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31 August 2012

Dear Mr Thornhill

**RSPB comments on Atlantic Array Offshore Wind Farm Informal Public Consultation
4th July 2012 – 31st August 2012**

The RSPB welcomes the opportunity to comment on this draft Environmental Statement. Our response follows our comments on previous draft documents, notably our responses to Channel Energy Limited (CEL)'s formal Preliminary Environmental Information (PEI) public consultation under section 47 of the Planning Act 2008 (10th September to 10th November 2011) and the draft Ornithology Report (Annex F) 23 March 2012 and the draft Habitats Regulations Assessment Screening Reports (Niras, 27/07/11), received October 2011 and April 2012. Where these previous comments have not been clarified or reflected in this Informal Public Consultation documents, they remain relevant. We limit the scope of our comments to ornithology and related matters.

We comment below on Draft ES, Volume 1, Chapter 10: Ornithology and Draft ES, Volume 1, Chapter 11: Nature Conservation, and include tabulated comments on the Draft Environmental Statement Volume 3 Annex 10.1: Ornithology June 2012 and Volume 3 Annex 11.1 Habitats Regulations Assessment Screening Report in Appendix 1 and 2 respectively.

Whilst we welcome the revised project boundary 2012 because it avoids part of the north west section of the previous project boundary, which appears to support concentrated seabird foraging activity, the boundary revision could have better avoided additional areas that appear to be particularly biologically productive. We understand that there now remains limited scope to distribute turbines within the revised project boundary 2012 whilst avoiding areas of important biological activity. It would in our view have been preferable to see an assessment of predicted impacts on all of the relevant environmental, economic and social receptors across the entire previous project boundary and for the ultimate distribution of turbines within it to be informed by a transparent process of avoiding or minimising the greatest risks.

RSPB Comments on Draft ES, Volume 1, Chapter 10: Ornithology

Use of aerial data

The ornithological surveys collected large amounts of both aerial and boat based data, but the aerial data has not been used in the impact assessment. Boat based data were collected over two winters, but there is only one survey each for the months of December, January and February and none in November, whereas the aerial data covered both winters and picked up peak numbers of birds, which could be used for obtaining population estimates.

Having discussed this with RWE and consultants on 21 August, we welcome the proposed comparison of the two methods (e.g. tabulated) that would demonstrate the comparability of densities and estimated populations derived from the different survey techniques. Such comparison should then inform decisions on whether the use of boat based survey data alone is appropriate.

The most precautionary approach would in our view be to use the highest monthly density and population estimate for each species, derived from either boat or aerial survey methods.

Seabird densities and population estimates

It is not clear how seabird densities and population estimates have been derived. It is also not clear what the '*count*' column in the table 10.14 represents. At our meeting on 21 August, your consultants clarified that this column represents the total number of birds from all the boat-based surveys, and they have agreed to refine the tables to make it clear how estimates have been derived and what data is being presented.

Risk matrix of displacement relative to mortality (Table 10.7)

The example risk matrix Table 10.7 is based on a hypothetical seabird population which illustrates how the approach may be applied to a species. Until the approach is applied to real data through worked examples it is not possible to assess its appropriateness, nor whether the thresholds for *ecologically significant impact* for each species are appropriate.

From paragraph 10.48, it is clear that Table 10.7 represents risk at a national scale. Where an affected population of a species is relevant to an SPA, the risk assessment would need to be applied at the SPA level.

We request that worked examples are presented for each species to render the risk assessment transparent. Para 10.202 of Draft ES Volume 1 Chapter 10 *Ornithology* states that population matrices were produced for each species and are shown in Annex 10.1. However, we have not been able to find these.

Para 10.204 then refers to the population matrix for Manx shearwater, stating that it indicates that at 100% displacement from the Atlantic Array, mortality would have to reach 80% to effect 1.09% of the national population of Manx shearwaters. It then states that, assuming 88% of the

peak population originate from the Skokholm and Skomer SPA, mortality would have to exceed 50% at 100% displacement to affect >1% of the population of the colony. Without sight of the calculations that produce these figures it is not possible to accept them at face value.

Definition of Magnitude of an Effect (Table 10.11)

Table 10.11 refers to proportions of *the population* affected, with the explanatory paragraph 10.66 referring to known populations being national, regional, local and those within designated sites. It is not clear why different population scales are suggested, and the scale at which it is applied is critical. Surely in relation to this proposal, an effect is allocated a *high* magnitude if it affects >1% of a specific, given population.

This is ambiguous, but the ES needs to be clear about the thresholds to which it attributes different magnitudes of effect.

Buffer Zones

The area of displacement during the operational phase of the wind farm is assumed to be an area of 309.6 km² in other words an area occupied by 278 WTGs (238.7 km²) plus a 1 km buffer (Draft ES chapter 10, Table 10.16). However, this is not supported by evidence that displacement of seabirds is limited to within 1km of wind turbines.

There is evidence from other sites of displacement beyond 1km. Investigation of the response of seabird distribution to the operation of a wind farm at Horns Rev in Denmark (Petersen *et al.* 2006¹) has shown displacement of a number of species of seabirds including auks. In this study, extensive aerial surveys were conducted within 8 km of an offshore wind turbine farm before (1999 – 2002) and after (2003 – 2005) construction of the turbines. The relative abundance of several species declined to zero post-construction within the wind farm area, and there was evidence of displacement of a number of species up to 4 km from the wind farm. For example, for gannet there is evidence of displacement up to 3.5 km from the wind farm. For auks it appears that there was displacement up to 2 km from the wind farm, although this effect was not significant.

Estimating risk to SPA birds outside of the breeding season

Impacts on breeding seabird SPAs outside the breeding season are not assessed in the Draft ES. It is in our view important to be able, where feasible, to apportion risk to protected sites and we understand from NIRAS that methods to do this have been used elsewhere. The RSPB acknowledges that it is not an easy thing to address but recommends that consideration is given to this issue. For example, the kittiwake data show that the population present outside the breeding season is most likely associated with the local breeding colonies, and in such a situation it is in our view necessary to consider the project's impact on that population.

¹ Petersen, I.K., Christensen, T.K., Kahlert, J., Desholm, M. & Fox, A.D. (2006) *Final results of bird studies at the offshore wind farms at Nysted and Horns Rev, Denmark*. Natural Environment Research Institute.

Regional population estimates (for wintering populations)

Comparing predicted impacts with the UK population may be acceptable for determining whether high bar thresholds are exceeded, but meaningless when assessing impact at a regional scale. Further clarification and explanation of the appropriate population scale at which impacts are assessed is in our view needed.

Foraging Radii of Breeding Seabirds

We support the use of the mean maximum foraging ranges presented in Thaxter *et al* (2012). However, the range used for gannet and six other species quoted in Table 4.10 do not appear to be the same as that given in Thaxter *et al.* (2012). For example, Thaxter *et al.* (2012) gives a mean maximum foraging range for gannet of 229.4 ± 124.3 km, whereas in Table 4.10 the same parameter is given to be 282.1 ± 178.8 km. The reason for these differences is not apparent, however values matching those of Thaxter *et al* are used in the ornithology chapter, with the exception of the range for gannet.

Cumulative impact assessment

The draft ES considers cumulative displacement risk at the UK population and SPA level. However, the cumulative risk is assessed for proposed developments in the west of Britain and east of Ireland regional sea area, not across the UK. The scale of assessment of relevant projects is therefore different from the scale of population upon which potential impacts are assessed. It is important that the reference population is of the same spatial scale, i.e. if using only a national/flyway population figure for comparison then the Cumulative Impact Assessment should also account for relevant plans or projects at a national/flyway level.

Species that fail to pass the threshold for the ES, but are present in low numbers are not considered in cumulative assessments. This is a concern for species that are widespread in low numbers and may fall below thresholds at most/all offshore windfarm assessments, but for which the cumulative impacts of multiple developments could pose a risk. We recommend conducting collision risk modelling for the AAOFW for great skua, arctic skua, storm petrel, Arctic tern, common tern, common gull, fulmar, razorbill and puffin and Balearic shearwater. All these species are recognised in Langston (2010)² as sensitive to collision risk and were all seen in numbers of around 50 or more in surveys, with the exception of Balearic shearwater which is included due to its critically endangered status. so that data are available for any future strategic assessment of cumulative risk to these species. We accept that these are unlikely to be significantly affected at the site level or even cumulative level now, however it is useful to undertake these calculations now to inform cumulative impact assessments of future projects.

Bird Species affected by the proposal

² Langston, R.H.W (2010) *Offshore windfarms and birds: Round 3 zones, extensions to Round 1 and Round 2 sites and Scottish Territorial Waters*. RSPB Research Report No.39 Sandy, Beds: 40pp.

The Draft ES Volume 1 Chapter 10 *Ornithology* identifies, in the operational phase, lesser black-backed gull as at *moderate* significance of collision risk, with risks relating to both collision and displacement to other species only being attributed *minor* significance.

In combination with other offshore windfarms through the Irish and Celtic seas the Draft ES concluded *moderate* significance of effects on Manx shearwaters during construction and operation and *minor to moderate* significance of collision risk to gannet and lesser black-backed gull and *moderate* significance of collision risk to greater black-backed gull.

Without seeing the risk matrices for each species, it is not possible to accept these conclusions.

Future Monitoring

Para 10.215 refers to continuation of the survey programme during construction. Whilst we welcome this, it will also in our view be essential, should the application be approved, for pre- and post-construction operational monitoring, to be undertaken. This does not appear to be recognised anywhere. This appears to be a fundamental omission from the current proposal.

It may be that if a phased approach to development is adopted, monitoring of the initial phase(s) can be fed back to inform the design of subsequent phases.

Monitoring of the site must be designed to address some of the key area of uncertainty, such as displacement of auks and shearwaters, so the monitoring programme must include either control site(s) or follow an impact-gradient design which will allow these questions to be answered.

RSPB Comments on Draft ES, Volume 1, Chapter 11: Nature Conservation

Comments on this chapter relate to SSSIs designated for their seabird interest where they do not overlap with SPAs. It is not clear why SSSIs that are designated for birds are not considered in the ornithology chapter of the Draft ES. It would certainly be clearer if all ornithological assessment was incorporated into the Ornithology chapter of the final ES.

Lundy SSSI

Table 11.10. For Manx shearwater, the rapid increase in population following rat eradication needs to be recognised. Our previous comments have flagged up the 250% increase in population between the pre-rat eradication survey in 2001 and post eradication survey in 2008. We append a graph that illustrates this increase alongside the population increase experienced on Ramsey Island following rat eradication (Appendix 3). We expect a similar population trajectory for Lundy. Tracking work undertaken by Oxford University has assessed the foraging movements of birds from the island over recent years and some overlap with the AAOWF is apparent, however, the exact extent of the overlap and proportion of birds using the

AAOWF that originate from Lundy is not clear, and we request that data are presented to illustrate this more clearly.

Para 11.135 Cumulative impacts. A *moderate adverse* effect is predicted for Lundy's Manx shearwater population as a result of displacement from boat traffic and the effects of longer term displacement. It is not clear what this means, and in the context of the increasing population, is a concern. In our view it is essential that the proposal's effects on the future Lundy Manx shearwater population are properly assessed as part of the Environmental Impact Assessment.

Para 11.125 and 11.128. Potential for a moderate adverse effect on Lundy's lesser black-backed gull population has been identified given that the Lundy population is likely to contribute to the pool of birds present in the AAOWF. Clarification is sought as to the likely impact on breeding numbers on Lundy.

Castlemartin Cliffs SSSI

This site is notified for guillemot and razorbill but has been excluded from the risk assessment. It holds the second largest guillemot colony in the vicinity of the AAOWF (as recognised in para 6.271 of the Ornithology Annex 10.1), and is identified in para 6.296 as being one of the two closest razorbill colonies (along with Lundy) to the Atlantic Array. It is therefore essential that this SSSI is included in the impact assessment.

West Exmoor Coast and Woods SSSI

This site is currently not mentioned in the draft ES, although it was included in maps of guillemot and razorbill distribution in the Volume 3 Ornithology Annex 10.1 (although the guillemot population is only reported for part of the SSSI, at Woody Bay). The SSSI is notified for guillemot and razorbill. In addition, guillemot and razorbill were submitted as potential features of the adjacent Bideford to Foreland Point rMCZ in the final recommendations submitted by the Finding Sanctuary project.

The AAOWF is within the mean maximum foraging range of the birds from this colony, at 84.2km for guillemot and 48.5km for razorbill, based on Thaxter et al (2012). The risk assessment has concluded that

“guillemots and razorbills which feed primarily on sandeels and clupeids were considered to be more vulnerable if fish were to be impacted during the construction phase of the project. However, as large areas would remain unaffected a low magnitude of impact resulting in an effect of minor significance is predicted.”

Guillemots and razorbills from this SSSI have a much more limited foraging area due to the constraints of the Bristol Channel and to the east of the AAOWF, therefore it is important that all of the impacts of displacement are considered, including increased energetic costs (e.g. see

McDonald *et al.*, 2012³). It is important that this SSSI is included in the risk assessment. Populations at the West Exmoor Coast and Woods SSSI in 2008 were: guillemot 1,314 individuals (increase from 862 in Seabird 2000) and razorbill 744 individuals (increase from 187 in Seabird 2000)⁴.

Flat Holm SSSI

This SSSI, notified for lesser black-backed gull, is also excluded from the assessment yet it is stated in para 6.197 of Annex 10.1 to be one of three major lesser black-backed colonies in the vicinity of the AAOFW, with a population given of 4,165 AON. It is important that this SSSI is included in the impact assessment.

RSPB Comments on Draft ES, Volume 3, Annex 11.1: Habitats Regulation Assessment Screening Report

We understand that the next stage of the Habitats Regulations Assessment, the appropriate assessment of the implications of the proposal on the sites for which the Screening Report identifies a potential for a likely significant effect, will be available for consultation in several weeks. We look forward to commenting on that document. Meanwhile, detailed comments on this Screening Report are made in the attached Appendix 2.

We hope that you find these comments helpful.

Yours sincerely

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Senior Conservation Officer

³ McDonald, C., Searle, K., Wanless, S. & Daunt, F. (2012) *Effects of displacement from marine renewable development on seabirds breeding at SPAs: A proof of concept model of common guillemots breeding on the Isle of May*. Final report to MSS, CEH Edinburgh, Edinburgh, UK.

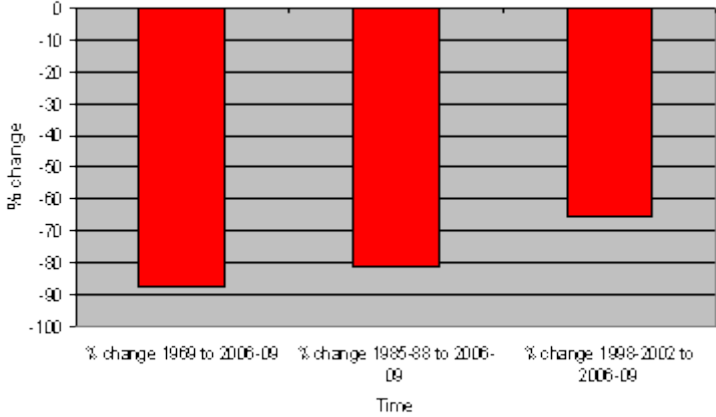
⁴ Porter R, Brown A and Lock L. (2010) *English Seabird Monitoring Project South West England 2006-2009*. Unpublished report to NE, also recorded in JNCC's SMP online database.

Appendix 1 RSPB Comments on Atlantic Array Offshore Wind Farm

Draft Environmental Statement Volume 3 Annex 10.1: Ornithology June 2012

Reference	Comment	Recommendation
1.12	<p>The Defra (2010) seabird assessment recognised low confidence in its conclusion of seabirds having few or no specific problems and being in a stable condition in the Western Channel and Celtic Sea. The Defra report's generic section on seabirds states that:</p> <p><i>We had only low confidence in the assessment of impacts of habitat loss on both seabirds and waterbirds. Habitat loss and damage are likely to increase in the future due to coastal squeeze and through expansions in offshore renewable energy generation and in sea defence/realignment. It is important to assess the cumulative impact of all these activities and pressures.</i></p>	Place limited reliance on the seabird assessments in the Defra report.
1.19	RSPB agrees with JNCC's view that species that contribute to a qualifying assemblage are assumed to have the same importance as qualifying species.	
1.20	<p>It is not clear why wording <i>cannot be proven beyond reasonable scientific doubt to have no significant effect...</i> has been used to qualify the need for appropriate assessment when the wording of the Directive is <i>likely to have a significant effect</i>.</p> <p>The final sentence includes the wording where an AA <i>... results in a negative impact upon a European site</i>, whereas the test is where the competent authority is unable to ascertain that a plan or project will not have an adverse effect on the integrity of a European site.</p> <p>No reference is made to compensatory measures that are needed to protect the coherence of the Natura 2000 Network</p>	<p>Replace with <i>is likely to have a significant effect</i></p> <p>Replace with <i>it not being possible to ascertain no adverse effect on the integrity of a European site</i></p> <p>Add <i>and compensatory measures to protect the coherence of the Natura 2000 Network are secured.</i></p>
1.23 6.477	We question whether <i>a significant ecological impact at a population scale</i> is the appropriate threshold for taking	Review impact thresholds for taking

	species forward to impact assessment within the ES itself.	species forward to impact assessment within the ES. <i>Not being able to rule out significant impact would in our view be a more appropriate test.</i>
4.17 and Fig.4.1	We note that since the regional surveys commissioned by DECC do not cover the central and southern parts of the western end of the AAOWF Round 3 Zone. Since the western part of the zone appears to have particular biological value, the comment on population estimates arising from these surveys needing to be viewed with caution is fundamental.	
4.40	States the assumption that all birds will be recorded within the area surveyed. It is not apparent that the proportion of species which spend a significant proportion of their feeding time diving that are missed from surveys because they are underwater are accounted for.	Factor in, or explain why it would be inappropriate to factor in, individuals that are missed from surveys due to diving.
4.79	Acknowledges that density values will tend towards underestimation (with uncertainty about significance). This is a helpful acknowledgement, but it is easy to lose sight of it in the subsequent assessments that are made in light of that data further on in the report.	Acknowledge such qualifications in assessments made on the basis of that data further on in the report.
4.120	In general terms we accept the 1% threshold as described, however conservation status should also inform whether a population is of regional, national or international importance. For instance <1% of a national population can still be of national – or even international - importance if it is a listed feature or part of an assemblage of a nationally or internationally important site. Also, since >1% of the national population of Wild Birds Directive Annex 1 species is the qualifying threshold for SPA listing, it has international importance.	Recognise exceptions to the 1% criterion and reflect them in assessments.

4.133	<p>Re. acknowledgement that <i>the regional population estimate generated in this way should therefore be viewed with caution</i>, as with our comments on 4.79, this is a helpful acknowledgement, but it is easy to lose sight of it in the subsequent assessments that are made in light of that data further on in the report.</p>	<p>Acknowledge such qualifications in assessments made on the basis of that data further on in the report.</p>								
4.135	<p>Refers to the possibility of an overall decline in numbers of Kittiwakes since Stone et al. (1995).</p> <p>This is supported by RSPB evidence from south west England colonies, collated in 2009. The graph of regional change from monitored kittiwake colonies in south west England is shown below. There has been a massive decline in the regional Kittiwake population, about 65% in the last decade – and even greater declines prior to that.</p>  <table border="1" data-bbox="379 929 1098 1344"> <caption>Regional Change in Kittiwake Population</caption> <thead> <tr> <th>Time Period</th> <th>% change</th> </tr> </thead> <tbody> <tr> <td>% change 1969 to 2006-09</td> <td>-85</td> </tr> <tr> <td>% change 1985-88 to 2006-09</td> <td>-80</td> </tr> <tr> <td>% change 1998-2002 to 2006-09</td> <td>-65</td> </tr> </tbody> </table>	Time Period	% change	% change 1969 to 2006-09	-85	% change 1985-88 to 2006-09	-80	% change 1998-2002 to 2006-09	-65	
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4.142	<p>States that the approach generally adopted was not the most precautionary. It would in our view be more appropriate to use the more precautionary approach.</p>	<p>Assess whether there is a significant difference in outcome if the more precautionary approach to defining regional populations is used.</p>								
4.150	<p>It remains unclear how common scoter have been considered in the Draft Environmental Statement. Para 4.147 refers to screening using a density-based method and a known population method. It appears that the former gives 39,436 passages, whilst the pulse migration of the peak estimates for the north Devon population gives 42,398 passages if all those birds are</p>	<p>Assess this issue more thoroughly, or at least give a clearer explanation and justification.</p>								

	<p>considered to be migrating daily between Carmarthen Bay and North Devon. On 21 August your consultants explained the number using the pulse method only. However, it is not clear to us that this is a precautionary approach, since it is not in our view logical to assume that all those birds are making such a daily commute between south Wales and north Devon. If they are not, the density-based method's estimate of 39,436 passages is not so readily explained. It may be that more common scoter than have been surveyed in north Devon are flying through the Atlantic Array zone.</p>	
4.151	<p>In calculating the density from survey data the maximum survey derived density value should be used, not an average, on the basis that it should be assumed that approximately the same number of eg. golden plover migrate across the site from one year to the next, therefore the lower density in one year is likely to be due to inadequacy of monitoring rather than a change in behaviour.</p>	<p>Use maximum survey derived density value for estimating population.</p>
4.152	<p>We question whether the approach of 'flying' the peak wader population present in the Severn Estuary SPA and Ramsar site is sufficiently precautionary because it doesn't account for the possibility that birds from more distant SPAs might also migrate across the site.</p>	<p>Consider whether waders associated with other important wintering sites could also be flying through the proposal site.</p> <p>If they could be, make an assessment of any risks the proposal poses to them.</p>
5.5	<p>We welcome the recognition that large movements of birds, especially on passage, may be recorded over very limited timescales, and therefore the chances of encounter in a 'one survey per month' survey strategy may be relatively low, especially on larger sites.</p> <p>In light of this, we welcome the application of alternative/additional means of assessing risk, using information from other sources. Para 5.5. goes on to state that collision risk modelling for common scoter,</p>	<p>Assess collision risk using information from other sources.</p>

	waders and swallow was in this vein. However, for swallows, para 6.492 uses survey derived passage rates to predict collision risk – not data from other sources. Similarly common scoter.	
5.21	Refers to a low chance of storm petrel detection from this type of visual aerial survey.	Confirm that visual aerial survey data is not therefore used to estimate population size or density for storm petrel.
5.25	We question whether it is reasonable to conclude that the general distribution of Manx shearwater from regional aerial surveys, which detect lower than expected densities, reflect reality – particularly if as recognised at 5.24 it remains possible that the timing and short duration of the regional surveys was not conducive to detecting large aggregations of birds that are limited in time and space.	Review this conclusion or better substantiate it.
5.38	States, with reference to Fig.5.3, that areas of higher bird density fall outside the AAOWF with only the northwestern corner collecting some moderate density. Whilst this is true for Fig.5.3b) (Summer '08), it does not appear to be so clear cut for 5.3a) (Winter '07/'08), which shows areas of at least moderate density across the north and parts of the south of the AAOWF.	Review this statement.
5.77	The statement that <i>in simple terms, birds are concentrated in the northwestern corner of the study area, just outside the AAOWF, in both periods</i> is in our view over-simplistic given the more evenly distribution of birds in the Summer (recognised at 5.78).	Review this statement.
Table 6.1	As referred to in relation to 4.120, population status should be a function of conservation status as well as an arbitrary threshold of the meta-population.	Recognise exceptions to the 1% criterion and reflect them in assessments.
6.6	See comments below on 6.267, questioning the devaluation in number and status of the guillemot population estimate from international to regional importance.	
6.14	Refers to the rapid increase in Manx shearwater	Recognise and

	<p>population on Lundy, following rat eradication, to 1,081 pairs in 2008. The likely ongoing increase in population since 2008 is not recognised.</p> <p>From the work that has been undertaken modelling Lundy's Manx shearwater population increase post-rat eradication, and the rapid increase in population since, it is clear that the Lundy population is not closed. The 2001 and 2008 surveys both checked over 7,000 burrows, which gives some indication of population potential on Lundy - though the species also uses crevices under rocks and a single burrow entrance can have multiple tunnels, so the potential population could be much higher.</p> <p>It is in our view essential that the proposal's effects on the future Lundy Manx shearwater population are properly assessed as part of the Environmental Impact Assessment.</p>	<p>assess the proposal's impact on the increasing Manx shearwater population on Lundy. Ideally, this should be done by seeking to predict the increasing population and its likely future plateau. An assessment can then be made of the proposal's potential impact on that future population.</p>
6.99	<p>We welcome the recognition, in relation to storm petrel, that:</p> <p><i>'at this stage Storm Petrel must at least be taken forward as a sensitive receptor into impact assessment within the ES. Although unlikely, the potential for a likely significant effect (LSE) upon birds from Skokholm within the Skokholm and Skomer SPA likely to comprise the majority of what appears to be nationally numbers of birds recorded at AAOWF, cannot be entirely discounted and also requires further consideration in the HRA process.'</i></p> <p>However this does not appear to be reflected in the HRA Screening Report, which does not identify a potential for a likely significant effect for storm petrel during operation.</p>	<p>Reflect the inability to discount operational impacts on storm petrel as part of the Skokholm and Skomer SPA seabird assemblage in the HRA Screening Report.</p>
6.120	<p>Conflicting conclusions on the vulnerability of gannet to wind farm collision.</p>	<p>Use the precautionary approach of assuming the higher vulnerability.</p>

<p>6.267</p>	<p>Refers to the DSM approach yielding a mean winter density of 8.81 ind.km⁻². It would be useful to see population estimates based on the maximum winter density, or mean peak winter density, and the corresponding population estimates.</p> <p>The report <i>Atlantic Array Offshore Wind Farm Interim Ornithological Report</i>, Ref: 110218 AA Interim Ornithological Report Rev 2.1 (18 February 2011), gives estimated populations on the basis of maximum densities (Table 12, p.30) and gives a maximum population for guillemot of 90,916, ascribing it international significance. Page 29 of that report states that</p> <p style="padding-left: 40px;"><i>'... Guillemot were present in internationally significant numbers on at least one survey'</i></p> <p>Page 42 of the same report states that:</p> <p style="padding-left: 40px;"><i>Guillemots have been recorded in regionally significant numbers on every survey of the Atlantic Array zone with these reaching national and internationally important numbers on several occasions (Figure 16).</i></p> <p style="padding-left: 40px;"><i>However, some of these figures, notably July 2009, appear to be inflated by the occurrence of large groups of birds which are then subject to correction that assumes an equal distribution of birds in different distance bands. Conversely, whilst Distance corrected estimates of Guillemots also suggest regionally important populations on the majority of surveys, only the upper confidence interval of the population estimate suggested a nationally important population was reached during some months. No values were close to achieving internationally important numbers (Figure 17). Part of the disparity between these estimates is explained by the exclusion of large aggregations of birds on some occasions on connecting transect lines in Distance analysis (Figure 18).</i></p> <p>The description of guillemot density and population estimates on pages 119-128 of Draft ES Volume 3 Annex 10.1 <i>Ornithology</i> – which is summarised on pages 24-26 of Draft ES Volume 1 Chapter 10 <i>Ornithology</i> – appears to be based on Distance-corrected data, which we understand involves the</p>	<p>Calculate maximum winter density, or if possible mean peak winter density, and the corresponding population estimates and importance of the AAOWF for guillemot.</p> <p>Explain how the distance correction process adopted can result in a decrease in the population/density</p>
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	<p>exclusion of large aggregations of birds. This is not made explicit but appears to be why the estimated guillemot population is only ascribed regional importance – at odds with the Interim Ornithological Report Rev 2.1’s assessment of the estimated guillemot population as internationally important.</p> <p>The distance correction (as described in Annex 10.1 p. 19-22) is carried out to account for birds present but not observed during surveys. It should only result in an increase in the population/density estimates (never a decrease). As birds in large aggregations are easier to spot the distance correction was not applied to these records to avoid inflating density estimates, however, such records should still be included in the total number of birds observed.</p>	estimates.
6.436	<p>States, in relation to 46% of Arctic terns encountered feeding, that the relative value of Arctic terns being displaced from feeding in the AAOWF when on passage is thought to be inconsequential, given the much larger areas of sea along their migration route. There is no consideration of the AAOWF area being significantly preferentially used (relative to other areas of Arctic tern passage) due to offering particularly valuable conditions for feeding Arctic terns, or assessment of the implications for that species were it to be the case.</p>	Review this conclusion.
6.474	<p>Draws a conclusion that the survey-derived density estimates for number of passage golden plover flights of 45,054 seems far too precautionary given Severn Estuary and Taw Torridge golden plover populations. The assessment doesn’t consider whether that estimate reflects a broader passage of golden plover, destined beyond the Bristol Channel, rather than just relating them to local sites of importance.</p>	Consider whether the estimate could reflect golden plover populations from beyond the Bristol Channel.

Appendix 2 RSPB Comments on Atlantic Array Offshore Windfarm

Draft Environmental Statement Volume 3 Annex 11.1

Habitats Regulations Assessment Screening Report June 2012

Reference	Comment	Recommendation
2.16	We welcome the suggestion that the proposed development could be built in phases, or modules, with the possibility of an interval between construction of each module.	This could be a useful approach should there remain ecological uncertainties over impacts (if the public benefits of the development are deemed to override the ecological risks), which could be tested through post-construction monitoring of each module.
3.4 iii	<p><i>Mitigation and Alternatives: Where the plan or project is assessed as having an adverse effect (or risk of this) on the integrity of a site, there should be an examination of mitigation measures and alternative solutions. If it is not possible to identify mitigation and alternatives it would be necessary to establish imperative reasons of overriding public interest (IROPI). This is not considered a standard part of the process and will only be carried out in exceptional circumstances.</i></p> <p>It is unclear what is meant by this - it is a standard part of the process. MMO have recently published guidance on IROPI.</p>	
4.26	<p>The rationale for the selection of a 250km distance of protected colonies from the zone is not explained. It would appear to be precautionary for most species, but not for gannet, Manx shearwater or fulmar.</p> <p>Refers to Skokholm and Skomer (and Middleholm) SPA, but omits storm petrel.</p>	<p>Justify the rationale for a 250km distance, particularly for long-distance foragers.</p> <p>Add storm petrel to list of relevant important species</p>

	It is not clear why (see Draft EIA Volume 3 Annex 10.1 <i>Ornithology</i> , para 6.96)	from the Skokholm and Skomer SPA.
5.3	We question the need for distinction between <i>potential for a likely significant effect</i> and <i>likely significant effect</i> , since the Conservation of Habitats and Species Regulations 2010 doesn't make such a distinction- if there is a likely significant effect (or, given the precautionary nature of the Regulations and particularly the Directive which they transcribe (Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora), a potential for such) then an appropriate assessment of the implications for that site in view of that site's conservation objectives is triggered.	Aggregate <i>potential for likely significant effect</i> and <i>likely significant effect</i> into a single category.
5.8 and 5.9	The approach does not consider the effects of the proposal on populations of birds that contribute to breeding seabird SPA qualifying populations that are present in the AAOWF zone outside the breeding season.	Consider the proposal's impacts on SPA features (and assemblages) throughout the year.
Table 5.1, Designated site and feature (Page 26)	Storm petrel as part of the seabird assemblage is not listed as at risk from operation, at odds with Draft EIA Volume 3 Annex 10.1 <i>Ornithology</i> , para 6.96: <i>LSE ... cannot be entirely discounted and also requires further consideration in HRA process.</i>	Add storm petrel to operational risk to Skokholm and Skomer SPA in Table 5.1.
7.1	The impacts of plans or projects which have been completed, but due to timing of construction in relation to timing of surveys, whose effects would not have been taken into account in the baseline data, should be considered in the assessment of in-combination effects.	Include in bulleted list <i>developments whose effects will not have been taken into account in the baseline data.</i>
7.3		Include Environment Agency's Steart intertidal habitat creation scheme.

Appendix 3 Manx shearwater population increases on Ramsey and Lundy since rat eradication

