APPENDIX F

NATURAL HERITAGE MATTERS TO BE ADDRESSED BY CONDITIONS
SNH & JNCC ADVICE

We advise that, as part of any section 36 consent, an appendix is attached to the decision letter with a description of the proposal including all aspects that are consented. This is particularly important as these offshore wind proposals have been submitted and assessed on the basis of a design envelope.

Conditions are required to address a range of natural heritage matters raised in our consultation responses to each of these wind farm proposals. The following advice should be used to inform the negotiation and consideration of any consents that are issued for offshore wind farms in the Forth & Tay. We request to be included in the consultations and discussions to agree the final consent conditions.

Confirmed Layout

A map and coordinates of the final locations of turbines and other infrastructure – offshore substation platforms, met masts and cabling (intra-array and offshore transmission works) - shall be submitted to Marine Scotland prior to commencement of works, within a timeframe to be agreed.

Visualisations for Final Wind farm Layout & Design

Visualisations, to an agreed standard and format, from a list of agreed viewpoints, will be provided for the final layout and design of the development. These are for public information. They will be submitted to Marine Scotland prior to commencement of works, within a timeframe to be agreed.

Expert Panel

Within a timeframe to be agreed, Marine Scotland will establish an inter-disciplinary expert panel to provide advice on, and agree, monitoring requirements (including any adaptive management requirements) for pre-construction, construction, operational and decommissioning periods of consented development in the Forth & Tay area. Marine Scotland will decide its constituent membership and terms of reference, in agreement with relevant stakeholders and cognizant of any requirement for strategic monitoring, or co-ordination of monitoring activity, across wind farm proposals that are consented in Scotland. The Panel should be consulted on, and sign off, key documents including the Environmental Monitoring Programme, the Environmental Management Plan including construction programmes, Construction Method Statements and Vessel Management Plans and the Operations & Maintenance programme.

Key management and monitoring requirements relevant to the Forth & Tay developments that will need consideration by the Expert Panel include, but are not limited to:

i. Evaluation of impacts to key seabird populations from operational wind farms including collisions with turbines and/or displacement from the wind farm footprint. The key species to be addressed are kittiwake, gannet, guillemot, razorbill and puffin.

ii. Evaluation of underwater noise impacts from wind farm pile-driving in respect of key marine mammal species: bottlenose dolphin, harbour seal and grey seal. Monitoring will need to address methods for noise measurement, analysis of background noise and species behavioural response to the noise, including the temporal span of response.

iii. Monitoring (pre-, during and post-construction) of sandeel populations.

iv. Appropriate mitigation for diadromous fish (if any required), in consultation with the Marine Scotland Science: National Strategy for Monitoring and Research for Diadromous Fish and Marine Renewable Energy Steering Group and any monitoring work in addition to that being undertaken by this group.

v. Evaluation of impacts to MPA features (if the MPA is taken forward) and post-construction monitoring of benthic impacts (within the wind farm site and along the export cable route) to include consideration of damage, recovery, colonisation and management for the prevention of invasive non-native species.

vi. Post-consent iteration of underwater noise models for bottlenose dolphin, and possible further modelling of population consequences, in order to inform licence applications regarding potential disturbance to dolphin as a European Protected Species and any required mitigation.

vii. Possible links between use of vessels with ducted propellers and the fatal injuries (corkscrew lacerations)[1] recorded on harbour seals, including in the Forth & Tay area.

Environmental Monitoring Programme

The Expert Panel shall oversee and direct a monitoring programme to investigate the environmental impacts of this, and any other relevant, offshore wind development in Scotland. The programme of monitoring works will be signed off by the Expert Panel, who will agree the environmental interests to be monitored and appropriate monitoring methodologies. The monitoring programme will cover pre-construction (from geo-technical survey onwards), construction, operational and decommissioning periods of development. The programme will be informed by consultation with relevant stakeholders, and it will be regularly reviewed – the review cycle to be decided by Marine Scotland in consultation with the panel and relevant stakeholders.

The agreed monitoring will be implemented and the data collected will be reported on and made publicly available, to MEDIN data standards[2], giving consideration to data storage, analysis and reporting.

Arrangements for Environmental Inspection

When requested, the developer must provide access (and, if necessary, appropriate transportation) to the offshore wind farm site and associated infrastructure for inspection by Marine Scotland personnel, or their appointees. This right of access will apply during pre-construction, construction, the operational lifespan of the wind farm and decommissioning.

Construction: Environmental Manager

Within a timeframe agreed with Marine Scotland, the developer shall employ an Environmental Manager for the development. The role, responsibilities and work programme shall be submitted to Marine Scotland and relevant consultees for approval. The Environmental Manager will have responsibility on-site for ensuring implementation of:

i. the Environmental Management Plan for construction;

ii. all environmental measures and any mitigation or monitoring associated with Construction Method Statements (or equivalent) for all wind farm infrastructure and the export cable route(s) and landfall;

iii. all measures in the Vessel Management Plan relating to the mitigation of potential disturbance to marine mammal or seabird interests.

The Environmental Manager shall ensure compliance with all consent / licence conditions relating to natural heritage matters and shall be employed in sufficient time to have regard to any requirements for pre-construction monitoring.

[1] Thompson, D., Bexton, S., Brownlow, A., Wood, D., Patterson, T., Pye, K., Lonergan, M. & Milne, R. (2010). Report on recent seal mortalities in UK waters caused by extensive lacerations. SMRU.

[2] MEDIN (the marine environmental data and information network) at: http://www.oceannet.org/

Construction: Environmental Management Plan

Within a timeframe agreed with Marine Scotland, the developer shall draft and submit a plan for environmental management during construction. The final draft of the plan will be signed off by the Environmental Manager prior to submission to Marine Scotland for review and approval in consultation with the Expert Panel and any other relevant stakeholders. The approved plan will be implemented.

The plan will detail mitigation measures to prevent adverse impacts to species and habitats during construction, including management measures to prevent the introduction of invasive non-native marine species. It shall cross-reference the Environmental Monitoring Programme for monitoring requirements during construction. It will provide the overall framework in which the Construction Method Statements (or equivalent) and Vessel Management Plan will sit.

The Environmental Management Plan will also set out the role, responsibilities and work programme of the Environmental Manager. It will detail how each and all contractors and sub-contractors will be made aware of environmental sensitivities, what requirements they are expected to adhere to and the authority to control the work, including temporary stops. It will also confirm the reporting mechanisms that will be used to provide Marine Scotland and relevant stakeholders with regular updates on construction activity, including any natural heritage issues that have been encountered and how these have been addressed.

Construction: Method Statements

Construction Method Statements (or equivalent) shall be submitted prior to the commencement of work and within a timescale to be agreed with Marine Scotland. The final draft of each statement will be signed off by the Environmental Manager prior to submission to Marine Scotland for review and approval in consultation with the Expert Panel and any other relevant stakeholders. The statements will include details of commencement dates, duration and phasing for key elements of construction as well as working areas and techniques.

Construction: Vessel Management Plan

Within a timeframe agreed with Marine Scotland, the developer shall draft and submit a plan for vessel management during construction. It shall present details on the type and overall number of vessels required during construction, including a specification for each individual vessel to be deployed. It shall set out how vessel management will be co-ordinated, specifying the location of working port(s), the routes of passage and how often vessels will be required to passage between port(s) and site.

If helicopters are used during construction, then an equivalent plan for their use is required.

Construction: Offshore Transmission Works (Export Cable(s))

Within a timeframe agreed with Marine Scotland, the developer shall draft and submit a construction method statement with the locations and method of installation of the grid export cable(s) and landfall. The export cables are to be buried to a minimum depth to be agreed with Marine Scotland and relevant consultees.

Operations & Maintenance (O&M): Programme

Within a timeframe agreed with Marine Scotland, the developer shall draft and submit their programme for operations & maintenance (O&M). The programme will be approved by Marine Scotland in consultation with the Expert Panel and relevant consultees. It will take account of environmental sensitivities which may influence the timing of O&M activities. It will set out O&M vessel requirements and vessel management policies.

The approved O&M programme will be implemented, and it will be reviewed regularly – the reporting cycle will be agreed by Marine Scotland in consultation with relevant consultees. It will cross-reference to the Environmental Monitoring Programme and O&M Environmental Management Plan where relevant.

O&M: Environmental Management Plan

Within a timeframe agreed with Marine Scotland, the developer shall draft and submit a plan for environmental management over the operational lifespan of wind farm development. It will be approved by Marine Scotland in consultation with relevant consultees and will detail measures to prevent adverse impacts to species and habitats during operation.

The O&M Environmental Management Plan will detail how each and all contractors and sub-contractors will be made aware of environmental sensitivities, what requirements they are expected to adhere to and the authority to control the work, including temporary stops, during O&M activity.

The approved plan will be implemented, and it will be reviewed regularly – the reporting cycle will be agreed by Marine Scotland in consultation with relevant consultees.

O&M: Offshore Transmission Works (Export Cable(s))

A monitoring and maintenance programme for the grid export cable(s) and landfall site shall be agreed with Marine Scotland. It will include the agreed actions to be taken in the event of erosion / re-exposure and damage to cables.

O&M: Vessel Management Plan

Within a timeframe agreed with Marine Scotland, the developer shall draft and submit a plan for vessel management for operation and management. It shall present details on the type and overall number of vessels required during O&M activities, including a specification for each individual vessel to be deployed. It shall set out how vessel management will be co-ordinated, specifying the location of working port(s), the routes of passage and how often vessels will be required to passage between port(s) and site.

Decommissioning

A Decommissioning Plan will be required for the entire scheme. As part of any consent, the Regulator shall consider and recommend a timeframe for the production, consultation and implementation of a Decommissioning Plan. We recommend that this is an iterative process and that an initial decommissioning strategy is produced by the developer.