aggregations of porpoises increases (Skov pers. comm.); so when these data are added to those already existing within the DHI analysis, it will likely increase density overall. Therefore, the area would likely still be part of the top 10% and surpass the persistency threshold. The additional new data would likely improve precision around density estimates for the area and so confidence in the predictions for this area would be improved. It should be noted that confidence in the model predictions for this area in the Heinänen and Skov (2015) analysis were already high, probably due to the representative nature (in time and space) of survey coverage across porpoise habitats in this part of the southern North Sea. In summary, the inclusion of this data in a re-analysis would extend the designation process considerably and would not change the advice being offered within this document.

10.4 Process – Justification of Seasonal Areas
Concern that data used for designation of the winter pSAC boundaries for the Southern North Sea are a product of limited survey information, winter survey effort having been acknowledged, even in Heinänen and Skov 2015, to be substantially less than for the summer season and is therefore not justified.

Response: The CNCBs reviewed the survey data model outputs and confidence again in response to this (and other) issues raised. The input dataset consisted of 434,000km summer survey effort and 235,000 km winter survey effort. Data collection in winter is primarily hindered by poor weather conditions that limit survey opportunities. The datasets used for the analysis show that the southern North Sea has been

surveyed extensively (annual surveys 2002-2009) during winter and the identified area is largely covered by 3+ years of survey effort. The CNCBs (plus the various scientific and Government panels involved in reviewing this project and associated reports) feel this is sufficient information to justify the southern winter pSAC boundaries for the Southern North Sea site. CNCBs did agree that the small winter area in the top northeast area of the pSAC should not be recognised as such due to low confidence; thus this area will no longer be considered a winter area.

10.5 Boundaries - Queries or suggested changes / relevant evidence
Respondent suggests that the north-western boundary of the Southern North Sea SAC should take account of the land watch data and extend to that coast.

Response: This option was considered early on in the site-identification process based on the evidence outlined in Evans et al. (2015); however, due to the distance from the persistent top 10% boundary to the land-based stations (49km from the top 10% land-based station and 16km from the boundary to the nearest part of land) an extension to the boundary could not be justified. Land-based visual surveys can only collect data 1-2 km out from land and cannot be used to infer anything about the wider distribution and density of the animals beyond this narrow coastal strip.

10.6 Boundaries - Queries or suggested changes / relevant evidence
Clarity was required regarding the eastern boundary of the Southern North Sea pSAC where it moves inwards in the middle section, leaving a substantial area out of the proposed designation.

Response: The principles for the recommended draft SAC network outlined that the sites should capture mainly the high confidence portions of the Areas of Search (AoS) (as explained in IAMMWG, 2015), but without impacting connectivity within the AoS. The network of sites should also aim to meet the proposed sufficiency targets of 10-14% of available habitat and 20% of the population. At the MU scale, the sites should provide seasonal and geographic representation. Figure 12 shows that the middle 'cut-out lobe' of the Southern North Sea pSAC was removed due to moderate confidence in the modelled outputs for summer. The lower cut-out lobe is not included because it was not identified within the top 10% area identified from the DHI outputs.

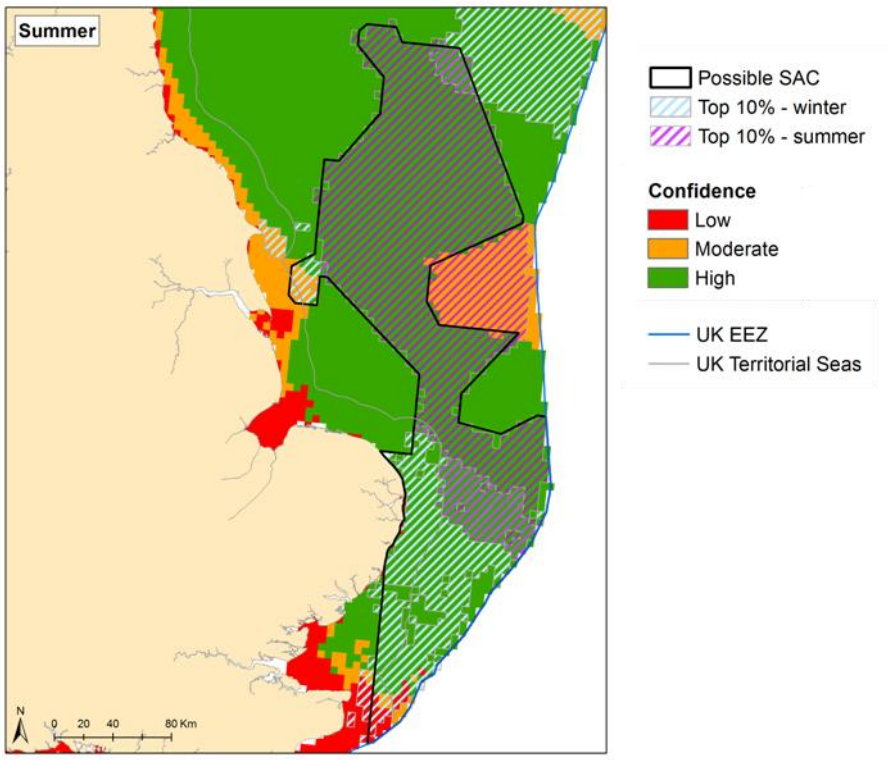

Figure 12. The Southern North Site pSAC with top% summer and winter areas overlaid on the summer confidence layer.

5.4 Responses received outside of the CNCB developed format

In response to the announcement of the consultation on pSACs for harbour porpoise, two Non-Governmental Organisations involved in marine conservation; Marine Conservation Society (MCS) and Whale and Dolphin Conservation (WDC), developed individual campaigns to encourage members and interested parties to submit a response. Submissions made through these avenues arrived via email and were easily identifiable either by the subject header for the MCS emails, or the sender for WDC emails.

The (WDC) campaign resulted in 8,503 consultation responses sent to both the JNCC and NRW consultation email addresses. The Marine Conservation Society (MCS) campaign generated 2,061 consultation responses, 595 of which were sent to both NRW and JNCC, with a further 1,028 to JNCC only and 438 to NRW only. The two campaigns combined resulted in a total of 10,564 responses.

None of the WDC or MCS initiated campaign responses made specific reference to any of the five sites being consulted on. Only MCS enabled stakeholders to edit the email responses, and edited comments were addressed in the same way as all other substantive responses and issues collated into the issues spreadsheet mentioned in Section 4. Any substantive comments are therefore addressed within Section 5.2. It is possible that a number of individuals responded through more than one route and duplication is not easily identifiable between submission methods, particularly through the WDC emails. However, this will not affect the issues and responses which ultimately underpin the recommendations to Government.

Below is the template text received through the WDC campaign response. Note that this text includes reference to a site in Scottish waters that was the subject of a separate consultation.

Thank you for progressing harbour porpoise Special Areas of Conservation (SACs). I strongly support designation of the network of SACs for harbour porpoises in English, Welsh, Northern Irish and Scottish waters.
The six SACs that are currently being consulted upon are scientifically justified and based on best available evidence.
The network of harbour porpoise SACs should be supported by clear and precautionary conservation objectives and, once designated, effective management measures should be put in place.
Please consider this as a consultation response. I have read and understood the Government's policy for handling information received through this consultation, namely that:

- *All responses to this consultation, including the names of respondents, will be considered public.*
- *With the exception of contact information and other personal details, consultation responses and the names of respondents will be made publicly available if required.*
- *We will not share any details beyond your response and you or your organisation's name.*
- *Please ensure you do not mention other individuals by name, or include any personal information within the body of your response.*
- *We may also share any responses that we receive with other statutory nature conservation bodies, UK and devolved Governments in order to help ensure a coordinated approach to this consultation.*
- *Any personal information you provide to JNCC, NRW and SNH will be used and stored in line with the requirements of the Data Protection Act 1998.*

[Responder details]

Below is the template text received through the MCS campaign response route:

I am responding as an individual
Do you support the designation of the possible harbour porpoise SACs included in this consultation? [yes/no]

The UK Government must establish these sites by law under the EU Habitats Directive and you fully support their designation.
Harbour porpoise are under threat/in decline so UK Government must do more to protect them and allow their recovery.
Entanglement in fishing gear is one of the main causes of harbour porpoise deaths, this must be considered in the management options for the sites.
Starvation is a known cause of death in harbour porpoise so measures need to be implemented to ensure their prey species are protected.
Harbour porpoise are killed due to bottlenose dolphin attacks, so UK Government need ensure that there are adequate sites for both species.

Yours sincerely
[Responder name]

If required, may NRW or JNCC contact you regarding your response? [yes/no]
I confirm I have read and understood how any information I submit may be handled

England – this data information is provided by JNCC
All responses to this consultation, including the names of respondents, will be considered public.
With the exception of contact information and other personal details, consultation responses and the names of respondents will be made publicly available if required.
We will not share any details beyond your response and you or your organisation's name.
Please ensure you do not mention other individuals by name, or include any personal information within the body of your response.
We may also share any responses that we receive with other statutory nature conservation bodies, UK and devolved Governments in order to help ensure a coordinated approach to this consultation.
Any personal information you provide to JNCC will be used and stored in line with the requirements of the Data Protection Act 1998.
Wales – this data information is provided by NRW. *Please note that in the interests of transparency and openness, all responses to this consultation, including the names of respondents, but not including contact information, will be made publicly available and may be published, including on the NRW and/or JNCC websites.*
We may also share any individual responses that we receive with other statutory nature conservation bodies, UK and devolved Governments (Joint Nature Conservation Committee, Natural England, Scottish Natural Heritage, Welsh Government, UK Department for the Environment, Food and Rural Affairs (Defra), Scottish Government and the Department of the Environment for Northern Ireland) in order to help ensure a coordinated approach to this consultation and to prepare reports to the Welsh Government and UK Government.
Any personal information you provide to us will be used and stored in line with the requirements of the Data Protection Act 1998. We will use your information only for the purposes of this consultation, as described above. Please ensure you do not mention other individuals by name, or include personal information within the body of your response.

5.5 Issues and key themes that were not undergoing consultation

Further to the supporting documentation, issues and comments were raised regarding wider harbour porpoise conservation that were not part of the public consultation. There is no requirement to respond formally to these issues, however comments received are of use for the likely future work of CNCBs.

5.5.1 Supporting documentation: Conservation Objectives and Advice on Activities

Although not part of the consultation, comments were received with regard to the draft advice[10] prepared on the Conservation Objectives (COs) and Advice on Activities for the sites. Comments were received from a wide range of stakeholders including fisheries, renewable energy developers, oil and gas industry, marine aggregates, shipping and recreational boating, defence and NGOs. Comments from Regulators of many of these sectors were also received. The nature of the comments received was to seek clarification of terms within the documents; challenge supplementary advice supporting the COs, particularly in the context of undertaking Habitats Regulation Assessment; question management measures outlined in the advice on activities; express concern regarding resources to enforce management and monitor; and to recommend ongoing engagement with stakeholders. CNCBs will consider all the comments received to inform the revision and development of these documents, but no formal response is required or will be provided as part of this consultation.

Ultimately the Conservation Objectives ensure that a site contributes to the maintenance (or restoration) of the Favourable Conservation Status of harbour porpoise. Conservation Objectives constitute a necessary reference for identifying site-based conservation measures and for carrying out Habitat Regulations Assessments of the implications of plans or projects. The mobility of the harbour porpoise presents a particular challenge in setting site Conservation Objectives; conventionally, one would think about maintaining site populations but for harbour porpoise, there is no evidence to suggest that local populations exist and we know from survey data, that abundance at regional/local scales varies with time. For these reasons, the measure of whether Conservation Objectives are being upheld is couched in ensuring the habitat is maintained and that animals have access to that habitat within the site. These ideas were set out in the draft advice packages and will be further developed by CNCBs with ongoing discussions with Regulators and stakeholders.

The management of activities within pSACs for harbour porpoise will depend on the risk the activities pose to the Conservation Objectives of the site. When impacts from human activities, either individually or in combination, pose a risk to achieving/maintaining the Conservation Objectives, appropriate management of these activities will be considered. The current draft Advice on Activities will be further developed through discussions with Regulators and stakeholders and socio-economic impacts can also be considered at this stage. CNCBs are further preparing Guidance Notes to provide advice on the potential management needed for key sectors currently and potentially operating within the pSACs. Management measures will only be implemented if the pSACs are designated and must be in place, where required, within six years of designation. Appropriate monitoring of the network of sites to ensure their contribution to the maintenance of Favourable Conservation Status of the harbour porpoise will be considered through the ongoing development of the UK'S Marine Monitoring and Assessment Strategy. Stakeholders that collect monitoring data would be valued partners in achieving future monitoring. For example, industry projects requiring a Marine or EPS licence are required to monitor and report certain impacts predicted in their EIA. Activities ongoing within or affecting a SAC will also require monitoring in order to assess the impact and/or effectiveness of any measures.

[10] The advice was prepared under Regulation 18 of The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended) and Regulation 35(3) of The Conservation of Habitats and Species Regulations 2010 (as amended)/ Regulation 28 of The Conservation (Natural Habitats, etc.) Regulations (Northern Ireland) 1995 (as amended).

5.5.2 Other issues raised, not undergoing consultation

1. **Many pressures identified that impact harbour porpoise are also applicable to other species. Request that appropriate management measures are put in place throughout the proposed SACs to maintain the dolphin and porpoise populations at favourable status and to help both populations thrive**

The harbour porpoise SACs will be single feature sites, designated purely for the conservation of the harbour porpoise. Any management regarding the sites would be based purely on evidence of risk to harbour porpoise alone. While there may be de-facto benefits for other species as a result of any mitigation or management, these would be a by-product and not a consideration.

2. **Harbour porpoise conservation plan**
   - **There is a recognised need for a plan**
   - **Updated plan required since its creation in 2000**
   - **Reflection of the advances in technology and changes in threats, protection and policy since its creation are needed.**

The UK harbour porpoise conservation plan was reviewed in 2010 to take account of the changes since its creation in 2000. There are plans to further update the plan, particularly in light of any SAC designations that may occur.

The UK Government is committed to reporting on harbour porpoise as a protected species and, as such, resource is provided to ensure evidence is available to produce these reports.

3. **There is a lack of reference throughout the consultation documentation to the Marine Strategy Framework Directive, which includes reference to underwater noise; an identified threat to harbour porpoise. As some activities already require licensing, there is belief that there is a range of legislative measures and highly protected sites which can, in combination, provide appropriate levels of protection without additional measures such as the pSACs.**

The Marine Strategy Framework Directive (MSFD) is not the driver for SACs, although management and monitoring within the pSACs may well inform the MSFD process. The designation of SACs falls under the Habitats Directive and is driven by the agreement to *'promote the maintenance of biodiversity by requiring Member States to take measures to maintain or restore natural habitats and wild species listed on the Annexes to the Directive at a favourable conservation status, introducing robust protection for those habitats and species of European importance'.* Noise, which is referred to under 'disturbance' in the Habitats Directive, will be a consideration of any designated SACs. The SACs will form part of the wider measures for conservation of harbour porpoise in UK waters and the MSFD may become more of a consideration at this stage through the assessment process. The sites will primarily function based on the Conservation Objectives identified for the site driven by the Habitats Directive.

4. **National legislation may be the most appropriate legal instrument through which to protect harbour porpoises rather than EU legislation, which can be a lengthy process given the longer chain of decision-making.**

The SACs, although driven by EU legislation, will have management developed nationally by Regulators with input from stakeholders, using the best available evidence. Fisheries measures beyond 6 nautical miles currently require agreements through the Common Fisheries Policy, however all other activity is managed on a national or local scale. Furthermore, the UK harbour porpoise conservation plan aims to consolidate all aspects of conservation and management and provide a coordinated approach in the UK, taking into account EU driven management, and national targets and guidance.

5. **There is a large body of evidence to show that the creation of conservation zones can reverse negative trends in harbour porpoise populations and produce both environmental and financial gains.**

The literature review commissioned by JNCC and the CNCBs illustrates gaps in the understanding of the effectiveness of Marine Protected Areas (MPA) in Europe for highly mobile marine species regarding reversing negative population trends. However, as harbour porpoise is currently considered to be at Favourable Conservation Status, the SACs will complement existing management of activities in order to support the maintenance of this status in UK waters.

6. **Request for clarity from the Welsh Government on the current Marine Protected Areas Management Review and how this impacts upon Relevant and Competent Authorities.**

The outcome of the MPA Management review and the subsequent engagement on area based management is being considered by the Welsh MPA Network Management Steering Group.

6 Conclusions and Recommendations

The consultation was concerned with the scientific case for the designation of five pSACs for the harbour porpoise and the assessment of the likely economic and social impact of the designation of each site as well as the network of sites**.** The sites were:

- Bristol Channel Approaches / Dynesfeydd Môr Hafren pSAC
- West Wales Marine / Gorllewin Cymru Forol pSAC
- North Anglesey Marine / Gogledd Môn Forol pSAC
- North Channel pSAC
- Southern North Sea pSAC

Responses were received from organisations and businesses covering the breadth of relevant interest groups, individuals and campaigns from two NGOs. We thank all those who took time to respond and for the helpful comments received. These comments have been fully considered and the joint responses of CNCBs presented. In light of this process, CNCBs make the following advice to Ministers to inform their decision on designation:

Conclusion

A total of 10,766 responses were made to the consultation through various means. Of these, 10,564 were submitted through dedicated campaigns initiated by Whale and Dolphin Conservation (WDC) and Marine Conservation Society (MCS). There was majority support for the designation of the pSACs included in the consultation; only 7% of non-campaign respondents stated that they did not support the proposed designations. For the network of sites, the majority agreed that the scientific evidence did support the designations. For individual sites, the majority agreed that the scientific evidence supported the designations. Some of the agreement was caveated with the issues raised in this consultation report.

Recommendations

Bristol Channel Approaches / Dynesfeydd Môr Hafren pSAC: *that the proposal goes forward as consulted.*

No boundary changes are recommended to the original proposals. The most substantive issue was with respect to the inclusion of the Swansea Bay area into the BCA pSAC boundary (refer to Section 5.3.1). The CNCBs were provided with further evidence (data and publications) on this area. CNCBs considered whether the additional data would be likely to change the boundaries if the modelling were re-run and whether the eastern boundary could be adjusted based on the data provided without re-running the modelling. Both options were fully considered and CNCBs decided to recommend that the Governments proceed with boundaries as described in the consultation documents. CNCBs believe that had these data been included from the outset, confidence in the model would be unlikely to increase enough to result in the proposed additional area being included in the boundary. However, we cannot be certain of this unless these additional data are incorporated and models re-run. A re-analysis could extend the site identification process by up to two years and at considerable further cost. The data submitted for the Swansea Bay area may be used to inform wider species management measures and potentially the development of the harbour porpoise conservation plan. The data might also be used to inform any future revisions of the site network.

The Site Selection Assessment Document has been updated to reflect that the BCA pSAC boundaries have been identified on the basis of persistent winter high densities only. The original maps had been based on a mapping projection which does not conform to best practice. To ensure consistency across the mapping of similar sites this has been corrected within the Site Selection Assessment Document and consequently the area of the pSAC has decreased slightly from 5,851km^2 to 5,850km^2.

West Wales Marine / Gorllewin Cymru Forol pSAC: *that the proposal goes forward as consulted.*

No boundary changes recommended to the original proposals.
The Site Selection Assessment Document has been updated to reflect that the original maps had been based on a mapping projection which does not conform with best practice. To ensure consistency across the mapping of similar sites this has been corrected within the Site Selection Assessment Document and consequently the area of the pSAC has decreased slightly from 7,377km^2 to 7,376km^2.

North Anglesey Marine / Gogledd Môn Forol pSAC: *that the proposal goes forward as consulted.*

No boundary changes recommended to the original proposals. The Site Selection Assessment Document has been updated to reflect that some alignment issues were identified with the pSAC boundaries. Changes were made along the western boundary to improve alignment with the boundary of the UK's Exclusive Economic Zone (EEZ); this update did not change the area of the site, which remains at 3,249km^2.

North Channel pSAC: *that the proposal goes forward as consulted.*

No boundary changes recommended to the original proposals. The area of the pSAC remains at 1,604km^2

Southern North Sea pSAC: *that the proposal goes forward as consulted.*

No boundary changes recommended to the original proposals. Substantive issues were raised with regard to the data and modelling for this site (see Section 5.3.5). Through the consultation CNCBs received further data from one respondent suggesting the 'designation process would be more robust and accurate should [their] data be incorporated'. CNCBs fully considered the likely effect these data would have on the outcome of the modelling process should they be included in a reanalysis. The data were more recent than the analysis cut-off (mid 2011) but they covered an area for which data were already included in the model. Overall, CNCBs agreed and advise that there would be little change in the identified boundary by inclusion of these data. However, CNCBs cannot be certain of this unless these additional data are incorporated and models re-run. A re-analysis *would* extend the designation process considerably.

The Site Selection Assessment Document has been updated to reflect that the original maps had been based on a mapping projection which does not conform with best practice. To ensure consistency across the mapping of similar sites this has been corrected within the Site Selection Assessment Document and consequently the area of the pSAC has decreased slightly from 36,958km^2 to 36,951km^2.

Impact Assessment
All responses received with regard to the Evidence Base supporting the Impact Assessment were fully considered by the CNCBs and our expert contractor (ABPmer). Where necessary, the Evidence Base was updated. However, *these updates have resulted in no significant changes to the Impact Assessment and it remains as per the consultation*.

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Key Terms and Acronyms

ABPmer	ABP Marine Environmental Research consultants
ADDs	Acoustic Deterrent Devices
AIS	Automatic Identification System
AoS	Area of Search
ASCOBANS	Agreement on the Conservation of Small Cetaceans in the Baltic, North East Atlantic, Irish and North Seas
BCA	Bristol Channel Approaches pSAC
BEIS	Department for Business, Energy and Industrial Strategy (Formerly DECC)
CEFAS	Centre for Environment Fisheries and Aquaculture Science
CNCB	Country Nature Conservation Body
CODA	Cetacean Offshore Distribution and Abundance survey
CO	Conservation Objectives
cPODs	passive acoustic monitoring instruments that detect dolphins and porpoises by identifying the trains of echo-location sounds they produce
cSAC	candidate Special Areas of Conservation
CSG	Chief Scientist Group
DAERA	Department of Agriculture, Environment and Rural Affairs, Northern Ireland
DECC	Department of Energy and Climate Change (now BEIS)
DEFRA	Department for Environment, Food and Rural Affairs
DEPONS	Disturbance Effects on the Harbour Porpoise Population in the North Sea
DETR	Department of the Environment, Transport and Regions
DHI	DHI Water Environments (UK) - an independent, international consulting and research organisation.
EEZ	Exclusive Economic Zone
EIA	Environmental Impact Assessment
EPS	European Protected Species
Evidence Base	Evidence informing the pSAC Impact Assessment
FCS	Favourable Conservation Status (related to Habitats Directive)
GES	Good Environmental Status (related to MSFD)
GIS	Geographical Information System
HRA	Habitats Regulations Assessment
IA	Impact Assessment
IAMMWG	The Inter-Agency Marine Mammal Working Group
IFCA	Inshore Fisheries and Conservation Authorities
Inshore	Waters out to 12 nautical miles
Issue	An issue, comment or query submitted through the consultation
IUCN	The International Union for the Conservation of Nature
JCP	Joint Cetacean Protocol
JNCC	The Joint Nature Conservation Committee
Land-based	Sightings data collected from land
MBES	Multi-beam Echo Sounders
MCS	Marine Conservation Society
MCZ	Marine Conservation Zone
MESAT	Marine Environment and Sustainability Assessment Tool
MMO	Marine Management Organisation

MPA	Marine Protected Area
MSFD	The Marine Strategy Framework Directive
MU(s)	Management Unit(s)
NE	Natural England
NGO	Non-Governmental Organisation
NRW	Natural Resources Wales
Offshore	Territorial waters beyond 12 nautical miles
OSPAR	The Convention to protect the marine environment of the North-East Atlantic.
PAM	Passive Acoustic Monitoring
PSG	Project Steering Group
Q&A	Questions & Answers published as part of the consultation information
RoC	Report on Compliance
SAC	Special Areas of Conservation that protect habitats and species listed on the European Commission Habitats Directive.
SAD	Selection Assessment Document
SCANS	Small Cetaceans in European Atlantic waters and the North Sea - a large-scale ship and aerial survey to study the distribution and abundance of cetaceans in European Atlantic waters.
SCI	Site of Community Importance
SDF	Standard Data Form
SNH	Scottish Natural Heritage
SPA	Special Protection Areas, designated to protect wild birds listed on the European Commission Birds Directive.
WDC(S)	Whale and Dolphin Conservation (previously the Whale and Dolphin Conservation Society)
WG	Welsh Government

Further information

This document is available as a pdf file on the JNCC and NRW website for download if required (www.jncc.gov.uk / https://naturalresources.wales).

Please return comments or queries to:

JNCC:
Marine Species Advice Team
Joint Nature Conservation Committee
Inverdee House
Aberdeen, AB11 9QA

Tel: +44 (0)1733 562626
Email: porpoise@jncc.gov.uk

Further information and supporting documents regarding the consultation can be found on the following webpages:

Website JNCC: http://jncc.defra.gov.uk/SACconsultation
Website NRW: www.naturalresources.wales/mn2k

Or

NRW:
Marine Advice Team
Natural Resources Wales
Cambria House
29 Newport Road
Cardiff, CF24 0TP

Tel: +44 (0)300 065 3000 (Mon-Fri, 8am - 6pm)
Email: marine.n2k@naturalresourceswales.gov.uk

Further information and supporting documents regarding the consultation can be found on the following webpages:

Website JNCC: http://jncc.defra.gov.uk/SACconsultation
Website NRW: www.naturalresources.wales/mn2k

Annex I: Invitations to respond

JNCC Invitation to Respond
Dear Sir/Madam

Invitation to respond to the consultation on possible Special Areas of Conservation for harbour porpoise in UK waters

A number of marine areas around the UK are under consideration as possible Special Areas of Conservation (SACs) for harbour porpoise.
SACs are areas of land or sea identified as being of European importance for the conservation of biodiversity. Under the EU Habitats and Species Directive 1992 all EU member states are required to designate SACs and put in place measures to ensure the conservation of the habitats and species for which the sites are designated.
As someone who may have an interest in the areas concerned, we are writing to invite you to respond to this consultation by telling us your views. The current consultation for the network of harbour porpoise SACs is divided into two, with the Joint Nature Conservation Committee (JNCC), and Natural Resources Wales (NRW) running consultations for separate parts of the network. JNCC are consulting on three site proposals:

- Bristol Channel Approaches possible SAC
- North Channel possible SAC
- Southern North Sea possible SAC

Full details of these proposals and the consultation response form, along with details of the sites undergoing consultation by NRW, are available on the JNCC website: http://jncc.defra.gov.uk/SACconsultation

The purpose of the formal consultation
The purpose of this consultation is to seek the view of all interested parties on:

- The scientific case for the designation of the possible harbour porpoise SACs; and
- The assessment of the likely economic and social impact of the designation of the sites

The information provided in support of the consultation includes:
- **Consultation paper:** explaining what the consultation is about and how to respond to it;
- **Site identification reports:** information on the data analysis and reasons why we consider these areas to be eligible for designation as SACs;
- **Site information:** maps of the proposed site boundaries and site specific information;
- **Supporting technical information:** draft conservation objectives, advice on activities for the sites;
- **Assessments of the potential regulatory impact:** concerning the potential social and economic effect of the designations;
- **Common questions:** some questions and answers surrounding the process; and
- There are also links to background reports.

The decision on whether to designate SACs is made by UK Ministers with Ministers in the devolved Governments being responsible in their respective waters. No decisions have yet been made in relation to these sites. We are carrying out this consultation on behalf of the Governments and will report the results of the consultation to them.

If you have any questions about this consultation not answered in the information mentioned above, please email us as at porpoise@jncc.gov.uk or call JNCC on 01733 562626 and ask for the Marine Species Advice Team.

How to respond

In order for your views to be formally considered, responses to the consultation must be made in writing and include the requested personal details and information. You can respond using our online response form where you may submit your views and information, as well as attachments for consideration. If you are unable to use the form, submissions may also be made via email or letter, however **online responses are preferred** and anything submitted via other means must contain the appropriate supporting information. Full details of how to respond are on the web pages and in the consultation paper.

All responses to the consultation must be received by midnight on Tuesday 3 May 2016, which is when the consultation period ends.

Kind regards

Mark Tasker
Head of Marine Advice

NRW Invitation to Respond

19 January 2016

Dear Sir/Madam

CONSULTATION ON PROPOSED SPECIAL AREAS OF CONSERVATION FOR HARBOUR PORPOISE AND PROPOSED NEW AND EXTENDED SPECIAL PROTECTION AREAS FOR SEABIRDS

A number of sea areas around Wales are under consideration as proposed Special Areas of Conservation (SACs) for harbour porpoise and proposed Special Protection Areas (SPAs) for a number of species of seabirds.

SACs and SPAs are areas of land or sea identified as being of European importance for the conservation of biodiversity. Under the EU Habitats and Species Directive 1992, and the EU Wild Birds Directive 2009, all EU member states are required to designate SACs and SPAs and put in place measures to ensure the conservation of the habitats and species for which the sites are designated.

As someone who may have an interest in the areas concerned, we are writing to invite you to respond to this consultation by telling us your views. We are consulting on six proposals:

- North Anglesey Marine / Gogledd Môn Forol possible SAC;
- West Wales Marine / Gorllewin Cymru Forol possible SAC;
- Bristol Channel Approaches / Dynesfeydd Môr Hafren possible SAC;
- Anglesey Terns / Morwenoliaid Ynys Môn proposed SPA (a proposed extension to the existing Ynys Feurig, Cemlyn Bay and The Skerries SPA);
- Northern Cardigan Bay / Gogledd Bae Ceredigion proposed SPA.
- Skomer, Skokholm and the Seas off Pembrokeshire / Sgomer, Sgogwm a Moroedd Penfro proposed SPA (a proposed extension to the existing Skokholm and Skomer SPA).

Full details of each of these proposals are available on the Natural Resources Wales website: www.naturalresources.wales/mn2k. A summary map showing the location of the areas is given at the end of this letter.

The information available on our website includes a consultation paper explaining fully what the consultation is about and how to respond to it, and detailed maps of the boundaries of each proposed site. We have also set out in detail the reasons why we consider these areas to be eligible for designation as SACs and SPAs, and we have provided some Questions and Answers and a range of other supporting technical information, including draft conservation objectives for the sites and assessments of their potential regulatory impact.

Decisions on whether to designate SACs and SPAs in Wales and Welsh inshore waters are made by the Welsh Ministers, and no such decisions have yet been made in relation to these sites. We are carrying out this consultation on behalf of the Welsh Government and will report the results of the consultation to them. In doing so, we will take into account all consultation responses received, but please note that only relevant scientific considerations can be taken into account by Ministers in deciding whether to designate SACs and SPAs. Information and views on economic and social considerations can help inform future decisions about the way in which the areas should be managed, but cannot influence decisions on the designation of SACs and SPAs or the determination of their boundaries.

Some of these sites lie partly in Welsh territorial waters and partly in UK offshore waters beyond the 12 nautical mile Territorial Sea limit. Sites in UK offshore waters are the responsibility of the UK Government and the UK Joint Nature Conservation Committee (JNCC). NRW and JNCC are working together on these sites, and the consultation will therefore be reported jointly by NRW and JNCC to both the Welsh

Government and UK Government. You may also receive correspondence from JNCC in relation to other proposed sites in English, Northern Ireland and UK offshore waters, although we have tried to avoid duplication as much as possible. **Full details of how to respond and where to send your response are given in the consultation paper on the NRW website. Please note that it is not necessary to respond to both NRW and JNCC on any of the above sites, as both organisations will be working closely together, and with the other UK statutory conservation agencies, to review the consultation responses and prepare our reports to Government**.

If you would like paper copies of any of the consultation documents on our website, or have any initial questions about this consultation, please email us as at marine.n2k@naturalresourceswales.gov.uk or call us on 0300 065 3000. You are also welcome to contact your local NRW office.

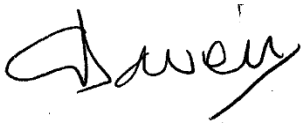
Responses to the consultation must be made in writing, and can be made in English or Welsh. The best way to respond is by using our straightforward online response form (follow the link from the consultation page on our website). The online form allows you to provide a brief response, or respond in detail to the consultation questions, including by attaching additional documents if required. If you are unable to respond online, you can respond by email or by letter to the address at the top of this letter.

All responses to the consultation must be received by midnight on **3 May 2016 at the latest**, which is when the consultation period ends.

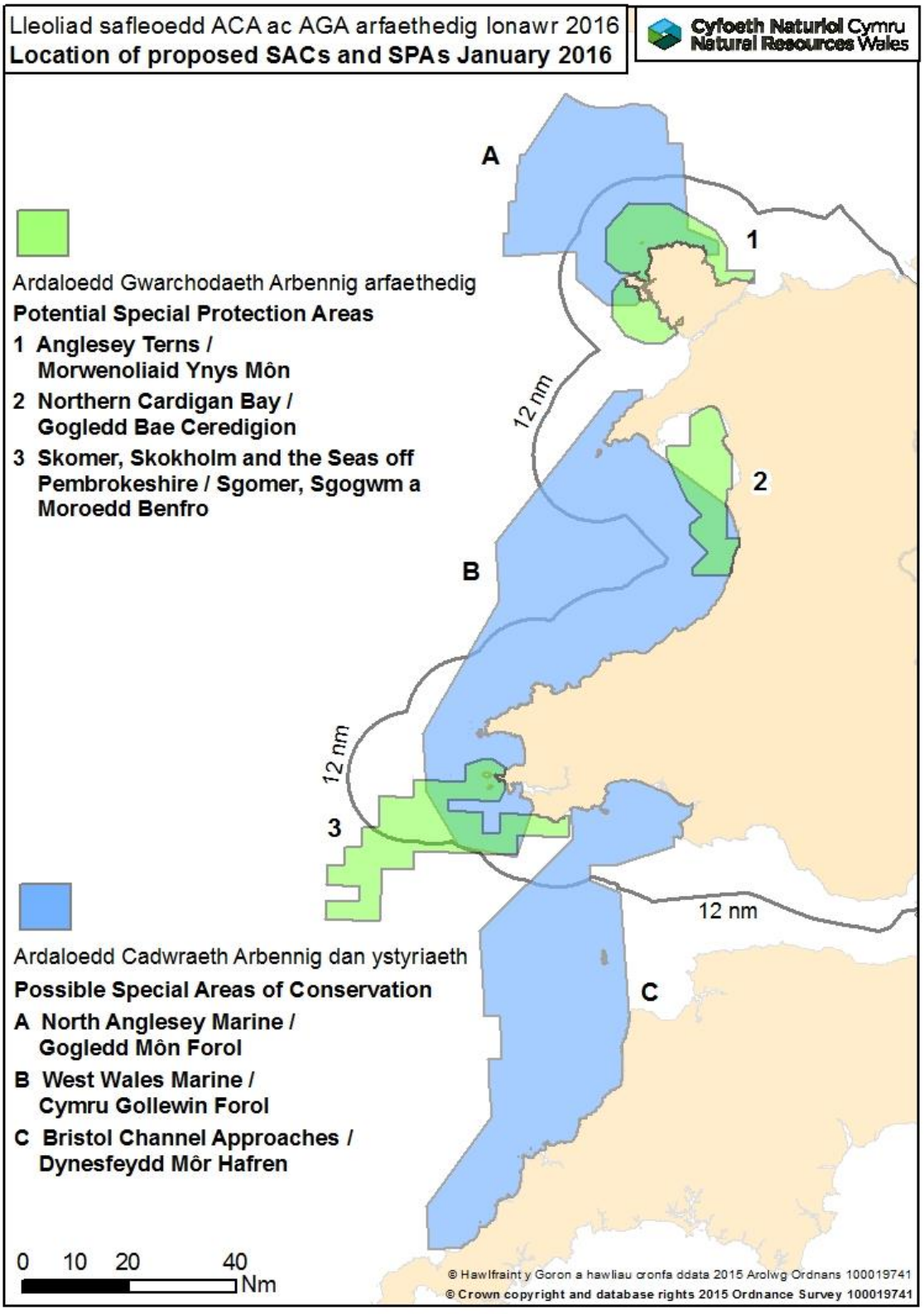
Please note that in the interests of transparency and openness, all responses to this consultation together with the names of all respondents (but not their addresses or any other personal information) may be made available to any member of the public on request, and may also be published, in part or in whole, including on the NRW and/or JNCC websites. All personal information will be handled in accordance with Data Protection Act requirements. If you do not wish your name and your views on these SAC or SPA proposals to be made public, you are advised not to respond to this consultation. When responding, please do not include any personal information about yourself or others within the body of your comments.

We look forward to hearing from you.

Yours faithfully



Ceri Davies
Executive Director Knowledge, Strategy and Planning


Lleoliad safleoedd ACA ac AGA arfaethedig Ionawr 2016
Location of proposed SACs and SPAs January 2016
Cyfoeth Naturiol Cymru
Natural Resources Wales
Ardaloedd Gwarchodaeth Arbennig arfaethedig
Potential Special Protection Areas
1 Anglesey Terns / Morwenoliaid Ynys Môn
2 Northern Cardigan Bay / Gogledd Bae Ceredigion
3 Skomer, Skokholm and the Seas off Pembrokeshire / Sgomer, Sgogwm a Moroedd Benfro
Ardaloedd Cadwraeth Arbennig dan ystyriaeth
Possible Special Areas of Conservation
A North Anglesey Marine / Gogledd Môn Forol
B West Wales Marine / Cymru Gollewin Forol
C Bristol Channel Approaches / Dynesfeydd Môr Hafren
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© Crown copyright and database rights 2015 Ordnance Survey 100019741

Annex II: Summary overview of the consultation responses

The JNCC and NRW-led consultations were carefully coordinated to ensure that the analysis of responses could be combined to enable the results of both consultations to be presented together. Except where otherwise indicated, the figures presented in the following charts represent the combined responses to both consultations.

With the exception of the large number of emailed responses received through the dedicated email campaigns run by Whale and Dolphin Conservation (WDC) and the Marine Conservation Society (MCS) (Section 5.4), consultation responses submitted by email or letter were manually added to the database of online responses by JNCC and NRW staff in order to allow an efficient analysis process. In these circumstances, care was taken to ensure the correct views were represented, and all original responses were attached to the database entry.

In order to reduce duplication from individual respondents, the JNCC and NRW online surveys were set up to recognise if more than one response was submitted from an individual IP address.

The JNCC and NRW online response forms were divided into three sections;

- Part A requested personal information about the respondents, any associations with a particular industry/sector and outlined the data handling policy. These details were required in order to validate a response.
- Part B was referred to as the 'general response' section, which allowed respondents to quickly state whether or not they agreed with the designation of the five possible harbour porpoise pSACs. Responses could be submitted without going on to the more detailed section of the form (Part C).
- Part C, referred to as the 'detailed comments' section, allowed respondents to write more detailed comments regarding the site identification process and the draft socio-economic impact assessment, and enabled respondents to reference their comments to particular sites. Further comments and supporting documentation could also be uploaded in this section.

Response summary

A total of 10,766 responses received through various means, of which 10,564 were via NGO campaigns; 2,061 via the MCS and 8,503 via WDC.

In addition to the campaign responses, 216 individual responses were made via the online forms, email or post; however 14 of these were duplicates, where identical responses had been submitted to both the JNCC and NRW consultations by the same individual. Responses submitted by the same organisation or individual to both consultations, but different in content, were considered as separate responses. The 14 duplicate responses have been removed from the overall total, given the combined approach to reporting of the two consultations. Of the 202 remaining responses, 45% were made by individuals and 55% on behalf of groups or organisations. There is a breakdown of affiliation in the body of the report in Section 3.

In order to establish respondents' level of support for the proposals, consultees were asked whether they a) supported, b) partly supported, c) did not support the proposals or d) were undecided.

Including the WDC and MCS campaign responses, the designation of the five harbour porpoise pSACs was supported by 98.72% of respondents, while 0.26% were partly supportive, 0.17% did not support the proposed designation of the harbour porpoises possible SACs and 0.83% were undecided (Figure 13(a)). Excluding the WDC and MCS campaign responses, 64% were supportive, 12% partly supportive and 7% did not support the designation of the sites. The remaining 17% were undecided (Figure 13b).

It was not possible to determine how many duplicate responses there were between the MCS and the WDC campaigns, nor whether any respondents submitted responses both individually and via one or other (or indeed both) of the WDC and MCS campaigns.

All charts were produced using the number of responses relevant to the question, for example not all questions were mandatory in the online survey and therefore the number of responses used to create the graphs may be smaller than the total number of responses. The charts do not include responses received through the WDC and MCS campaigns unless stated.

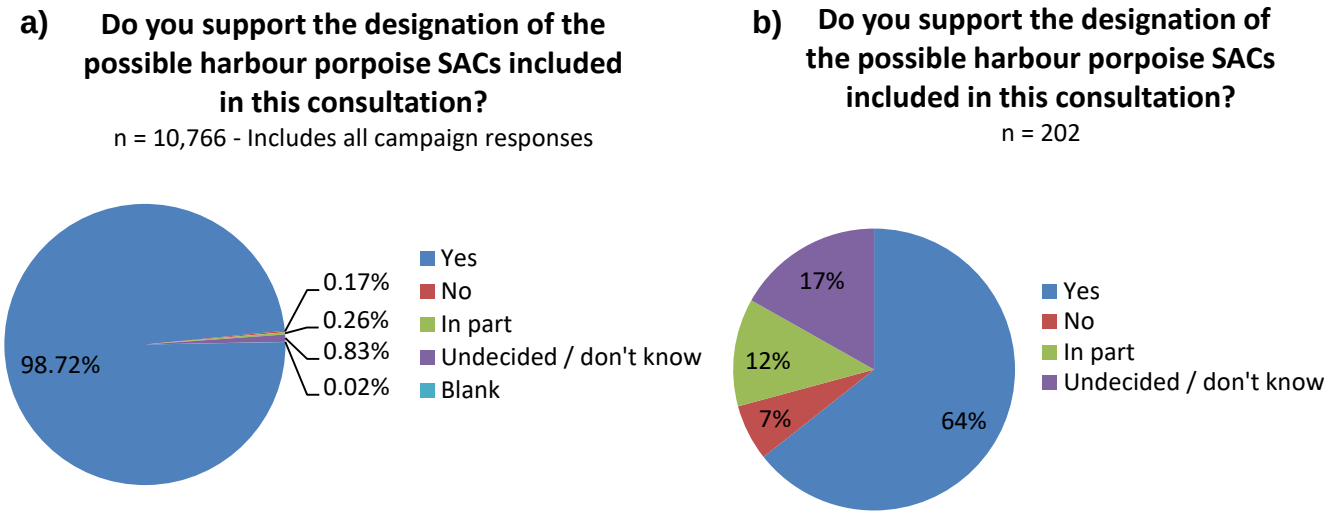


Figure 13: Proportion of a) all responses including the campaign responses; and b) non-campaign responses; that were supportive, not supportive, partly supportive or undecided regarding the designation of the possible harbour porpoise SACs.
(n=number of responses included in the chart)

Detailed comments

After completing the respondent information (Part A) and the general comments response (Part B) sections, there was the option to either submit the response, or continue to provide further comments either on all sites together or on individual sites. The format of the JNCC online response form detailing the questions asked can be found in Annex III

Of the 202 submitted outside of the campaigns, 138 were considered to be a general response only, and 64 included a more detailed response. Of these, 42 were received via the JNCC and NRW email addresses or by post, and were subsequently added to the online database by JNCC/NRW (with the original letter attached to the submission). When inputting responses into the online database, where it was not clear if a response supported the sites or not, the decision was made to classify it as 'undecided'. Figure 13 may therefore give a slightly inflated view of the number of responses with an 'undecided' view.

Only responses that included information in the 'detailed comments' section in the online response form are included in the statistics below. Some of the general did include documents, and in some cases, these attachments would include detailed comments about the network or about specific sites. The following should therefore only be regarded as a first indication of the consultation responses. The body of this report considers all issues and comments submitted in detail, with subsequent CNCB responses.

The consultation run by JNCC had four available options for entering detailed comments. The options were to comment on 'multiple sites', so all sites (either in the JNCC consultation, or the five sites as a whole), or to choose a specific site to comment on. Of the 45 responses that included detailed comments in the JNCC consultation, 31% commented on the network, 13% had comments specific to the English part of the Bristol Channel Approaches pSAC, 18% commented specifically on the North Channel pSAC and 38% had comments relating to the Southern North Sea pSAC.

The consultation run by NRW allowed for comments on one, two or all three of the pSACs in Welsh waters, with an option to make comments applicable to the other sites undergoing consultation through JNCC.

Nineteen responses included detailed comments within the NRW consultation, with 24% including comments on North Anglesey Marine pSAC, 35% on West Wales Marine pSAC and 41% on the Welsh part of the Bristol Channel Approaches pSAC. Please note that responses could include comments on multiple sites in a single response. 47% agreed that their comments on the sites were also applicable to the UK network of pSACs for harbour porpoise.

Site specific responses

The consultation response form had sections where site specific comments could be added. In the JNCC consultation, two options were given: 1) to give site-specific comments on an individual site of interest and 2) to comment on 'multiple sites' where the comments related to more than one site. The NRW consultation allowed for multiple sites to be individually chosen and therefore did not include a 'multiple sites option', but instead an option to tick that the comments on the site or sites were applicable across the UK network of sites.

The site specific responses are summarised below. Note that these sections were not compulsory and the percentages given are based on the number of responses relating to each site and therefore are not comparable with the general section or between different sites. None of the WDC or MCS campaign responses made site-specific comments that could be related to the figures below, which therefore only include the non-campaign responses.

Site specific responses through the JNCC consultation

Southern North Sea pSAC

A total of 18 responses included specific comments relating to the Southern North Sea pSAC. Figure 14 shows that three of these 18 responses agreed that the analysis and evidence underpinning the proposed site support and justify the designation, whilst 10 only partly agreed to this and two did not agree. The remaining three were undecided. The majority (15) had specific comments relating to the socio-economic impact assessment report specific to the Southern North Sea pSAC. Additionally, just over half included further comments.

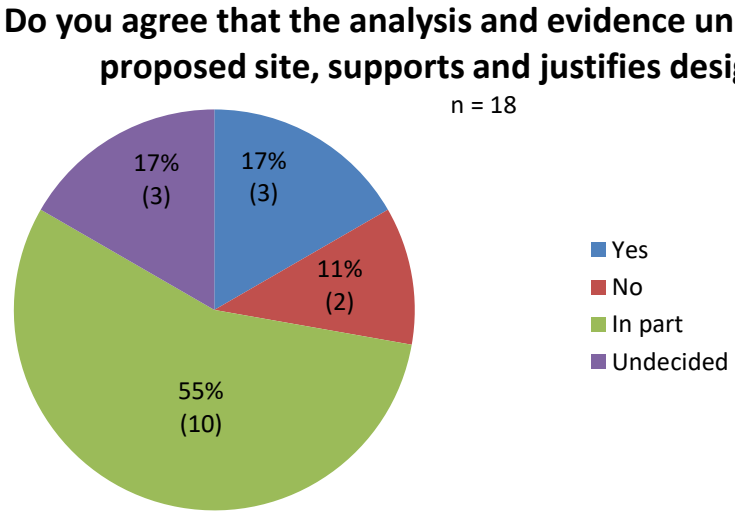


Figure 14: Proportion of non-campaign responses that agreed, did not agree, partly agreed or were undecided on whether the analysis and evidence underpinning the proposed site support and justify designation of Southern North Sea.
(n=number of responses included in the chart)

Bristol Channel Approaches / Dynesfeydd Môr Hafren pSAC

(English inshore and offshore area)

Six of the responses related specifically to the English inshore and offshore area of the Bristol Channel Approaches / Dynesfeydd Môr Hafren pSAC. Of these, half partly agreed that the analysis and evidence underpinning the proposed site support and justify the designation (Figure 15). The other half were undecided. Four had specific comments relating to the socio-economic impact assessment and two had further comments on the site proposal.

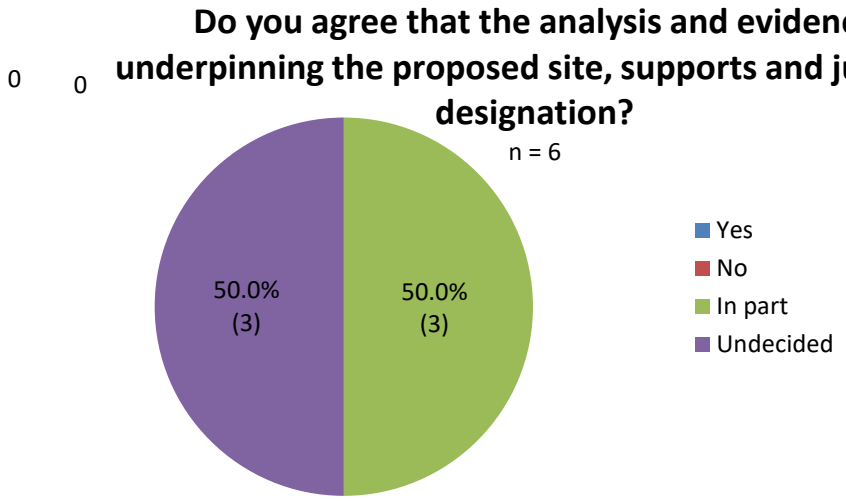


Figure 15: Proportion of non-campaign responses that agreed, did not agree, partly agreed or were undecided on whether the analysis and evidence underpinning the proposed site support and justify designation of Bristol Channel Approaches / Dynesfeydd Môr Hafren.

(n=number of responses included in the chart)

North Channel pSAC

A total of eight responses were submitted to the site specific section for the North Channel pSAC. Figure 16 shows the level of support from these eight stakeholders. Three of the eight agreed that the analysis and evidence underpinning the proposed site support and justify the designation and an additional two partly agreed. One response did not agree, whilst the remaining two were undecided. Three responses provided comments on the socio-economic impact assessment and two had further comments to add about the North Channel site proposal.

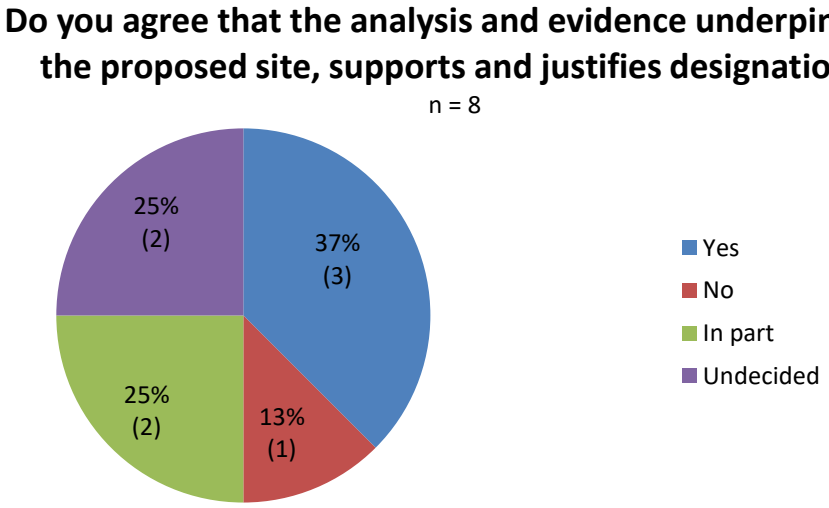


Figure 16: Proportion of non-campaign responses that agreed, did not agree, partly agreed or were undecided on whether the analysis and evidence underpinning the proposed site support and justify designation of North Channel.

(n=number of responses included in the chart)

Sites specific responses through the NRW consultation

- **Bristol Channel Approaches / Dynesfeydd Môr Hafren pSAC (Welsh inshore area);**
- **West Wales Marine / Gorllewin Cymru Forol pSAC;**
- **North Anglesey Marine / Gogledd Môn Forol pSAC**

A total of 19 responses commented specifically on one or more of the three sites relevant to the NRW consultation. Just under half of the responses agreed and six partly agreed that the analysis and evidence underpinning the proposed site support and justify the designation (
Figure 17).

Four disagreed with this statement and one was undecided. Approximately half of the responses included comments on the socio-economic impact assessment, and 10 added further comments relevant to the site proposals.

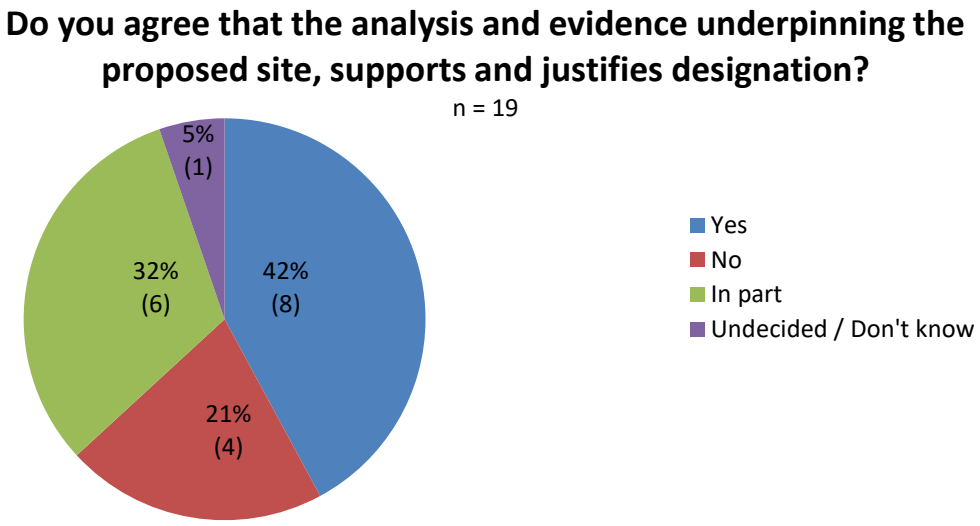


Figure 17: Proportion of non-campaign responses that agreed, did not agree, partly agreed or were undecided on whether the analysis and evidence underpinning the proposed sites support and justify designation.
(n=number of responses included in the chart)

Data submitted during consultation

The consultees had the option of uploading supporting documents to their consultation response. These could be general documents or linked to specific sites. A variety of documents were uploaded including images, reports and in some cases, data. These attachments will be considered as forming part of the consultation responses and will be taken into account in the preparation of the full report on the consultation.

Campaign responses

Whale and Dolphin Conservation (WDC) initiated a campaign which resulted in 8,503 consultation responses sent to both the JNCC and NRW consultation email addresses. The Marine Conservation Society (MCS) campaign generated 2,061 consultation responses, 595 of which were sent to both NRW and JNCC, with a further 1,028 to JNCC only and 438 to NRW only. These 'campaign responses' were identified by their inclusion of standard text, which was provided by WDC and MCS through their websites. Furthermore, the emails generated by the WDC campaign all identified WDC as the sender of the email, while all the emails arising from the MCS campaign began with the same phrase "I am responding as an individual".

Examples of these two campaigns can be found in Section 5.4 of the report.

All these responses were sent to the email addresses set up for the consultation by JNCC and NRW rather than being submitted using the online response forms or by hardcopy letter. None of the WDC or MCS initiated campaign responses made specific reference to any of the five sites being consulted on. Further detail on the issues raised through these emails has been addressed in the body of this report.

Whale and Dolphin Conservation campaign

Given the very large number of apparently identical responses received from the WDC campaign, it was not considered reasonable or necessary to read every individual response to check for any variation from the standard text provided by WDC or to identify potential duplications by individual respondents. Instead, JNCC and NRW applied several different approaches to check for any variation in the responses.

JNCC staff randomly selected a 1% sample of the emails received from the WDC email address and read them in order to check for any individuality (85 in total). The file size of all emails was also compared as a further means of checking for any variation.

NRW transferred the text of 40 randomly selected emails received from the WDC address into a single document to compare the total number of words with the expected total if all 40 responses were the same (i.e. 40x the original standard text word total of 229). The search function was then used within this extracted document to check that there were exactly 40 results for each phrase in the WDC standard response.

None of these checks found any variation in either content or file size, with the exception of two emails that were 38kb rather than the standard 37kb. When these were checked, there were no differences in the content other than in the contact details of the respondent. All 8,503 of the WDC campaign responses were therefore considered to be identical, and all fully in support of the proposed SACs (as per the WDC standard text).

Marine Conservation Society campaign

MCS provided a standard text for respondents to send, but encouraged respondents to alter the text before sending to account for individual expression of opinion. Therefore, differences exist in the majority of the MCS emails. The 2,061 MCS responses were all reviewed and categorised into:

- emails using the standardised text provided by MCS or only minor variations in wording or expression;
- emails raising additional issues or making comments not included in the template email provided by MCS.

The emails were received from the individual senders email addresses and it was therefore possible to check for duplication by sorting the emails by sender. However, no issues regarding duplications within the campaign responses were found.

Emails with an invalid email address indicated by return receipts from the automated response were checked. In some cases the invalid email address could be attributed to an obvious typing mistake by the respondent, but for a small number of responses it was not possible to easily identify a mistake, therefore these responses do not have a verifiable source. However, to offer the benefit of the doubt, these emails are included in the final figure given the fact that they are purely a show of support and do not contain any substantive comments.

A small proportion of the emails received through the MCS campaign indicated they were undecided about the designation of the sites. However, by far the majority of the responses were in full support of the designation of the proposed SACs. All of the issues raised (including any additional ones) in the campaign responses are considered in the body of this report, alongside all other issues raised.

Annex III: Consultation response form

Below is a copy of the JNCC consultation response form. The NRW online response form followed a very similar format and is available on request from NRW.

JNCC Consultation response form

JNCC 2016 Harbour Porpoise possible Special Area of Conservation Consultation

Response Form

Thank you for taking the time to respond to the JNCC harbour porpoise possible Special Area of Conservation (pSAC) consultation. The consultation will be open for responses for 13 weeks from Tuesday 19th January to midnight on Tuesday 19th April 2016. We are interested to hear your views on the proposals to designate **three SACs for harbour porpoise** in English and Northern Ireland inshore and offshore waters.
Information on these proposals can be found on the JNCC consultation webpages at http://jncc.defra.gov.uk/SACconsultation or in hard copy on request.

We are also interested in your comments on the socio-economic **impact assessment** that has been carried out on the network of possible harbour porpoise SACs around the UK, including the three in this consultation.

There are three parts to the response form and fields marked with * are mandatory if you wish you response to be considered:

PART A - Respondent Information Form
It is necessary to collect an element of personal information in order to validate a submission.
PART B - General response section
Use this section to show your general support / objection to the proposals.
PART C - Site specific response section
Use this section if you have specific comments to make regarding individual site proposals.

If you need to supplement the form with further pages, please indicate clearly which question your responses relate to and add your unique response code (found in the header, or at the end of the form) to each page. You will need to quote your unique response ID for any further communications after submitting your response, so please take note of it before sending your form.

If you have any issues, please contact the Marine Species Advice Team at:

Email: **porpoise@jncc.gov.uk** (please quote your unique code located in the header or at the end of this form, in the subject line)
Telephone: **+44 (0)1733 562626** and ask for the Marine Species Advice Team

PART A - Respondent Information Form

1. I am responding *

- [ ] As an individual
- [ ] On behalf of a group or organisation

2. Do you or your organisation identify with any of the groups listed below?

- [ ] Academic & scientific
- [ ] Aquaculture
- [ ] Energy (non-renewables)
- [ ] Energy (renewables)
- [ ] Fishing (all forms)
- [ ] Local authority
- [ ] Local community group
- [ ] Non-governmental organisation
- [ ] Ports & harbours
- [ ] Public sector
- [ ] Recreation & Sport
- [ ] Shipping
- [ ] Tourism
- [ ] Private individual

Other (Please state)

PART A Individuals - Respondent Information Form

(If you are responding on behalf of a group or organisation, please only fill out the group/organisation section)

3. Your details *

Name *

Email or Address *

4. How we will use your information: *

- **All responses to this consultation, including the names of respondents, will be considered public.**
- **With the exception of contact information and other personal details, consultation responses and the names of respondents will be made publicly available if required.**
- **We will not share any details beyond your response and you or your organisation's name.**
- **Please ensure you do not mention other individuals by name, or include any personal information within the body of your response.**
- **We may also share any responses that we receive with other statutory nature conservation bodies, UK and devolved Governments in order to help ensure a coordinated approach to this consultation.**
- **Any personal information you provide to JNCC will be used and stored in line with the requirements of the Data Protection Act 1998.**

Please indicate that you have read and understood the policy for handling information received through this consultation. Further information on how responses will be handled can be found in our Consultation Overview Document.

☐ I have read and understood how any information I submit may be handled*

5. If required, may we contact you regarding your response? *

☐ Yes
☐ No

PART A Group / Organisation - Respondent Information Form

(If you are responding as an individual, please only fill out the individual's response section)

6. Organisation / Group details *

Name*

Email/ address*

7. How we will use your information: *

- **All responses to this consultation, including the names of respondents, will be considered public.**
- **With the exception of contact information and other personal details, consultation responses and the names of respondents will be made publicly available if required.**
- **We will not share any details beyond your response and you or your organisation's name.**
- **Please ensure you do not mention other individuals by name, or include any personal information within the body of your response.**
- **We may also share any responses that we receive with other statutory nature conservation bodies, UK and devolved Governments in order to help ensure a coordinated approach to this consultation.**
- **Any personal information you provide to JNCC will be used and stored in line with the requirements of the Data Protection Act 1998.**

Please indicate that you have read and understood the policy for handling information received through this consultation. Further information on how responses will be handled can be found in our Consultation Overview Document.

☐ I have read and understood how any information I submit may be handled*

8. If required, may we contact you regarding your response? *

☐ Yes
☐ No

PART B - General comments

9. Do you support the designation of the possible harbour porpoise SACs included in this consultation? *

Site specific comments should be made using PART C.

☐ Yes
☐ No
☐ In part
☐ Undecided / don't know.

Comments:

If you have supporting documentation to submit with your response, please send with your response and add a description of the attachment(s) to the comments box below.

(eg - which site(s) does it relate to, the source)

If you cannot include your supplementary information with this form, please contact the Marine Species Advice Team with your unique ID number in order to discuss submission.

Comments:

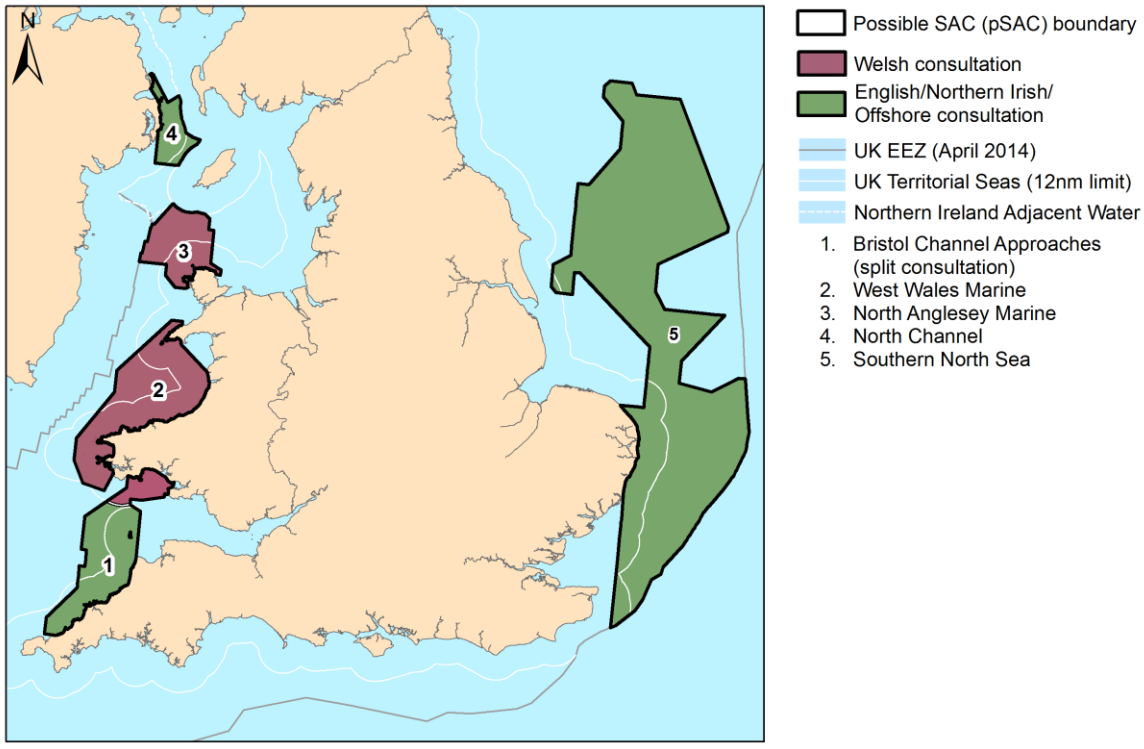
PART C - Detailed comments

10. Which possible Special Area of Conservation (pSAC) do you wish to comment on? *

If you wish to comment solely on West Wales Marine pSAC or North Anglesey Marine pSAC or the *Welsh inshore area* of the Bristol Channel Approaches pSAC, please respond to the NRW consultation www.naturalresources.wales/mn2k

- ☐ Multiple pSACs *(continue to section 1)*
- ☐ Southern North Sea pSAC *(continue to section 2)*
- ☐ Bristol Channel Approaches pSAC (including English inshore and offshore area) *(Continue to section 3)*
- ☐ North Channel pSAC *(Continue to section 4)*

Possible SACs currently undergoing consultation:



1: Multiple possible Special Areas of Conservation (pSACs)

Site information can be found on the JNCC consultation webpage or in hard copy by request.

13. Do you agree that the analyses and evidence underpinning the proposed sites support and justify their designation?

- ☐ Yes

- [ ] No
- [ ] In part
- [ ] Undecided / don't know

Comments

14. Do you have any comments on the socio-economic impact assessment report for any of the sites?

- [ ] No
- [ ] Yes - please provide your comments below

15. Do you wish to make any further comments not covered by the previous questions?

- [ ] No
- [ ] Yes - please provide your comments below

16. If you have supporting documentation to submit with your response, please send with your response form and add a description of the attachment(s) to the comments box below.
(eg - which site(s) does it relate to, the source)

Comments:

2: Southern North Sea pSAC

Site information can be found on the JNCC consultation webpage or in hard copy by request.

17. Do you agree that the analyses and evidence underpinning the Southern North Sea pSAC supports and justifies designation?

- [ ] Yes
- [ ] No
- [ ] In part
- [ ] Undecided / don't know

18. Do you have any comments on the socio-economic impact assessment report for the site?

- [ ] No
- [ ] Yes - please provide your comments below

19. Do you wish to make any further comments not covered by the previous questions?

- [ ] No
- [ ] Yes - please provide your comments below

20. If you have supporting documentation to submit with your response, please send with your response form and add a description of the attachment(s) to the comments box below.
(eg - which site(s) does it relate to, the source)

Comments:

3: Bristol Channel Approaches pSAC

(English inshore and offshore area)

Site information can be found on the JNCC consultation webpage or in hard copy by request.

21. Do you agree that the analyses and evidence underpinning the Bristol Channel Approaches pSAC supports and justifies designation?

- [ ] Yes
- [ ] No
- [ ] In part
- [ ] Undecided / don't know

22. Do you have any comments on the socio-economic impact assessment report for the site?

- [ ] No
- [ ] Yes - please provide your comments below

23. Do you wish to make any further comments not covered by the previous questions?

- [ ] No
- [ ] Yes - please provide your comments below

24. If you have supporting documentation to submit with your response, please send with your response form and add a description of the attachment(s) to the comments box below.
(eg - which site(s) does it relate to, the source)
Comments:

4: North Channel pSAC

Site information can be found on the JNCC consultation webpage or in hard copy by request.

21. Do you agree that the analyses and evidence underpinning the North Channel pSAC supports and justifies designation?

- [ ] Yes
- [ ] No
- [ ] In part
- [ ] Undecided / don't know

22. Do you have any comments on the socio-economic impact assessment report for the site?

- [ ] No
- [ ] Yes - please provide your comments below

23. Do you wish to make any further comments not covered by the previous questions?

- [ ] No
- [ ] Yes - please provide your comments below

24. If you have supporting documentation to submit with your response, please send with your response form and add a description of the attachment(s) to the comments box below.
(eg - which site(s) does it relate to, the source)
Comments:

Thank you

You have completed your response form for the harbour porpoise possible SAC consultation. **Please ensure you check that all fields marked mandatory with a * have been completed as submissions received with this information missing may not be admissible in the consultation.**

Please send your completed response form to:

Marine Species Advice Team
Inverdee House
Baxter Street
Aberdeen
AB11 9QA

We recommend you use recorded post to ensure your response arrives safely. Please ensure you allow enough time for the form to reach us before the deadline. We cannot guarantee submissions received after the deadline will be taken into account.

Below is the unique response code assigned to your response. Please make a note of this code as it will be required for any further correspondence regarding the consultation and your submitted response. Add this code to any additional pages you may be including with your submission.

Unique Response Code: HPSAC2016_**

The consultation will close on Tuesday 19th of April 2016 at Midnight. After this date, the submissions will be reviewed and a report will be published with the outcome of the consultation, including any possible changes that may occur as a result.

Annex IV: List of respondents

Sector	Raised in consultation
Private Individuals	
Alexander Makovics	NRW
Alistair Lorimer	JNCC
Angharad Carrington-Edmunds	JNCC
Ann Heymans	NRW
Anne-Marie Southern	NRW
Annie Bowdler	JNCC
Bernard honey	JNCC
Brian Webster	JNCC
Carl Holmes	JNCC
Charles Southern	JNCC & NRW
Chloe Griffiths	NRW
Chris Sharples	JNCC
Christine Lassam	JNCC & NRW
Christopher Day	JNCC
Claire Dane	JNCC
David Jarvis	JNCC
David Nicholson	NRW
Eileen Baidam	JNCC
Emma Howe-Andrews	JNCC
Georgia Southern	JNCC & NRW
Guy Breen-Turner	NRW
Hilary Love	JNCC
Isara Edgar	JNCC
J Wood	JNCC & NRW
Jacques Turner-Moss	JNCC
Jean Williams	NRW
John Ward	JNCC
Jonathan Bright	JNCC
Juliet Hilary	JNCC
Karen Tucker	JNCC & NRW
Kate Wilson	JNCC
Ken Campbell	JNCC
Kevin Raftery	JNCC
Lesley Dance	JNCC
Lucy Prisk	NRW
Lynn Clough	JNCC
Mark Fellows	JNCC
Matt Harrow	JNCC & NRW
Matthew Southern	JNCC
Melissa Moore	JNCC
Mr P J Astbury	JNCC
Mr P T Brocklesby	JNCC
Mrs Havell	JNCC
Mrs J Parks	JNCC
Mrs Judith and Prof. Geoffrey Wainwright	NRW
Nadine Seveno	NRW
Natalie Brown	NRW
Nicola Hodgins	JNCC & NRW
P Dunn	NRW

Patricia Browne	JNCC
Philippa Southern	JNCC & NRW
R Badcock	JNCC
Richard Fermer	JNCC
Richard Pearcy	NRW
Robert Cockroft	JNCC
Robin Petch	JNCC
Ruhee Farooq	JNCC
Sarah Fortune	JNCC
Sir Paul Ennals	JNCC
Stan Best	JNCC
Stella Wood	JNCC
Stephen Fletcher	JNCC

Academic & Scientific

Chris Pierpoint	NRW
Coastal Zone Science Group, Fisheries and Aquatic Ecosystems Branch, Agri-food and Biosciences Institute	JNCC
K James	JNCC & NRW
Katrin Lohrengel	JNCC
Mathew Clough	JNCC
Samantha Law	JNCC
University of Wales Trinity Saint David, Swansea	NRW
Winnie Courtene-Jones	NRW

Aquaculture

Gerald Davies	JNCC

Energy (Non-Renewables)

ConocoPhillips (U.K.) Limited	JNCC & NRW
EDF Energy	JNCC
Energy UK	JNCC
Haven Energy Forum	NRW
Horizon Nuclear Power	NRW
InfraStrata plc (Operator of Petroleum Licence P2123)	JNCC
Oil & Gas UK	JNCC
RWE Generation UK	JNCC & NRW

Energy (Renewables)

DONG Energy	JNCC
Forewind Ltd	JNCC
Galloper Wind Farm Ltd	JNCC
Marine Energy Ltd	NRW
Marine Energy Pembrokeshire	NRW
RenewableUK	JNCC
ScottishPower Renewables	JNCC
SSE Renewables Development (Offshore)	JNCC
Triton Knoll Offshore Wind Farm Ltd	JNCC
Vattenfall Wind Power Limited	JNCC
Wave Dragon Wales Ltd	NRW
Wave Hub Ltd	NRW

Fishing (All Forms)

Andrew Coombes	JNCC
Anglo Scottish Fishermen's Association	JNCC

Comité National des Pêches Maritimes et des Elevages Marins	JNCC & NRW
Comité Régional des Pêches Maritimes et des Elevages Marins de Basse-Normandie	JNCC
Comité Régional des Pêches Maritimes et des Elevages Marins de Bretagne	JNCC & NRW
David Curtis	JNCC
FROM Nord	JNCC
Mark Roberts	NRW
National Federation of Fishermen's Organisations	JNCC
NI Fish Producers Organisation Ltd	JNCC
Nord-Pas de Calais/Picardie Regional Fisheries Committee	JNCC
North Wales Fishermen's Co-operative Limited	NRW
Organisation de Producteurs CME Manche Mer du Nord	JNCC
Pembroke Haven Motor Boat Angling Club	NRW
Richard Barrett	NRW
Scottish Fishermen's Federation	JNCC & NRW
Steven James	NRW
Welsh Fishermen's Association	NRW

Local Authority

Antrim and Newtownabbey Borough Council	JNCC
Beaumaris Town Council	NRW
Belfast City Council	JNCC
Causeway Coast and Glens Borough Council	JNCC
City & County of Swansea	NRW
Cyngor Gwynedd/Gwynedd Council	NRW
Cyngor Tref Aberaeron/Aberaeron Town Council	NRW
Derry City & Strabane District Council	JNCC
Huw Davies	NRW
Ian Arnell	JNCC
Mid and East Antrim Borough Council	JNCC
Pembrokeshire Coast National Park Authority	NRW
Pembrokeshire County Council	NRW
Strangford Lough & Locale Partnership	JNCC

Local Community Group

James Wilson	JNCC
Rhossili Working Group (RWG)	JNCC & NRW

Marine Aggregates Sector Representative Body

BMAPA - BCA	JNCC
BMAPA - SNS	JNCC

Non-Governmental Organisation

Coral Smith	JNCC
Cornwall Seal Group Research Trust	JNCC
Cornwall Wildlife Trust	JNCC
Emily Williams	NRW
Environment Links UK	JNCC & NRW
Irish Whale and Dolphin Group	JNCC
John Breeds	JNCC
Kent Wildlife Trust	JNCC
Laura Evans	JNCC & NRW
Marinelife	JNCC
National Trust	JNCC

Northern Ireland Marine Task Force	JNCC
Porthcawl Environment Trust	JNCC
Project Seagrass	NRW
RSPB	NRW
Sea Watch Foundation	JNCC & NRW
SeaTrust	NRW
Simon Preddy	NRW
Sonia Doblado Martín	NRW
Stuart Baines	JNCC
The National Trust	JNCC
The Wildlife Trusts	JNCC
Ulster Wildlife	JNCC
Wales Environmental Links	NRW
Whale and Dolphin Conservation	JNCC & NRW
Wildlife and Countryside Link	JNCC
Wildlife Trusts Wales	NRW
WWF-UK	JNCC & NRW

Ports & Harbours

British Ports	JNCC
Carlingford Lough Commissioner	JNCC
Harwich Haven Authority	JNCC
Milford Haven Port Authority	NRW
Mrs Elaine Burton	JNCC
Port of London Authority	JNCC
Warrenpoint Harbour Authority	JNCC

Public Sector

Anglesey County Council	NRW
Averil Graves	JNCC
Commissioners of Irish Lights	JNCC
DECC	JNCC
Devon and Severn Inshore Fisheries and Conservation Authority	JNCC
Eastern Inshore and Fisheries and Conservation Authority	JNCC
Historic England	JNCC
North Eastern Inshore Fisheries and Conservation Authority	JNCC
The Maritime and Coastguard Agency	JNCC & NRW

Recreation & Sport

HCA Boat Fishing Club	JNCC
Porthmadog Sailing Club	NRW
Richard Phipps	NRW
Royal Yachting Association	JNCC
Simon Wigglesworth	JNCC

Relevant Authority Group

Cardigan Bay Relevant Authority Group	NRW
Pembrokeshire Relevant Authority Group	NRW

Shipping

Mike Boyle	JNCC
The UK Chamber of Shipping	JNCC & NRW

Statutory Advisory Council to DOE (NI)

CNCC Secretariat	JNCC

Utilities

Dwr Cymru	NRW

Other

Disability Action	JNCC
LGA Coastal Special Interest Group	JNCC
Swansea Biodiversity Partnership	NRW
The Crown Estate	JNCC
Trinity House	JNCC

Marine Conservation Society email responses – received by NRW/JNCC

**note – some names are duplicated where responses were received by individuals of the same name*

A Ansell	Diana Wratten	Juliet Breschinsky	Petra Ohl
A Dodds	Diane Bowker	Juliette Booker	Petra Sommaro
A Hassan	Diane Gordon	June Crump	Phil Blackburn
A Howe	Diane Jeary	June Kerr	Phil Golder
A Kampalis	Diane Tunbridge	Junjie Chen	Phil R
A Mcgovern	Diane Turner	Justin Judge	Philip Ballard
A Partridge	Dianne Chadwick	Justin Lever	Philip Clarke
A. W.	Dianne Travis	Justin Littlewood	Philip Corlett
Aaron Clements-Partridge	Dominic Swales	Justin Lotak	Philip Digby
Aaron Sandhu	Dominique Anderson	Justin Moor	Philip Green
Abi Longman	Donald Wilson	Justin Pollard	Philip Key
Abigail Parsons	Donna Barwell	K Clements	Philip Lees
Abigail Boisot	Donna Bosworth	K Freney	Philip Luffingham
Adam Broughton	Donna Everett	K Harding	Philip Richards
Adam Harper	Donna Tomlinson	K Michlmayr	Philippa Mckay
Adam Hunt	Doris Stewart	Kai Henderson	Phillip Harling
Adam Murphy	Doris W.	Kam Chan	Philp Pearce
Adam Sharpe	Dorothy Druitt	Karen Sheil	Phyllis Williams
Adam Ward	Doug Ellis	Karen Arnold	Pippa Robert
Adelle Shaw-Flach	Doug Munson	Karen Bradbury	Polly Hearsey
Adrian Stevens	Douglas McMillan	Karen Brown	Poppy Gaunt
Adrian Brooks	Drusilla Cherry	Karen Davies	R Steven
Adrian Hougham	E Cuthbertson	Karen Dekker	R Wild
Adrian Isherwood	Ed Edwrads	Karen Dore	Rachael Beasley
Adrian Jumper Cross	Edward McGough	Karen Durham-Diggins	Rachael Clemson
Adrian Prince	Edwina Rowling	Karen Francis	Rachael Jones
Adrian Wright	Eileen Baildam	Karen Hayes	Rachel Arundel
Adrian Yardley	Eileen Russell	Karen Haywood	Rachel Cox
Adrianna Quail	Elaine Adair	Karen Nicklin	Rachel Hoyes
Adrienne Elder	Elaine Grieveson	Karen Nicklin	Rachel Austin
Airan Anzaloni	Elaine Spedding	Karen Paterson	Rachel Ball
Aisling Gray	Elaine Welsh	Karen Saunders	Rachel Barker
Aisling Leyne	Eleanor Hunt	Karen Turnbull	Rachel Fulcher
Alan Portsmouth	Eleanor Partridge	Karen Van der Zijden	Rachel Graham
Alan Campbell	Elena Maher	Karen Wedge	Rachel Roberts
Alan Chapman	Eleri Griffiths	Karen Wharton	Rachel Sleightholm
Alan Cockayne	Elinor James	Karin Fischer-Buder	Rachel Stevens
Alan Rietdyk	Elis Bowen	Karin Lanthaler	Rachel Thornley
Alana Gladwell	Elisabeth Whitebread	Karl Hart	Rachel Wyatt
Alex Charman	Elizabeth Campbell	Karyn Melbourne-Thomas	Rae Lewis
Alex Cheesman	Elizabeth Childs	Kat Deay	Raina Thompson-Brody

Alex Clarke
Alex Jackson
Alex Wilson
Alexa Haywood
Alexander Gadsby
Alexander Hollocks
Alexandra Roberts
Alexie Sommer
Alexis Rowell
Ali Devlin
Ali Macleod
Alice Bondi
Alice Campbell
Alice Connell
Alice Goodwin
Alice Hicks
Alice Nette-Thomas
Alice Playle
Alice Smith
Alisdair Naulls
Alison Dack
Alison Wood
Alison Cornwell
Alison Fisher
Alison Hawkins
Alison Holmes
Alison Jinks
Alison Law
Alison Ormerod
Alison Peace
Alison Skeats
Alistair McKenzie
Alix McKenzie-Wain
Aliya Beissova
Allison Rowlands
Alyson West
Amanda Meaker
Amanda Mercer
AmandaJayne Buchanan
Ambrose Hogan
Amina Tutton
Amy Bambridge
Amy Griffiths
Amy Parker
Amy Parker
Andre Van Damme
Andrea Baddeley
Andrea Turrell
Andrew Bright
Andrew Connor
Andrew Davie
Andrew Dilworth
Andrew Good
Andrew Gosling
Andrew Hannon
Elizabeth Ellis
Elizabeth Fletcher
Elizabeth Heather
Elizabeth Johnson
Elizabeth Malley
Elizabeth Sumner
Elizabeth Talboys
Elizabeth Zietsman
Elke Streit
Ellen Cooper
Ellen Kershaw
Ellen Maxwell
Ellie Barnard
Ellie Kayne
Elliot Lea
Elspeth Barraclough
Emily Perks
Emily Linton
Emily Pascoe
Emma Medd
Emma Burnham
Emma Christison
Emma Cockburn
Emma Evans
Emma Higgs
Emma Howe-Andrews
Emma Johnson
Emma Levy
Emma Lewis
Emma Lewis
Emma Louise Pascoe
Emma Mcsharry
Emma Ramsden
Emma Reece
Emma Shulmab
Emma Spurgin Hussey
Emma Young
Emmeline Smith
Eric Davies
Eric Moeller
Eric Palmer
Erica Darby
Erica Gregory
Erica Rose
Erica Williams
Ernie Scales
Esther Watts
Ethan White
Eusebio manuel vestias pecurto Vestias
Eva Laugharne
Evelyn Furness
Evelyn Wilton
Ewan Bell
Fabienne Fossez
Faith Elizabeth Brown
Kate Brice
Kate Hooker
Kate Berry
Kate Chaplin
Kate Charlesworth
Kate Eves
Kate O'Farrell
Kate Rowland
Kate Senior
Kate Williams
Kate Wilson
Kath Meikle
Katharina Miles
Katharine Taylor
Katharine Woodward
Katherine Holmes
Katherine Wallis
Kathleen Blatherwick
Kathleen Evans
Kathleen Lippoldt
Kathleen Ramm
Kathryn Brown
Kathryn Cooper
Kathryn Dawes
Kathryn Dutton
Kathy Brown
Kathy Kromm
Katie Jefferson
Katie Brock
Katie Bye
Katie Dobson
Katie Rothwell
Katy Greene
Katy Thompson
Kayleigh Waring
Keirnan Murphy
Keith Cottam
Keith Dancey
Keith Jones
Keith Peek
Keith Sokell
Keith Wallington
Keith Williams
Kelly Anderson
Kelly Axon-Langhorn
Kelly Foxhall-Ridgeway
Kelly Johnson
Ken Baugh
Ken Byrne
Ken Neal
Ken Stewart
Ken Uncle
Kerry Fussell
Kerry Millar
Kevin Ilsley
Rajiv Prashar
Ralph Hobbs
Ralph Stokes
Ray Dawson
Ray Williams
Raymond Young
Rebecca Cresswell -Davies
Rebecca Varma
Rebecca Bodi
Rebecca Chambers
Rebecca Fisher
Rebecca Goodall
Rebecca Hazlewood
Rebecca Price
Rebecca Rimmer
Rebecca Smith
Rebecca Soan
Rebecca Turner
Rebecca Weeks
Reg Whitfield
Renee Weidenhofer
Reuben Cole
Rhian Forrest
Rhodri Jenkins
Rhys Parry
Rich Hall
Rich Howorth
Rich Snow
Richard Andrews
Richard Baggaley
Richard Baxter
Richard Brew
Richard Chatterjee
Richard Clarke
Richard Clothier
Richard Cocks
Richard De Carteret
Richard Frost
Richard Fudge
Richard Gaze
Richard Grist
Richard Hampson
Richard Hopkin
Richard Hughes
Richard Jenkins
Richard Marsh
Richard Moore
Richard Ogden
Richard Overton
Richard Parkin
Richard Sessions
Richard Sheehan
Richard Siebert
Richard Stafford
Richard Taylor-jones

Andrew Hawes
Andrew Hollis
Andrew Johnston
Andrew Jones
Andrew Kaminski
Andrew Milnes
Andrew Mitson
Andrew Mullins
Andrew Naylor
Andrew Nelmes
Andrew Peel
Andrew Philippart
Andrew Sharp
Andrew Walker
Andrew Walter
Andrew Welham-Jones
Andrew Williams
Andy Carden
Andy Dinsdale
Andy Jinman
Andy Laverick
Andy Manley
Andy Mendus
Andy Norman
Andy Robinson
Andy Robinson
Andy Scott
Andy Sharples
Angela Cassidy
Angela Chamberlain
Angela Linnell
Angela Ransome
Angie Weston
Angie JacksonMorris
Anita Griffin
Anita Murray
Anita Smith
Ann Harris
Ann McKay
Ann Raper
Ann Skinner
Ann Wilson
Ann Wood
Anna Jones
Anna Pethen
Anna Simpson
Anna Tobin
Anna Wakelin
Anna Walker
Annabel Garnett
Annabel Mantle
Anne Donnelly
Anne Graham
Anne Harding
Anne Hudson
Faye Wilde
Felicity Conway
Felicity Harrison
Fern Sutton
Ffion Matthews
Ffiona Burley
Fi Draper
Fiick Roskrow
Filma Dyer
Fiona Mckenna
Fiona Clark
Fiona Crookes
Fiona Dowson
Fiona Hutton
Florence Greenstreet
Frances Goodman
Frances Hall
Frances Hayes
Frances Marks
Francesca Simpkins
Francis Neale
Franco Henwood
Frank Eliel
Frankie Hobro
Frederick Trott
Frederik Seelig
Frédérique Maillet
G Bennett
G Flach
G Hitchcock
Gabby Taylor
Gabrielle Cleghorn
Gail Rennolds
Gail Stirling
Gareth Evans
Gareth Lloyd-Jones
Garry Goddard
Gaynor Rosier
Gemma Hall
Gemma Waters
Genna Pasch
Geoff Lewis
Geoff Macefield
Geoff Turner
Geoffrey Burton
Geoffrey Mead
George Corner
George Fairweather
George Parkins
George Seinet
Georgie Clarke
Georgie Siddle
Georgina Cronin
Geraint James
Gerald O Connell
Kevin Rylands
Kevin Wright
Kieran Shaw-Flach
Kim Fenton
Kim Kendrick
Kim Troll
Kim Vale
Kimberley Pomeroy
Kirsten Woodsford
Kirsty Jewell
Kirsty Nutt
Kranti Anne Henriksen
Kris Barnes
Krista Humphries
Kristi Herbert
Kristina Hixon
Kye Hodgson
L Brookes
Lana O'kell
Lance Housley
Lara Skingsley
Laura Bassett
Laura Clarke
Laura Hepburn
Laura Marsella
Laura Rivers
Laura Thornley
Laura Withers
Lauraine Wilson
Lauren Crook
Lauren Horncastle
Lauren Nieuwenhuys
Laurence Merrifield
Laurence Roblin
Laurie Guy
Lawrence Ngan
Leanne Sowersby
Leanne Tite
Lee Paterson
Lee Piddell
Lee Pollard
Leena Nath
Lennox Campbell
Lesley Jones
Lesley Bryson
Lesley Christensen
Lesley Dance
Lesley Goddard
Lesley Harding
Lesley Jones
Lesley Malpas
Lesley Scott
Lesley Yates
Lewanna Stewart
Lewis Randall
Richard Woodward
Richard Young
Ricky Callan
Rik Girdler
Rita Davies
Rob Beale
Rob Blundell
Rob Hayles
Rob Walter
Robert Farrow
Robert Atkinson
Robert Dennison
Robert Engstrom
Robert Francis
Robert Insall
Robert Kinder
Robert Kingsbury
Robert Morgan
Robert Morrison
Robert Nunney
Robert Petley-Jones
Robert Pye
Robert Reid
Robert Roebuck
Robert Sheldon
Robert Thornewill
Robert Whittington
Robin Anderson
Robin Bonham
Robin Fowler
Robin Oliver
Robin Swindin
Robin Thorpe
Robin Williams
Roderick Reeves
Roderik Gonggrijp
Rodney Aldis
Roger Cottis
Roger Forster
Roger Hammon
Roger Manser
Roger Pawling
Roger Powell
Roland Hayward
Ron Jenkins
Ron Cornwell
Ron Hills
Ron McCullough
Ronald Boyle
Ronel Wilken
Rory McGill
Ros Bodi
Rosalyn Putland
Rose Darlington
Rose Hadley

Anne Molyneux
Anne O Connor
Anne P Skennerton
Anne Priestley
Anne Riggs
Anne Skennerton
Anne Soderman
Anne Stewart
Anneliese Hodge
Anne-Marie Hewitt
Annette Frankel
Annette Lanjouw
Annette Lillig
Annie Forbes
Annie Martyn
Ann-Marie Benton
Anthea Briggs
Anthea Briggs
Anthony Crook
Anthony Hack
Anthony Hunt
Anthony Hutchinson
Anthony Jones
Anthony Mills
Anthony Radjenovic
Anthony Watkins
Antony Butcher
Asa Melander
Austin Shields
Azia Singh
B Evans
B Levene
Barbara Bellerby
Barbara Bond
Barbara Carter
Barbara Davies
Barbara McArthur
Barry Marchant
Barry Mylam
Barry Whitfield
Bec Massell
Becca Bratt
Becca Thorne
Becky Hothersall
Becky Hunter
Becky Marley
Belinda Sartori
Ben Shove
Ben Farrow
Ben Larby
Ben Mason
Ben Thorn
Benedicte Peraldi
Benjamin Griffin
Bernard Chennells
Gerald Sharpe
Gerson Fernandino
Ghislaine Headland-Vanni
Giles Barrett
Gilian Cleeve
Gill Byrne
Gill Osborne
Gill Scutt
Gill Seels
Gillian Birkett
Gillian Birtles
Gillian Douglas
Gillian Jewell
Gillian Jones
Gillian Longman
Gina Rowe
Gladys Edmonds
Glenn Gradwell
Glenn Overington
Glenn Townsin
Gordon Cox
Gordon Doughty
Gordon Fletcher
Gordon Haycock
Gordon Heath
Gordon Housley
Gordon McKee
Grace Clements
Grace Garvey
Graeme Bruce
Graeme McCarthy
Graham Wilson
Graham & Sylvia Parkhouse
Graham Bannister
Graham Biddlecombe
Graham Martin
Graham Sharples
Grahame Fairall
Grant Lewins
Graym M McMillan
Gregg Wilson
Griffin Turton
GUY Breen-Turner
Guy Johnson
Guy Naylor
Guy Parker
Gwen Woods
Gwenda Crossland
Gwyneth Brow
Gwyneth Booker
Gwyneth Ferguson
H Shelton
Hamish Burnett
Hannah Chapman
Hannah Fearon
Lexie Slingerland
Lianne Havell
Libby Abbott
Libby Darling
Lilias Parks
Linda Baker
Linda Bradshaw-Wood
Linda Coom
Linda Cowper
Linda Hawes
Linda McMinn
Linda Turpitt
Linnéa Osterman
Lisa Brown
Lisa Burton
Lisa Lucas
Lisa Morgan
Lisa Newton
Lisa Stevens
LIZ Abernethy
Liz Albert
Liz Carlton
Liz Stokes
Liz Stokes
Lizzie Heaver
Lizzie Spencer
Lizzie Stenhouse
L Davies
Llŷr Davies
Lois Evans
Loren Elsworth
Lorna Rance
Lorraine Bulloch
Lorraine Cliffe
Lorraine Little
Louisa Trunks
Louise Harrison
Louise Kenchington
Louise O'connor
Louise Said
Louise Wright
Louise Yearley
Lucianna Cole
Lucie Maguire
Lucie Taylor
Lucie Wilk
Lucy McLeod
Lucy Phillips
Lucy Rogers
Lucy Younger
Lydia Tabrizi
Lyndsey Smith
Lynn Bartlett
Lynn Gregory
Lynn Gregory
Roseanne Gough
Rosemary Doggett
Rosemary Dowd
Rosemary Jones
Rosemary Scott
Rosemary Wiles
Rosie Wool
Ross Andrew
Rosy Jones
Rowan Adams
Rowena Hamilton
Roxanne Needham
Roy Sumner
Roy Thole
Rupert Murray
Ruslan Tony Evans
Russell Mabbs
Ruth Bradshaw
Ruth Butler
Ruth Griffiths
Ruth Paley
Ruth Pearson
Ruth Plant
Ruth Towers
Ryan Cheetham
Ryan Kearley
S Butler
S Higginson
Sally Gillard
Sally Denbigh
Sally Reed
Sally Revell
Sally Rogers
Sally Smurthwaite
Sally Tedder
Sally Ward
Sally-Ann Goulding
Sam Burke
Sam Hooper
Sam Morfey
Samantha Brayn
Samantha Dark
Samantha Pennington
Samantha West
Samuel Stone
Sancha Conway Holroyd
Sandra Heard
Sandra Hilder
Sandra Kidd
Sandra Murray
Sara Adamo
Sara Bostic
Sara Fogden
Sara Frost
Sara Harries

Bernard Honey
Bernhard Narewski
Beryl Page
Beth Marshall
Beth Woodhouse
Bethan Jepson
Bethan Rigby
Betty Albon
Beverley Brock
Beverley Hunt
Beverley Levy
Beverley Wickenden
Bill Crawford
Bill Davis
Bill Quinn
Bill Shelton
Billie Jo Williamson
Birgit Ischner
Bob Carter
Bonnie Holligan
Bradly Harris
Brenda Massey
Brian Abbott
Brian Broadbridge
Brian Collick
Brian Cottle
Brian Davy
Brian Hodgson
Brian Kendrick
Brian W Darvell
Bridget Harris
Bridget Scott
Brigid Maguire
Bronwen Jones
Bruce Hogarth-Jones
Bryan Hogwood
C J Richardson
C G Maslen
C Trott
C Wikeley
Cal Tasker
Cally Smith
Camilla Morris
Camilla Winder
Carl Kurstein
Carl Garner
Carl Holmes
Carl Roberts
Carla Reeves
Carol Ann Smith
Carol Bourne
Carol Fry
Carol Kitto
Carol Menlove
Carol Mitson
Hannah Gant
Hannah Hood
Hannah Naylor-White
Hannah Pratt
Harry Palmer
Hayden Hurst
Hazel Clark
Hazel Fotheringham
Hazel James
Hazel Jessett
Hazel Pittwood
Hazel Ricketts
Hazel Smith
Hazel Thornton
Hazel Yabsley
Heather Ball
Heather Hounsome
Heather Patrick
Helen Beevers
Helen Best
Helen Murphy
Helen Robinson
Helen Betteridge
Helen Box
Helen Catmur
Helen Crabb
Helen Darlington
Helen French
Helen Goudie
Helen Haller
Helen Hill
Helen Jacobs
Helen Johnston
Helen Langford
Helen Lumley
Helen McDowall
Helen Morris
Helen Richards
Helen Tapley-Taylor
Helga S.
Helyn Long
Henry Kenner
Herbert Staniek
Hilary Byers
Hilary Herron
Hilary Mackay
Hils Brad
Hollie Gaze
Holly Buckley
Holly Gammon
Holly Pummell
Howard Martin
Hugo Perks
Iago Thomas
Ian Bonham
Lynn Watkinson
Lynne Kay
Lynne Stokes
M D
M Denholm
M Stark
Madeleine Austin
Madeleine Spears
Maggie Chidsey
Magnus Irvin
Mairi Cowan
Mal McLeod Hawkins
Malcolm Storey
Marc Dowling
Marc Harries
Marc Maringer
Marcelle Walker
Marcin Kieczka
Marcus Murphy
Margaret Gamble
Margaret O'Neill
Margaret Baugh
Margaret Baugh
Margaret Harrrison
Margaret Hebb
Margaret Holiday
Margaret Mylward
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8,503 email responses were received through Whale and Dolphin Conservation (WDC), however all emails appeared as from WDC and therefore it was not possible to extract the list of names from the emails. All emails received through WDC were identical, including standard text supplied by WCD.

[END]