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Marine Scotland
Licensing Operations Team
PO Box 101
375 Victoria Road
Aberdeen
AB11 9DB

CNS REN OSWF Beatrice

For the attention of: Catarina Aires

27 May 2016

BEATRICE OFFSHORE WIND FARM
SNH & JNCC COMMENTS ON BOWL'S PROJECT ENVIRONMENTAL MONITORING PLAN

Thank you for your consultation over the draft project environmental monitoring plan (PEMP) for Beatrice offshore wind farm in the Moray Firth. SNH and JNCC have worked together to provide the following comments on this plan.

We are represented on the Moray Firth Regional Advisory Group (MFRAG) which acts as a liaison group between the relevant parties – Marine Scotland, developers, consultants, statutory advisers and NGOs – in order to discuss and agree regional monitoring priorities for the wind farms in the Moray Firth (Beatrice and the sites in the MORL Round 3 zone). To date, there are two active sub-groups, one for ornithological interests and one for marine mammal interests. Meeting minutes are available from MS licensing pages:

<http://www.gov.scot/Topics/marine/Licensing/marine/scoping/mfrag>

The structure of our advice is as follows: in this cover letter we provide some over-arching comments for consideration, supported by an appendix with specific advice on seabirds and marine mammals.

SNH has a remit to advise on a number of other receptors, as follows:

- We do not require any project monitoring in relation to diadromous fish as an SAC interest. We do not identify any significant project impacts arising from the Beatrice wind farm on these interests. We are represented on the steering group for the National Research and Monitoring Strategy for Diadromous Fish.
- We do not identify any project-specific monitoring requirements in respect of benthic interests as advised at the meeting held 19 January 2015. We've provided advice on wider issues for benthic interests in our emails to Marine Scotland dated 9 April 2015 and 10 May 2016.
- MSS are providing advice in respect of cod, herring and sandeel interests.

Neither SNH or JNCC have any comments to provide on scour monitoring and we simply note the submitted proposals.

SNH & JNCC over-arching comments

- **Public access to consent plans and relevant reports**

We consider that MFRAG, particularly the marine mammal and ornithology sub-groups, is an effective mechanism to promote joint working between the developers and for all parties to discuss and agree the relevant regional monitoring priorities. BOWL's project monitoring plan provides a useful summary of the discussions that have taken place in respect of the key receptors relevant to our interests – chapter 7 for seabirds and chapter 14 for marine mammals.

MS-LOT may wish to further consider public access to, and sign-posting of, relevant documents. At the moment there is no easy read-across between the information referenced in the Beatrice PEMP and what's available on Marine Scotland's licensing pages. It may help to include the date of the post-consent plans and reports available on the Beatrice project page (and for these to be date ordered), see:

<http://www.gov.scot/Topics/marine/Licensing/marine/scoping/Beatrice>

As long as the discharged versions of reports are publicly available and clearly named then this would seem to be the critical matter to address. It seems less essential to provide the correspondence involved in 'signing off' consent plans and reports, although this information should be made available on request. (Note that BOWL use their own document naming system throughout the PEMP – this is presumably for ease of reference by their own project staff and contractors.)

We also note the significant timelags involved in finalising MFRAG meeting minutes and getting these uploaded to the MS website, such that a number of documents referenced by BOWL in their project plan are not currently available. In practice, this may not be critical given that all relevant parties (including NGOs) are represented on the MFRAG sub-groups and therefore have access to copies of the draft minutes and discussion documents.

- **Data management**

We're surprised that a project environmental monitoring plan makes no mention of the long-term arrangements for data management, and whether data will be made publicly available. The recent report commissioned by UK government raises some interesting aspects in this regard:

<http://www.gov.scot/Topics/marine/science/MSCC/PSEG>

We also advise that contracting arrangements for project environmental monitoring take account of MEDIN data standards (noting that discussions over seabird and marine mammal interests are currently ongoing). Please see here for further advice:

http://www.oceannet.org/marine_data_standards/

- **Over-arching comments on BOWL's project environmental monitoring plan**

The consent plan overview given at the start of the document is a helpful summary of the purpose, scope, structure and intended audience for this plan – this takes account of earlier comments we provided on some of the other plans. This section also highlights the locations where copies of the monitoring plan will be kept.

We are satisfied with the change management procedure outlined in chapter 3 and Figure 3.1. The only thing we were wondering is whether the box stating 'Scottish Ministers identify requirement for PEMP amendment' should feed into the second box top left that states 'Significant change to monitoring approach as set out in the current PEMP'. We make this

suggestion because we think it would more clearly and closely tie any Ministerial input into the established MFRAG consultation process.

Noting our comments above, we are otherwise content with the approach adopted in the plan – that it provides a receptor-by-receptor summary of the project monitoring that's been agreed via MFRAG or in direct consultation with Marine Scotland. The roles and responsibilities of relevant project staff and contractors is clearly explained in chapter 5 and we are content with the remit of the Environmental Clerk of Works in relation to project environmental monitoring.

Finally, if you have any queries or comments in relation to this advice, please don't hesitate to get in touch.

Yours sincerely,

Catriona Gall

Marine Renewables Casework Adviser (Offshore Wind)
SNH Policy & Advice

cc. Sarah Canning, JNCC

APPENDIX A

SNH & JNCC ADVICE ON SPECIFIC RECEPTOR CHAPTERS

Chapter 7 – Seabird monitoring

As indicated in section 7.3, the approach to seabird monitoring has been discussed and agreed via the MFRAG ornithology sub-group, including the priority species to address (great black-backed gull, herring gull and puffin as noted in paragraph 7.3.4), the aims and objectives of monitoring (section 7.4) and monitoring methods (section 7.5).

Therefore the comments we provide below relate mainly to points of clarification and corrections of the text. However, we do raise one key issue in relation to post-construction monitoring where it should be made clear that the amount, duration and frequency of this monitoring is still under discussion via MFRAG.

We are also wondering if some mention could be made of the opportunistic data that may be collected. While not a focus of project monitoring, there is likely to be data collected on non-target species during aerial survey work and potentially, in respect of gull tagging, on bird movements in the non-breeding season. It might be helpful to indicate that such data could be made available for analysis in respect of the wider research questions to be agreed via Marine Scotland's Sporrán initiative¹.

Page	Report Text	Comment
Page 36 Table 7.1	Condition 27.a.1	We agree that the pre-construction stage of Condition 27.a.1 has been discharged and the construction phase does not apply. While the outline scope of post-consent monitoring has been agreed via MFRAG, the amount, duration and frequency of this monitoring is still under discussion.
Page 38, Section 7.3.5	“Secondary species, which were also considered during the assessment but for which impacts were determined to be of a lower significance were guillemot, razorbill, kittiwake and gannet and therefore no targeted monitoring of these species is proposed”	This has been agreed at MFRAG and whilst no <i>targeted</i> monitoring of these species is planned, opportunistic data will be collected on their abundance and distribution.
Page 42 Table 7.3	“Monitoring will follow an iterative programme with review of key questions and ability to address them following the third year of surveys post-construction”.	While the outline scope of post-consent monitoring has been agreed via MFRAG, the amount, duration and frequency of this monitoring is still under discussion. For BOWL, the only thing agreed so far is that it will commence after the first phase of turbine installation in 2019. The text should be amended to reflect this and Table 15.1 (p81) should be updated to show pale yellow in the boxes for 2020 and 2021. We'll email the MFRAG secretariat to make sure these comments are reflected in the discussion document and meeting minutes.

¹ Further information on Sporrán, the Scottish Offshore Renewables Research Framework, is available from: <http://www.gov.scot/Topics/marine/Licensing/marine/scoping/orelg/SpORRAn>

Page 43 Table 7.3	Gull tagging and colony monitoring	<p>While the aims and objectives of the seabird monitoring programme have been agreed via MFRAG, the discussion document is live and some of the detailed text could benefit from further iteration.</p> <p>We think the sections on gull tagging and colony monitoring could be considerably shortened, we agreed at the last MFRAG meeting (12 November 2015) that these matters will be kept under review.</p> <p>As it stands, Table 7.3 is currently more detailed than the equivalent tables for the other receptors. As much of this detail is given in the preceding paragraphs, it could potentially be summarised.</p>
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Chapter 14 – Marine mammal monitoring

As indicated in section 14.3, the approach to marine mammal monitoring has been discussed and agreed via the relevant MFRAG sub-group, following the time-line presented in Table 14.2. So we have already discussed and agreed the aims, objectives and species to address as summarised in section 14.4 and are content with these monitoring proposals.

The key issue we would flag in relation to the marine mammal chapter is in relation to harbour seal monitoring. As indicated, we discussed the low seal usage of BOWL and MORL wind farm sites at the meeting on 15 December 2015, agreeing this meant that there'd only be limited opportunities for investigating harbour seal responses to acoustic deterrent devices (ADDs) and piling soft starts (work package 3.1). While this agreement has been included in the text of the construction marine mammal monitoring plan (CMMMP, currently being discharged), we think it should also be noted in the meeting minutes for completeness of the record.

SNH and JNCC have already provided advice on the CMMMP in our emails dated 16 February and 26 February 2016. The plan has very recently been re-issued to MFRAG for any final comments prior to sign off.

Page	Report Text	Comment
Page 72 Table 14.1	Condition Condition 27.b	The text in Table 14.1 in relation to construction monitoring could be made slightly clearer: the developers' joint CMMMP is currently in the process of being discharged (as noted in Table 14.2, under 05/02/2016), however, the detailed methodology for project construction monitoring will be agreed closer to the time (as noted in paragraph 14.5.3).
Page 76 Section 14.4.5	In relation to construction monitoring it is noted that "...there is limited opportunity to conduct this monitoring for harbour seal within the wind farm site due to the low numbers of individuals using these offshore foraging areas as indicated by the results from the pre-construction MMMP..."	<p>In the minutes of the MFRAG meeting of 15 December 2015, the issue of low harbour seal numbers is mentioned in section 4 relating to pre-construction monitoring. While we remember discussing the implications of this in relation to construction monitoring, the minutes do not currently capture this.</p> <p>We'll email the MFRAG secretariat to alert them to this so it can be addressed.</p>

<p>Page 78 Section 14.5.3</p>	<p>“..it was agreed at the MFRAG-MM meeting on 15/12/2015 that the final detailed monitoring design will be discussed in MFRAG-MM in advance of piling operations commencing in April 2017”.</p>	<p>Again, we can remember reaching this agreement, however, it's not currently captured in the meeting minutes.</p>
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Catarina Aires
Licensing Operations Team
Marine Scotland
375 Victoria Road
Aberdeen
AB11 9DB

BEATRICE OFFSHORE WIND FARM LIMITED (BOWL) PEMP - MSS COMMENTS

Marine Scotland Science has reviewed the submitted PEMP and has provided the following comments.

marine mammals

MSS are content with the plans outlined in the PEMP document with regard to monitoring marine mammals, having provided input at earlier stages, and have no comments at this stage. We look forward to discussing the detailed monitoring design as part of MFRAG-MM prior to commencement of works.

marine fish ecology

MSS are content with the plans outlined in the PEMP document with regard the approach to monitoring cod, herring and sandeels.

benthic ecology

MSS is content to confirm and agree with the 6 points detailed in the PEMP document and have no further comments to make at present.

aquaculture

MSS aquaculture planning has no specific comments to make on the Beatrice Offshore Wind Farm Limited (BOWL): Project Environmental Monitoring Plan. There are no further comments to add to those made in March 2016 in response to the Post Consent Vessel Management Plan.

diadromous fish

MSS notes from the approval letter from MS-LOT to BOWL of 29 January 2016 that the smolt tracking study at present being carried out will satisfy the conditions where the National Research and Monitoring Strategy for Diadromous Fish (NRMSD) and participation in it is specifically mentioned. Whether it is sufficient to meet all conditions and requirements is really for MS-LOT to make any final decision, but the matter has been discussed among Ross Gardiner, Ian Davies and Robert Main of MSS and we are not requesting additional work to be carried out by BOWL although we are aware that additional tracking work during the noisy construction phase could be very informative. If such work is to be carried out, we are expecting that arrangements for this will be made without financial involvement from BOWL.

Hopefully these comments are helpful to you. If you wish to discuss any matters further contact the MSS Renewables in-box MS_Renewables@scotland.gsi.gov.uk.

Yours sincerely

Paul Stainer

Marine Scotland Science

03 June 2016

Aires C (Catarina)

From: Wilson J (Jared)
Sent: 27 June 2016 14:02
To: Aires C (Catarina)
Cc: Stainer P (Paul) (MARLAB)
Subject: FW: 003-0W-BOWL-8 - Beatrice Offshore Wind Farm Limited (BOWL): Project Environmental Monitoring Plan (PEMP)

Hi Catarina,

Please find the MSS ornithology advice for the BOWL PEMP below. If you have any queries, please don't hesitate to get in touch.

Jared

Ornithology

Licence Condition 27.c. "The participation by the Company in surveys to be carried out in relation to regional and strategic bird monitoring;"

The focus of the MFRAG-O has to date been on project-specific and regional monitoring to address the estimated predicted effects on seabirds from the BOWL development i.e. Condition 27.a. The MFRAG-O discussions have not addressed strategic bird monitoring. As the BOWL PEMP does not currently contain any information on any strategic bird monitoring that will be undertaken it should be revised to do so. The types of strategic bird monitoring that could be undertaken by BOWL include monitoring of populations, survival or productivity or key species such as gannet, guillemot or razorbill, or tracking of key seabird species during the non-breeding season. A useful summary of current knowledge gaps for the southern North Sea that is also of relevance to the northern North Sea is provided in Furness 2016 "*Research priorities for seabirds in UK southern North Sea waters to reduce offshore wind farm consenting risk*". MSS would be happy to discuss strategic bird monitoring options with MS-LOT and BOWL.

Dr Jared Wilson

Marine Ornithologist

[marinescotlandscience](#)

Scottish Government | Marine Laboratory, PO Box 101 | 375 Victoria Road | Aberdeen AB11 9DB

Tel: 03002 449103

jared.wilson@gov.scot

www.scotland.gov.uk/marinescotland

Please note email address change to jared.wilson@gov.scot

Aires C (Catarina)

From: [REDACTED]@rspb.org.uk>
Sent: 13 May 2016 16:06
To: Aires C (Catarina)
Cc: MS Marine Renewables [REDACTED]
Subject: FW: Consultation on BOWL Post-consent Project Environmental Monitoring Plan (PEMP) , by 27 May 2016

Dear Ms Aires,

Thank you for consulting RSPB Scotland on the above noted Plan.

We have been involved in the ornithological sub-group of the Moray Firth Regional Advisory Group and as such broadly support the proposals put forward in the above Plan as they relate to seabird monitoring.

Regards,
Charles

[REDACTED]
Marine Conservation Planner

Scottish Headquarters 2 Lochside View, Edinburgh Park, Edinburgh, EH12 9DH
Tel 0131 317 4100

rspb.org.uk

Let's give nature a home in Scotland



RSPB Scotland is part of the RSPB, the country's largest nature conservation charity, inspiring everyone to give nature a home. Together with our partners, we protect threatened birds and wildlife so our towns, coast and countryside will teem with life once again. We play a leading role in BirdLife International, a worldwide partnership of nature conservation organisations.

The Royal Society for the Protection of Birds (RSPB) is a registered charity: England and Wales no. 207076, Scotland no. SC037654

From: [REDACTED] **On Behalf Of** planning, scotland
Sent: 22 April 2016 16:40
To: Nathan, Charles
Subject: FW: Consultation on BOWL Post-consent Project Environmental Monitoring Plan (PEMP) , by 27 May 2016

[REDACTED]
Marine Conservation Planner

Scottish Headquarters 2 Lochside View, Edinburgh Park, Edinburgh, EH12 9DH
Tel 0131 317 4100

Aires C (Catarina)

From: [REDACTED]@whales.org>
Sent: 27 May 2016 12:30
To: Aires C (Catarina)
Cc: [REDACTED]
Subject: RE: Reminder: Consultation on BOWL Post-consent Project Environmental Monitoring Plan (PEMP) , by 27 May 2016

Dear Catarina,

Thank you for including WDC in the consultation. We have no further comments on the PEMP.

Best wishes,

[REDACTED]

[REDACTED]

Scottish policy officer

Telephone: [REDACTED]
whales.org

From: Catarina.Aires@gov.scot [mailto:Catarina.Aires@gov.scot]
Sent: 20 May 2016 16:19
To: jnccadvice@jncc.gov.uk; marineenergy@snh.gov.uk; [REDACTED]@asfb.org.uk
Cc: Nicola.Bain@gov.scot; Jessica.Drew@gov.scot; Paul.Stainer@gov.scot
Subject: Reminder: Consultation on BOWL Post-consent Project Environmental Monitoring Plan (PEMP) , by 27 May 2016

Dear Sir/Madam,

This is a reminder that the consultation on BOWL's Project Environmental Monitoring Plan (PEMP) detailed below is due to close next Friday, the 27th May. I would be grateful if you could submit any comments that you may have by 27th May 2016.

If you are unable to meet this deadline, please contact us to arrange an extension to the consultation period.

If you do not have any comments, please submit a "nil return" response.

Best regards,
Catarina

Catarina Aires

Marine Renewables Casework Officer

marinescotland

Marine Scotland Licensing Operations Team

Scottish Government

Marine Laboratory, 375 Victoria Road, Aberdeen, AB11 9DB

Phone: +44 (0)1224 295 689 | S/B: +44 (0)1224 876 544

Catarina.Aires@gov.scot / MS.MarineRenewables@gov.scot

<http://www.gov.scot/Topics/marine/Licensing>

From: Aires C (Catarina)
Sent: 14 April 2016 18:33
To: jnccadvice@jncc.gov.uk; marineenergy@snh.gov.uk; planning.scotland@rspb.org.uk; [REDACTED]@whales.org;