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Licensing Operations Team  
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CNS REN OSWF Beatrice

For the attention of: Catarina Aires

11 March 2016

## **BEATRICE OFFSHORE WIND FARM SNH & JNCC COMMENTS ON BOWL'S VESSEL MANAGEMENT PLAN**

Thank you for your consultation over the draft Vessel Management Plan (VMP) for Beatrice offshore wind farm in the Moray Firth. SNH and JNCC have worked together to provide the following comments on this VMP.

Our advice is structured as follows: first we provide our consideration of any risks (disturbance or injury) from vessels in relation to marine mammal and seabird species, then we provide some comments on the plan itself, aligned with our advice on previous BOWL consent plans.

### **SNH & JNCC advice on risk of environmental impacts from BOWL vessel movements**

We welcome the further information presented in the VMP regarding the range of vessels needed during construction (section 7); the numbers of vessels (of each type), their operating periods and anticipated number of return journeys to port (set out in detail in Table 8.1); and the main vessel transport corridors likely to be used by the majority of vessels (section 9).

We have considered this information in order to provide the following advice on the risk of impacts to marine mammals and seabird species from the vessel activity associated with construction and operation of Beatrice offshore wind farm. **Please note that this excludes any advice in relation to installation of the export cable** where the relevant plans for this work have not been submitted in advance of this vessel management plan.

#### **• Marine mammals**

We have considered the information in the VMP in relation to marine mammal interests. This identifies that, during construction, most wind farm infrastructure (pin-piles, jacket foundations, cabling and offshore transmission modules) will be transported direct to site along the main shipping channels in the outer Moray Firth. It is only the wind turbines (towers, blades and nacelles) which might be stock-piled at Nigg or Invergordon, requiring transportation within the inner Moray Firth along the routes indicated on Figure 9.1. As addressed in the VMP, the inner Moray Firth is designated as a Special Area of Conservation, including for bottlenose dolphin.

We consider there to be a negligible risk of injury (collisions) or disturbance to marine mammal interests from these slow-moving transportation vessels (tugs and barges). The number of vessels which may transit through the inner Moray Firth and SAC is limited and well within the range previously assessed for the port facilities in this area (for bottlenose dolphin in particular, please refer to Lusseau, D., Pirotta, E. and Donovan, C. (2013)).

At the time we provided our application advice for Beatrice (8 July 2013), it was uncertain whether or not there was a link between the use of vessels with ducted propellers and the fatal corkscrew lacerations recorded to seal species. Since this time, there have been observations that predation can give rise to this characteristic type of injury, and so the statutory nature conservation bodies have agreed the updated advice referenced in the VMP (see section 12.2). We confirm that there is negligible risk to seal species from use of vessels with ducted propellers and, in this regard, we are satisfied with the good practice measures set out in paragraph 12.2.7.

Table 8.1 gives a detailed summary on the vessel requirements during construction: the period over which each vessel will be operating, and the number of return journeys to port. As anticipated, most day-to-day vessel movements will be associated with the crew transfer vehicles, work boats and guard vessels, transiting mainly between the marine co-ordination centre in Wick and the wind farm site. Out on site, the VMP confirms that the maximum numbers of vessels required at any one time is 26 (including guard vessels), reduced from a “worst case” estimate of 46.

As identified in the VMP (paragraph 4.4.8), the Environmental Clerk of Works will have a key role to play in environmental training and awareness raising for construction personnel. In this regard, we recommend highlighting the Scottish marine wildlife watching code which contains key recommendations for reducing the risk of vessel disturbance to marine mammals:

<http://www.snh.org.uk/pdfs/publications/marine/Marine%20Guide.pdf>

In conclusion, SNH and JNCC do not consider there is likely to be any risk of injury (collisions or corkscrew lacerations) to marine mammal species from the vessel activity associated with construction and operation of Beatrice offshore wind farm (excluding consideration of cable installation, as discussed). While there could be some disturbance of individual animals from these vessel movements, we consider that this will be minimised through staff training and good practice working procedures and will not result in any impacts to marine mammal populations.

We confirm, in line with previous advice, that BOWL vessel activity will not be detrimental to the maintenance of any EPS cetaceans at a favourable conservation status in their natural range. In respect of bottlenose dolphin, we confirm that there will be no population-level impacts from BOWL vessel activity and no adverse impacts on the site integrity of the Moray Firth SAC.

- **SPA seabirds**

Further to our advice at application stage (letter dated 8 July 2013), we have considered whether there could be any significant risk of vessel disturbance or injury to seabird species, including the qualifying interests of Special Protection Areas. SNH advises that there is a draft SPA under consideration for species of sea duck and divers in the inner Moray Firth. It does not have policy protection but we've taken account of it in providing the following advice.

We do not consider there to be any significant risk of injury to bird species from vessel activity associated with Beatrice offshore wind farm. While individual birds could be disturbed by vessel movements to and from the wind farm we consider this would not be likely to result in any significant effects on the qualifying interests of existing or proposed SPAs, nor would it give rise to any population-level impacts.

The vessel routes which cross the inner Moray Firth dSPA are related to the transport of turbines to and from the available port facilities (see paragraphs 7.5.2 - 7.5.3 and Figure 9.1). These vessel movements will predominantly take place during the summer and autumn (see Table 8.1) and are unlikely to coincide with key bird presence in the dSPA.

In respect of East Caithness Cliffs SPA, we recommend that care is taken by vessel operators on the approach to and from Wick harbour. The Scottish marine wildlife watching code (see link above) includes some advice for bird species and we recommend that this is addressed in any tool box talks or other training given by the ECoW.

## **SNH & JNCC comments on BOWL's vessel management plan**

### **• Plan Iteration**

We consider that BOWL have clearly laid out the arrangements for any required plan iteration. We do not anticipate that there would be significant involvement from SNH or JNCC in this regard, but we've agreed with MS-LOT that our advice will be sought where relevant.

### **• Scope of Plan**

At application, we queried whether there could be any possibility of helicopter use during construction or operation of the Beatrice offshore wind farm (see our letter of 8 July 2013). If not, then we recommend that there's explicit confirmation of this, perhaps included in the introductory chapters of the VMP.

As stated previously in our advice on BOWL's construction programme and method statement (letter dated 28 August 2015), we will be able to provide our advice on any impacts from cable installation once the information about this work is submitted for consultation. As we've highlighted previously, our main area of concern relates to installation of the export cable in coastal waters on the south side of the Moray Firth where higher densities of marine mammals could be encountered.

### **• Role of the Environmental Clerk of Works**

As highlighted in the VMP (paragraphs 4.4.6 – 4.4.8) the ECoW has an important role to play in staff training and compliance monitoring. We confirm that we're satisfied with these arrangements in relation to the VMP.

### **• Compliance monitoring**

We do not identify any environmental monitoring requirements in respect of the VMP (for either marine mammal species or bird interests). In terms of compliance monitoring we are happy with the arrangements set out in section 4.4.

## **Further Advice**

We do not anticipate any further formal consultation over this vessel management plan, but if you have any queries about our advice, please do not hesitate to contact me.

Yours sincerely,

## **Catriona Gall**

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

cc. Enrique Pardo, JNCC

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## **003-0W-BOWL-8 - SSE RENEWABLES: BEATRICE, MORAY FIRTH - POST CONSENT VESSEL MANAGEMENT PLAN**

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

### **ornithology**

No comment.

### **marine fish ecology**

No comment.

### **commercial fisheries**

No comment

### **benthic ecology**

No comment

### **diadromous fish**

No comments to necessarily go to the developer, but would note that, although salmon and sea trout in the marine environment are generally associated with surface waters, there is a lack of information on the extent to which vessels might disturb or result in injury to them in some situations. Although the VMP is described as targeted at mitigating disturbance or impact to marine mammals and birds, it is possible that measures to protect marine mammals and birds may also have a side-benefit to fish.

### **aquaculture**

There are no specific comments to be made on the Post Consent Vessel Management Plan. The comments made on previous applications have not fundamentally changed, however using the information provided in the Post Consent Vessel Management Plan these comments have been redrafted and a copy included for your reference.

There are no aquaculture sites within the proposed boundaries of the Beatrice Offshore Windfarm site (see map).

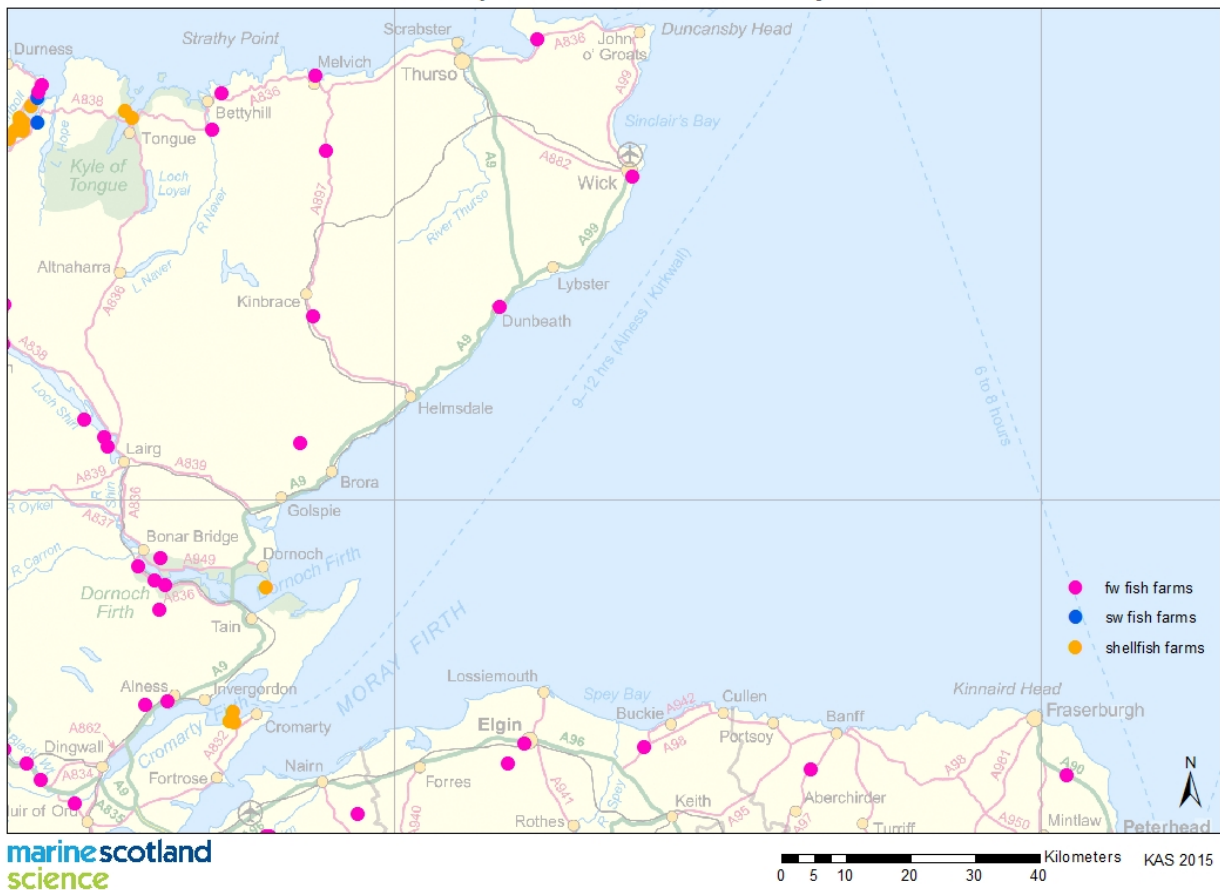
There are four active shellfish sites within the Moray Firth area, three in Cromarty Bay - a mussel long line site operated by Cromarty Mussels, a Pacific oyster trestle site operated by Black Isle Seafood Ltd. and another Pacific oyster trestle site operated by MacKenzie Marine Laboratory, PO Box 101, 375 Victoria Road, Aberdeen AB11 9DB  
[www.scotland.gov.uk/marinescotland](http://www.scotland.gov.uk/marinescotland)

Oysters. There is also a wild bed of common mussels in the Dornoch Firth operated by the Highland Council. The closest site is ~70km from the boundaries of the Beatrice Offshore Wind Farm and 60km from the cable corridor. However, the three sites in Cromarty Bay are situated within ~6km of the Invergordon Service Base and Nigg Energy Park which are being considered as locations for the wind turbine delivery and pre-assembly. There are no other marine aquaculture sites on the east coast of Scotland, to the south of the proposed development until North Berwick and to the north the next closest aquaculture sites would be around Orkney.

There are two proposed shellfish sites within the Moray Firth area which were granted planning permission in 2015. These sites may not yet have authorisation to place any equipment in the water.

There are several land based freshwater sites displayed on the map but these are not expected to be effected by this development.

Location of aquaculture sites in the vicinity of BOWL



**socio economics**

No comment.

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](mailto:MS_Renewables@scotland.gsi.gov.uk).

Yours sincerely



**Paul Stainer**

Marine Scotland Science

14 March 2016