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MARINE SCOTLAND LICENSING OPERATIONS TEAM'S ("MS-LOT")
ASSESSMENT OF THE PROJECT'S IMPLICATIONS FOR DESIGNATED SPECIAL
PROTECTION AREAS AND PROPOSED SPECIAL PROTECTION AREAS IN VIEW
OF THE SITES' CONSERVATION OBJECTIVES.

APPLICATION FOR A MARINE LICENCE UNDER MARINE (SCOTLAND) ACT
2010, PART 4 AND TO VARY AN EXISTING CONSENT UNDER SECTION 36C OF
THE ELECTRICITY ACT 1989 FOR THE LEVENMOUTH DEMONSTRATION
TURBINE

SECTION 1: BACKGROUND

1 Appropriate assessment ("AA") conclusion

- 1.1 This AA concludes that there will be no adverse effect on the integrity of the Firth of Forth Special Protection Area ("SPA") or the Outer Firth of Forth and St Andrews Bay Complex proposed Special Protection Area ("pSPA") from the Offshore Renewable Energy Catapult ("OREC") proposal, either alone, or in combination with other plans or projects.

2 Introduction

- 2.1 This is a record of the AA of the OREC proposal for a new marine licence for the operation of the existing Levenmouth Demonstration Turbine ("LDT") and the proposal to vary the existing consent granted under section 36 ("s.36") of the Electricity Act 1989 (as amended) to construct and operate the LDT (previously known as the Fife Energy Park Demonstration Wind Turbine) at Fife Energy Park, Methil.
- 2.2 The assessment has been undertaken by MS-LOT. This assessment is required under Regulation 48 of the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended) ("the Regulations"). This AA is in accordance with Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora ("the Habitats Directive") and Council Directive 2009/147/EC on the conservation of wild birds ("the Birds Directive"). MS-LOT, as the 'competent authority' under the Regulations, has to be satisfied that the project will not adversely affect the integrity of any European site (special areas of conservation ("SAC") and SPA) before it can grant consent for the project.
- 2.3 A detailed AA has been undertaken and Scottish Natural Heritage ("SNH") has been consulted.

3 Background to including assessment of new SPAs

- 3.1 The Scottish Ministers, as a 'competent authority' under the Regulations, must be satisfied that the proposal will not adversely affect the integrity of any European site (SACs and SPAs, known as Natura sites) either alone or in combination with other plans or projects before authorisations can be given for the proposal.
- 3.2 In Scotland, the Scottish Ministers are currently in the process of identifying a suite of new marine SPAs. In 2014, advice was received from the statutory nature conservation bodies ("SNCB") on the sites most suitable for designation and at this stage they became draft SPAs ("dSPA"). Once the Scottish Ministers have agreed the case for a dSPA to be the subject of a public consultation, the proposal is given the status of proposed SPA ("pSPA") and receives policy protection, which effectively puts such sites in the same position as designated sites, from that point forward until a decision on classification of the site is made. This policy protection for pSPA is provided by Scottish Planning Policy (paragraph 210), the UK Marine Policy Statement (paragraph 3.1.3) and Scotland's National Marine Plan (paragraph 4.45).
- 3.3 It is not a legal requirement under the Habitats Directive or relevant domestic regulations for this assessment to assess the implications of the proposal on the pSPA. The assessment includes an assessment of implications upon those sites in accordance with domestic policy. The Scottish Ministers are also required to consider article 4(4) of the Birds Directive in respect of the pSPA. The considerations under article 4(4) of the Birds Directive are separate and distinct to the considerations which must be assessed under this Habitats Directive assessment but they are, nevertheless, set out within this assessment (see paragraphs 9.7 and 9.8).
- 3.4 In accordance with regulation 50 of the Regulations the Scottish Ministers will, as soon as reasonably practicable following the formal designation of the pSPA, review their decisions if the proposal is authorised. This will include a supplementary AA being undertaken concerning the implications of the proposal on the sites as designated (as they are currently pSPA their conservation objectives are currently in draft form, their conservation objectives are finalised at the point the sites are designated).

4 Details of proposed operation

- 4.1 The LDT consists of a single 7 megawatt ("MW") demonstration turbine and associated infrastructure and is located off the East Fife coast at the Fife Energy Park, Methil. The original application for the construction and

operation of the LDT was submitted to the Scottish Ministers in July 2012 and was supported by an Environmental Statement (“2012 ES”) together with a subsequent addendum. An [AA](#) in respect of the application was completed in January 2013 (“2013 AA”). The s.36 consent for the construction, operation and, if required, removal and replacement of the turbine, was subsequently granted by the Scottish Ministers on [3 May 2013](#). The s.36 consent was varied on [18 March 2016](#), in relation to noise limits on the operational WTG, but the conclusions of the 2013 AA remained unaltered.

- 4.2 On [8 February 2018](#), OREC submitted an application to vary the existing s.36 consent, to extend the operational life of the LDT by 10 years, and for a new marine licence in relation to the continued operation of the LDT for the same time period. The s.36 variation and new marine licence would increase the operational phase of the LDT from 5 years, to 15 years. [An Environmental Impact Assessment \(“EIA”\) update report](#) (“the EIA Update Report”) was submitted in support of the application, however, there are no proposed changes to the built or physical aspects associated with the LDT arising from this variation request.
- 4.3 The LDT has already been installed and commissioned and, therefore, the potential effects arising from construction are not considered within this AA. This AA is limited to the assessment of impacts arising from the increased operational phase of the LDT.

5 Consultation

- 5.1 SNH were consulted on 20 February 2018 and provided its response on 27 March 2018, advising that an AA was required.

6 Main points raised during consultation

- 6.1 The EIA Update Report identified that the key potential impact from the proposal was the displacement of the wintering sea ducks and therefore there would be a likely significant effect (“LSE”) on the qualifying interests of the Firth of Forth SPA and Outer Firth of Forth and St Andrews Bay Complex pSPA.
- 6.2 The EIA Update Report screened out the potential barrier effects of the LDT, as the proposal relates to a single turbine isolated from other proposed or existing turbines in the wider area. The EIA Update Report concluded that, as birds are extremely unlikely to need to take active deviation from flight routes, there would not be any material energetic consequences affecting their productivity or survival.

6.3 In addition, the EIA Update Report identified that the results of the monitoring studies from the first three years of operation of the LDT indicated that the conclusions of the 2012 ES were correct, in that the potential effects of collision risk to any of the qualifying interests would be negligible, irrespective of the length of the operational phase of the LDT. On this basis the potential effects of collision risk were screened out.

6.4 SNH advised that it agreed with the conclusions of the EIA Update Report.

SECTION 2: INFORMATION ON NATURA SITES

7 Background information and qualifying interests for the relevant Natura sites

7.1 This section provides links to the SNH Interactive (“SNHi”) website where the background information on the site being considered in this assessment is available. The qualifying interests for the site are listed as are the conservation objectives.

Table 1 Name of Natura site affected and current status

<p>SPA:</p> <p>Firth of Forth SPA http://gateway.snh.gov.uk/sitelink/siteinfo.jsp?pa_code=8499</p> <p>pSPA:</p> <p>Outer Firth of Forth and St Andrews Bay Complex pSPA http://gateway.snh.gov.uk/sitelink/siteinfo.jsp?pa_code=10478</p>
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Table 2 European qualifying interests

<p>Firth of Forth SPA</p> <ul style="list-style-type: none">• Bar-tailed godwit (<i>Limosa lapponica</i>), non-breeding;• Common scoter* (<i>Melanitta nigra</i>), non-breeding;• Cormorant* (<i>Phalacrocorax carbo</i>), non-breeding;• Curlew* (<i>Numenius arquata</i>), non-breeding;• Dunlin* (<i>Calidris alpina alpina</i>), non-breeding;• Eider* (<i>Somateria mollissima</i>), non-breeding;• Golden plover (<i>Pluvialis apricaria</i>), non-breeding;• Goldeneye* (<i>Bucephala clangula</i>), non-breeding;• Great crested grebe* (<i>Podiceps cristatus</i>), non-breeding;

- Grey plover* (*Pluvialis squatarola*), non-breeding;
- Knot (*Calidris canutus*), non-breeding;
- Lapwing* (*Vanellus vanellus*), non-breeding;
- Long-tailed duck* (*Clangula hyemalis*), non-breeding;
- Mallard* (*Anas platyrhynchos*), non-breeding;
- Oystercatcher* (*Haematopus ostralegus*), non-breeding;
- Pink-footed goose (*Anser brachyrhynchus*), non-breeding;
- Red-breasted merganser* (*Mergus serrator*), non-breeding;
- Redshank (*Tringa totanus*), non-breeding;
- Red-throated diver (*Gavia stellata*), non-breeding;
- Ringed plover* (*Charadrius hiaticula*), non-breeding;
- Sandwich tern (*Sterna sandvicensis*), passage
- Scaup* (*Aythya marila*), non-breeding;
- Shelduck (*Tadorna tadorna*), non-breeding;
- Slavonian grebe (*Podiceps auritus*), non-breeding;
- Turnstone (*Arenaria interpres*), non-breeding;
- Velvet scoter* (*Melanitta fusca*), non-breeding;
- Wigeon* (*Anas penelope*), non-breeding; and
- Waterfowl assemblage, non-breeding.

*indicated assemblage qualifier only

Outer Firth of Forth and St Andrews Bay Complex pSPA

- Red-throated diver (*Gavia stellata*), non-breeding;
- Little gull (*Hydrocoloeus minutus*), non-breeding;
- Common tern (*Sterna hirundo*), breeding;
- Gannet (*Morus bassanus*), breeding;
- Arctic tern (*Sterna paradisaea*), breeding;
- Guillemot (*Uria aalge*), breeding and non-breeding;
- Slavonian grebe (*Podiceps auritus*), non-breeding;
- Eider (*Somateria mollissima*), non-breeding;
- Long-tailed duck (*Clangula hyemalis*), non-breeding;
- Common scoter (*Melanitta nigra*), non-breeding;
- Velvet scoter (*Melanitta fusca*), non-breeding;
- Goldeneye (*Bucephala clangula*), non-breeding;
- Red-breasted merganser (*Mergus serrator*), non-breeding;
- Manx shearwater (*Puffinus puffinus*), breeding;
- Razorbill (*Alca torda*), non-breeding;
- Puffin (*Fratercula arctica*), breeding
- Black-headed gull (*Chroicocephalus ridibundus*), non-breeding;
- Common gull (*Larus canus*), non-breeding;
- Herring gull (*Larus argentatus*), breeding and non-breeding;
- Kittiwake (*Rissa tridactyla*), breeding and non-breeding;
- Shag (*Phalacrocorax aristotelis*), breeding and non-breeding;
- Seabird assemblage, breeding; and
- Waterfowl assemblage, non-breeding.

Table 3 Conservation objectives

Firth of Forth SPA

To avoid deterioration of the habitats of the qualifying species (listed above) or significant disturbance to the qualifying species, thus ensuring that the integrity of the site is maintained; and

To ensure for the qualifying species that the following are maintained in the long term:

- i. Population of the species as a viable component of the site;
- ii. Distribution of the species within site;
- iii. Distribution and extent of habitats supporting the species;
- iv. Structure, function and supporting processes of habitats supporting the species; and
- v. No significant disturbance of the species.

Outer Firth of Forth and St Andrews Bay Complex pSPA (Draft Conservation Objectives)

The following conservation objectives are still in draft form and have not yet been agreed.

To avoid deterioration of the habitats of the qualifying species or significant disturbance to the qualifying species, subject to natural change, thus ensuring that the integrity of the site is maintained in the long-term and it continues to make an appropriate contribution to achieving the aims of the Birds Directive for each of the qualifying species.

This contribution will be achieved through delivering the following objectives for each of the site's qualifying features:

- a. Avoid significant mortality, injury and disturbance of the qualifying features, so that the distribution of the species and ability to use the site are maintained in the long-term;
- b. To maintain the habitats and food resources of the qualifying features in favourable condition.

SECTION 3: ASSESSMENT IN RELATION TO REGULATION 48 OF THE CONSERVATION (NATURAL HABITATS, &C.) REGULATIONS 1994

8 Requirement for appropriate assessment

8.1 *Is the operation directly connected with or necessary to conservation management of the site?*

The operation is not directly connected with or necessary to conservation management of the site.

8.2 *Is the operation likely to have a significant effect on the qualifying interest?*

In its response dated 23 March 2018, SNH advised that the proposal would have a LSE on the wintering sea duck qualifying interests of the Firth of Forth SPA and Outer Firth of Forth and St Andrews Bay Complex pSPA, as identified in the EIA Update Report.

The EIA Update Report identified LSE on the following qualifying interests of the Firth of Forth SPA and Outer Firth of Forth and St Andrews Bay Complex pSPA as a result of displacement:

- Eider (non-breeding)
- Red-breasted merganser (non-breeding)
- Red-throated diver (non-breeding)

MS-LOT agrees with the advice provided by SNH and have undertaken an AA for these qualifying interests of the Firth of Forth SPA and Outer Firth of Forth and St Andrews Bay Complex pSPA.

9 Appropriate assessment of the implications for the site in view of the site's conservation objectives

9.1 The EIA Update Report considered the displacement effects of the proposal on the qualifying interests (detailed below) of the Firth of Forth SPA and Outer Firth of Forth and St Andrews Bay Complex pSPA. These considerations included the monitoring studies undertaken during the baseline period, pre-commissioning phase and first three years of operation of the existing LDT.

Eider (non-breeding)

9.2 The outputs of the monitoring studies demonstrated a slight reduction in the number of eider occupying the area, but not a total displacement within 500 metres of the LDT. The EIA Update Report concluded that the population level impacts resulting from displacement of this species would, therefore, not result in an adverse effect on site integrity for the Firth of Forth SPA or Outer Firth of Forth and St Andrews Bay Complex pSPA.

Red-breasted merganser (non-breeding)

9.3 The outputs of the monitoring studies demonstrated that the LDT has not resulted in total displacement of this qualifying interest within 500 metres of the LDT. The outputs have however demonstrated that there may be a reduction of up to 75% in the number of red-breasted merganser occupying

the area and/or the frequency of use of the area. The EIA Update Report however concluded that the population level impacts arising from the displacement of this species would not result in adverse effects on site integrity for the Firth of Forth SPA or Outer Firth of Forth and St Andrews Bay Complex pSPA.

Red-throated diver (non-breeding)

- 9.4 The outputs of the monitoring studies demonstrated a reduction in the number of red-throated diver occupying the area in excess of 50% when compared to the baseline figures, but not total displacement within 500 metres of the LDT. The EIA Update Report therefore concluded that the population level impacts arising from the displacement of these species would not result in adverse effects on site integrity for the Firth of Forth SPA or Outer Firth of Forth and St Andrews Bay Complex pSPA.
- 9.5 SNH concluded that the proposal will not adversely affect the site integrity of the Firth of Forth SPA and Outer Firth of Forth and St Andrews Bay Complex pSPA for the following reasons;
- The nature of the variation (the request for an extension to the operational lifespan from five years to fifteen years);
 - Construction works for the turbine are completed and the turbine is already operational; and
 - The assessments contained within the EIA Update Report.
- 9.6 MS-LOT concurs with the conclusions of SNH, that there will no adverse effect on the site integrity of the Firth of Forth SPA and Outer Firth of Forth and St Andrews Bay Complex pSPA from the OREC proposal in isolation.
- 9.7 As detailed in paragraph 3.3, as the Outer Firth of Forth and St Andrews Bay Complex pSPA has not yet been designated, it also falls within the regime governed by the first sentence of Article 4(4) of the Birds Directive as follows;
- “In respect of the protection areas referred to in paragraphs 1 and 2, Member States shall take appropriate steps to avoid pollution or deterioration of habitats or any disturbances affecting the birds, in so far as these would be significant having regard to the objectives of this Article. Outside these protection areas, Member States shall also strive to avoid pollution or deterioration of habitats.”
- 9.8 MS-LOT has considered the information contained within the OREC proposal and the advice provided by SNH and concludes that the works will not cause pollution or deterioration of habitats and any disturbance will be negligible.

10 In-combination assessment

- 10.1 The EIA Update Report concluded that the effects of the LDT both alone, and in-combination with other projects within the region, would not have an adverse effect on the site integrity of the Firth of Forth SPA or Outer Firth of Forth and St Andrews Bay Complex pSPA.
- 10.2 In its advice, dated 23 March 2018, SNH also advised that there would not be an adverse effect on the site integrity of the Firth of Forth SPA and Outer Firth of Forth and St Andrews Bay Complex pSPA in-combination with relevant consented projects.
- 10.3 MS-LOT has carried out an in-combination assessment to ascertain whether the OREC proposal will have a cumulative effect with other plans or projects which in combination would have the potential to affect the qualifying interests of the Firth of Forth SPA and Outer Firth of Forth and St Andrews Bay Complex pSPA.
- 10.4 MS-LOT is aware of the following activities which currently have a marine licence and/or s.36 consent and LSE was identified on the qualifying interests of the Firth of Forth SPA and Outer Firth of Forth and St Andrews Bay Complex pSPA. The in-combination effects of these plans and proposals on the protected sites are considered below.
- 10.5 *Forthwind Offshore Development - Methil*
- 10.5.1 The current licence and s.36 consent in respect of this project, is for the construction and operation of the Forthwind Offshore Wind Demonstration Project (“Forthwind”), approximately 1.5 km from the coast of Methil, Fife. The Forthwind development consists of 2, two-bladed lattice structure WTGs, associated infrastructure, 2 electricity offshore export cables with an overall project footprint of 37,400 m². The WTG parameters are as follows;
- Maximum hub height 121 metres (measured from LAT)
 - Generating capacity of up to 9 MW per turbine
 - Maximum rotor diameter of 155 m
 - 3 pin piled foundations per turbine
- 10.5.2 Construction has not yet commenced but is anticipated to take place over a 3 to 6 month period, followed by testing and commissioning before becoming operational.

- 10.5.3 A full project description can be found [here](#). At present, the timescales for commencement of construction activities are unclear and the current marine licence expires on 12 September 2037.
- 10.5.4 Consideration of the relevant qualifying interests in the Forthwind [AA](#) is detailed below.

Red-breasted merganser (wintering)

- 10.5.5 The Forthwind AA considered the monitoring survey results from the first three years of the operation of the OREC LDT, which concluded that the species are present in low numbers in the near-shore area post-construction. This was considered further in the context of the small scale of the Forthwind development footprint relative to the large extent of alternative foraging habitat. On this basis the Forthwind AA concluded that there would be no adverse effect on the site integrity of the Firth of Forth SPA.
- 10.5.6 The Forthwind AA also concluded that there would no adverse effect on the site integrity of the Outer Firth of Forth and St Andrews Bay Complex pSPA, as any displacement due to the physical presence of both developments would be over a limited area and would not impact the population viability of the species.

Red-throated diver (wintering)

- 10.5.7 The construction works of the Forthwind development are of short duration (8 weeks) and planned outwith the main wintering period for this species, therefore it was considered the proposal would only affect relatively small numbers of this species. In addition, given the small scale of the Forthwind development footprint, relative to the large extent of alternative foraging habitat. The Forthwind AA concluded that there would be no adverse effect on the site integrity of the Firth of Forth SPA with respect to this qualifying interest.
- 10.5.8 The Forthwind AA also concluded that there would no adverse effect on the site integrity of the Outer Firth of Forth and St Andrews Bay Complex pSPA in respect of this qualifying interest, due to the results of the displacement matrix, which demonstrated that there would be no impact on the population viability of this species.

Common eider (wintering)

- 10.5.9 The Forthwind AA considered the monitoring survey results from the first three years of the operation of the OREC LDT, which demonstrated that

densities of this qualifying interest have remained high. The AA for the Forthwind proposal concluded on this basis that there would be no adverse effect on the site integrity of the Firth of Forth SPA with respect of this qualifying interest

- 10.5.10 The AA for the Forthwind proposal also concluded that there would be no adverse effect on the site integrity of the Outer Firth of Forth and St Andrews Bay Complex pSPA in respect of this qualifying interest, as there would be no impact on the population viability of this species.

Forthwind and OREC Proposal – In combination assessment conclusion

- 10.5.11 Based on the outputs of the LDT post-construction monitoring, MS-LOT concludes that, notwithstanding the proposed increase to the operational phase of the LDT, there will be no adverse effect on site integrity on the Outer Firth of Forth and St Andrews Bay Complex pSPA or the Firth of Forth SPA in combination with the OREC proposal.

10.6 *Dundee City Council – Rock Armour Revetment Replacement at the Esplanade, Broughty Ferry*

- 10.6.1 The works comprise placement of two stretches of rock armour (200m and 352m long) along the esplanade, Broughty Ferry, Dundee. The construction consists of rock armour grading from 5kg to 1.5 tonnes. The licence remains valid until October 2018.

- 10.6.2 The AA for this project concluded that there would be no adverse effect on the site integrity of the Outer Firth of Forth and St Andrews Bay Complex pSPA. Given the localised nature of the Dundee City Council works, MS-LOT concludes that there will be no cumulative impact with the OREC proposal on the Outer Firth of Forth and St Andrews Bay Complex pSPA.

10.7 *Kincardine Bridge – Maintenance Works*

- 10.7.1 The current licence is for activities including viaduct waterproofing, concrete repairs and maritime navigation lighting. The AA completed identified that noise and vibration arising from the works could cause disturbance/displacement to the qualifying interests of the Firth of Forth SPA. The licence is valid for 4 years, until April 2019, however, works may only be undertaken during March and April each year, at the end of each wintering season, when birds are present in relatively small numbers, to ensure no adverse effect on the site integrity of the Firth of Forth SPA.

- 10.7.2 Given the limited overlap with the wintering season for the Kincardine Bridge Maintenance Works, MS-LOT concludes that there will be no cumulative impact on the relevant qualifying species with the OREC proposal on the Firth of Forth SPA.
- 10.8 *Aberdeen Harbour Expansion Project (Construction, Capital Dredging and Sea Disposal)*
- 10.8.1 Aberdeen Harbour Board proposes to develop a new harbour facility at Nigg Bay, Aberdeen, approximately 0.8km south of the existing harbour in Aberdeen City centre. The works include the construction of two breakwaters, quaysides and associated infrastructure, as well as a large-scale capital dredge and sea disposal operation. Works commenced in late 2016 and are scheduled to take place over a 3-year period. Dredging operations are expected to last until September 2019 when the dredging licence expires. Blasting operations are expected to commence in August 2018 for a maximum of 7 consecutive months. Aberdeen Harbour Board are no longer undertaking any impact piling and will be using rotary piling, which is thought to produce less noise.
- 10.8.2 Full details of the project can be found in the documentation [here](#).
- 10.8.3 The AA for this project concluded that there would be no adverse effect on the site integrity of the Outer Firth of Forth and St Andrews Bay Complex pSPA or the Firth of Forth SPA provided that the conditions set out in the AA are complied with. MS-LOT concludes that provided Aberdeen Harbour Board comply with the conditions of their AA there will be no adverse effect on site integrity on the Firth of Forth SPA or Outer Firth of Forth and St Andrews Bay Complex pSPA in combination with the OREC proposal.
- 10.9 *Historic Environment Scotland (“HES”) – Pier Repair Works at Inchcolm Island*
- 10.9.1 Inchcolm Island is a small island in the Firth of Forth. The pier provides a berthing location for the ferry which is the only means of access to the island. New concrete will be overlaid on the existing lower pier and cracking on the high pier will be locally stitched and repointed. The horizontal quay slab will also be replaced to provide a safe surface for passengers to disembark. All quay furniture will be removed and replaced or renewed on a like for like basis. The licence is valid for a period of six months, until the end of March 2019, however, it is anticipated that works will take place within a maximum 8 week window within this timeframe.

Appropriate Assessment for Levenmouth Demonstration Turbine. August 2018.

10.9.2 The AA for this project concluded that there would be no adverse effect on the site integrity of the Outer Firth of Forth and St Andrews Bay Complex pSPA due to the short duration of the works, location of the works at an existing pier, the availability of extensive areas of supporting habitats and the ability of marine birds to move away from the repair works.

10.9.3 Given the short duration of the HES works, MS-LOT concludes that there will be no cumulative impact with the OREC proposal on the Outer Firth of Forth and St Andrews Bay Complex pSPA.

10.10 *Forth Road Bridge Maintenance Works*

10.10.1 Bridge maintenance works, incorporating various schemes as outlined in the supporting information submitted to MS-LOT as part of the marine licence application. The programme of works is scheduled for an initial period of 5 years, with the option for 5 additional 1 year extensions and is currently anticipated to conclude by October 2020.

10.10.2 The AA for this project concluded that there would be no adverse effect on the site integrity of the Firth of Forth SPA due to the extensive alternative areas of habitat available for wintering birds. SNH advised that population, displacement and disturbance effects would be minor, temporary and very limited in area. Given the predicted LSE for both sites and the availability of large areas of habitat for the relevant qualifying interests, MS-LOT concludes there will be no cumulative impact with the OREC proposal on the Firth of Forth SPA.

10.11 *Inch Cape Offshore Limited – Sediment Sampling*

10.11.1 Sediment sampling works within the Inch Cape Offshore Wind Farm Development Area and Offshore Export Cable Corridor within the Firth of Forth as follows:

- Up to 110 boreholes (composite, sampling only and Piezo Cone Penetration Tests) undertaken within the Development Area;
- Up to 110 co-located vibrocores and Cone Penetration Tests (“CPT”) undertaken within the Development Area; and
- Up to 100 co-located vibrocores and CPT, undertaken within along the nominal centreline of the Offshore Export Cable Corridor.

10.11.2 The works will be conducted during a 14 month window (between July 2018 and August 2019) and are anticipated to take approximately 200 days, although this could increase to 275 days. Of the works to be undertaken, it is

estimated that no more than 20 days of work will be carried out within the Outer Firth of Forth and St Andrews Bay Complex pSPA boundary.

10.11.3 The AA concluded that there would be no significant adverse effect on the site integrity of the Outer Firth of Forth and St Andrews Bay Complex pSPA as a result of these works. Given the limited duration of the ICOL works within the pSPA, MS-LOT concludes that there will be adverse effect on the site integrity of the Outer Firth of Forth and St Andrews Bay Complex pSPA in combination with the OREC proposal.

Dredging Operations

10.12 Dysart Sailing Club – Dysart Harbour

10.12.1 Maintenance dredge and sea disposal on the foreshore below Mean High Water Springs (“MHWS”) in area to the west of the harbour. Dredging will take place annually over 3-5 days for a period of 3 years and a quantity of 1,200 wet tonnes of material will be removed each year. Dredging and disposal operations will be limited to winter and spring months and limited to the navigable channel between the harbour entrance and inner basin.

10.12.2 The AA for this project concluded that there would be no adverse effect on the site integrity of the Firth of Forth SPA. MS-LOT concludes that due to the small scale and localised nature of the Dysart Sailing Club proposal there will be no cumulative impact with the OREC proposal on the Firth of Forth SPA.

10.13 Forth Ports Limited – Rosyth and Leith Docks

10.13.1 Maintenance dredge and sea disposal at the Leith and Rosyth docks and approaches. The Leith works comprise of maintenance dredging of the docks and approach channel consisting of 100,000m³ of spoil per year and disposal at Narrow Deep B spoil ground for a period of 3 years. The Rosyth works comprise of maintenance dredging of the docks and approach channel consisting of 400,000m³ of spoil per year and disposal at the Oxcars spoil ground for a period of 3 years.

10.13.2 A combined AA was undertaken for these activities due to the close proximity, complete overlap of active licence period and potentially affected Natura sites. The AA concluded that there would be no adverse effect on the site integrity of the Firth of Forth SPA or Outer Firth of Forth and St Andrews Bay Complex pSPA. Due to the distance between the dredging and disposal operations and the OREC proposal, MS-LOT does not consider that there will be a cumulative adverse effect in combination with the OREC proposal.

10.14 Forth Ports Limited - Newhaven Harbour

10.14.1 Maintenance dredge and sea disposal activities at Newhaven Harbour, Firth of Forth. The licence is valid for a period of 3 years, until June 2019 and will consist of up to 27,000 tonnes of dredged material being deposited annually.

10.14.2 An AA was conducted for a previous proposal to conduct capital dredging and sea disposal activities. This AA concluded that there would be no adverse effect on the site integrity of the Firth of Forth SPA due to the small scale of the works and the location of the works relative to the SPA (only the outer edge of the western seawall is adjacent to the SPA). SNH subsequently advised in May 2015 that the conclusions of the capital dredging AA could be carried forward to the maintenance dredge works as the maintenance dredging and disposal raised no other significant natural heritage issues. MS-LOT concludes that, due to the small scale nature and the availability of large alternative areas of habitat within the SPA, there will be no adverse effect in combination with the OREC proposal on the Firth of Forth SPA.

10.15 Fife Council – Pittenweem Harbour

10.15.1 Maintenance dredging of Pittenweem Harbour and sea disposal of the dredge material at the Anstruther disposal site. The licence is active for a period of 1 year, until June 2019, however, it is anticipated that operations will only take place during a 6 week window between June to July 2018. A total of 14,000 wet tonnes will be dredged from three areas and disposed of at the Anstruther disposal site.

10.15.2 The AA for this project concluded that there would be no adverse effect on the site integrity of the Outer Firth and St Andrews Bay Complex pSPA. MS-LOT concludes that due to the small scale nature and short dredge window for the Fife Council proposal, there will not be an adverse effect in combination with the OREC proposal on the Outer Firth and St Andrews Bay pSPA.

10.16 MS-LOT Conclusion

10.16.1 MS-LOT concludes that the OREC proposal will not adversely affect the site integrity of the Firth of Forth SPA and Outer Firth of Forth and St Andrews Bay Complex pSPA either in isolation or in combination with the other plans or projects detailed above.

SECTION 4: CONDITIONS

11 No conditions required.

No conditions are relied upon in reaching a conclusion of no adverse effect on site integrity.