

Marine Scotland

Selection of suitable sites for marine birds and advice on management in the Scottish Marine Protected Areas Network

Summary report of the marine Special Protection Area (SPA) stakeholder workshop

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Workshop dates: 8th and 9th March 2016
Workshop venue: The Surgeon's Hall, Edinburgh



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Workshop aims

- 1.1. The Special Protection Areas (SPA) National Stakeholder Workshop was hosted by Marine Scotland (MS) as part of the Scottish MPA programme. The workshop took place on 8th and 9th March 2016 at The Surgeons' Hall in Edinburgh. It provided an early view of the information that will be presented as part of a formal consultation process for proposals for draft marine SPAs in Scottish waters.
- 1.2. During the two days of the workshop, staff from Marine Scotland (MS), Scottish Natural Heritage (SNH) and the Joint Nature Conservation Committee (JNCC) provided an overview of the purpose of the marine SPAs, explained the different marine bird survey work undertaken to identify sites, and the approaches used to establish site boundaries. Opportunities were also provided to stakeholders to discuss and suggest refinements to the draft Conservation Objectives and Management Advice.
- 1.3. More generally, the workshop also provided MS, SNH and JNCC staff the opportunity to provide responses to some of the questions raised during pre-consultation discussions. Written responses to these are provided in Annex 5.
- 1.4. These were mainly to address the following points:
 - 1.4.1. Greater clarity on how data has been collected, analysed and applied to the boundary setting process.
 - 1.4.2. Greater understanding of how SPA Selection Guidelines have been applied in choosing the proposed sites over others that were included in original Areas of Search
 - 1.4.3. A simpler and fuller presentation of the supporting evidence to show the importance of site to the qualifying features
- 1.5. This summary report has been produced to confirm the key discussion points and recommendations from the workshop and, going forward, how they will be addressed by MS, SNH and JNCC in advance of any formal consultation.
- 1.6. A number of papers provided information and supported the discussions over the two days. These are listed in Annex 3. Further information on marine SPAs is also available on the [JNCC](#) and [SNH](#) websites. Presentations from the workshop can be found on the [Marine Scotland](#)¹ website. If stakeholders wish to comment on materials provided following the workshop discussions, please direct specific requests to Marine_Conservation@gov.scot.
- 1.7. A full list of the organisations that were represented at the SPA workshop is provided in Annex 4.

¹ <http://www.gov.scot/Topics/marine/marine-environment/mpanetwork/marinespas/spaworkshop>

1. Summary of key discussion points and recommendations from the SPA workshop

- 2.1 The following points are a summary of the key points and suggestions raised by stakeholders at the SPA stakeholder workshop. These points are being considered as a matter of priority by MS, SNH and JNCC.
- 2.2 Additional comments and responses from MS, SNH and JNCC are provided in Annex 1 of the report.
- 2.3 **Building boundaries:** A total of ten draft SPA boundaries were discussed during the break-out and/or informal sessions. Stakeholders were broadly content with the approaches applied to delineate SPA boundaries but would welcome the following issues to be addressed prior to consultation:
- Confirm whether the application of CREEM² recommendations for distance sampling were used for the inshore wintering waterfowl surveys.
 - Revise all seaward proposed boundaries to align more closely to the species-specific hotspots.
 - Clarify what is covered by infrastructure and ensure any such exclusions are applied consistently across sites.
 - Review the decisions for exclusion of the puffin hotspot in 'West Coast of Outer Hebrides dSPA and the offshore non-breeding guillemot hotspot in 'Outer Firth of Forth and St Andrews Bay Complex' dSPA.
 - Consider splitting two sites ('Outer Firth of Forth and St Andrews Bay Complex dSPA'³ and 'Pentland Firth and Scapa Flow dSPA') to aid future management.
- 2.4 **Site selection documents:** Stakeholders requested additional information to be provided to the site selection documents:
- Incorporate a brief description of the foraging ecology, and habitat and prey preferences of the qualifying features.
 - Consider incorporating trends data (where available) as context to site feature information.
 - Consider incorporating additional information on wider ecosystem changes that may be relevant to qualifying species;
 - Provide a more detailed explanation of how the boundaries were set for each site.
- 2.5 **Conservation Objectives:** Stakeholders had mixed views regarding the draft conservation objectives and supplementary advice. Overall, the attempt to provide more meaningful advice was welcomed, accepting the challenges this presented in practice.

² Centre for Research into Ecological & Environmental Modelling, University of St Andrews

³ Consideration of splitting the Outer Firth of Forth and St Andrews Bay dSPA was raised during the plenary session on day 2.

Concerns were raised with regards to applying targets to the conservation objectives, particularly with respect to the age of some of the data and this having the potential to provide an inaccurate picture of current and future trends.

There was a general consensus that further development of the draft conservation objectives and supplementary advice should aim to:

- Ensure that supplementary advice does not create more confusion and/or mask issues that haven't been clarified further. Supplementary advice will need to be provided in a readily accessible format to all stakeholders and should be updated to reflect new knowledge and/or changing situations (i.e. trends);
- Additionally, most sectors requested further guidance, with a preference from stakeholders that this should be done at a site level (i.e. not by sector).

2.6 Management advice: Stakeholders provided recommendations on how the Advice on Management papers could be refined to reflect specific sector requirements:

- Stakeholders would welcome further engagement with sectors to confirm activities, terminology and sector specific advice;
- More information is required on pressures / sensitivities of qualifying species relating to particular marine activities, and management advice needs to be clear that it relates to the pressure rather than activity *per se*.
- Stakeholders also expressed for the management advice to provide greater clarity on potential Habitat Regulations Appraisal (HRA) requirements in relation to those pressures.

2.7 Formal consultation materials: Stakeholders requested the following additional information to be available at the time of formal consultation:

- An audit trail, including decision principles, for all changes made as a result of this workshop;
- Consistent application of these principles across all sites;
- Provision of more detailed maps, shape files and use of admiralty chart backgrounds to boundary maps.

2.8 General comments:

- Stakeholders raised concerns that SPA classification will add a resource burden to Competent Authorities. Stakeholders stated that the BRIAs did not reflect the extra burden of surveys and loss of commercial interest;
- Further advice is required to be developed for Competent Authorities on handling potential conflicts of interest between legal instruments and responsibility as a Competent Authority e.g. financial constraints/navigational safety;
- Further advice is required on the review of consents.
- Stakeholders would like a response to written comments already submitted to Marine Scotland during pre-consultation.

2. Refinements to consultation documents

3.1 Changes to site boundaries

3.1.1 Following the workshop, new indicative site boundaries have been prepared for all of the draft SPAs except Rum SPA, Seas off St. Kilda and Seas off Foula. Rum is an existing SPA and both of the offshore sites already have their boundaries delineated by the European Seabirds at Sea (ESAS) hotspots. These maps are provided in Annex 2 of the report. In refining the site boundaries the following principles have been adopted consistently across the suite:

- All ESAS hotspots and areas of maximum curvature (species-specific hotspots/boundaries) are fully included within the draft SPA boundaries. Therefore the site boundaries continue to include all areas identified as having the highest densities of qualifying features maintaining the scientific basis for the site boundaries.
- Seaward boundaries are aligned as tight to the species-specific hotspots as possible without over-complicating the boundary. Only areas not underpinned by species-specific hotspots can be excluded without undermining the scientific basis of the selection process.
- Coastal boundaries follow the mean low water springs (MLWS). In all harbour areas, a 40 metre (m) buffer has been applied around ferry terminals and docks. Additional piers associated with vessels >50m in length have also been excluded where these protrude beyond the MLWS. This approach is consistent with that used for Nature Conservation Marine Protected Areas (NC MPAs).
- Infrastructure includes all permanent man-made hard structures that protrude from land i.e. jetties, piers, harbour walls, ferry terminals, slipways and docks within statutory limits. They do not include anchorages with floating buoys or moorings. This information will be clarified in the site selection documents.
- The Garlieston harbour limit (Solway Firth dSPA) has been excluded as there was no overlap with the species-specific boundaries for the qualifying features.

3.1.2 All draft SPA boundaries were reviewed to ensure our standard principles for excluding existing infrastructure had been consistently applied. Following this review, minor changes are being proposed to the Orkney sites and to the Outer Firth of Forth and St Andrews Bay Complex. The principles used are:

- Exclude harbours using MPA coordinates where possible;
- Exclude vehicular ferry terminals and docks (40m buffer);
- Where piers extend into the marine environment and MLWS goes straight across, boundary is drawn straight across.
- Where piers exist out into the marine environment and MLWS extends round them, follow MLWS;
- Where piers and other infrastructure go into the marine environment and OSMM doesn't seem to exist, use the aerial photography to help to aid decisions.

3.1.3 The following changes have been recommended:

- North Orkney draft SPA – provide a 40m buffer around the ferry terminal Egilsay.
- Scapa Flow draft SPA – provide 40m buffers around ferry terminals at Bay of Houton and St Margaret’s Hope.
- Outer Firth of Forth and St Andrews Bay Complex draft SPA – exclude the LPG terminal at Dalgety Bay.

3.1.4 Proposal to split Pentland Firth and Scapa Flow draft SPA as follows:

1) Scapa Flow dSPA

The new site and boundary is based on the inshore wintering waterfowl distributions which also coincide with the most important foraging area identified for breeding red-throated diver (exceeds the maximum curvature threshold).

The distributions of these species are largely confined to the enclosed sea area of Scapa Flow.

2) Pentland Firth dSPA

The new site and boundary is based on the predicted foraging distribution of Arctic tern from the breeding colonies at Pentland Firth Islands SPA, and the ESAS hotspot for common guillemot during the breeding season.

The distributions of these species are largely confined to the Pentland Firth with little overlap with the Scapa Flow dSPA. Arctic tern distribution overlaps with the distributions of inshore wintering waterfowl to the south of the Scapa Flow site at Switha Sound, Bay of Hoxa and around the southern and eastern coasts of South Ronaldsay.

3.1.5 A case for considering splitting the Outer Firth of Forth and St Andrews Bay Complex dSPA was also considered. A number of options to split the site were explored but all potential splits resulted in extensive areas of overlapping SPAs (in addition to existing SPAs). It was considered that this would create further confusion and not help to streamline management in the future.

MS, SNH and JNCC concluded that the site should be maintained as one composite site but that guidance should be prepared for stakeholders on handling casework at this site.

3.1.6 Confirmation of all changes to site boundaries will be subject to formal sign-off processes by the relevant SNH/JNCC committees and/or Directors.

3.2 Changes to Site selection documents

- 3.2.1 The documents outlining the scientific case for the draft SPAs have been renamed 'SPA Site Selection Document: Summary of the scientific case for site selection' to provide a more meaningful title.

Inshore sites (sites mainly within 12nm):

- 2.2.2 The site selection documents includes an introduction that gives an overview of the information that is provided in the document, the legislative drivers behind the marine SPA proposals and references to the relevant JNCC reports for detailed information on survey methodologies and results.
- 2.2.3 The previous sections entitled 'Summary' and 'Location and habitats' have been merged into a 'Site Summary' section. This section provides information on the site location and area, qualifying features and supporting habitats. The section has been extended to provide a brief account of the foraging ecology for the relevant birds.
- 2.2.4 Further information has been included in the 'Bird survey information' section to describe the outputs from the surveys and how the data were used to produce population counts. All maps have also been replaced to aid presentation.
- 2.2.5 Further information has also been included in the 'Assessment against the UK SPA Selection Guidelines' section to explain the process undertaken to assess potential areas against the Stage 1 and Stage 2 SPA Selection guidelines. This section also provides a brief explanation of the approach used by SNH to identify additional qualifying species through the application of guideline 1.4.
- 2.2.6 Table 2 has been replaced to provide a species by species account of the Stage 2 assessments and the ranked importance of the site in comparison to all other sites being considered for the qualifying non-breeding Annex 1 species. The table is a summary of the key considerations used to select the most suitable areas for SPAs.
- 2.2.7 The workshop provided a useful visualisation of the step by step process used to establish the draft SPA boundaries. The 'Site status and boundary' section has been revised to reflect the explanatory approach used at the workshop.
- 2.2.8 Confirmation of all changes to the site selection documents will be subject to formal sign-off processes by the relevant SNH/JNCC committees and/or Directors.
- 2.2.9 There were two suggestions made at the workshop which have not been incorporated into the revised format. These were suggestions relating to the provision of trend information as context to the population estimates provided and also to provide information on wider ecosystem changes relevant to the

qualifying features. The information on population trends is not available for all species and it would have required significant additional work to address these suggestions which was not possible within the available time.

3.3 Management Advice

- 3.3.1 The 'Advice to support management' documents are working documents produced to support initial discussions with stakeholders about management of activities associated with the proposed SPA during the formal consultation.
- 3.3.2 We have incorporated suggested refinements to the management advice, paying particular attention to the sector specific comments made at the workshop.
- 3.3.3 The formal consultation will provide JNCC, SNH and Marine Scotland the opportunity to get a better understanding of the extent and frequency of different activities occurring in or around the proposed sites and therefore a clearer understanding of impacts should the proposals go forward to classification.
- 3.3.4 Further work has been progressed on the draft conservation objectives with the aim of keeping these simple and avoiding, wherever possible, use of terms that need further explanation or definition.
- 3.3.5 The conservation objectives now clearly articulate the contribution the site and therefore qualifying features make to the Wild Birds Directive.
- 3.3.6 Advice is provided to help distinguish between natural change / wider scale effects (such as climate change) from site specific anthropogenic influences/impacts.
- 3.3.7 The status of the conservation objectives and the supplementary advice will also be clarified in each of Advice on Management documents.
- 3.3.8 Draft guidance on the requirements for new plans or projects in the Outer Firth of Forth and St Andrews Bay Complex dSPA will be made available during consultation. Work is currently underway to provide fisheries guidance. Additional guidance will be considered further on a site by site basis.

3. Formal consultation and consultation materials

- 4.1 SNH and JNCC will submit their revised formal advice (further to changes made as a result of the stakeholder workshop) to Scottish Government no later than end of June 2016. In the meantime, MS, JNCC and SNH will continue to engage with stakeholders. When this advice has been provided a decision on the launch of a formal consultation on the scientific case for classification of the proposed SPAs will be taken by Scottish Ministers.

- 4.2 Material that will be available for stakeholders during the formal consultation includes:
- Boundary map (including one showing Admiralty charts)
 - Site Selection document
 - Site Summary leaflet
 - Business and Regulatory Impact Assessment
 - Management advice including draft conservation objectives
 - Frequently asked questions
 - Supplementary documents that describe different aspects of the site selection process (names may change):
 - i. Identification of sites for wintering gulls (SNH)
 - ii. Age of data document (JNCC)
 - iii. Adopting a multi-species approach (SNH)
 - iv. Site selection of inshore SPAs from Areas of Search
 - Sensitivity assessments for pressures associated with activities will be provided for all qualifying species in [FEAST](#).
 - Other online tools, such as shape files will be available through [NMPi](#)
- 4.3 Summary responses to written comments provided by stakeholders prior to the workshop, that were not addressed either at the workshop or in the Stakeholder questions and answers document are provided in Annex 5.

4. Contact details

Please direct any specific questions on the process to:

Marine_Conservation@gov.scot

Annex 1: SPA stakeholder workshop feedback

Break-out groups:

West Coast of Outer Hebrides – WCOH

East Mainland Coast, Shetland – EMCS

Pentland Firth and Scapa Flow and North Orkney – Orkney

Outer Firth of Forth and St Andrews Bay Complex – OFoff

Moray Firth – MF

SPA Site Selection document (Departmental brief)			
Comment	Sector and/or Break-out group	Marine Scotland/SNH/JNCC response	Action in advance of consultation
Data			
There are CREEM ⁴ recommendations for distance sampling survey and analyses e.g. minimum number of transects and individual registrations for aerial surveys. Were these followed?	Open session: Consultant Break-out session: Orkney	The guidance provided by Buckland <i>et al.</i> (2001) on the number of transects to be used in Distance Sampling suggests that the minimum number of transects should be between 10 and 20. When going back to the raw data it shows that the guidance was followed and in many cases the number of transects far exceeded the minimum requirements. In two instances less than 10 transects were available during one year of the surveys: at Scapa Flow on the 12/12/2002 (9 transects) and at the Solway Firth on the 05/11/2001 (8 transects, Annex 1a: Table 1). In these instances, as well as during a few other years when survey coverage was so limited that population estimates were likely to be unrepresentative of the survey area, the population estimates generated by Distance Sampling were not used in the calculation of Mean of	No further action

⁴ Centre for Research into Ecological & Environmental Modelling, University of St Andrews

		<p>Peaks (MoPs). The MoP population number is later used to assess if numbers in an Area of Search are large enough to meet the SPA site selection guidelines.</p> <p>Buckland, ST, Anderson, DR, Burnham, KP, Laake, JL, Borchers, DL & Thomas, L 2001, <i>Introduction to Distance Sampling: Estimating Abundance of Biological Populations</i>. Oxford University Press.</p>	
<p>What is the rationale for using maximum curvature as a tool to set boundaries?</p>	<p>Break-out sessions: EMCS & OFoF</p>	<p>Given the mobile nature of the features and the lack of distinct habitat boundaries or features that can be used for defining boundaries at sea, a method was required that was objective and repeatable. Maximum curvature is based on the principle of diminishing returns; it identifies the point at which adding in additional 'area' would lead to slower and slower gains in terms of the number of birds that receive protection or the additional conservation gain. Further details on the use of maximum curvature are provided in the JNCC peer reviewed publication 'Defining SPA Boundaries At Sea'.</p>	<p>No further action</p>
<p>Is it appropriate to use data that is relatively "old"? Has there been any work to verify features are still present? For example, why were WeBS data from 2011 used given that the most recent surveys are available?</p> <p>Information on current trends would be useful.</p>	<p>Open session: Ports & Harbours, Local Authority & Fisheries</p> <p>Break-out sessions: MF, OFoF</p>	<p>Stakeholder questions and answers</p> <p>In the analyses, the most up-to-date data available was used. However, in some instances no recent high quality data were available and therefore older data was used. All data represented the best available evidence at the time when the analyses were conducted.</p> <p>There are advantages to using data that covers an extended time period such as that used for the ESAS analysis: it allows an assessment of use of an area over an extended time period showing importance over time rather than short term importance, and this is related to regularity of occurrence which is one aspect of the SPA selection guidelines.</p> <p>Where more recent data has been readily available we have provided additional information in the site selection documents. However, it should be noted that different data sources are not comprehensive, often <i>ad hoc</i> and by enlarge do not cover the whole site. These surveys therefore can only provide an indication of more recent numbers.</p> <p>Information about trends would ideally be provided as circumstantial</p>	<p>JNCC to provide a supplementary document on age of data</p> <p>SNH/JNCC to provide additional information (where this is readily available) in the SPA Site Selection document</p>

		information in the site selection documents, it is not however a pre-requisite for site selection. Trend information is scarce on marine species both at a national and regional level. Further work is required to compile trend information during the development of the draft Conservation Objectives post-consultation.	
When applying Kernel smoothing this would be sensitive to amount of effort put in (i.e. vessel frequency). It seems all data being treated equally within confidence of setting boundaries – is this true? And can smoothing be skewed by an area that isn't so important?	Open session: Consultant	<p>To create distribution maps based on KDE surfaces, for each survey conducted within an Area of Search an individual KDE surface was created. Within such an individual survey-specific KDE surface the effort did not vary between different locations, as it was based on a single aerial survey with a set transect width.</p> <p>In the next step, the individual survey-specific KDE surfaces were scaled to the survey specific population size for the Area of Search obtained by Distance, and overlaid with each other. An average was then calculated from the overlaid surfaces to come up with an overall distribution map with an average bird distribution from all available surveys. The average map is often not based on the same amount of KDE surfaces at all locations, i.e. at the edges of an Area of Search the number of surveys often drops if individual surveys were not covering the exactly same areas. When boundaries were established on the average KDE surface, based on the application of Maximum curvature, all grid cells were treated the same, regardless of the number of original survey-specific KDE surfaces which were used to calculate the average density of a particular grid cell. The average KDE surfaces were considered to be the best available information about the distributions of waterbirds throughout the Areas of Search.</p>	No further action
Request to check records for red-throated diver distribution at WCOH site.	Break-out session: WCOH	Red-throated diver numbers were calculated by looking up the number of breeding pairs within foraging range of boundaries identified as important for them. Numbers have been re-calculated for the new dSPA boundary. 58 pairs of red-throated diver have nest sites within foraging range of the West Coast of Outer Hebrides dSPA.	No further action
Has the WeBS-based data (Coll bird club) been considered for WCOH?	Break-out session: WCOH	Yes, Argyll Bird Club did provide data to JNCC. For species that exceeded their relevant 1% thresholds the numbers recorded from aerial survey data were higher than count data supplied by Argyll Bird Club. Following our standard procedure we concluded that the aerial survey data would be more appropriate to use.	No further action

<p>Has climate change and future species movement been taken into account?</p>	<p>Open session: Fisheries</p>	<p>The evidence used for site selection includes an assessment on whether birds are regularly using an area, we can't predict where the birds will / won't be in future. CHAINSPAN report considered the impacts of climate change on birds. Broad conclusion was that areas will continue to be important but may support different species.</p>	<p>No further action</p>
<p>Clarity is required on how the areas of search were defined. The whole area to the west of Walsay (i.e. Dury Voe) doesn't appear to have any survey data.</p>	<p>Break-out session: EMCS</p>	<p>Existing data (including Wetland Bird Surveys (WeBS), Important Bird Areas (IBA) under BirdLife International, existing survey data and an atlas of seabird distributions) and information from published scientific literature were used to determine which initial areas might be important for inshore wintering waterfowl. Based on this initial assessment, 46 areas of search were identified across the UK.</p> <p>Dury Voe was excluded from the aerial surveys for safety reasons. To fly over inhabited areas the aircraft has to ascend to 500ft, which would mean the areas immediately west of Whalsay would be difficult to survey, as the plane would be rising and falling quickly.</p>	<p>SNH to provide a supplementary document on the Site selection process including information on Areas of search not take forward.</p>
<p>What's the ecological justification for inclusion of Manx shearwater? Clarify 'breeding'/'non-breeding' with respect to Manx shearwater</p>	<p>Break-out session: OFofF</p>	<p>The evidence for large numbers of Manx shearwater is robust. There may be some confusion of use of 'breeding and/or non-breeding' - as these birds are not associated with specific breeding colonies but occur within the site during the breeding season. The status of the birds is uncertain. They are likely to be a mixture of breeding adults from distant colonies, sabbatical or pre-breeding age birds and possibly failed breeders, with the majority being in the latter categories after June.</p> <p>Birds are present during the breeding season (summer) in numbers in excess of 2000 individuals and therefore are one of the species that contribute to the overall importance of the area for large seabird assemblages.</p>	<p>SNH to clarify status of Manx shearwater in the SPA Site Selection document</p>

Site selection and boundary setting			
<p>Are we bound by UK selection guidelines? Why not wider selection process e.g. EU level? How do these differ?</p>	<p>Open session</p>	<p>The UK SPA site selection guidelines are well established and have been adopted at a UK level for the establishment of terrestrial SPAs. Early consideration of the appropriateness of the guidelines for use in the marine environment was given at the start of the marine work.</p> <p>There are no EU level site selection guidelines – the Commission leaves this to the discretion of the Member States and provides the following guidance:</p> <p>European Commission (2007) Guidelines for the establishment of the Natura 2000 network in the marine environment. Application of the Habitats and Birds Directives. http://ec.europa.eu/environment/nature/natura2000/marine/docs/marine_guidelines.pdf</p> <p>Some Member States use the Important Bird Areas (IBA) criteria which has many similarities to the UK SPA selection guidelines and are compared in the above guidance.</p>	<p>No further action</p>
<p>Are you going to take into account socio-economic effects? Can harbour areas be excluded?</p>	<p>Open session: Fisheries</p>	<p>Case law is clear that we cannot take socio-economic's into account or exclude areas from a boundary on the basis of existing activities:</p> <p>Directive 79/409/EEC on the conservation of wild birds - Delimitation of Special Protection Areas - Discretion enjoyed by the Member States - Economic and social considerations - Lappel Bank. Case C-44/95. <i>European Court reports 1996 Page I-03805</i></p> <p>This includes excluding harbour areas on the basis of socio-economics.</p>	<p>No further action</p>
<p>Why has Arctic tern been removed from North Orkney site? And what GB population was used?</p>	<p>Open session: NGO</p> <p>Break-out session:</p>	<p>A review of breeding Arctic tern numbers at Rousay (breeding colony associated with North Orkney draft SPA) revealed that numbers over the last 10 years have been low (99 pairs, c.0.2% GB) and there is a lack of information on regularity of occupancy.</p> <p>The GB population is referenced from Mitchell 2000 in the absence of a more</p>	<p>No further action</p>

	Orkney	recent reference population. We do recognise that Arctic tern numbers have declined in Scotland. This is not the case however in GB where the population is considered more stable. On the basis of this information we felt the most appropriate approach was to remove Arctic tern as a qualifying feature of the North Orkney site. This approach is consistent with that carried out in Wales and England. All other draft SPAs with terns proposed as a qualifying feature still regularly support populations in excess of 1% GB.	
The Fetlar marine extensions already capture birds in Bluemull and Colgrave Sound dSPA extension – why can't these just be added to the existing Fetlar SPA?	Open session:	Red-throated divers are not a qualifying feature of existing terrestrial Fetlar SPA. Whilst there is some overlap between the Bluemull and Colgrave Sounds dSPA and Fetlar SPA the qualifying features composition of both sites is completely different. It was therefore considered more appropriate to keep the two sites separate.	No further action
What guidelines will the review of marine SPAs sufficiency across the UK follow? – Sites have been identified using guidelines so how can you assess site sufficiency without looking at the guidelines?	Open session:	The method to guide the assessment of sufficiency is currently being developed and will be consulted upon in the summer of 2016. Application of the selection guidelines alone does not allow for “fine-tuning” of the differing degrees to which marine birds would be expected to feature in a protected sites network, and to determine the sufficiency of the existing network. Some species have restricted at-sea distributions where they occur regularly from year to year; one would expect these to feature heavily in a protected sites network; others range very widely over large areas of sea in an unpredictable manner and these would be expected not to feature greatly in such a network.	No further action
Who is undertaking the review of SPA sufficiency? And what is the timescale for completion?	Open session:	The work is co-ordinated by JNCC with Defra, MS & Statutory Nature Conservation Bodies feeding into this. The final report is due end 2016. Expectations of additional sites beyond this suite are unknown.	No further action

<p>General consensus that boundaries should be drawn tighter to the areas defined by maximum curvature.</p> <p>All changes need to be audited and applied consistently across the sites.</p>	<p>Open session: Ports & Harbours, Fisheries</p> <p>Break-out sessions: WCOH, OFofF, EMCS, Orkney, MF</p>	<p>SNH have prepared new indicative site boundaries for all inshore sites except Rum (which is an existing SPA boundary). The revisions ensure that all areas of maximum curvature/ESAs hotspots (the species-specific boundaries) are included within the site boundary. No areas that overlap the species-specific boundaries have been excluded as part of this exercise. Revisions have been made where it has been possible to tighten the boundary so that it lies closer to the areas of maximum curvature/ESAs hotspot consequently; all inshore dSPAs have been reduced in overall size.</p> <p>Boundaries have however been extended at the East Coast Mainland, Shetland dSPA to include the full extent of the maximum curvature for great northern diver. Likewise the boundary at Firth of Forth has been extended to include the full extent of the ESAS hotspot for non-breeding guillemot. In our review of data we have not established a reason for these two areas to have been excluded from the original dSPA boundary.</p> <p>There has been no change to the qualifying features for each site as a result of the boundary changes.</p>	<p>SNH to prepare new draft SPA citation maps and seek appropriate Committee approval for amendments.</p>
<p>Clarification on what infrastructure were included / excluded.</p>	<p>Break-out sessions: EMCS, MF, WCOH & OFofF</p>	<p>The exclusion of infrastructure from the site boundary includes all permanent man-made hard structures that protrude from land i.e. jetties, piers, harbour walls, ferry terminals, slipways and docks. They do not include encourages with floating buoys or moorings.</p>	<p>SNH to clarify in the SPA Site Selection document</p>
<p>Why has the ESAS puffin hotspot (Pabbay) not been taken forward?</p>	<p>Break-out session: WCOH</p>	<p>Breeding puffin were identified as a potential 1.4 qualifier (Area 36 in JNCC Report 461) applying JNCC's approach to 1.4 (see below). The hotspot lies in inshore waters, hence it was SNH's responsibility to apply the Stage 2 selection of the most suitable areas. The population did not however meet 1% or more of the GB breeding population required to be further considered using the SNH approach for features to become 1.4 candidates nor did it overlap with the distribution of a qualifying Annex 1 species.</p>	<p>No further action</p>

Questioned whether the distribution of the great northern diver is correct.	Break-out session: WCOH	The areas identified are based solely on observed distribution, it does not necessarily imply birds are foraging. The majority of observations are within the 20m depth contour, however, the distribution does extend beyond this in some places.	No further action
Why had the offshore guillemot hotspot at the Outer Firth of Forth and St Andrews Bay Complex site been removed/not included?	Break-out session: OFofF	<p>Non-breeding guillemot were identified (hotspot 32, JNCC Report 461) as a 1.4 qualifier. The majority of the hotspot lay in offshore waters, hence it was JNCC's responsibility to apply the Stage 2 selection of the most suitable areas. In JNCC's Stage 2 selection, the following steps were applied:</p> <ol style="list-style-type: none"> (1) Include all areas identified under guidelines 1.1 – 1.3 in Stage 1. (2) Include all areas identified under guideline 1.4 if the population within the area exceeds 0.5% of the relevant population (so depending if Annex 1 species or migratory species the national or biogeographic population) (3) Include all areas substantially overlapping with already selected areas (4) Include "expert inclusions" if additional evidence suggests that they should be included. <p>Hotspot 32 dropped out of the selection when the second step was applied: it is a 1.4 area holding less than 0.5% of the common guillemot biogeographic population (the 0.5% threshold is 31,500 individuals, the population estimated for this hotspot is just above 15,000 individuals.).</p>	No further action
Why is Eden Estuary excluded?	Break-out session: OFofF	The draft SPA abuts the existing Firth of Tay and Eden Estuary SPA. Species such as non-breeding eider, common scoter and red-breasted merganser are already qualifying species of the existing SPA.	No further action.
Further information on species specific habitat/prey preferences is required including dive depths.	Open session: Fisheries, Consultant	Agreed.	SNH to provide further information in the SPA Site Selection document
Composite sites – have these been created for ecological reason, or administrative ease?	Break-out session: Orkney	In developing a suite of marine SPAs emphasis has been placed on identifying areas that function as "hotspots" for many rather than just a few or only one species. This however has not precluded the proposal of sites on the basis of only one or two species where this was deemed appropriate and a multi-	No further action.

		species approach had not identified an adequate representation of species.	
Orkney sites should not go ahead for consultation as they are currently proposed.	Break-out session: Orkney	Significant changes have been made to the Orkney dSPAs. North Orkney has been reduced in size in recognition that numbers of Arctic tern no longer support an extended site and, Pentland Firth and Scapa Flow has been split into two sites to aid longer term management of the two sites and their respective features. Ultimately, the decision on whether to launch a formal consultation on these sites is for the Minister.	No further action.
Developers would prefer the split of sites for different management concerns. This makes more sense for our requirements of surveys for pre-application / development and / or activity management.	Open session: Ports and Harbours Break-out session: Orkney	This option has been considered for Pentland Firth and Scapa Flow dSPA and the Outer Firth of Forth and St Andrews Bay Complex dSPA.	SNH/JNCC seek appropriate Committee approval to split Pentland Firth and Scapa Flow dSPA. Marine Scotland Science to prepare guidance on handling casework for the Outer Firth of Forth and St Andrew's Bay Complex.

Moray Firth dSPA is considered to be the 5th most important site for Slavonian grebes in Scotland. Members commented that this is quite low down list; does it need to be included as part of Scottish SPA network?	Break-out session: MF	Slavonian grebe occur in such small numbers around the Scottish coast that in all cases where their numbers exceeded the 1% GB threshold and where they contributed to a multi-species composite site they were included as a qualifying feature. Additionally, the Moray Firth has the largest concentration of Slavonian grebe on the east coast of Scotland.	No further action
How are boundaries produced? The groups queried whether water depth had been used as the basis for defining boundaries.	Break-out sessions: WCOH, EMCS	The proposed site boundaries have not been delineated using water depth. See Stakeholder questions and answers : 'How are the boundaries produced?' Additional information is provided in ' Defining SPA Boundaries At Sea '.	SNH to provide further information in the SPA Site Selection document.
There is a discrepancy between guillemot numbers in the Pentland Firth hotspot as given in the Dept Brief and JNCC report	Break-out sessions: Orkney	The difference is because the numbers in the hotspot (28,356 individuals, JNCC Report 461) covers only part of the site boundary (36,525 individuals, Departmental Brief Pentland Firth and Scapa Flow pSPA). To estimate the total number of individuals in the full site boundary, the breeding guillemot distribution map provided in JNCC Report 431 was used.	No further action.
Presentation			
Please put site boundaries on admiralty charts.	Open session: Ports & Harbours, Local Authority	Agreed. Bathymetry is also provided in the Advice on Management documents.	SNH to provide citation map with Admiralty chart backdrop.
More detailed maps are required and access to shape files to explore boundaries further.	Open session:	The maps in the site selection documents are provided for illustration only. GIS maps and shape files will be made available through NMPi during consultation.	No further action.

Management advice			
Comment	Sector and/or Break-out group	Marine Scotland/SNH/JNCC response	Action in advance of consultation
BRIA			
We need more accurate information on the economic issues – the BRIA doesn't reflect extra burden of surveys, loss of commercial interest.	Open session: Local Authority, Ports & Harbours	<p>The decision to classify a SPA must be based only on scientific evidence. Nevertheless it is however Scottish Government policy to inform Ministers of potential socioeconomic impacts of classification.</p> <p>The current assessment quantifies costs over and above what would already be required to satisfy HRA requirements existing designations. The addition of new SPAs is unlikely to require a substantive change to how these developments proceed. They may add to the burden of proof, through assessments and surveys, to demonstrate that developments do not adversely impact the sites.</p> <p>It is not possible to quantify potential loss of investor interest. Therefore Marine Scotland includes a statement in the assessment that there is a potential for there to be a subjective increase in investor concerns regarding developments within an SPA.</p>	Marine Scotland to refresh analysis following post-workshop changes to proposals
Conservation Objectives (COs)			
Overlapping designations will now have different Conservation Objectives (COs) for the same species i.e. updated versions for these marine SPAs, older versions for designated SPAs. How will this be	Open session:	We are in the process of reviewing the Scottish approach to COs. The new approach is being developed for the marine SPAs initially. A programme is currently being drafted to apply the approach to other SPAs and SACs. Sites that overlap with the dSPAs will be given priority in the programme.	No further action.

managed?			
Where will the supplementary advice sit? Within COs or legal advice?	Open session: Renewables	<p>The COs have an indirect legal status, as these are what an appropriate assessment is measured against. However, neither the Habitats Directive or the Habitats Regulations define these, or require Member States to publish COs for a given site.</p> <p>The supplementary advice gives more information about how the high-level conservation objectives can be achieved or measured. If a Competent Authority decided to ignore this advice in carrying out an HRA, they would risk justification of so doing in any judicial review, and so this will effectively have the same status as the COs.</p>	No further action.
If 5-10 years down the line, legislation may be changed but how will COs and associated documents be updated rather than potentially remain out-of-date?	Open session: Renewables	<p>A change in legislative could drive a review of COs and other site documents.</p> <p>At the moment it is up to the discretion of the different countries if and when they are updating the documents.</p>	No further action.
How will COs effectiveness be evaluated to show they are achieving what they set out to do?	Open session: Renewables	<p>A monitoring assessment will be established for all sites (legal requirements to do so). Surveys will however be costly, so some further thought will be required as what is appropriate. COs will drive the conservation measures for the site, and will feed into whether the site meets Favourable Conservation Status.</p> <p>For developments – post-consent monitoring would have to cover success of mitigation measures being applied and that site condition is being maintained.</p>	No further action.

Advice on management (Management options papers (MOPs))			
Is quantification of Risk possible in MOPs? Needs to be site specific and looked at on individual site level. Potentially spatial or temporal separations.	Break-out sessions: Fisheries	<p>By identifying activities in the MOPs we are highlighting that pressures associated with these activities have the potential to undermine the COs i.e. they present a risk to achieving the COs.</p> <p>Further information provided by stakeholders on intensity, frequency, and methods will help us to quantify risk and develop more specific management options, focused on interactions between features and activities.</p> <p>We recommend early engagement with SNH and/or the relevant competent authority to ensure HRA requirements for plans and projects are scoped appropriately and unnecessary costs are avoided.</p>	No further action
How do stakeholders deal with conflicts between legal instruments (e.g. Conservation Regulations 'vs' Ports and Harbours Regulations), emergency operations and responsibility as a Competent Authority e.g. financial burden of such a responsibility?	Open session: Local Authority, Ports & Harbours	<p>Marine Scotland are confident Competent Authorities will take a common sense approach where there may be a perception of incompatibilities between legislative requirements. We Competent Authorities have duties and obligations to protect the SPAs, and while the fulfilment of SPA conservation objectives should not come at the expense of navigational or maritime safety, efforts should be taken by Competent Authorities to ensure the conservation objectives of the SPAs are met within their powers. Competent Authorities will be expected to fulfil their duties in achieving these requirements.</p>	No further action
In order to identify appropriate management options, it needs to be clearly shown which species are considered sensitive to each marine activity. It should be noted that some management measures may only be relevant for particular	Break-out sessions: Fisheries	<p>Agreed.</p> <p>Sensitivities information for each species will be available through FEAST during consultation.</p> <p>Additionally, there will be further options that become clear during the course of further dialogue with sectors as we gain further understanding of locations, frequency and intensity of activities. We therefore anticipate that further dialogue with stakeholders will enable us to further refine this advice.</p>	SNH to provide clarification in MOPs

qualifying species in particular areas at particular times of year, outwith these areas or times the management measures should be considered unnecessary.			
Stakeholders requested that advice needs to be clear that it is the pressure not the activity we seek to reduce / limit.	Open session: Ports & Harbours	Where MOPs identify options for 'reduce or limit' this refers to pressures rather than to the activities generating these pressures and that the MOPs are a starting point. It is for regulators and developers to identify specific measures.	SNH to provide clarification in MOPs
Using both 'reduce' and 'limit' is confusing – welcome further clarity to consider what each term means and if both are needed.	Open session: Ports & Harbours	An explanation of reduce and limit are provided in each Management options paper. The full term 'reduce/limit' is used when providing management options were its not reduce OR limit – rather a combination of both to reflect the range of actions that may be required for a given activity e.g. we could limit the intensity of a fishing activity that if undertaken repeatedly could push a feature beyond its limits in terms of condition or reduce in certain parts of a site where a particular extent of feature is considered highly sensitive but not necessarily for other parts of the site.	SNH to provide clarification in MOPs
Aquaculture – need to consider footprint of finfish farms and how these affect prey availability for bird species?	Break-out sessions: Ports & Harbours, Fisheries	SNH will review advice and consider circumstances where it may be appropriate to provide a management option with respect to foot prints of new finfish farms.	SNH to review advice in MOPs
How is it anticipated that jet skis and other unregulated activities could be managed, and considered in cumulative assessments?	Open session	We acknowledge some activities are not regulated. In these cases management would be through application of best practice.	No further action

<p>For each species that is sensitive to a marine activity, it should be clearly shown where there is potential for any of the conservation objectives to be undermined.</p>	<p>Open session</p>	<p>The 'management options papers are working documents that have been produced to support initial discussions with stakeholders about management of activities associated with the proposed SPA during the formal consultation (should this sites proceed to consultation). They set out the draft conservation objectives for the qualifying features and these provide the starting point for considering whether additional site management is required. The risks posed by each activity are identified in broad terms under each activity with mortality, disturbance, changes to supporting habitat being highlighted in the text.</p> <p>The documents are not intended to be an assessment of activities against the conservation objectives i.e. they are not a substitute for HRA but may assist at the scoping stage.</p>	<p>No further action</p>
<p>The levels of existing marine activities should be taken into consideration when assessing the need for new management measures.</p>	<p>Open session: Ports & Harbours</p>	<p>This is the approach that has been adopted at a broad level and consequently for many existing activities we are advising no additional management at current levels. Where we are advising management this advice is very much the start of discussions to ascertain levels, frequency and future requirements.</p>	<p>No further action</p>
<p>A way to show how / why activities have been scoped out – request for an audit trail.</p>	<p>Break-out sessions: Fisheries</p>	<p>Whilst the MOPs do not provide an exhaustive list of activities that have been scoped out, we have reviewed activities provided additional information on the main activities we felt would be most useful for stakeholders further to discussions at the workshop.</p> <p>Generally, activities that the proposed qualifying features are not thought to be sensitive to (or have a low sensitivity to) are not considered further within each document. These decisions are based on species sensitivities assessments which will be available in FEAST during the consultation.</p> <p>Further dialogue with stakeholders can clarify whether any additional activities should be included in the MOPs..</p>	<p>SNH to provide additional information in MOPs</p>
<p>Require further sector-specific clarification for some activities e.g. shipping activities</p>	<p>Break-out sessions: OfofF, Ports & Harbours and</p>	<p>Agreed.</p>	<p>SNH to provide clarification in MOPs</p>

	Fisheries		
Require clarity whether existing licences and/or operations (e.g. maintenance dredging) is a plan or project, and implications (does it require an HRA? / need review of consents?). Need a policy statement in addition to workshop report. This will affect how stakeholders respond to the formal consultation.	Break-out sessions: MF, ECMS & Ports & Harbours	Maintenance dredging is considered to be a plan/project under the Habitats Regulations. All current marine licences where likely significant effect (LSE) is identified on one of the new designations will require to be reviewed following the completion of an appropriate assessment. Section 36 consents, where electricity is not yet being generated will also need to be reviewed where LSE is identified. As per the Regulations this will be done as soon as reasonably practicable following classification. DECC will be issuing guidance on the review of section 36 consents soon, this guidance which also covers Scottish interests and will be available on the MS website once finalised.	No further action
General			
What's the purpose of the consultation if we are discussing site and species issues just now?	Open session: NGO	The difference is that Ministers will have concluded there's a case for consulting on the sites being put forward.	No further action.
We have already submitted detailed comments on the proposals. Will these be addressed before consultation?	Break-out sessions: MF, Orkney, OFoF,	Annex 5 provides additional responses to comments received prior to the SPA workshop that were not discussed during the workshop or the Stakeholder questions and answers .	No further action.
Can the minister go against SNH/JNCC advice regarding the suit of dSPAs and, if so, under what circumstances?	Break-out sessions: MF	If Scottish Ministers do not think the scientific evidence is robust enough to meet the requirements of the EU Wild Birds Directive then they would not accept the advice.	No further action

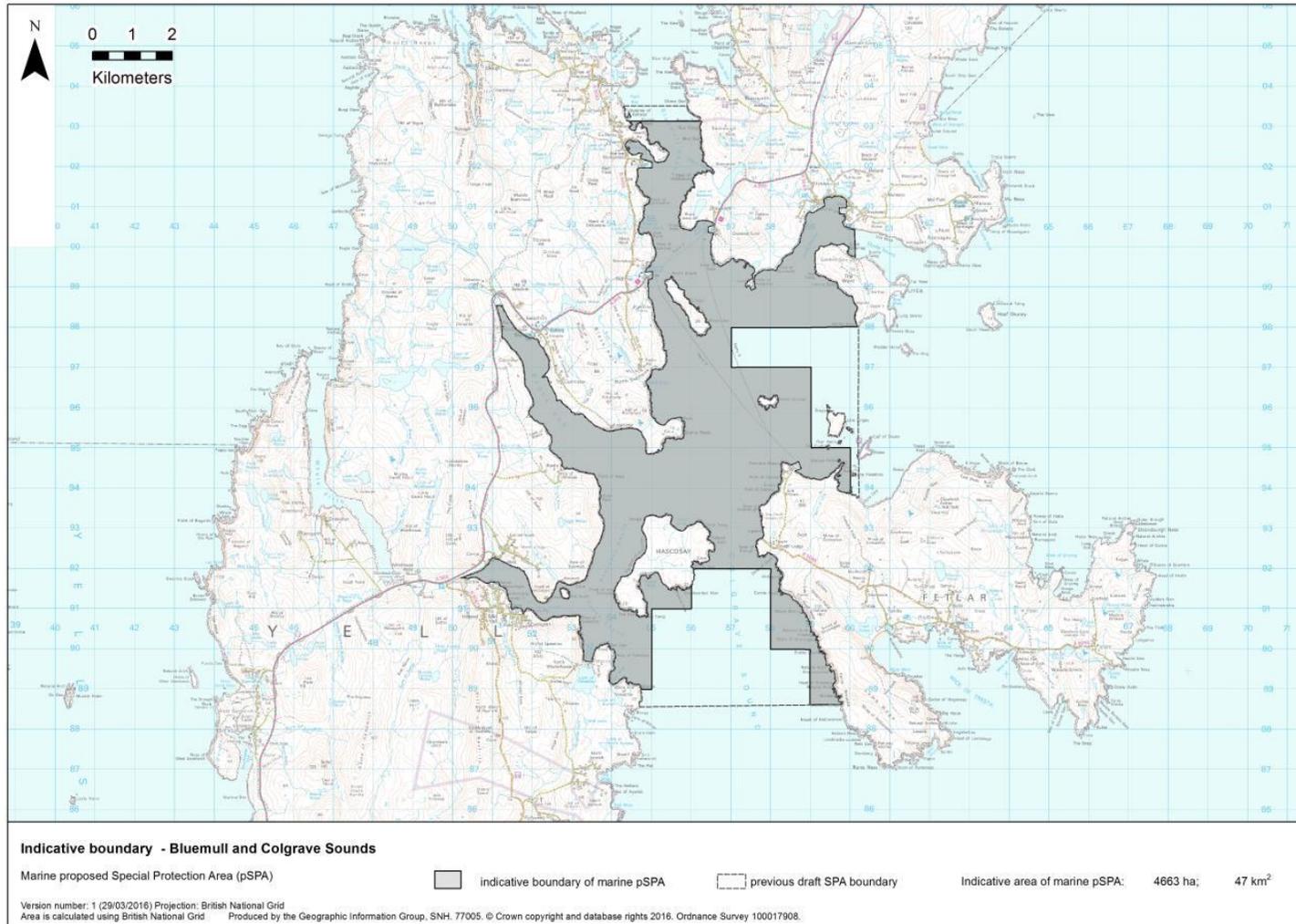
Annex 1a: Table 1: Distance sampling number of transects in each survey

Area of Search	Survey date	Number of transects
Coll and Tiree	2004-02-18	37
Coll and Tiree	2005-03-26	42
Coll and Tiree	10 & 18 Feb 2006	40
Coll and Tiree	2006-03-21	37
Coll and Tiree	2007-03-24	40
Coll and Tiree	2008-03-17	38
East Mainland Coast, Shetland	2008-02-13	17
East Mainland Coast, Shetland	2008-03-26	17
East Mainland Coast, Shetland	2009-02-09	17
East Mainland Coast, Shetland	2009-03-20	17
East Mainland Coast, Shetland	2010-02-10	18
Moray Firth	8 & 9 Jan 2002	61
Moray Firth	24 & 25 Feb 2002	61
Moray Firth*	2002-12-11	31
Moray Firth*	2003-03-17	16
Moray Firth	6 & 7 Dec 2003	62
Moray Firth	2004-02-15	62
Moray Firth	2005-03-06	61
Moray Firth	30 Jan & 4 Feb 2006	37
Moray Firth	3 & 18 Feb 2007	37
North Orkney*	2006-01-29	14
North Orkney*	2006-02-22	13
North Orkney	2007-02-18	15
North Orkney	2008-03-15	15
Outer Firth of Forth and St Andrews Bay Complex	25 - 29 Jan 1998	27
Outer Firth of Forth and St Andrews Bay Complex	2001-12-14	18
Outer Firth of Forth and St Andrews Bay Complex	2002-02-26	18
Outer Firth of Forth and St Andrews Bay Complex	2003-12-05	18
Outer Firth of Forth and St Andrews Bay Complex	2004-02-16	18
Outer Firth of Forth and St Andrews Bay Complex	2004-12-12	18
Outer Firth of Forth and St Andrews Bay Complex	2005-02-03	18
Scapa Flow*	2002-12-12	9
Scapa Flow	2004-02-12	18
Scapa Flow	2005-03-07	18
Scapa Flow	2006-01-29	21
Scapa Flow	2006-02-22	21
Solway Firth*	2001-11-05	8
Solway Firth	2001-12-11	15
Solway Firth	2002-03-13	23
Solway Firth	2004-11-10	16
Solway Firth	2004-11-28	17

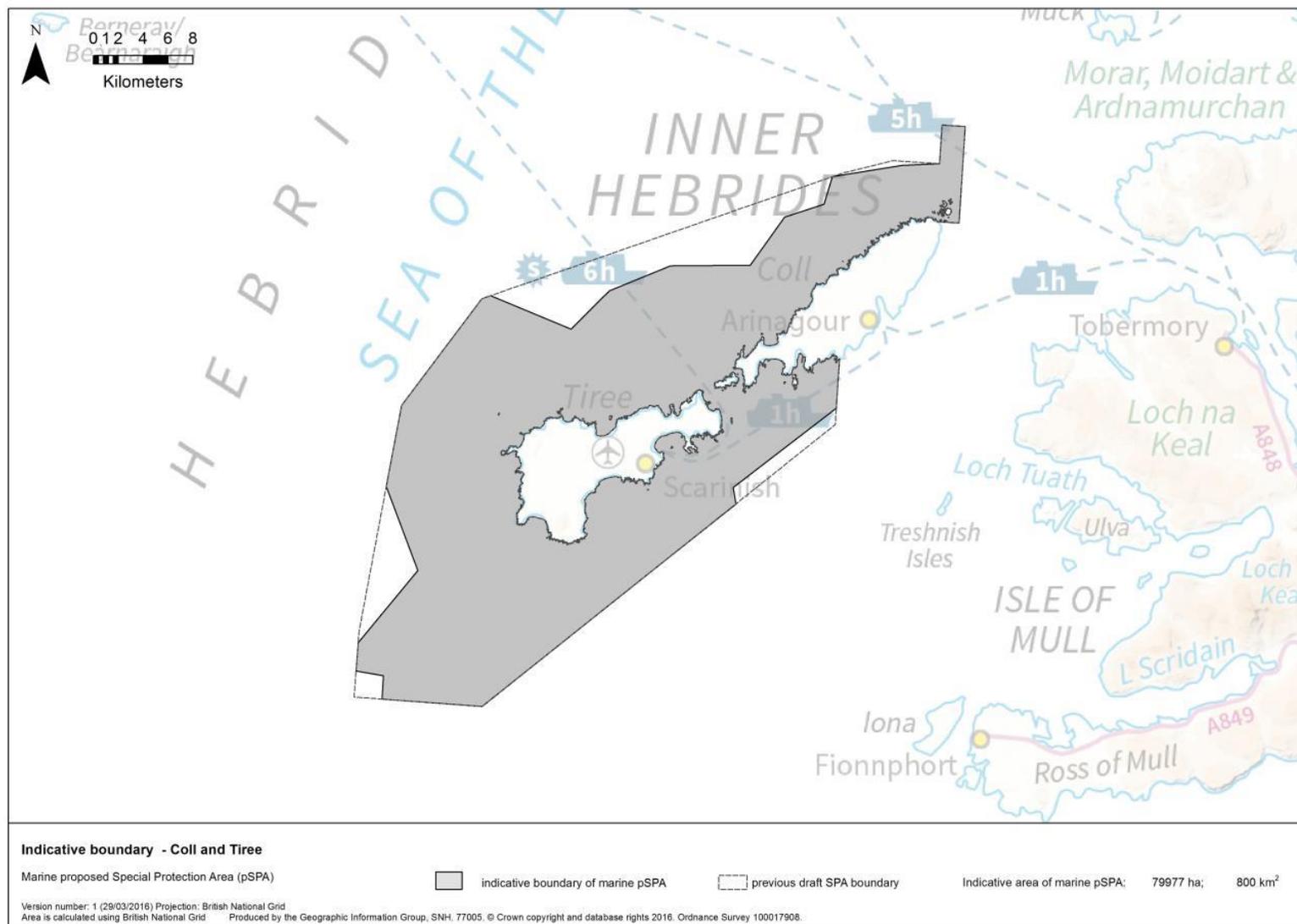
Solway Firth	2005-01-22	15
Solway Firth	2005-02-16	19
Solway Firth	2005-11-08	29
Solway Firth	2005-12-13	22
Solway Firth	2006-02-02	29
Solway Firth	2006-02-20	29
Solway Firth	2011-03-05	29
Sound of Gigha	2005-03-09	30
Sound of Gigha	2005-12-12	31
Sound of Gigha	18 & 20 Mar 2006	31
Sound of Gigha	2007-03-23	33
Sound of Gigha	2008-02-11	33
West Coast of the Outer Hebrides	2003-03-18	31
West Coast of the Outer Hebrides	2004-02-17	35
West Coast of the Outer Hebrides	07 & 08 Mar 2005	42
West Coast of the Outer Hebrides	28 & 31 Jan 2006	40
West Coast of the Outer Hebrides	25 & 26 Mar 2007	38

* Survey was not used in calculation of Mean of Peaks as survey coverage was so low that the population estimate based on the survey is likely to be an underestimate.

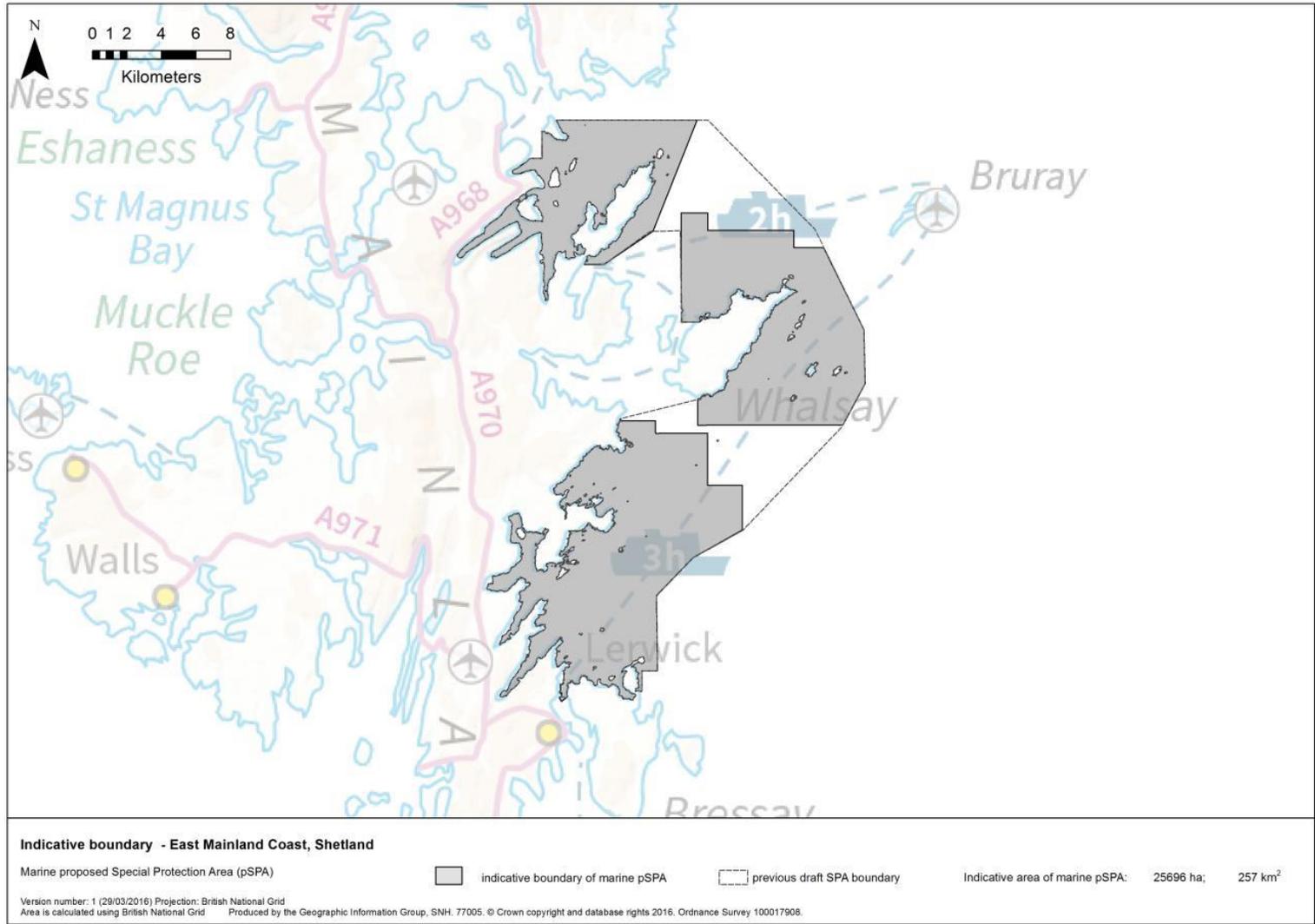
Annex 2: New indicative draft SPA boundaries Bluemull and Colgrave Sound draft SPA



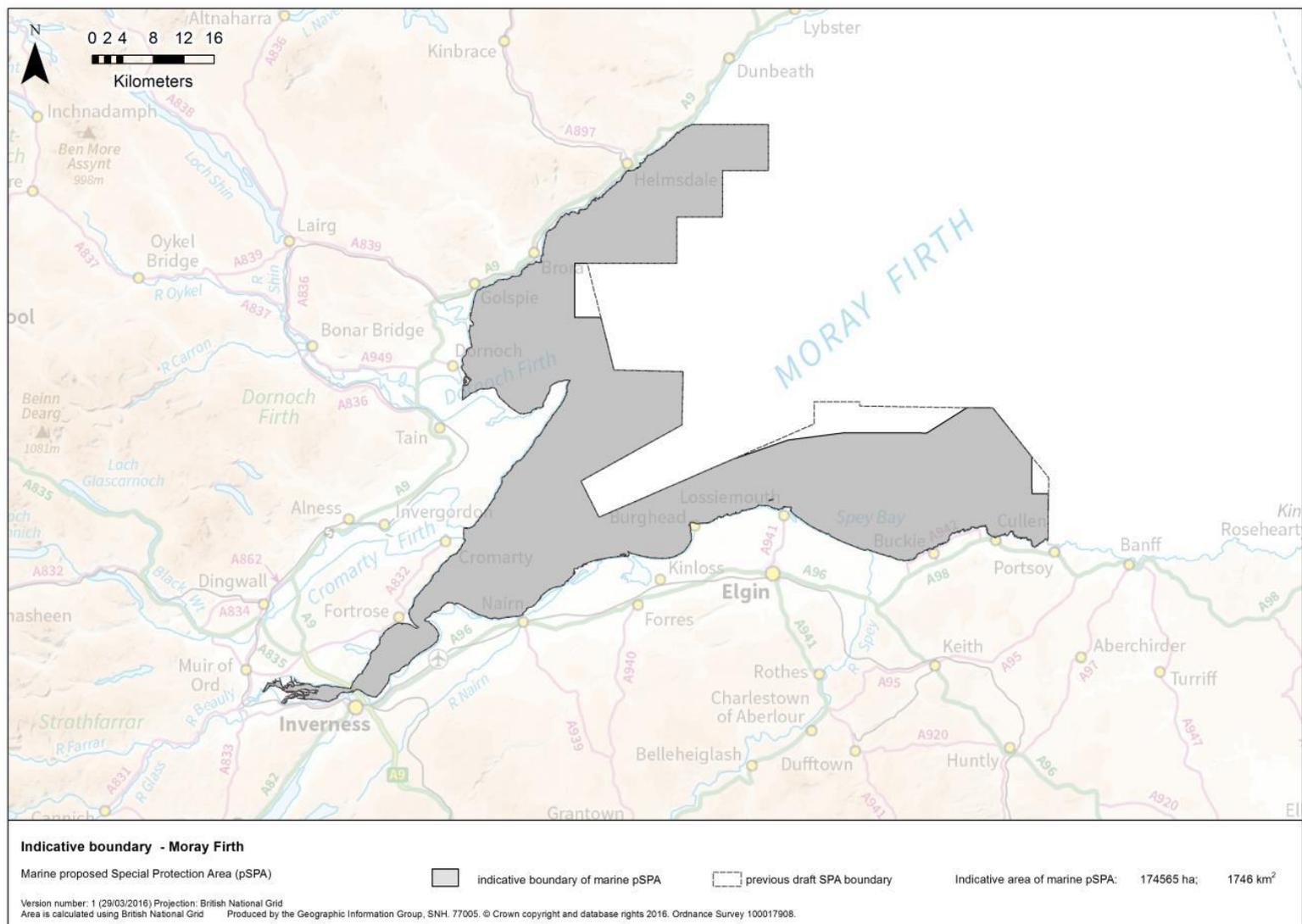
Coll and Tiree draft SPA



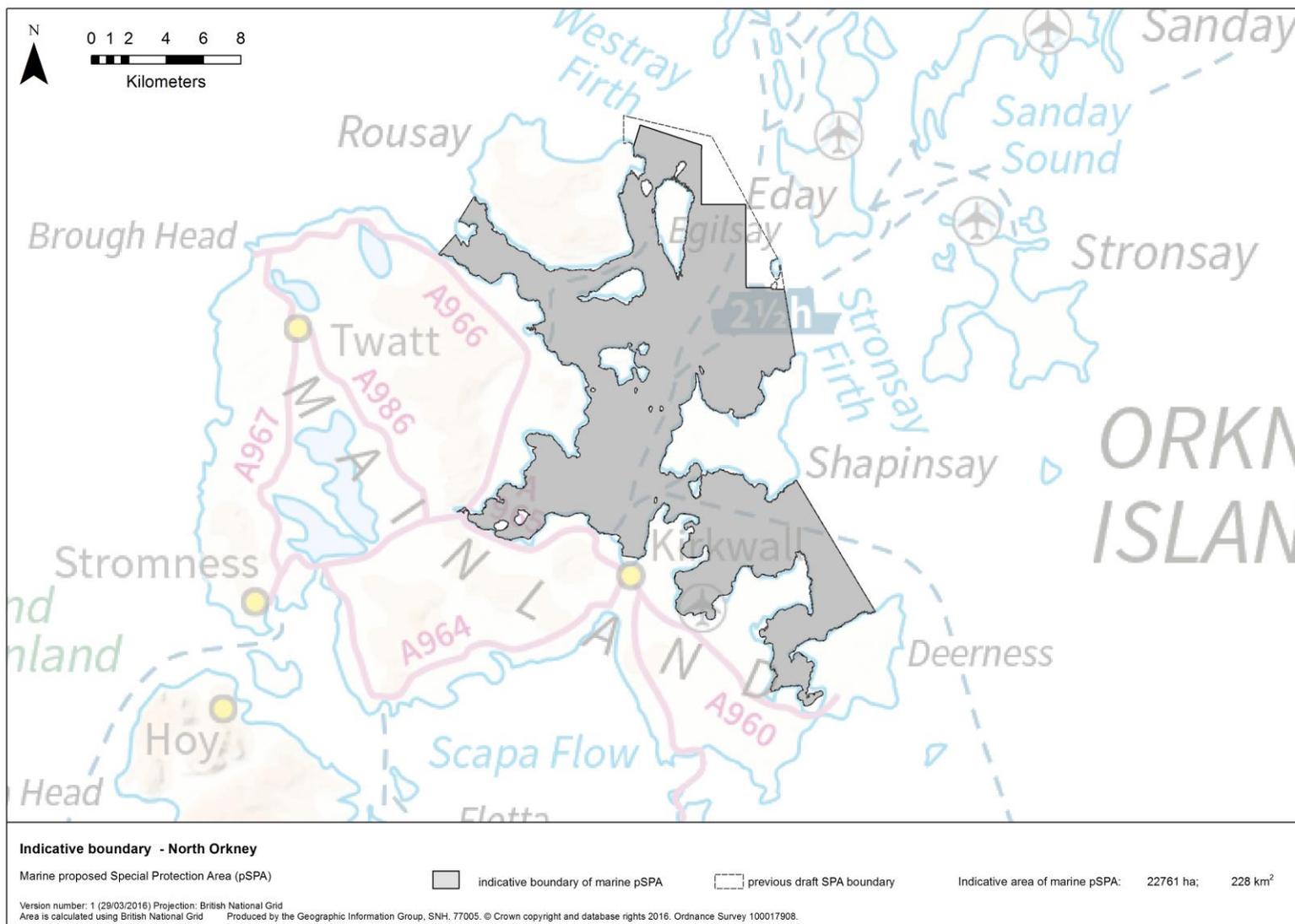
East Mainland Coast, Shetland draft SPA



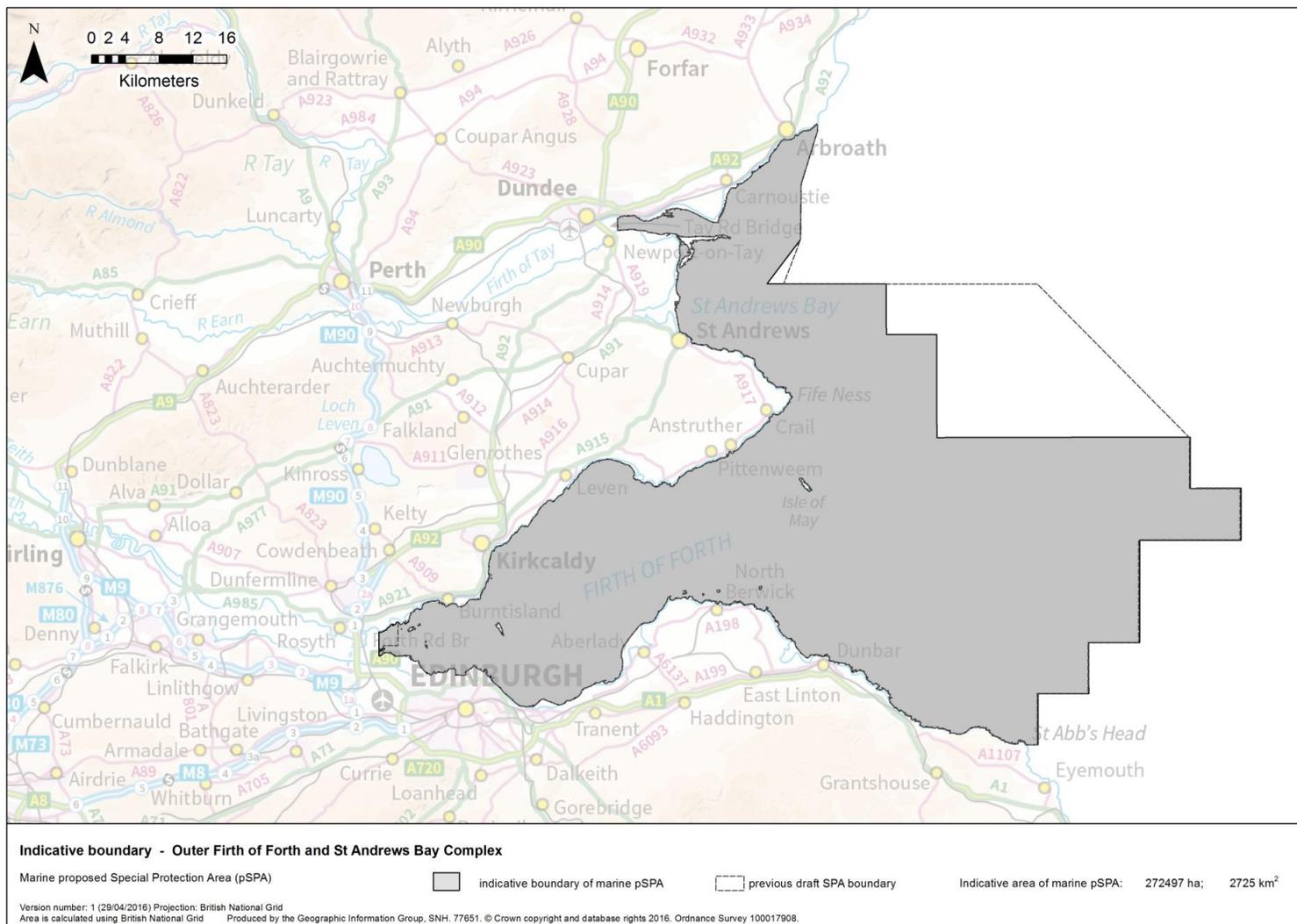
Moray Firth draft SPA



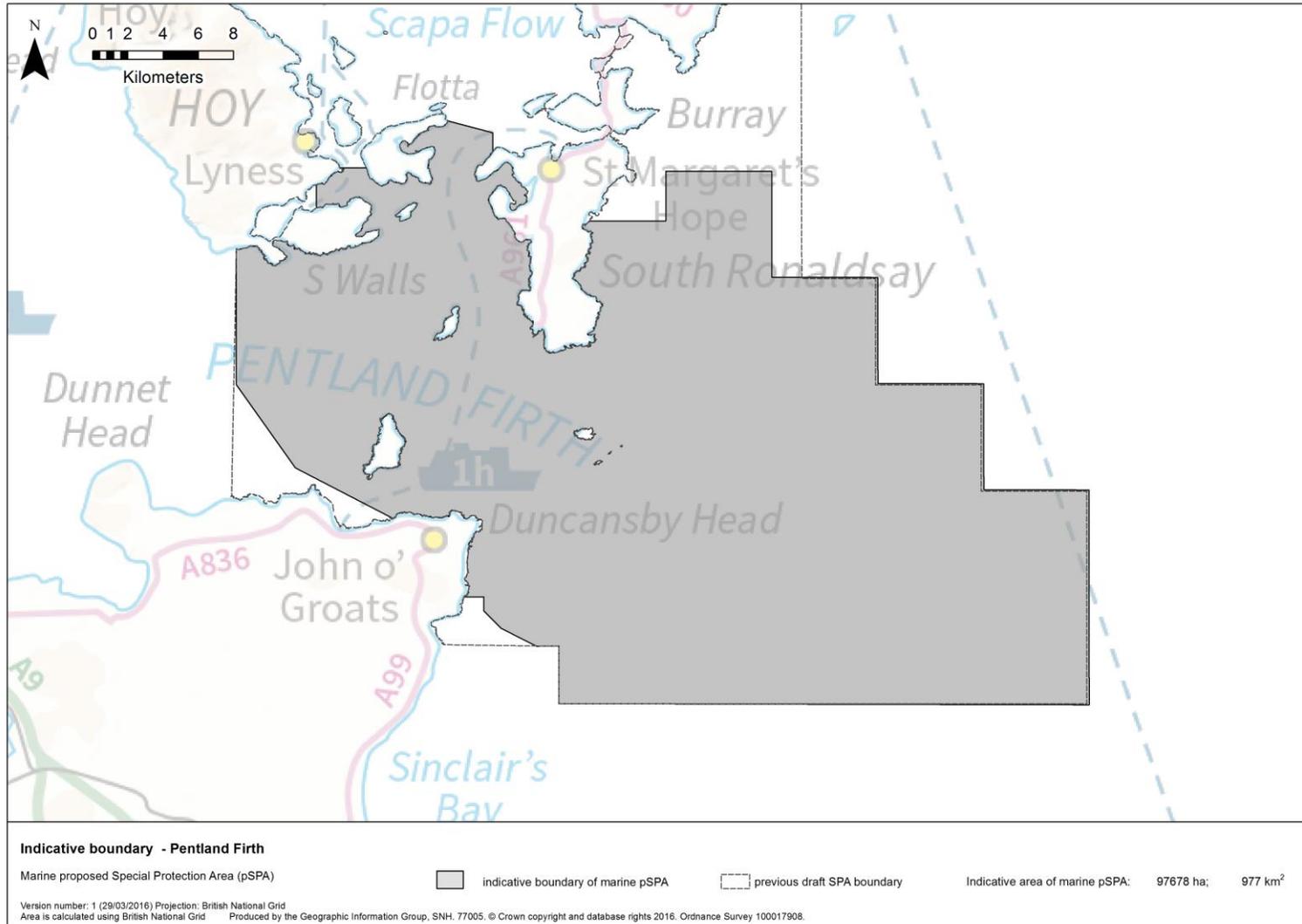
North Orkney draft SPA



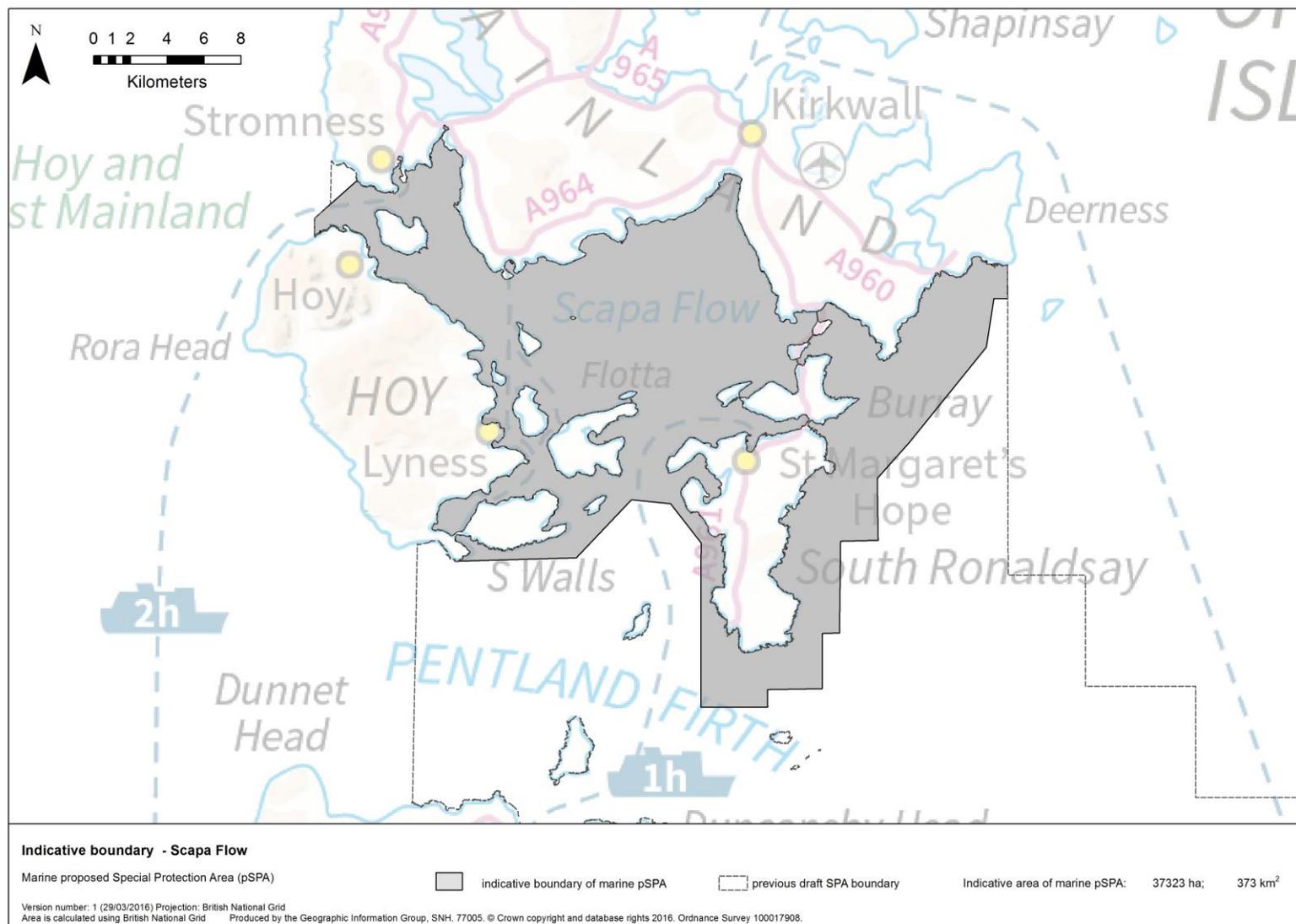
Outer Firth of Forth and St Andrews Bay Complex draft SPA



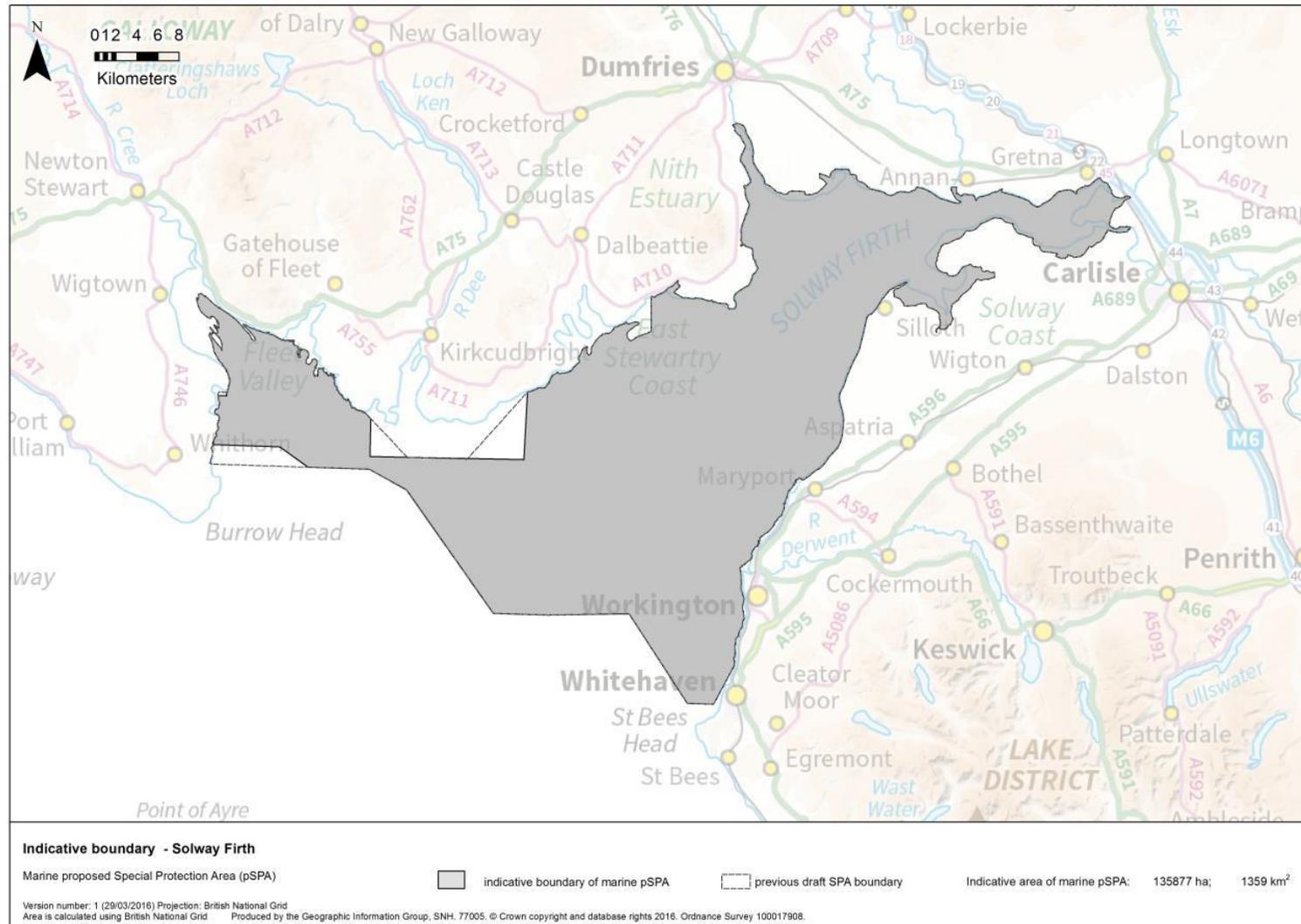
Pentland Firth draft SPA



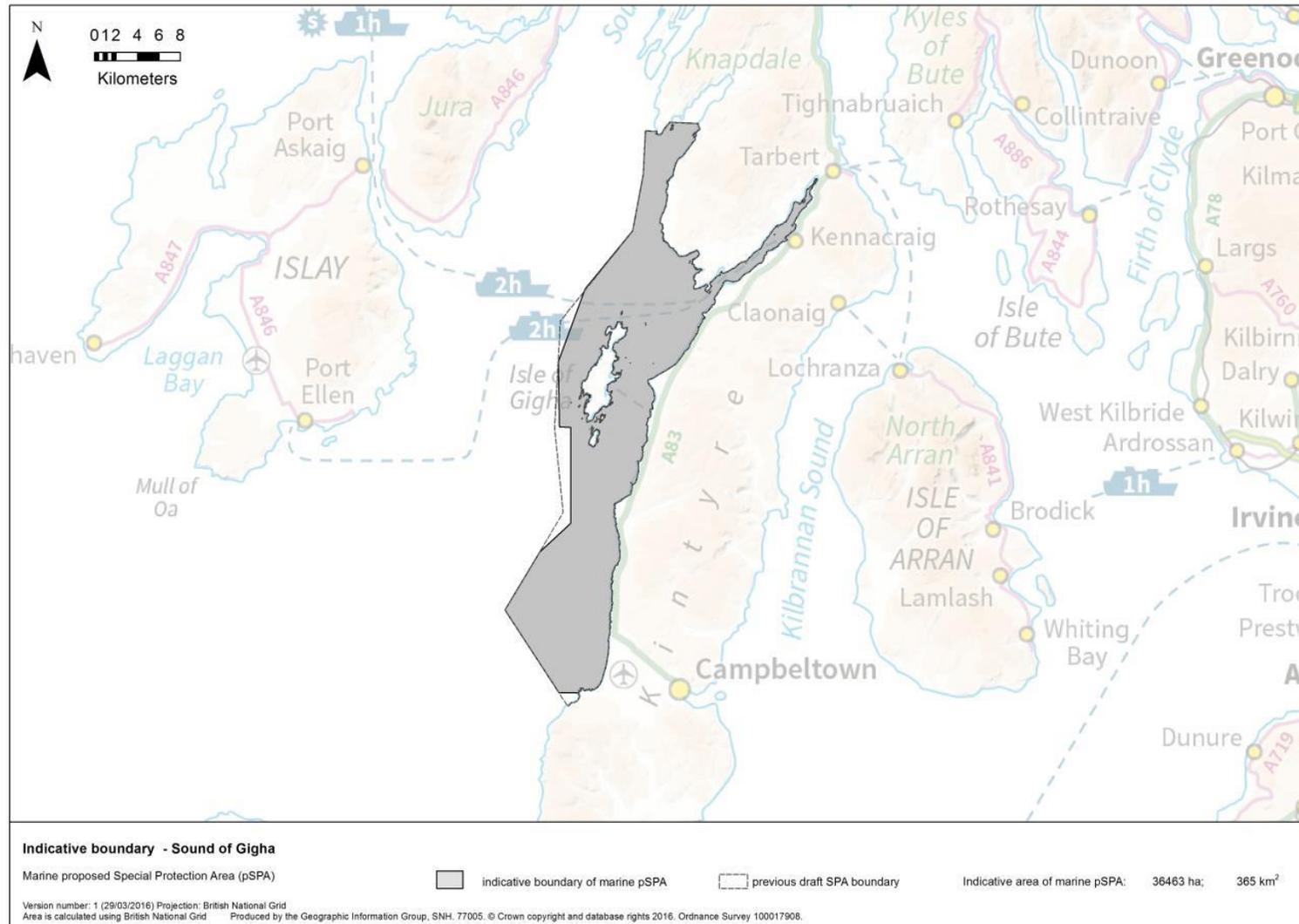
Scapa Flow draft SPA



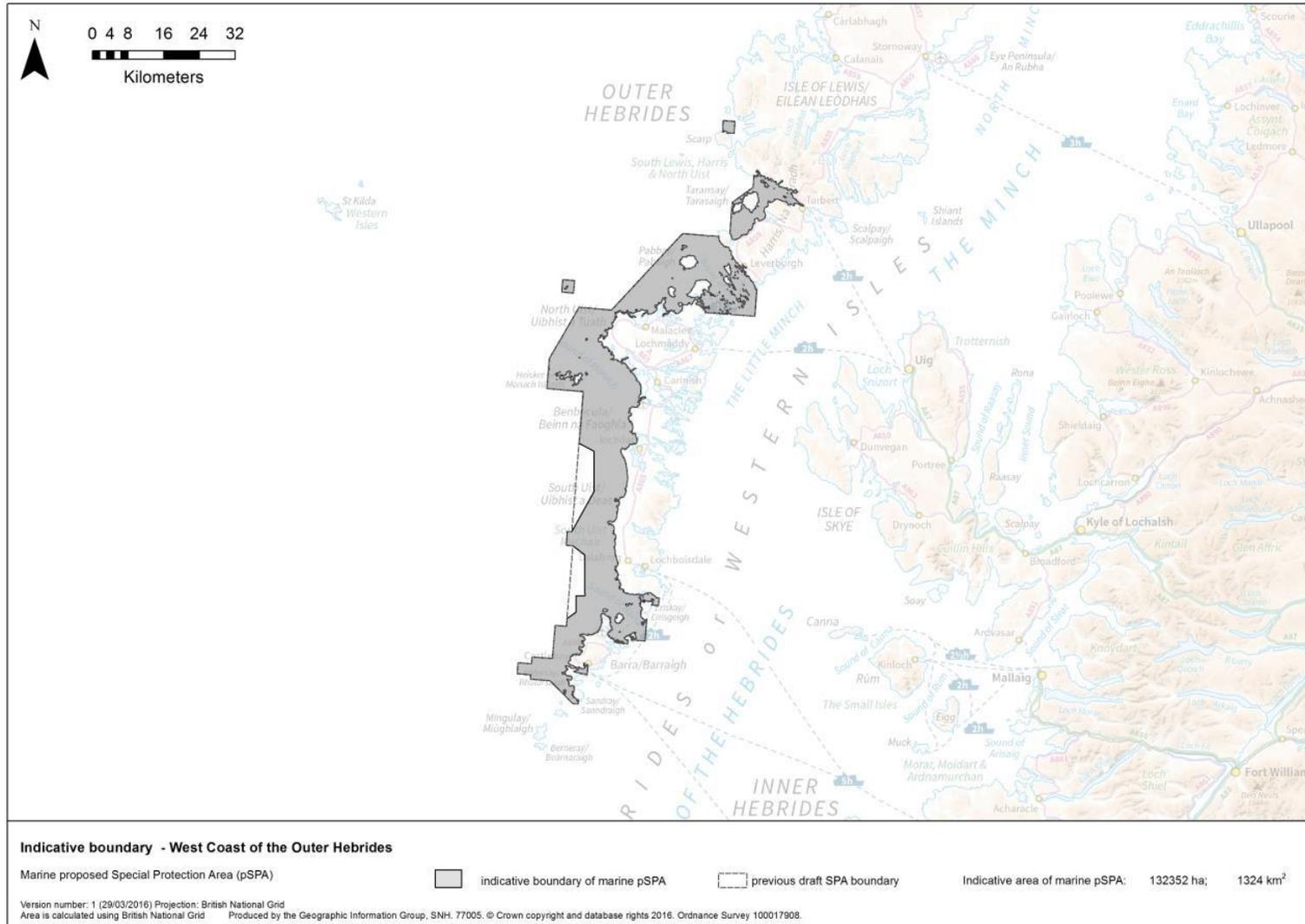
Solway Firth draft SPA



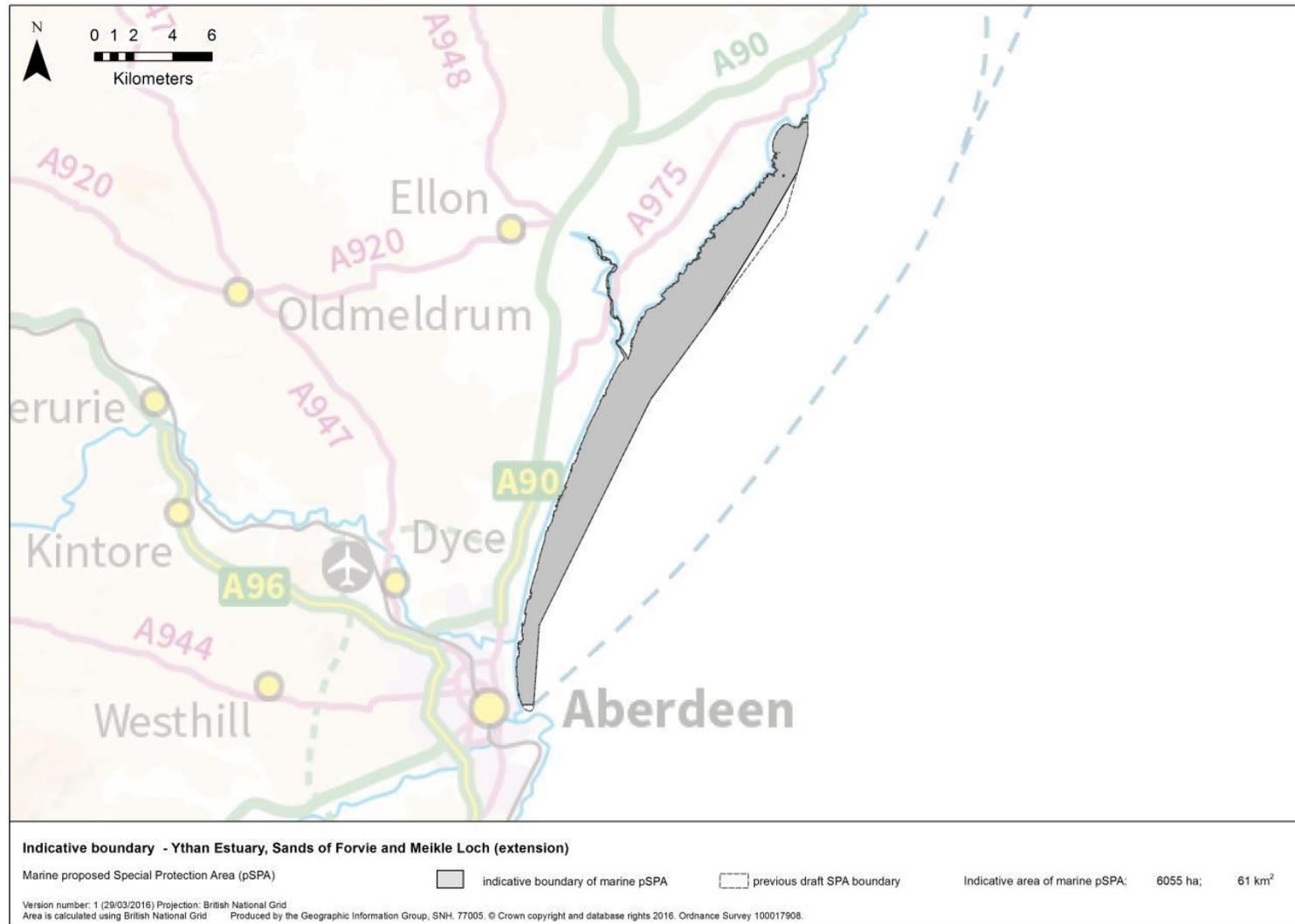
Sounds of Gigha draft SPA



West Coast of Outer Hebrides draft SPA



Ythan Estuary, Sands of Forvie and Meikle Lochs SPA draft marine extension



Annex 3: Additional information provided in advance of the workshop

In preparation for the workshop, non-technical summaries of the methodologies and analysis used to identify important sites and supplementary advice were available:

- [Identification of possible marine SPAs for seabirds: The European Seabirds at Sea database, analysis and boundary delineation](#)
- [Shag marine SPA identification: Data collection, collation and analysis](#)
- [Identification of important marine areas for inshore wintering waterbirds](#)
- [Tern marine SPA identification: Tracking data collection and analysis](#)
- [Identification of important marine areas for little terns around breeding colony SPAs](#)
- [Red-throated diver marine SPA identification: Data collection and analysis](#)
- [Defining SPA Boundaries At Sea](#)

The information provided during Day 1 of the workshop for the six draft sites that were discussed in detail is available on the [Marine Scotland](#)¹ website:

- Summary document on the scientific case for site selection (Department brief)
- Draft Advice on management

Together with the [UK SPA Site Selection Guidelines](#), these documents provided much of the background information for the workshop.

In addition, more detailed scientific information on the marine survey methodologies can be found in the JNCC report series:

- An assessment of numbers of wintering divers, seaduck and grebes in inshore marine areas of Scotland. ([JNCC Report 567](#))
- Identification of important marine areas in the UK for red-throated divers (*Gavia stellata*) during the breeding season. ([JNCC Report 541](#))
- Quantifying usage of the marine environment by terns *Sterna* sp. around their breeding colony SPAs. ([JNCC Report 500](#))
- An analysis of the numbers and distribution of seabirds within the British Fishery Limit aimed at identifying areas that qualify as possible marine SPAs. ([JNCC Report 431](#))
- Quantifying foraging areas of little tern around its breeding colony SPA during chick-rearing. ([JNCC Report 548](#))

- The identification of possible marine SPAs for seabirds in the UK: The application of Stage 1.1 – 1.4 of the SPA selection guidelines. ([JNCC Report 461](#)).
- Determining important marine areas used by European shag breeding on the Isle of May that might merit consideration as additional SPAs. ([JNCC Report 556](#)).

Further information on marine SPAs is also available on the [JNCC](#) and [SNH](#) websites.

Annex 4

List of organisations represented at the marine SPA workshop

Aberdeen Harbour Board
Argyll and Bute Council
British Ports Association
Centre for Ecology and Hydrology (CEH) (Natural Environment Research Council)
Clyde Fishermen's Association (CFA)
Comhairle nan Eilean Siar
Cooke Aquaculture Scotland
Cooke Aquaculture Scotland
Cromarty Firth Port Authority
Department of Energy and Climate Change
DP energy
Dumfries and Galloway Council
Fife Council
Forth Estuary Forum
Forth Ports
Lerwick Port Authority
MacArthur Green
Mainstream Renewables
Moray Firth and North Coast Inshore Fisheries Group (MFNC IFG)
Mallaig and North-West Fishermen's Association (MNWFA)
Moray Firth Partnership
Natural Power
Northern Lighthouse Board (NLB)
National Trust for Scotland (NTS)
Orkney Fisheries Association (OFA)
Outer Hebrides IFG (OH IFG)
Orkney Islands Council (OIC)
Oil and Gas UK
Orkney Marine Services
Pelagica
Port of Inverness
Repsol
Royal Society for the Protection of Birds (RSPB)
Scottish Renewables
SSE Renewables
Shetland Shellfish Management Organisation (SSMO)
Scottish Salmon Producers' Organisation (SSPO)
South-West IFG (SW IFG)
Scottish White Fish Producers Association (SWFPA)
The Crown Estate
University of Glasgow and SNH board

Annex 5a: Pre-workshop comments from stakeholders

Annex 5a provides responses to written comments provided by stakeholders prior to the workshop that were not addressed either at the workshop or in the Stakeholder [questions and answers](#) document and any subsequent action taken by SNH, JNCC and/or Marine Scotland. Further information is also provided on site specific port and harbour limits analysis.

Departmental brief			
Comment	Sector	Marine Scotland/SNH/JNCC response	Action in advance of consultation
Data			
The departmental briefs do not show full details of analysis and data, and species ecology etc.	Renewables, Local Authority	<p>Additional information has been provided in the site selection documents including:</p> <ul style="list-style-type: none"> ○ clarity on how data has been collected, used to derive population estimates and applied to the boundary setting process. ○ how SPA Selection Guidelines have been applied in choosing the proposed sites. ○ brief description of the foraging ecology, and habitat and prey preferences of the qualifying features. <p>The purpose of the site selection documents is to summarise the scientific case for a site and features, detailed information on the survey methodologies, data and analysis methods are provided in the JNCC Reports 431, 461, 500, 541, 548, and 567 and cross-referenced accordingly in the site selection documents.</p>	SNH to clarify in the Site Selection documents
ESAS surveys would not have been conducted close to the Bass Rock due to issues of observers being “swamped” by high numbers of circling birds	Renewables	ESAS surveyors are trained to cope with large numbers of birds, they don’t stop recording because they are swamped. With large numbers of birds instead of counting each individual, they will provide (very good) estimates. There is a known issue where ESAS surveys sometimes cannot be done right up to the coast because the boat cannot get close to land due to shallow waters etc.	No further action

<p>close to the colony. Therefore, any corresponding statistical analysis of this data would be an underestimate.</p>		<p>The estimate is an ‘average density’ not a ‘total number of birds’. There is a difference between an average number of birds within a site, which is what we get from looking at densities as in the Kober et al analysis, and a population. The population for assessment purposes may be quite different from the ‘average number within’ which gives an indication of relative importance only. Population would need to take into account the turn-over at the site to estimate the total population protected in that site.</p> <p>Within the marine environment, we would not expect the entire population of the breeding colony to be at sea at any one time, and of those that are at sea, they are using a massive area. What the data shows is that, on average, the dSPA area has a higher and more aggregated density of birds than other areas of sea. We don’t know what the turnover rate is and we don’t know how many individuals from how many colonies are actually using that bit of sea. We would however anticipate they would be the sum of nearby colonies.</p>	
<p>We question the robustness of the dSPA boundary based on one year of tracking data.</p>	<p>Ports & Harbours</p>	<p>The most recent published maximum foraging ranges for Sandwich tern and little tern are 57km and 11km respectively from the breeding colonies. The tracking data has allowed us to refine the boundary more precisely based on colony specific foraging behaviour.</p> <p>When selecting the colonies for carrying out tracking survey across the UK, we aimed to maximise geographical coverage across each tern species’ range, even if this meant only one year of survey was possible for some areas. This was based on the assumption that variation (in the relationships of tern foraging distribution with local environmental conditions) between colonies was likely to be greater than variation between years within a colony, and it would be important to capture this variation if we were to use data from more than one colony to make predictions to data-poor colonies. However, we also aimed to get two or three years of data from several colonies to allow investigation of consistency in environmental preferences between years.</p> <p>JNCC Report 500 shows that where sandwich tern tracking data had been collected over multiple years, a model built based on only one year of this data performs extremely well in predicting foraging areas used in other years. In</p>	<p>No further action</p>

		<p>other words, the models predict areas which are used consistently across years. This is a consistent finding for sandwich tern models and there is no reason to think that the situation would be any different at the Ythan, were we to have data from multiple years to test this. Further details on the datasets and modelling used for terns is available in JNCC Report 500.</p>	
<p>Some species are included but with no site specific data to support them. How is this justified?</p>	<p>Renewables</p>	<p>In both the breeding red-throated diver and the breeding larger tern analyses, samples of data were collected from some areas of sea around important breeding territories or colonies. These data were used to build habitat association models which showed what types of marine environment the species tended to be observed foraging. These models were then used to find similar habitat around other breeding colonies or territories.</p> <p>In all cases, cross-validation analyses was undertaken which allows an assessment of how well the model performs at identifying areas in which real data show observations of the birds foraging. This provides confidence that the model performs well and identifies important foraging areas, even where there is no site specific data.</p> <p>For the red-throated divers, cross validation was performed to show that the model performs well in predicting to geographic areas for which it has no data. For the terns, the cross validation was performed to show that the models perform well in predicting foraging areas during years in which the model has no data, and around colonies for which the model has no data, and for individual birds for which the model has no data.</p> <p>It should also be borne in mind that these species must forage at sea and within relatively limited foraging ranges of breeding territories/colonies (compared with other species of marine bird). Therefore regardless of boundary delineation techniques used to define the precise shape of the boundary, site selection would highlight the importance of having a marine area in these general locations.</p>	<p>No further action</p>

<p>The Moray Firth area is relatively poorly surveyed.</p>	<p>Ports and Harbours</p>	<p>Data contributing to the selection of the Moray Firth draft SPA included 7 aerial surveys spread over 5 years (2002-2007). For most other draft sites being put forward 4-5 aerial surveys spread over 3 years – the minimum requirement being 1 survey per year for a period of 3 years.</p> <p>The Suters disposal area was surveyed 3 times which is the preferred minimum requirement. The rest of the outer Port of Cromarty Firth harbour area was surveyed a minimum of 4-6 times. This is in addition to 5 years of shore based survey data.</p> <p>Most of the Port of Inverness harbour limit area was surveyed 6 times in addition to 5 years of shore based survey data. Aerial survey inland of Kessock bridge was not possible so analysis is based on the shore based survey data only.</p> <p>All surveys met the at least minimum requirements and in many cases exceeded this.</p>	<p>No further action</p>
<p>Site selection and boundary setting</p>			
<p>It is unclear how the requirements of the Site Selection guidelines have been met.</p>		<p>For all sites additional information has been provided in the site selection documents including:</p> <ul style="list-style-type: none"> ○ how SPA Selection Guidelines have been applied in choosing the proposed sites. 	

<p>For inshore wintering waterfowl regularity should be assessed as at least 2/3 years which suggests should need 3 years of data. How do you justify species included where is only 2 years of data?</p>	<p>Local Authority</p>	<p>For sites where this is relevant, the species where this applies are specifically highlighted in the site selection document.</p> <p><i>A wetland regularly supports a population of a given size if:</i></p> <ul style="list-style-type: none"> <i>i. the requisite number of birds is known to have occurred in two thirds of the seasons for which adequate data are available, the total number of seasons being not less than three; or</i> <i>ii. the mean of the maxima of those seasons in which the site is internationally important, taken over at least five years, amounts to the required level (means based on three or four years may be quoted in provisional assessments only).</i> <p>There are few inshore sites in the UK where there are five seasons (years) of best quality count data, as such the first definition of regularity has been applied. On this basis, regularity is normally assessed as the species being present in important numbers in at least 2 out of 3 years of the years for which we have data. In order to assess this normally at least 3 years of data is required.</p> <p>In the few cases where only 2 years of data have been available to make an assessment, if the species is present in important numbers during both of those years and there is local evidence to support regularity then (i.e. local bird reports) we are satisfied that if we did have a 3rd year of data, we would conclude that the species is regularly occurring in at least 2 out of 3 years.</p>	<p>SNH to provide additional justification for inclusion of these species in the Site Selection documents</p>
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<p>There is no justification for the inclusion of breeding season and wintering season interests within the same pSPA boundaries.</p>	<p>Local Authority, Renewables</p>	<p>The inclusion of both breeding and non-breeding season interests within one SPA is long established within the terrestrial SPA suite.</p> <p>Where both breeding and non-breeding species qualify at a site and either a large proportion of their distributions overlap or completely overlap we advise that a site is taken forward with mix of both breeding and non-breeding species.</p> <p>We have looked at 3 sites for possible separation of breeding and non-breeding features further to the workshop (Pentland Firth and Scapa Flow, Outer Firth of Forth and St Andrews Bay Complex and West Coast of the Outer Hebrides). We have not split the West Coast of the Outer Hebrides as the breeding red-throated diver distribution completely overlaps the inshore wintering waterfowl composite distribution. Similarly at Scapa Flow, breeding red-throated diver are retained in the Scapa Flow dSPA together with inshore wintering waterfowl as their distributions completely overlap.</p>	<p>Further information is provided in the main text of the Workshop Report.</p>
<p>Can the maps in the departmental brief be made clearer with respect to density shading and projection?</p>	<p>Local Authority, Ports and Harbours</p>	<p>New maps are being prepared to replace all existing species maps in the site selection documents.</p>	<p>Marine Scotland to prepare new maps for site selection documents</p>
<p>Advice on management Management Options Papers (MOPs)</p>			
<p>How should we interpret the species distribution maps?</p>	<p>All</p>	<p>Some of the marine SPAs include important numbers of birds representing various marine bird survey strands (breeding terns, red-throated divers, non-breeding regularly occurring migratory species and offshore aggregations of seabirds). Where important bird distributions from these strands overlap we have merged these distributions into one SPA boundary to form a proposed composite SPA boundary.</p> <p>All species will be protected throughout the whole of the SPA.</p> <p>However, when considering species distribution within a marine SPA it will be</p>	<p>Further information has been provided in the MOPs</p>

		the species specific boundaries within the larger SPA boundary that will form the focus of future assessments. Equally it is these species specific boundaries that relate to the supporting bird population numbers provided in the departmental briefs.	
What are the implications of zoning and tidal energy?	Renewables	<p>Further clarification will be provided in the advice on management document on which species are potentially vulnerable to collision with tidal turbines potentially leading to mortality and also which species are potentially vulnerable to displacement from feeding areas.</p> <p>Not all species will have a medium or high sensitivity to collision and displacement pressures, so spatial mitigation within a site may ensure that there is no adverse effect on site integrity. This advice does not preclude the requirement to carry out a HRA of any future development in tidal lease areas.</p>	SNH to clarify advice in MOPs
Our expectation would be that the dSPA would ban all forms of bottom trawling and dredging and the proposed way forward for additional research is a mechanism to deliver that.	Fisheries	<p>This is not the case. The additional research sentence SNH considered for some time & consulted both fisheries and ornithological colleagues.</p> <p>Our aim with this proposed way forward is to address a tendency towards assumptions that regulation of fishing is required in the dSPA on the basis that there is a direct (and negative) relationship between benthic fishing disturbance and the availability of prey.</p> <p>While there is a substantial evidence base for the impact of mobile gears on the seabed, there is considerably less about relationship between that impact and the status of the seabirds (to the extent that it is difficult to provide meaningful management advice unless wholly on a precautionary basis).</p> <p>Factors that lead us to this conclusion are:</p> <ul style="list-style-type: none"> • Benthic disturbance from fishing – generally results in lower diversity of species and changes in community structure to favour opportunistic species (but these can be in high abundance). • A negative impact on birds could occur where: 	No further action

		<ul style="list-style-type: none"> • overall productivity of the supporting habitat is reduced and feeding opportunities in general are negatively affected, or; • the impact of fishing caused reduced availability of a species/size of prey that birds rely on. • A positive impact on birds could occur where: <ul style="list-style-type: none"> • the prey species / size that the birds prefer is favoured as a result of fishing impact (i.e. where prey is one of the opportunistic species whose abundance is increased by disturbance). <p>Consequently, we have therefore suggested that this topic would be informed by relevant research – but have not at this point commissioned (or promoted) any specific work.</p> <p>With respect to timescales for additional research - the Advice to support management outlines our initial advice that additional work in this area is required. Further discussion between all stakeholders would be required at least to a) confirm requirement and b) determine scope.</p>	
Can you provide a species composite map?	Local Authority, Renewables, Ports and Harbours	We did look at providing species composite maps in the Advice to support management papers. For many of the sites the end result would have been a cluttered, difficult to interpret map with lots of overlapping features. We decided to separate out species distributions for clarity, lumping similar species together to ease of interpretation for management. GIS maps of distributions and densities will be made available through NMPi during consultation.	Species distribution maps will be made available through NMPi

<p>In order to identify appropriate management options, it needs to be clearly shown which species are considered sensitive to each marine activity. It should be noted that some management measures may only be relevant for particular qualifying species in particular areas at particular times of year, outwith these areas or times the management measures should be considered unnecessary.</p>	<p>Local Authority</p>	<p>Agreed.</p> <p>Sensitivities information for each species will also be available through FEAST during consultation.</p>	<p>SNH to provide further information has been provided in the MOPs</p>
<p>It should be the case that only those species considered sensitive to a particular marine activity need be considered in an HRA for a proposed development.</p>	<p>Local Authority</p>	<p>All qualifying species are protected throughout a proposed or classified SPA and therefore must be included in the initial stages of a HRA. However, for those species where there is no connection with the proposal and therefore no likely significant effect, they can be scoped out early on as part of that HRA process.</p> <p>We advise early discussions with SNH and/or the competent authority to help scope the requirements of an HRA and avoid unnecessary costs.</p>	<p>No further action</p>

Annex 5b: Site specific ports and harbour limits analysis

Lerwick Harbour Authority (LHA), Port of Cromarty Firth (PoCF), Port of Inverness (PoI), Forth Harbour Authority (FHA) and Dumfries and Galloway Council (DGC).

Port/Harbour limit	Marine Scotland/SNH/JNCC response	Action in advance of consultation
<p>Port of Cromarty Firth</p>	<p>The PofCF harbour area overlaps with the species-specific boundaries (identified by maximum curvature) of non-breeding great northern diver, red-throated diver, common eider and long-tailed duck. The shore counts also show that the area south of the Firth has high densities of non-breeding red breasted merganser with Slavonian grebe also being present.</p> <p>The Suters disposal area overlaps with high densities of non-breeding common eider. The shore count sectors closest to the Sutors disposal site also show important numbers of red-breasted merganser and Slavonian grebe.</p>	<p>No change to boundary.</p> <p>The PofCF harbour area overlaps with areas identified by maximum curvature for six qualifying species.</p> <p>There is no scientific justification to exclude the harbour area from within the draft SPA boundary.</p>
<p>Lerwick Harbour Authority</p>	<p>1. <u>Dales Voe Base quayside</u> This area overlaps with species-specific boundaries (identified by maximum curvature) of non-breeding great northern diver and common eider and breeding red-throated divers. The shore counts also show that this area has high densities of non-breeding red breasted merganser with Slavonian grebe also being present.</p>	<p>Boundary has been extended at Lerwick to fully include the area identified by maximum curvature for great northern diver.</p> <p>The Lerwick harbour area</p>

	<p>2. <u>Bight of Vatsland reclamation</u> This area overlaps with species-specific boundaries (identified by maximum curvature) of non-breeding great northern diver and long-tailed duck and breeding red-throated divers. The shore counts also show that this area has high densities of non-breeding red breasted merganser.</p> <p>3. <u>Greenhead base Berth 6 & 7 (project complete)</u> This area overlaps with species-specific boundaries (identified by maximum curvature) of non-breeding great northern diver and breeding red-throated divers.</p> <p>4. <u>Spoil ground (existing)</u> This area overlaps with species-specific boundaries (identified by maximum curvature) of non-breeding great northern diver and common eider and breeding, red-throated divers.</p> <p>5. <u>Lerwick harbour limits</u> This area overlaps with species-specific boundaries (identified by maximum curvature) of non-breeding great northern diver, common eider and long-tailed duck and breeding red-throated divers. The shore counts also show that this area has high densities of non-breeding red breasted merganser with Slavonian grebe also being present.</p>	<p>overlaps with areas identified by maximum curvature for six qualifying species.</p> <p>There is no scientific justification to exclude the harbour area from within the draft SPA boundary.</p>
<p>Forth Port Authority</p>	<p>The coastal boundary of the Outer Firth of Forth and St Andrews Bay Complex SPA are influenced by existing SPA boundaries to avoid overlapping sites with the same qualifying features. In the Firth of Forth the two areas of concern about the Firth of Forth SPA. Similarly, at Tay Bay the recreational facilities at Broughty Ferry and the smaller Tayport commercial facilities are excluded from the dSPA boundary because they already fall within the Firth of Tay and Eden Estuary SPA. No attempt to provide a buffer for these has been made.</p> <p>At Firth of Forth, the Dalgety Bay areas of concern overlap</p>	<p>Refine boundary to exclude all existing infrastructure using the principles outlined in the Workshop Report.</p> <ul style="list-style-type: none"> • The LPG terminal at Dalgety Bay has been excluded. <p>The boundary has been extended in the Firth of Forth to fully include fully include</p>

	<p>with high density areas of common eider. The shore counts also show that this area has high densities of non-breeding red breasted merganser with Slavonian grebe also being present.</p> <p>The eastern end of Tay Bay overlaps with high density areas of non-breeding common eider.</p> <p>Both the Firth of Forth and Tay Bay support important wintering waterbird assemblages and seabird assemblages (breeding and winter).</p>	<p>the area identified by the ESAS hotspot for non-breeding guillemot.</p> <p>SNH to make minor amendments to the site selection document to clarify influence of existing SPA boundaries on final dSPA boundary. The MOP will also include a map showing overlapping/neighbouring designated sites to the dSPA.</p> <p>There is no scientific justification to exclude the harbour areas from within the draft SPA boundary.</p>
Dumfries & Galloway Council	<p>There is a minor (maximum 65m) overlap with the red-throated diver species-specific boundary (identified by maximum curvature) and the Garliston Harbour Area.</p> <p>There is no scientific justification to maintain the whole of the Garliston Harbour Area within the site boundary and therefore the boundary has been clipped tight to the species-specific boundary for red-throated diver, applying the same principle adopted for the seaward boundaries.</p>	<p>Amend boundary to exclude all of the Garliston harbour area that doesn't overlap with the area of red-throated diver identified by maximum curvature as there is a scientific justification to do this.</p>
Port of Inverness	<p>The Pol harbour limit area overlaps with species-specific boundaries (identified by maximum curvature) of non-breeding great northern diver, red-throated diver, common</p>	<p>No change to boundary.</p>

	<p>eider and long-tailed duck. The shore counts also show that the Beauly/Inverness Firth has high densities of non-breeding red breasted merganser, goldeneye and scaup with Slavonian grebe also being present.</p> <p>Previous interim advice provided to PoI by SNH identified overlaps with goldeneye and red-breasted merganser but this advice was specifically focused on “waters in the immediate vicinity of the port (essentially the Kessock channel and round to the stadium)”. It did not extend to the whole harbour limit.</p> <p>PoI Port limit: The PoI harbour limit area overlaps with species-specific boundaries (identified by maximum curvature) of non-breeding great northern diver, red-throated diver, and long-tailed duck. The shore counts also show that the Beauly/Inverness Firth has high densities of non-breeding red breasted merganser, goldeneye and scaup with Slavonian grebe also being present.</p>	<p>The PoI harbour limit area overlaps with areas identified by maximum curvature for eight qualifying species.</p> <p>The PoI Port limit area overlaps with important areas for seven qualifying species.</p> <p>There is no scientific justification to exclude the port or harbour limits from within the draft SPA boundary.</p>
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