# marine scotland



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8 September 2017

Dear Sarah.

Thank you for your letter dated 29 August 2017 requesting clarifications on The Addendum (Ornithology) to the Scoping Opinion for the Proposed Section 36 Consent and Associated Marine Licence Application(s) for Inch Cape Wind Farm and Associated Offshore Transmission Works.

Please find our responses to your questions below.

### 1. Cumulative Impact Assessment for kittiwake and gannet.

MS-LOT sought SNH advice on this point. SNH have advised that use should be made of the approach as set out in the Natural England BDMPs report. For gannet this report advises that the region for non-breeding season effects should be the UK North Sea and Channel and for kittiwake it should be the UK North Sea only. SNH advise that any projects with the potential to cause mortality to these species within these regions should be included. These are likely to be constructed, consented and planned offshore wind farms, but could also include other types of development. SNH noted that they are not always consulted on all projects in English waters and are unable to comment on the information or quality of the information contained in the EIA reports for projects in English waters. ICOL should refine the list of projects presented in Appendix A of your letter to take account of the SNH advice in relation to kittiwake/ gannet, and determine which of the projects listed are in the North Sea and which are in the English Channel. The list you have provided appears to be comprehensive, however MS-LOT have contacted the MMO to see if there is a definitive list which can be used to see if there are any projects missing from your list, and will confirm as soon as possible.

#### 2. Stochastic collision risk model and application timescales.

The Scottish Ministers agree that the stochastic CRM (sCRM) will not be available to inform the ICOL PVAs, assuming the timescales set out in your letter. Therefore the Band 2012 CRM should be used.. There were no conditions attached to the original consent which required additional collision risk modelling in order for a plan to be approved, therefore it is unlikely that addional modelling would be required post







consent in order to satisfy the multi-stage provisions of the regulations. These provisions are to ensure that any significant effects which were not previously identified in the original EIA report are consulted upon and properly understood before a decision is made.

## 3. CRM options for use with herring gull.

Scottish Ministers confirm that Option 3 of the Band CRM should be used in any PVA for herring gull if required, Option 2 was advised in error in the scoping opinion. SNH have previously confirmed in an email dated 6 July 2017 that Option 3 should be used in any PVA (with an avoidance rate of 99%), although Option 2 should also be presented but not included in the PVA if required.

4. Approaches to estimating impacts from displacement and barrier effects. Yes, if the SeabORD displacement tool is available then this should be used to estimate displacement and barrier effects during the chick rearing period. If the SeabORD tool is not available, then the existing Searle 2014 model should be used, with the SNCB matrix approach used to provide context. It is not being suggested that the estimated effects for each of the available methods are assumed in the PVAs produced for each of the relevant species and SPAs. The most appropriate values should be identified and justified in the assessment. Non-breeding season effects should be estimated using the SNCB matrix approach. SNH advised a buffer of 2km should be used for the assessment of displacement, and this is reflected in the Scoping Opinion. The SeabORD model is due to be published on 10 October 2017. The 2017 EIA Regulations require that the EIA Report is based on the scoping opinion, therefore we do not anticipate that it will be necessary to update the displacement assessment if the SeabORD tool is not available for use in the EIA report but becomes available later during the determination period. There could be a scenario where ICOL may wish to submit updated information. For example, if the new SeabORD method showed reduced predicted effects and was considered to be the best available evidence.

#### 5. Estimation of bird densities within the buffer.

It is unclear what is being proposed. Will a design-based density estimate be produced for the 4km buffer and this assumed for the 2km buffer, or will a model based estimate/surface be used to produce the density estimate for the 2km buffer, or something else? Can ICOL clarify?

6. Apportioning of impacts to Special Protection Areas (SPA) populations of guillemot and razorbill during the non-breeding season.

The BDMPS approach assumes uniform mixing of populations across the relevant geographic area, but this is unlikely to be the case. For example, portions of the breeding population are likely to remain relatively close to their colony. Adult guillemots have been widely observed returning to their nest sites from October, though the frequency of visits varies across years (e.g. Harris *et al.* 2006). Using the UK North Sea and Channel BDMPS of over 1.5 million individual guillemots is therefore likely to result in the effects to the Forth and Tay breeding populations being underestimated. Advice provided by MSS acknowledges that using the breeding season population as the non-breeding season reference population may overestimate the non-breeding season effects apportioned to the SPAs under consideration. MSS therefore advise that the breeding season reference population is used, but that discussion is provided around why those estimated effects are likely to be overestimates, and reverence to the BDMPS made and the Scottish Ministers agree with this approach.







## 7. Apportioning of impacts on herring gull in the non-breeding season.

On page 12, SNH advise assessment at the F&T not BDMPS scale, but this refers to which wind farms (and associated herring gull collisions) should be included in the CIA. Later reference in 5.6.5 is in relation to the reference population to be used in apportioning estimated collisions to the SPA of interest. Further advice from SNH was sought on this question. SNH advise that by ICOL undertaking the initial CRM calculations SNH will be in a better position to advise further on the significance of these impacts once that is complete and what, if any, further assessment is required. In terms of calculating a non-breeding season population, SNH advise the following criteria to assist:

- Identify a suitable regional population for/around the Forth and Tay by considering the SPA summer population and any other non-SPA colonies.
- Review the position reached (including justifications and assumptions) in identifying a non-breeding season population for/around the Moray Firth BOWL have applied a similar process to the Forth and Tay. Key steps a) estimate the non-breeding season population, b) estimate the percentage population of the non-breeding season population derived from regional SPA population for BOWL this equated to the non-breeding season population being 30% larger than the breeding season population and of the non-breeding season population 20% were estimated to be from the regional SPA population.
- Consider this against what is contained in the BDMPS report which indicates that 5.4% of birds in an area in the winter are likely to be from UK SPA colonies with the rest of birds coming in from non UK sources.
- Identify the winter regional population for the Forth and Tay.
- Calculate the Forth and Tay non breeding season population likely to be connected to the SPAs by using either the methods in the Moray Firth – Beatrice application and / or BDMPS proportion.

Scottish Ministers confirm that SNH advice should be followed.

8. Inclusion of shag amongst proportions of sabbatical birds for different species. Including shag in the sabbatical species was an error.

#### 9. Considering variation in the estimated effects used in PVAs.

The 10% value was initially included to provide an indication of the potential implications to the populations of interest of effects above and below those estimated. This was to ensure that conclusions are as informed as possible with regard to the uncertainties surrounding the population level consequences of the proposed windfarm/s. Identifying separate % values for each species or population could be a prolonged exercise, the benefit/validity/utility of which is unclear. However, having regard to the effect scenarios already included, which will inform the sensitivity of conclusions to the magnitude of effects assumed, Scottish Ministers advise that the +/- 10% values are not required.

### 10. Use of existing gannet and puffin PVAs.

The Scottish Ministers agree, the existing PVAs for gannet and puffin do not include effects on non-adults and so would need re-running. These are relatively simple models and are not comparable in terms of complexity or time required to run as the PVAs produced by CEH. The PVAs should be run covering all age classes.







# 11. Option 2 CRM estimates for consented designs of the other Forth and Tay wind farms.

During the determination of the 2014 consents MS-LOT requested all the F&T developers to complete the CRM spreadsheet in order to help inform the AA. MS-LOT therefore hold this data and have contacted both Neart na Gaoithe and Seagreen to determine whether they have any objection to their project information being shared with ICOL. NnG agree that their information can be shared on the understanding that MS-LOT will also share the ICOL information with them, which ICOL have confirmed is agreeable. MS-LOT are expecting a response from Seagreen early next week due to staff being on leave. If any objection is received then the request for this information will be considered under the Environmental Information (Scotland) Regulations 2004 applying the relevant tests.

## 12. Use of the RSPB FAME data.

RSPB have provided information on how to request these data and this has been sent to ICOL. However, the Scottish Ministers note that the apportioning tool incorporates the FAME data via its use of the Wakefield 2017 seabird distribution models.

## 13. MS apportioning tool.

The apportioning tool is planned to be published at the end of September, therefore unlikely to be available in time to be used in the assessment, which ICOL indicate is to be completed mid September. In terms of any update to assessement please see response to Q4 which is also relevant here.

#### 14. SPA colony counts.

SNH have advised that the final report is not due to be published until November / December this year, but SNH are currently obtaining the raw count data which they hope to release to Marine Scotland and Inch Cape by mid-September. Therefore Scotlish Ministers advise that this data should be used in the assessment.

## 15. Determination of breeding seabird foraging ranges.

SNH confirm that foraging range should be identified using mean max - this is what is required to be used in SNH apportioning guidance – http://www.snh.gov.uk/docs/A1355703.pdf.

Scottish Ministers confirm that SNH advice should be followed. However, to note that the apportioning tool uses the FAME etc. data as per Wakefield et al 2017.

#### 16. PVA requirements.

To be clear, each estimated effect scenario does not require a separate PVA as suggested in the ICOL letter. A PVA is required for each species and population of interest. Having reviewed the full list of effects scenarios provided, it is apparent that the inclusion of the proposed wind farm in isolation, in combination with other Forth & Tay windfarms, and in combination with other UK windfarms will provide an indication of sensitivity of conclusions to the magnitude of effects assumed. The Scottish Ministers therefore agree that the effects scenarios assuming +/-10% of the estimated effect do not have to be provided. This would reduce the number of requested impact scenarios from 75 to 25 (see Table 1). However, this does not mean that the developer is not able to provide PVA outputs assuming different effect scenarios if they felt them relevant to their assessment.







#### **Additional points**

In addition to the points you have raised above Scottish Ministers note that a further error was recorded in the scoping opinion in relation to the non-breeding season assessment for puffin. In para 5.5.6 and page 11 of the scoping opinion it was advised that a qualitative assessment of non-breeding season effects was required for puffin. It should be noted that a non-breeding season assessment is not required for puffin. Both SNH and RSPB agreed on this point.

Since issuing the scoping opinion, MS-LOT have had further advice from the RSPB regarding the assessment for the cable routes which pass through the Outer Firth of Forth and St Andrew's Bay Complex pSPA. The RSPB email (dated 30 August 2017) was sent in response to the SNH email (dated 9 August 2017) which is attached to the ICOL scoping opinion at page 42. SNH advised that it would not be necessary for the Forth and Tay developers to include an assessment of the cable route. It is the SNH view that any habitats or prey disturbed during the cable laying should not take long to recover. SNH do not consider that cable installation will give rise to any significant amount of permanent habitat loss and are satisfied that the previous assessments adequately address cable impacts for each of the Forth & Tay wind farms. SNH however do recognise that MS-LOT will need to address cable installation in any new appropriate assessment(s) for the pSPA, but that previous work could be relied on. In their response dated 30 august 2017 The RSPB accept that potential impacts on the pSPA from the export cabling from the Forth & Tay windfarms (and NNG turbine array) could be small, however this doesn't necessarily mean they are insignificant. RSPB consider it necessary that further information be provided to inform the requirements of the Birds & Habitats Directive. The RSPB suggest information on the scale and longevity of effect on the supporting habitats needs to be presented. Some areas within the pSPA are clearly more important than others, as the bird distribution maps and pSPA documentation illustrates. A further response was received from SNH (dated 07 September 2017) recognising that there may be insufficient detail from previous assessments to inform an AA and advising that developers provide certain information. This advice is also copied below.

Based on this latest advice Scottish Ministers advise that ICOL should provide the information requested by SNH and consider the the potential impacts of the cable route on the qualifying features of the pSPA. Scottish Ministers will require this information to help inform the AA.

I have copied the RSPB email and further advice from SNH below for your information.

Kind Regards Gayle Holland



Table 1: Effect Scenarios to be assumed for PVAs produced for each SPA and Species

					Collisions +		
Species	SPA	Site(s)	Collision	Displacement	Displacement	10%	-10%
KI	FI	WF	Υ			Ν	N
KI	FI	FTOWDG	Υ			Ν	Ν
KI	FI	All UK	Υ			Ν	Ν
KI	FI	WF			Y	Ν	Ν
KI	FI	FTOWDG			Υ	N	N
KI	FI	All UK			Y	Ν	Ν
KI	Fow	WF	Υ			Z	Ν
KI	Fow	FTOWDG	Υ			Ν	Ν
KI	Fow	All UK	Υ			Ν	Ν
KI	Fow	WF			Y	Ν	Ν
KI	Fow	FTOWDG			Υ	Ν	Ν
KI	Fow	All UK			Y	Ν	Ν
PU	FI	WF		Υ		Ν	N
PU	FI	FTOWDG		Υ		Ν	Ν
GU	FI	WF		Υ		Ν	N
GU	FI	FTOWDG		Υ		Ν	Ν
GU	Fow	WF		Y		Ν	N
GU	Fow	FTOWDG		Υ		Ν	Ν
RA	FI	WF		Υ		Ν	N
RA	FI	FTOWDG		Υ		N	N
RA	Fow	WF		Y		Ν	Ν
RA	Fow	FTOWDG		Υ		Ν	Ν
GX	FI	WF	Υ			Ν	N
GX	FI	FTOWDG	Υ			Ν	Ν
GX	FI	All UK	Υ			Ν	Ν

## Email for RSPB to MS-LOT (dated 30 August 2017)

Dear Catriona and MS LOT,

Thank you for your email clarifying SNH's position on the assessment of the pSPA. We accept that potential impacts on the pSPA from the export cabling and NNG turbine array could be small, however this doesn't necessarily mean they are insignificant. We consider it necessary that further information be provided to inform the requirements of the Birds & Habitats Directive.

Previous 2013/14 assessment was undertaken to fulfil the requirements of the EIA regulations/ Directive, however we don't consider this to be sufficient to inform the stricter requirements of the Habs Regs and assessing against the new pSPA and its conservation objectives.

The pSPA introduces very specific conservation objectives for maintaining the extent and distribution of supporting habitats and processes. We suggest information on the scale and longevity of effect on these supporting habitats needs to be presented. Some areas within the pSPA are clearly more important than others, as the bird distribution maps and pSPA documentation illustrates. The East Lothian Council HRAs do not provide this information as they relate to SPAs that do not extend beyond the low tide ranges/ or limited to coastal waters around the islands.

From a brief review of existing EIA documents from the old consents the proposals are summarised as follows. All four offshore projects have export cables that cross through the pSPA:





#### Installation includes:

- Trenching of cables to 2-3m depth wherever possible. Where not possible use of scour protection/ rock armour/ concrete mattresses etc.
- Trenches up to 1-6m width direct impact per cable.
- Affected width up to 10-15m but could be more up to 40m.
- Use of boulder clearance ploughs where required. For soft sediments use of trenching ploughs and cable burial ploughs/ jetting trenchers. For hard substrate rock wheel cutters/ HDD or open cut trenching.

#### **Export Cable Lengths:**

Inch Cape – 2 cables at 83.3km each.

NnG – 2 cables at 43km each. Total Impact footprint of array and export cable estimated at – 2.65km2.

This scale of infrastructure deployment within an pSPA is not insignificant.

#### Furthermore:

Both ICOL and Seagreen have not quantified the scale of affected area that lies within the pSPA as it was not considered first time around. Also, Seagreen have a separate consent for their export cable, which would require inclusion in the HRA.

We recommend that all possible impacts from the cables on the pSPA are quantified as far as is practically possible (given baseline data limitations) to inform the Appropriate Assessment.

My apologies for not following this up sooner, but I hope that this can be added as a further scoping response from ourselves as the assessments progress.

Best regards, Charles

## **Charles Nathan MRTPI**

Senior Conservation Planner

## Advice from SNH to MS-LOT (dated 07 September 2017)

Both MS and SNH have recently received an email from RSPB (31 August 2017) regarding scoping advice on the cabling works associated with the Forth and Tay proposals and the proposed Special Protection Area (pSPA).

Whist SNH remains of the opinion that the effects arising from the cabling works can be managed to reduce impacts, we realise that there may be insufficient details to inform any appropriate assessments required. The conservation objectives are not yet finalised for the pSPA, however we would recommend that the developers should provide the following information:

- Extent and route of export cable corridors and number of cables.
- Duration and method of cable deployment including start and finish dates.
- Type and number of vessels involved in cable laying operations
- Habitat mapping within cable corridor and the likely prey species of pSPA interests where the cable route crosses the pSPA.
- Use of any cable protection materials type, location and method of deployment.







- Schedule of operational maintenance checks, types of vessels, duration and timing.
- Any proposed mitigation and inclusion of draft cable laying plan and cable maintenance plan.

Provision of this information can then be used to help inform any appropriate assessment.

