

Queiros J (Joao)

From: [REDACTED]@whales.org>
Sent: 09 January 2014 07:44
To: Queiros J (Joao)
Subject: RE: 131206 - 013/OW/SGFoF1 - 10: MS LOT to WDC: One week before reminder - Seagreen Wind Energy Limited Addendum consultation: 06 December 2013
Attachments: WDC response on Seagreen HRA Addendum.pdf

Dear Joao,

Please find attached WDC's response to the Seagreen Project HRA Addendum.

Kind regards,

[REDACTED]

[REDACTED]

Scottish policy officer

Telephone: [REDACTED]
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16th December 2013

Dear Andrew Sutherland,

WDC comments on the Seagreen Phrase 1 Offshore Project Habitats Regulations Appraisal Addendum

We understand that the Seagreen Project is seeking to construct and operate two wind farms, Seagreen Alpha and Seagreen Bravo. Both wind farms will accommodate up to 75 wind turbines generators with the capacity to generate 525 Megawatts (MW) of power. Seagreen will be located approximately 27 kilometres (km) from the town of Arbroath.

Thank you for the opportunity to provide comments on the Seagreen Phrase 1 Offshore Project Habitats Regulations Appraisal (HRA) Addendum. Given our area of interest, we have only focused on the marine mammal sections.

WDC are endeavouring to assist with the environmentally sustainable development of marine renewable energy in Scotland. Whilst welcoming the Scottish Governments' commitment to renewable energy generation, particularly noting the potential consequences of climate change for cetaceans, we have serious concerns about current levels of uncertainty and the possible negative impacts these developments, both individually and cumulatively, may have on cetaceans (whales, dolphins and porpoises) and seals in Scottish waters.

In summary

There is considerable scientific uncertainty surrounding the impacts of pile driving during construction on all species, and in this region. As a result, our preference is that pile driving is not used at all during construction.

The predicted increase in disturbance and displacement of bottlenose dolphins, grey and harbour seals, from the construction of Seagreen, and in-combination with other proposed developments, leads us to believe that it is not possible to rule out Likely Significant Effects in the HRA. We are also concerned about potential impacts to priority marine features, including harbour porpoises.

We understand from a meeting with the developers that project specific mitigation and monitoring plans will be developed prior to construction and will reflect current guidance at the time of construction. However, the lack of a Marine Mammal Monitoring Programme

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(MMMP) and a detailed Mitigation Plan to reduce the impacts of pile driving, increased vessel movements, corkscrew injuries and in combination/cumulative impacts on marine mammals in the area makes it difficult to provide comments on this aspect of the Habitats Regulations Appraisal Addendum.

For the MMMP, marine mammal observers should be from a JNCC accredited source and there should be enough of them to work continuously without tiring. Passive acoustic monitoring (PAM) should be conducted in parallel to visual observations at all times. For the Mitigation Plan, we do not consider 'soft-start' to be an adequate mitigation measure to ensure there are no significant impacts. Whilst a common sense measure, soft start is not a proven mitigation technique and so cannot be relied upon to mitigate impacts, especially for developments in close proximity to Special Areas of Conservation (SACs). Only proven mitigation measures can be relied upon to maintain the conservation objectives and should consent be given, this should be a condition.

The MMMP and Mitigation plan should be developed in consultation with scientists with expertise in the Natura species to ensure that monitoring of the bottlenose dolphin, and grey and harbour seal SAC populations contribute to existing monitoring studies, to understand how bottlenose dolphins and seals use the area and to assess any changes to site use or other significant impacts. The MMMP should be appropriate to the level of works. WDC requests involvement in the development of these plans.

Specific comments

Pile driving

Alternatives to pile driving should be considered. Use of noise-reducing techniques could considerably reduce the radius of impacts of this development and those in the region, would reduce cumulative impacts and could mean that there is less dependence on mitigation and less risk to developers. Should pile driving be conducted, further information on the pile driving method and mitigation techniques to reduce the impact of underwater noise generated during pile driving needs to be covered more significantly (as requested above).

Pile driving activities for each project are considered to be 'short-term' and 'temporary', however cumulatively pile driving for the Seagreen Project, Inch Cape and Neart na Gaoithe will occur over 5 years. This cannot be considered 'short-term' and 'biologically insignificant'.

Increase in vessel movements

The increased collision risk during construction and operation is considered 'not significant'. WDC has concerns about the increase in vessel movements in the area during construction and, to a lesser extent, operation, especially considering the close proximity to the Firth of Tay and Eden Estuary harbour seal SAC. The port(s) to be used for the Seagreen wind farms have yet to be decided, so we cannot make any specific comments at present. However, the cumulative effect of vessel traffic on marine mammals in the area is likely to be significant.

Barrier effects

WDC has concerns about potential barrier effects on bottlenose dolphins from the Moray Firth

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SAC. There is a vast amount of marine spatial planning, including harbour extensions and marine renewable energy developments, in the planning and construction phase along the east coast of Scotland which cumulatively may cause potential barrier effects.

3.166 *'Evidence from Egmond aan Zee suggests that marine mammals may be attracted to the Offshore Wind Farm (OWF) area for foraging, and therefore their sensitivity to OWF presence is negligible'*. It should be noted that in Denmark the number of harbour porpoises significantly declined during construction of the Nysted OWF and have not returned to the baseline level even after 10 years of operation of the OWF (Teilmann and Carstensen, 2012).

Corkscrew injuries

Corkscrew injuries are a major cause for concern and should be included in Tables 3.37 and 3.55.

The extent of corkscrew injuries is likely to be underestimated due to the low probability that carcasses wash ashore and are found. Fife has been identified as one of the UK's hotspots for corkscrew injuries as a cause of death for harbour seals, especially in summer months (Bexton et al., 2012). The use of ducted propellers should not be permitted unless they are guarded or potential impacts can be effectively mitigated in some other way, especially for harbour seals. If ducted propellers are to be used, a proposed Marine Mammal Corkscrew Injury Monitoring Scheme (MMCIMS) should include Marine Mammal Observer searches for seal carcasses to determine if injuries to seals are occurring. Beach searches should be conducted regularly enough to allow the carcasses to be 'fresh' enough for a cause of death, where possible, to be determined. There is growing evidence that harbour porpoises suffer from 'corkscrew injuries', in addition to seals (Deville et al., 2013), including around Fife (Scottish Marine Animal Stranding Scheme (SMASS), unpublished data). Therefore any stranded marine mammals should be reported to the SMASS. Should any incident that results in mortality occur during construction, activities should be halted immediately until an investigation can be completed.

Harbour seals

3.150 Seals are opportunistic feeders but this does not mean that their sensitivity to changes in prey can be defined as 'low'. Seals show strong seasonal and temporal patterns in their prey and the sensitivity of changes in prey has yet to be determined.

3.433 *'There is no indication that the Seagreen Project, Inch Cape and Neart na Gaoithe in combination will directly affect the Firth of Tay and Eden Estuary Harbour seal SAC'*. WDC strongly disagrees with this statement. The developments are likely to have a significant impact on the already declining harbour seal SAC population.

3.435 *'SAFESIMM predicts that the potential in combination PTS impact on harbour seals is up to 11% of the ECMA population'* and *'The proportion of the affected seals assumed to suffer immediate mortality represents up to 2.8% of the ECMA population'*. Whilst we agree that these are almost certainly over-estimates we have serious concerns about these values. WDC considers that a loss of even 1 individual from this decreasing harbour seal population is

considered to be 'too high' (and significant at a population level), especially considering the significant decrease in the population which has occurred without the construction of marine renewable developments in the area.

3.436 *'During captive studies, seals have kept their heads out of water more during playbacks of pile driving sounds than in control sessions'*. Captive behavioural studies of seals are not representative of their wild counterparts. Captive animals are more likely to lift their head out of the water to avoid underwater noise, but wild animals will flee the area, causing a more significant impact for the animal.

Bottlenose dolphins

3.19 *'The Seagreen project is not directly connected with the management of the Moray Firth SAC, and no components of the Seagreen Project are located within the SAC'*. There is proven connectivity between bottlenose dolphins from the Moray Firth along the east coast of Scotland, therefore all bottlenose dolphins have to be regarded as individuals from the Moray Firth SAC.

3.453 We have concerns about the high level (3-67.2%) of the reference population showing behavioural displacement during construction due to pile driving.

Harbour porpoises

The Joint Nature Conservation Committee (JNCC) currently has contract out to identify whether persistent areas for harbour porpoise are supported by available evidence, with a view to future SAC designations. Whilst we note that there are currently no SACs for harbour porpoises in Scotland, as an Annex II species and given the density of porpoises in the proposed development and surrounding area, this area has the potential to be designated as an SAC to protect the harbour porpoise and for these reasons we feel that the harbour porpoise should be considered on the same level as harbour seals, grey seals and bottlenose dolphins.

As mentioned above, we also have concerns about the use of ducted propellers causing fatal cork-screw injuries to harbour porpoises.

Cumulative impacts

Aberdeen Harbour Development Environmental Impact Assessment Scoping Report has recently been submitted to Marine Scotland. Whilst we understand that to-date Seagreen did not need to account for Aberdeen Harbour extension in their cumulative impacts assessment, if construction of the developments is likely to overlap, cumulatively there is likely to be a significant impact on the Moray Firth SAC bottlenose dolphin population. Furthermore, due to the known connectivity of the Moray Firth bottlenose dolphins, and the vast quantity of proposed and consented activity on the east coast of Scotland, we feel that the proposed Ardersier, Invergordon and Nigg developments should also be included in the cumulative impact assessment. All developments within the known reference population for each species should be assessed for cumulative impacts.

Table 3.55 We do not agree that there will be no adverse effects on SAC integrity of the Moray Firth SAC for bottlenose dolphins and Firth of Tay and Eden Estuary SAC for harbour seals due

to underwater noise and risk of collision with vessels.

Conclusion

WDC objects to the development unless effective mitigation methods are developed and implemented during construction of the Seagreen Project. The proposed development is not compatible with the requirements on the Habitats Directive due to the potential effects on the integrity of the Firth of Tay and Eden Estuary harbour seal SAC. WDC feels that more needs to be done to ensure the survival of this population, rather than accepting that it is not going to be a biologically viable population in next few years.

Should consent be given, an annex of suggested license conditions is attached and a licence to cause disturbance to EPS will be required for construction.

We hope you find these comments useful and would be happy to discuss any of these comments further.

Yours Sincerely,

[REDACTED]

[REDACTED]

Scottish Policy Officer

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References

Bexton, S., Thompson, D., Brownlow, A., Barley, J., Milne, R., and Bidewell, C. 2012. Unusual Mortality of Pinnipeds in the United Kingdom Associated with Helical (Corkscrew) Injuries of Anthropogenic Origin. *Aquatic Mammals*, 38, 229–240. doi:10.1578/AM.38.3.2012.229

Deaville, R., Brownlow, A., Penrose, R., Smith, B., Barnett, J., Perkins, M. and Jepson, P. 2013. Turning the screw: Shipstrike in UK stranded cetaceans. 27th Conference of the European Cetacean Society Abstract book p 48-49.

Available at <http://www.escolademar.pt/ecs2013/scientific-program/>

Teilmann, J. and Carstensen, J. 2012. Negative long term effects on harbour porpoises from a large scale offshore wind farm in the Baltic—evidence of slow recovery. *Environmental Research Letters*, 7, 045101.

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ANNEX

Should consent be given to this proposed development, WDC suggests the following consent conditions:

- Alternative methods to pile driving should be investigated.
- If pile driving is used, a noise-reducing barrier (such as a bubble curtain) should be maintained around the source to mitigate the impacts of radiated noise levels. The barrier should remain in place until piling has been completed. The use of noise-reducing techniques is the best way to reduce construction impacts to marine mammals.
- Visual and acoustic monitoring should be ongoing throughout construction.
- Activities should be halted when marine mammals approach within a specified distance of operations (mitigation zone).
- Ground-truthing of modelled noise assessment data should be undertaken.
- The Marine Mammal Protection Plan should be developed in consultation with scientists with expertise in the Natura species to ensure that monitoring of the bottlenose dolphin, and grey and harbour seal SAC populations contribute to existing monitoring studies, to understand how bottlenose dolphins and seals use the area and to assess any changes to site use and are appropriate to the level of works.
- The monitoring plan should include the recommendations from the Aberdeen University scientific study 'Population consequences of disturbance'.
- The monitoring plan should be appropriate to all developments in the area (Segreen, Neart na Gaoithe, Inch Cape, Firth of Forth, Aberdeen Bay and all developments in the Moray Firth), scientifically robust, and all the developers should work together to achieve this.
- The use of ducted propellers should not be allowed.
- If the use of ducted propellers is permitted during construction and/or operation, there should be regular monitoring of beaches for stranded animals to determine if any injuries to marine mammals, e.g. corkscrew injuries, are occurring.
- Should any incident that results in mortality occur during construction, activities should be halted immediately until an investigation can be completed.

Recommendation to Marine Scotland

An audit of Environmental Impact Assessments associated with marine spatial planning and the renewable energy industry should be undertaken, to identify strengths and weaknesses in assessments, with a view to ensuring best practice.