



Scottish Natural Heritage
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For the attention of: Adrian Tait

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FORTH & TAY OFFSHORE WIND FARM PROPOSALS
SNH & JNCC ADVICE ON CUMULATIVE IMPACTS

Thank you for consulting SNH & JNCC on the applications submitted for Neart na Gaoithe, Seagreen and Inch Cape offshore wind farm proposals in the Forth & Tay region. SNH is the statutory nature conservation adviser for the Neart na Gaoithe and Inch Cape proposals located in Scottish territorial waters within 12 nautical miles of the coast. JNCC is the statutory adviser for Seagreen phase 1, located beyond 12 nm. We are providing joint advice on the cumulative impacts of these proposals.

The applications are made on the basis of a design 'envelope' with maximum capacity for each site and indicative turbine numbers as follows:

- **Neart Na Gaoithe, 450 MW, 90 turbines**
Consultation on addendum, 10 June 2013, and on original application, 31 July 2012.
- **Seagreen, phase 1, 1050 MW, 150 turbines**
Consultation on addendum, 18 October 2013, and on original application, 26 October 2012.
- **Inch Cape, 1000 MW, 213 turbines**
Consultation on application, 25 July 2013.

We advise that further iterations of these proposals and their design envelopes will require further assessment. Assessment will be based on the most up-to-date methods and best available knowledge at that point in time (such as any correction to seabird flight height data used in collision risk modelling).

In our advice we highlight the cumulative impacts on key natural heritage interests including landscape and visual impacts, and impacts on the qualifying bird interests of Special Protection Areas (SPAs) and marine mammal and fish interests of Special Areas of Conservation (SACs).

KEY ADVICE

Cumulative impacts on SPA seabird species

We have assessed potential wind farm impacts under Habitats Regulations Appraisal (HRA) and Environmental Impact Assessment (EIA). We advise that adverse impacts on SPA seabird species are likely to be the most significant natural heritage constraint on development of the Forth & Tay offshore wind farm proposals. The most significant effects are these:

- Collision and displacement with respect to **kittiwake** as a qualifying interest of Forth Islands SPA and Fowlsheugh SPA.
- Collision with respect to **gannet** as a qualifying interest of Forth Islands SPA.
- Displacement with respect to **puffin** as a qualifying interest of Forth Islands SPA.

Therefore we cannot conclude with reasonable certainty that there would be no adverse impact arising from the Forth & Tay wind farms on the site integrity of Forth Islands or Fowlsheugh SPAs.

The thresholds presented in our advice are indicative due to the considerable uncertainty in the population modelling for each SPA seabird population. These models incorporate year round natural mortality but only address one form of anthropogenic mortality (wind farm impacts) and only during the breeding season. This means that if the populations encounter any additional anthropogenic mortality, then thresholds will be exceeded. Consequently, we recommend that limits to additional impacts are not set close to thresholds, especially for declining species such as kittiwakes.

We also note that we are only able to provide a qualitative assessment of potential impacts to individuals breeding outwith SPAs and for seabird impact assessment in the non-breeding season – aspects which are not captured under HRA. We highlight the potential for significant cumulative impacts at a UK level and note that this is a **key limitation** to our current advice on the Forth & Tay wind farms, especially for **kittiwake**, **gannet** and **puffin** where high levels of impact are already predicted for SPA populations during the breeding season. In respect of **kittiwake**, we highlight that there could be high levels of collision risk during the non-breeding season (please see our supporting spreadsheets).

Our detailed advice on the cumulative impacts on bird interests is presented as follows:

- Appendix A1** HRA advice for key SPA seabird species during the breeding season.
- Appendix A2** Table highlighting key SPA seabird impacts.
- Appendix A3** Key SPA seabird species requiring HRA, including population estimates.
- Appendix A4** Assessing the significance of impacts to key SPA species; setting thresholds.
- Appendix A5** Quantifying the magnitude of impacts to key SPA species.
- Appendix A6** Wind farm & turbine parameters used in collision risk modelling.
- Appendix A7** Background to screening the HRA for SPA seabird species.
- Appendix A8** Advice on environmental impact assessment for ornithological interests.

Cumulative landscape and visual impacts

The proposed Forth & Tay wind farms would cause widespread and significant adverse landscape and visual impacts along the Scottish east coast from St Cyrus in Aberdeenshire, through Angus and Fife south to Dunbar in East Lothian. The scale and extent of development, if consented, is unprecedented within Scotland (onshore or offshore) in recent times.

Our detailed advice on cumulative landscape and visual impacts is included in **Appendix B**.

Construction impacts

For a number of other key natural heritage interests, including marine mammals and fish, the highest levels of impact will arise during the construction phase of development. We provide our detailed advice on these receptors as follows:

- Appendix C1** HRA advice for SAC marine mammals.
- Appendix C2** Advice on marine mammals as European Protected Species.
- Appendix D1** HRA advice on freshwater fish of conservation concern.
- Appendix D2** Advice on marine fish & shellfish.
- Appendix E** Advice on benthic ecology & coastal processes.

Our advice on how construction impacts may be managed and mitigated is included in **Appendix F**. This appendix provides our advice on the natural heritage matters which need to be addressed by conditions on any consent(s) for the Forth & Tay wind farm proposals.

CONCLUSION

We trust that our advice is helpful and we are happy to be involved in further discussion of the Forth & Tay wind farm proposals. If you have any queries on any aspect of this advice, please do not hesitate to contact either Catriona Gall, catriona.gall@snh.gov.uk 01738 458665 or Karen Hall, karen.hall@jncc.gov.uk 01224 266559.

Yours faithfully



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