

Appropriate Assessment for Port of Leith, Outer Berth Additional Works - Construction, Dredging and Sea Deposit, June 2024.

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**MARINE SCOTLAND - LICENSING OPERATIONS TEAM'S  
ASSESSMENT OF THE PROJECT'S IMPLICATIONS FOR  
DESIGNATED SPECIAL AREAS OF CONSERVATION AND SPECIAL  
PROTECTION AREAS IN VIEW OF THE SITES' CONSERVATION  
OBJECTIVES.**

APPLICATION FOR A MARINE LICENCE UNDER THE MARINE (SCOTLAND) ACT  
2010 FOR CONSTRUCTION, DREDGING AND DEPOSIT OF DREDGED  
SUBSTANCES OR OBJECTS ASSOCIATED WITH THE REDEVELOPMENT OF  
THE PORT OF LEITH OUTER BERTH

SITE DETAILS: PORT OF LEITH OUTER BERTH

<b>Name</b>	<b>Assessor or Approver</b>	<b>Date</b>
Neil Macleod	Assessor	06 June 2024
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## **SECTION 1: BACKGROUND**

### **1 Appropriate assessment conclusion**

- 1.1 This appropriate assessment (“AA”) concludes that there will be no adverse effect on the site integrity of the Firth of Forth Special Protection Area (“SPA”), Imperial Dock Lock, Leith SPA, Forth Islands SPA, Outer Firth of Forth and St Andrews Bay Complex SPA, River Teith Special Area of Conservation (“SAC”), Isle of May SAC, Firth of Tay and Eden Estuary SAC, Berwickshire and North Northumberland SAC and the Moray Firth SAC, from the proposal submitted by Forth Ports Limited (“the Applicant”) either in isolation or in combination with other plans or projects, providing that the conditions set out in Section 4 are complied with.
- 1.2 Marine Directorate - Licensing Operations Team (“MD-LOT”) considers that the most up to date and best scientific advice available has been used in reaching the conclusion that the Forth Ports Limited proposal will not adversely affect the integrity of the Firth of Forth SPA, Imperial Dock Lock, Leith SPA, Forth Islands SPA, Outer Firth of Forth and St Andrews Bay Complex SPA, River Teith SAC, Isle of May SAC, Firth of Tay and Eden Estuary SAC, Berwickshire and North Northumberland SAC and the Moray Firth SAC, and is satisfied that no reasonable scientific doubt remains.

### **2 Introduction**

- 2.1 This is a record of the AA undertaken by MD-LOT in regards to the Forth Ports Limited proposal to carry out marine construction, dredging and deposit activities associated with the Port of Leith Outer Berth redevelopment works (“the Works”), as required under Regulation 48 of the Conservation (Natural Habitats, &c.) Regulations 1994 (“the 1994 Habitats Regulations”). MD-LOT, as the ‘competent authority’ under the 1994 Habitats Regulations, has to be satisfied that the project will not adversely affect the integrity of any European site (special areas of conservation and special protection areas), either alone or in combination with other plans or projects, before it can grant consent for the project.
- 2.2 NatureScot (“NS”), operating name of Scottish Natural Heritage, has been consulted.

### **3 Details of the Works**

- 3.1 The Works involve extensions and expansion to previously permitted works at the Port of Leith Outer Berth to facilitate windfarm construction and to service vessels. The alterations to the previous permitted scheme seek to accommodate larger vessels that have become more prevalent in the offshore renewables sector since the original scheme was licensed.
- 3.2 The Works include the following components located below the Mean High Water Springs (“MHWS”):
- Construction of a retaining wall
  - Capital dredging to deepen the approach channel to the Port
  - Capital dredging to further deepen the existing berth pocket
  - Deposit of dredged material at the Narrow Deep B designated sea deposit site (“Narrow Deep B deposit site”)
- 3.3 The works will be carried out as one continuous delivery programme. The expected time to complete the Works is approximately 12 weeks for the construction of the retaining wall and 4 months to complete the dredging and deposit works.
- 3.4 The retaining wall will form a 45 meter (“m”) extension to the sheet-piled wall of the outer berth. The wall will consist of a short sheet-piled structure which will be installed by vibratory piling and completed by impact piling where required. Installation will take place from above MHWS on the existing outer berth. To facilitate access for some of the plant required for the work, some minor rock infilling of the area immediately next to the berth may be required. This infill would either be removed following completion of the Works or protected by rock armour and left in-situ.
- 3.5 Capital dredging will be carried out in two areas of the Outer Berth – The existing berth pocket and the approach channel. The berth pocket will be deepened to 13 m below chart datum and the approach channel will be deepened to 9 m below chart datum. This will require the removal of approximately 1,300,000 cubic-meters of dredge material. Dredging is expected to be primarily carried out by a trailer suction hopper dredger or a back-hoe dredger, with some plough dredging as required afterwards to smooth out the profile of the dredged area.
- 3.6 The material removed will be transported by barge to the Narrow Deep B deposit site and deposited there.

#### **4 Consultation**

- 4.1 The Applicant submitted the marine licence application and supporting information, including an Environmental Impact Assessment Report (“EIA Report”) and a supplementary report to inform an appropriate assessment (“SRIAA”) on 15 December 2023. NS were consulted on these documents on 28 February 2024.
- 4.2 Detailed comments were received from NS and Marine Directorate – Science, Evidence, Data and Digital (“MD-SEDD”) provided scientific advice.

## 5 Main points raised during consultation

NS advised that the Works would have a likely significant effect (“LSE”) on all qualifying interests of the Firth of Forth SPA, all qualifying interests of the Forth Islands SPA, all qualifying interests of the Outer Firth and St Andrews Bay Complex SPA and the common tern qualifying interest of the Imperial Dock Lock, Leith SPA. NS also advised that the Works would have a LSE on the sea lamprey, river lamprey and salmon qualifying interest of the River Teith SAC, grey seal qualifying interest of the Isle of May SAC and the Berwickshire and Northumberland Coast SAC. It also advised that the Works would have a LSE on the harbour seal qualifying interest of the Firth of Tay and Eden Estuary SAC and on the bottlenose dolphin qualifying interest of the Moray Firth SAC. On this basis NS advised that an AA was required.

## SECTION 2: INFORMATION ON EUROPEAN SITES

### 6 Background information and qualifying interests for the relevant European sites

- 6.1 This section provides links to the NS SiteLink website (“SiteLink”) where the background information on the sites being considered in this assessment is available. The qualifying interests for the sites are listed as are the conservation objectives.

**Table 11 Name of European sites affected and relevant links to SiteLink**

<ul style="list-style-type: none"><li>• Firth of Forth SPA <a href="https://sitelink.nature.scot/site/8499">https://sitelink.nature.scot/site/8499</a></li><li>• Imperial Dock Lock, Leith SPA <a href="https://sitelink.nature.scot/site/8668">https://sitelink.nature.scot/site/8668</a></li><li>• Forth Islands SPA <a href="https://sitelink.nature.scot/site/8500">https://sitelink.nature.scot/site/8500</a></li><li>• Outer Firth of Forth and St Andrews Bay Complex SPA <a href="https://sitelink.nature.scot/site/10478">https://sitelink.nature.scot/site/10478</a></li></ul>
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- River Teith SAC <https://sitelink.nature.scot/site/8367>
- Isle of May SAC <https://sitelink.nature.scot/site/8278>
- Firth of Tay and Eden Estuary SAC <https://sitelink.nature.scot/site/8257>
- Berwickshire and North Northumberland SAC <https://sitelink.nature.scot/site/8207>
- Moray Firth SAC <https://sitelink.nature.scot/site/8327>

**Table 22 Qualifying interests**

<p><b>Firth of Forth SPA</b></p> <ul style="list-style-type: none"> <li>• Bar-tailed godwit (<i>Limosa lapponica</i>)</li> <li>• Common scoter (<i>Melanitta nigra</i>)*</li> <li>• Cormorant (<i>Phalacrocorax carbo</i>)*</li> <li>• Curlew (<i>Numenius arquata</i>)*</li> <li>• Dunlin (<i>Calidris alpina alpina</i>)*</li> <li>• Eider (<i>Somateria mollissima</i>)*</li> <li>• Golden plover (<i>Pluvialis apricaria</i>)</li> <li>• Goldeneye (<i>Bucephala clangula</i>)*</li> <li>• Great crested grebe (<i>Podiceps cristatus</i>)*</li> <li>• Grey plover (<i>Pluvialis squatarola</i>)*</li> <li>• Knot (<i>Calidris canutus</i>)</li> <li>• Lapwing (<i>Vanellus vanellus</i>)*</li> <li>• Long-tailed duck (<i>Clangula hyemalis</i>)*</li> <li>• Mallard (<i>Anas platyrhynchos</i>)*</li> <li>• Oystercatcher (<i>Haematopus</i>)</li> <li>• Pink-footed goose (<i>Anser brachyrhynchus</i>)</li> <li>• Red-breasted merganser (<i>Mergus serrator</i>)*</li> <li>• Redshank (<i>Tringa totanus</i>)</li> <li>• Red-throated diver (<i>Gavia stellata</i>)*</li> <li>• Ringed plover (<i>Charadrius hiaticula</i>)*</li> <li>• Sandwich tern (<i>Sterna sandvicensis</i>)</li> <li>• Scaup (<i>Aythya marila</i>)*</li> <li>• Shelduck (<i>Tadorna tadorna</i>)</li> <li>• Slavonian grebe (<i>Podiceps auratus</i>)</li> <li>• Turnstone (<i>Arenaria interpres</i>)</li> <li>• Velvet scoter (<i>Melanitta fusca</i>)*</li> <li>• Wigeon (<i>Anas penelope</i>)*</li> <li>• Waterfowl assemblage</li> </ul> <p>* indicates assemblage qualifier only</p> <p><b>Imperial Dock Lock, Leith SPA</b></p> <ul style="list-style-type: none"> <li>• Common tern (<i>Sterna hirundo</i>)</li> </ul> <p><b>Forth Islands SPA</b></p> <ul style="list-style-type: none"> <li>• Arctic tern (<i>Sterna paradisaea</i>)</li> <li>• Common tern (<i>Sterna hirundo</i>)</li> </ul>
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- Cormorant (*Phalacrocorax carbo*)\*
  - Gannet (*Morus bassanus*)
  - Guillemot (*Uria aalge*)\*
  - Herring gull (*Larus argentatus*)\*
  - Kittiwake (*Rissa tridactyla*)\*
  - Lesser black-backed gull (*Larus fuscus*)
  - Puffin (*Fratercula arctica*)
  - Razorbill (*Alca torda*)\*
  - Roseate tern (*Sterna dougallii*)
  - Sandwich tern (*Sterna sandvicensis*)
  - Shag (*Phalacrocorax aristotelis*)
  - Seabird assemblage
- \* indicates assemblage qualifier only

#### **Outer Firth of Forth and St Andrews Bay Complex SPA**

##### *Seabirds:*

- Arctic tern (*Sterna paradisaea*)
- Atlantic puffin (*Fratercula arctica*)\*
- Common guillemot (*Uria aalge*)\*
- Razorbill (*Alca torda*)\*
- Common tern (*Sterna hirundo*)
- European shag (*Phalacrocorax aristotelis*)
- Black-legged kittiwake (*Rissa tridactyla*)\*
- Herring gull (*Larus argentatus*)\*
- Black-headed gull (*Chroicocephalus ridibundus*)\*
- Common gull (*Larus canus*)\*
- Little gull (*Hydrocoloeus minutus*)
- Manx shearwater (*Puffinus puffinus*)\*
- Northern gannet (*Morus bassanus*)
- Seabird assemblage (breeding and non-breeding)

##### *Waterfowl:*

- Common eider (*Somateria mollissima mollissima*)
- Common goldeneye (*Bucephala clangula*)\*
- Common scoter (*Melanitta nigra*)
- Long-tailed duck (*Clangula hyemalis*)\*
- Red-breasted merganser (*Mergus serrator*)\*
- Red-throated diver (*Gavia stellate*)
- Slavonian grebe (*Podiceps auritus*)
- Velvet scoter (*Melanitta fusca*)\*
- Waterbird assemblage

\* denotes a qualifying feature that is an assemblage feature only.

#### **River Teith SAC**

- Atlantic salmon (*Salmo salar*)
- Brook lamprey (*Lampetra planeri*)
- River lamprey (*Lampetra fluviatilis*)
- Sea lamprey (*Petromyzon marinus*)

**Isle of May SAC**

Qualifying habitat:

- Reefs

Qualifying species:

- Grey seal (*Halichoerus grypus*)

**Firth of Tay and Eden Estuary SAC**

Qualifying habitat:

- Estuaries
- Intertidal mudflats and sandflats
- Subtidal sandbanks

Qualifying species:

- Common seal (*Phoca vitulina*)

**Berwickshire and North Northumberland SAC**

Qualifying habitat:

- Shallow inlets and bays
- Intertidal mudflats
- Reefs
- Sea caves

Qualifying species:

- Grey seal (*Halichoerus grypus*)

**Moray Firth SAC**

Qualifying habitat:

- Subtidal sandbanks

Qualifying species:

- Bottlenose dolphin (*Tursiops truncatus*)

**Table 33 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:

- Population of the species as a viable component of the site
- Distribution of the species within site
- Distribution and extent of habitats supporting the species
- Structure, function and supporting processes of habitats supporting the species
- No significant disturbance of the species

**Imperial Dock Lock, Leith 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:

- Population of the species as a viable component of the site
- Distribution of the species within site
- Distribution and extent of habitats supporting the species
- Structure, function and supporting processes of habitat supporting the species
- No significant disturbance of the species

#### **Forth Islands 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:

- Population of the species as a viable component of the site
- Distribution of the species within site
- Distribution and extent of habitats supporting the species
- Structure, function and supporting processes of habitats supporting the species
- No significant disturbance of the species

#### **Outer Firth of Forth and St Andrews Bay Complex SPA**

1. To ensure that the qualifying features of the Outer Firth of Forth and St Andrews Bay Complex SPA are in favourable condition and make an appropriate contribution to achieving Favourable Conservation Status.

2. To ensure that the integrity of the Outer Firth of Forth and St Andrews Bay Complex SPA is restored in the context of environmental changes by meeting objectives 2a, 2b and 2c for each qualifying feature:

2a. The populations of qualifying features are viable components of the site.

2b. The distributions of the qualifying features throughout the site are maintained by avoiding significant disturbance of the species.

2c. The supporting habitats and processes relevant to the qualifying features and they prey/food resources are maintained, or where appropriate restored, at the Outer Firth of Forth and St Andrews Bay Complex SPA.

#### **River Teith SAC**

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 the site makes an appropriate contribution to achieving favourable conservation status for each of the qualifying features; and

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

- Population of the species, including range of genetic types for salmon, as a viable component of the site
- Distribution of the species within site
- Distribution and extent of habitats supporting the species
- Structure, function and supporting processes of habitats supporting the species
- No significant disturbance of the species

#### **Isle of May SAC**

To avoid deterioration of the qualifying habitat (listed above) thus ensuring that the integrity of the site is maintained and the site makes an appropriate

contribution to achieving favourable conservation status for each of the qualifying features; and

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

- Extent of the habitat on site
- Distribution of the habitat within site
- Structure and function of the habitat
- Processes supporting the habitat
- Distribution of typical species of the habitat
- Viability of typical species as components of the habitat
- No significant disturbance of typical species of the habitat

***Conservation objectives for species:***

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 the site makes an appropriate contribution to achieving favourable conservation status for each of the qualifying features; and

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

- Population of the species as a viable component of the site
- Distribution of the species within site
- Distribution and extent of habitats supporting the species
- Structure, function and supporting processes of habitats supporting the species
- No significant disturbance of the species

**Firth of Tay and Eden Estuary SAC**

To avoid deterioration of the qualifying habitats (listed above) thus ensuring that the integrity of the site is maintained and the site makes an appropriate contribution to achieving favourable conservation status for each of the qualifying features; and

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

- Extent of the habitat on site
- Distribution of the habitat within site
- Structure and function of the habitat
- Processes supporting the habitat
- Distribution of typical species of the habitat
- Viability of typical species as components of the habitat
- No significant disturbance of typical species of the habitat

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 the site makes an appropriate contribution to achieving favourable conservation status for each of the qualifying features; and

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

- Population of the species as a viable component of the site

- Distribution of the species within site
- Distribution and extent of habitats supporting the species
- Structure, function and supporting processes of habitats supporting the species
- No significant disturbance of the species

#### **Berwickshire and North Northumberland SAC**

The site's conservation objectives apply to the site and the individual species and/or assemblage of species for which the site has been classified (the "Qualifying features" listed above). The objectives are to ensure that, subject to natural change, the integrity of the site is maintained or restored as appropriate, and that the site contributes to achieving the Favourable Conservation Status of its qualifying features, by maintaining or restoring:

- The extent and distribution of qualifying natural habitats and habitats of the qualifying species
- The structure and function (including typical species) of qualifying natural habitats
- The structure and function of the habitats of the qualifying species
- The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely
- The populations of each of the qualifying species
- The distribution of qualifying species within the site

#### **Moray Firth SAC**

1. To ensure that the qualifying features of Moray Firth SAC are in favourable condition and make an appropriate contribution to achieving Favourable Conservation Status.

2. To ensure that the integrity of Moray Firth SAC is maintained or restored in the context of environmental changes by meeting objectives 2a, 2b and 2c for each qualifying feature:

For subtidal sandbanks

2a. Extent and distribution of the habitat within the site.

2b. Structure and function of the habitat and the supporting environment on which it relies.

2c. Distribution and viability of typical species of the habitat.

For bottlenose dolphin

2a. The population of bottlenose dolphin is a viable component of the site.

2b. The distribution of bottlenose dolphin throughout the site is maintained by avoiding significant disturbance.

2c. The supporting habitats and processes relevant to bottlenose dolphin and the availability of prey for bottlenose dolphin are maintained.

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

### **7 Requirement for appropriate assessment**

7.1 *Is the project directly connected with or necessary to the conservation management of the site(s)?*

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

7.2 *Is the project likely to have a significant effect on the qualifying interest(s)?*

7.2.1 Firth of Forth SPA, Imperial Dock Lock, Leith SPA, Forth Islands SPA and Outer Firth of Forth and St Andrews Bay Complex SPA

7.2.1.1 The RIAA identified the potential for LSE on the bar-tailed godwit, knot, pinkfooted goose, redshank, turnstone, red-throated diver, sandwich tern, and non-breeding waterfowl assemblage qualifying bird species of the Firth of Forth SPA. They also identified the potential for LSE on the common tern, lesser black-backed gull, roseate tern, sandwich tern, shag and breeding bird assemblage qualifying bird species of the Forth Islands SPA. LSE was also identified for the common tern, eider, shag, non-breeding waterbird assemblage, non-breeding seabird assemblage and breeding seabird assemblage qualifying interests of the Outer Firth of Forth and St Andrews Bay Complex SPA, as well as for the common tern qualifying interest of the Imperial Dock Lock, Leith SPA. LSE was concluded across all sites due to potential for visual and noise disturbance and impacts on water quality relating to the transport of sediment within the water column as a result of dredging.

7.2.2 River Teith SAC - Diadromous fish

7.2.2.1 The Works are located approximately 49 km from the River Teith SAC but the SRIAA identifies the potential for connectivity between the Works and the SAC due to the migration routes of Atlantic salmon, sea lamprey and river lamprey. The SRIAA identified the potential for LSE on these qualifying interests of the River Teith SAC due to underwater noise disturbance from piling, dredging and deposit activities; water quality changes due to dredging and deposit activities (resulting in temporary increase in suspended sediment concentration ("SSC") or contaminant release); and habitat quality changes, either from physical loss of habitat or suspension and transportation of fine sediment during dredging and deposit activities.

7.2.3 Isle of May SAC, Firth of Tay and Eden Estuary SAC, Berwickshire and North Northumberland SAC, Moray Firth SAC - Marine mammals

7.2.3.1 The SRIAA identifies the potential for connectivity between the Works and the grey seal qualifying interest of the Isle of May SAC and the Berwickshire and North Northumberland Coast SAC; the harbour seal qualifying interest of the Firth of Tay and Eden Estuary SAC; and the bottlenose dolphin qualifying

interest of the Moray Firth SAC, with each of these species being known to travel through the Firth of Forth.

7.2.3.2 The SRIAA identifies the potential for LSE on the above qualifying interests due to underwater noise impacts from piling operations and dredging, indirect impacts from water quality changes due to dredging and deposit activities (resulting in temporary increase in SSC or contaminant release) and prey availability changes.

#### 7.2.4 MD-LOT view

7.2.4.1 In its response dated 11 April 2024, NS advised it was generally content with the impact pathways, qualifying interests and LSE identified and assessed within the SRIAA for all SACs. However, NS disagreed with the assessment in relation to the impacts upon SPAs in the SRIAA and advised that due to disturbance from the dredging works, disturbance from vessels at the deposit site, disturbance from piling works, changes in water quality and prey availability at the dredging and deposit sites that LSE is concluded against all qualifying features of the Firth of Forth SPA, the Forth Islands SPA and the Outer Firth of Forth and St Andrews Bay Complex SPA, the common tern qualifying interest of the Imperial Dock Lock, Leith SPA.

7.2.4.2 MD-LOT agrees with the advice provided by NS and has undertaken an AA for all qualifying interests of the Firth of Forth SPA, the Forth Islands SPA and the Outer Firth of Forth and St Andrews Bay Complex SPA, the common tern qualifying interest of the Imperial Dock Lock, Leith SPA, as well as the sea lamprey, river lamprey and salmon qualifying interests of the River Teith SAC, the grey seal qualifying interest of the Isle of May SAC and the Berwickshire and Northumberland Coast SAC, the harbour seal qualifying interest of the Firth of Tay and Eden Estuary and the bottlenose dolphin qualifying interest of the Moray Firth SAC.

## **8 Appropriate assessment of the implications for the site in view of the sites' conservation objectives.**

8.1 MD-LOT has considered the marine licence applications, supporting information, including the EIA Report and the SRIAA together with the consultation responses from NS and advice provided by MD-SEDD.

Firth of Forth SPA, Imperial Dock Lock, Leith SPA, Forth Islands SPA and Outer Firth of Forth and St Andrews Bay Complex SPA

Disturbance from the dredging activities

- 8.2 NS advised that the dredge areas and their immediate surroundings were significant for loafing/roosting common terns, herring gulls, eiders, black-headed gulls, cormorants and lesser-black gulls.
- 8.3 For the herring gulls, eider, black-headed gulls and lesser black-gulls, NS advised, based that survey data provided by the Applicant in their SRIAA, the numbers of these species recorded in the area were significant at more than 5% of their respective SPA populations. However, the region is not thought to be of any particular significance to these species. Coupled with the temporary nature of the disturbance and given the level of habituation these species are likely to have to similar works, NS concluded no adverse impact on site integrity for these species as a result of disturbance from the dredging activity.
- 8.4 The region is considered significant for feeding and roosting goldeneyes with high levels of the SPA population recorded during the Applicant's surveys. However NS note that there are other locations for this species to feed within the SPA. In addition any disturbance will be temporary and the surveys did not note the presence of goldeneyes during the period they undergo flightless moulting. As such, NS advised no adverse impact on site integrity as a result of the disturbance from dredging activities.
- 8.5 The region is also significant for common terns and terns were noted within the port limits in high numbers both inside and outside of their breeding season and the data presented suggests that the area is important for loafing and roosting. While NS noted that the terns were likely habituated to the port, the length and intensity of the dredge activities proposed were more impactful than they would have previously experienced. Given that the Works could overlap with the entire breeding season for common terns, it was possible that the Works would undermine the ability of the birds to recover at the Outer Firth of Forth and St Andrews Bay Complex SPA and Imperial Dock, Leith SPA. NS advised that there is the potential for adverse impact on site integrity for common terns at these sites as well as on the Forth Islands SPA as it is functionally linked to the Outer Firth of Forth and St Andrews Bay Complex SPA. As such, NS advised that the dredging activities should be scheduled outside of the common tern breeding season (May to Mid-September inclusive) . MD-LOT agrees with this conclusion and has included this restriction as a licence condition in section 4 below.

Disturbance from vessels at the deposit site

- 8.6 NS noted that while surveys were not carried out around the deposit site, common terns, long-tailed ducks and common eiders were known to forage in the surrounding area. It was noted that the area of the disposal site is unlikely to host suitable prey for foraging due to its current use. As such, other locations within the SPA are likely to be favoured for foraging and the minor increase in vessel presence during construction and operation of the Works will not undermine the conservation objectives of any designated site. As such, NS concludes no adverse impact on site integrity as a result of increased vessel presence at the deposit site.

Changes in water quality and prey availability at the dredging site and the deposit site

- 8.7 NS noted that changes in water quality could impact upon prey availability and therefore compromise the conservation objectives across all the sites. NS noted that while suspended sediment was expected to settle quickly when deposited, given the continuous nature of the Works, this would only occur at night or the 1 day per week when no works are planned.
- 8.8 NS advised that this could be of concern during the breeding season as common terns and European shags are limited in their foraging range during this period and both are recorded in high numbers around the dredge areas. However, NS note that the modelling undertaken by the Applicant suggests that suspended sediment will be primarily localised to the dredge and deposit areas, and will be minimal at the top of the water column where foraging would take place. Given that the impact is also temporary, NS advised changes in water quality and prey availability around the dredge areas was not likely to cause an adverse impact on site integrity to any designated site.
- 8.9 NS noted that west of the dredge area is significant for feeding and loafing goldeneye, however as the Applicant's modelling of suspended sediment shows that it will be mainly localised to the dredge area, the changes in water quality at this site are not considered to be significant and therefore concluded no impact on site integrity for impacts upon goldeneyes as a result of water quality changes is anticipated.
- 8.10 Similarly, NS noted that common terns, long-tailed ducks and common eiders were present at the deposit site. Given the composition of the sediment in the water column described in paragraph 8.7, as well as the likelihood that long-tailed ducks and eiders will use the grounds to forage, NS concluded no

adverse impact on site integrity as a result of changes to water quality and prey availability near the deposit site.

Disturbance from piling works for construction of retaining wall

- 8.11 NS noted that the conservation objectives of the Outer Firth of Forth and St Andrews Bay Complex SPA means that the Works must not prevent or reduce the potential recovery of the common tern qualifying interest. NS advised that there is the potential for disturbance to breeding terns at the Imperial Dock Lock, Leith SPA (which is functionally linked to the Outer Firth of Forth and St Andrews Bay Complex SPA) and piling could reduce the potential for recovery of the common tern despite their habituation to the day to day operations of the port. NS strongly advised against piling works being conducted during the tern breeding season, between May and July. NS advised however if this is unavoidable, a qualified observer should be employed to monitor levels of disturbance at the colony and have the power to halt work if there is evidence of disturbance to breeding common terns. NS also advised that the Applicant should utilise a piling shroud throughout the duration of the Works. MD-LOT agree with the conclusions of NS and have included their recommendations as conditions in section 4 below.

MD-LOT conclusion on Firth of Forth SPA, the Forth Islands SPA, the Imperial Dock Lock, Leith SPA, or the Outer Firth of Forth and St Andrews Bay Complex SPA

- 8.12 MD-LOT have considered the advice provided by NS and have concluded that subject to the application of the conditions detailed in section 4, the Works will not, in isolation, adversely affect the site integrity of the Firth of Forth SPA, the Forth Islands SPA, the Imperial Dock Lock, Leith SPA, or the Outer Firth of Forth and St Andrews Bay Complex SPA.

River Teith SAC - Diadromous fish

Underwater noise disturbance

- 8.13 The SRIAA considered the results of modelling of underwater noise emanating both from continuous noise sources, such as dredging, and also impulsive noise such as piling. The modelling took account of soft start piling as per the JNCC Piling Protocol. Meaning that piling energy would be gradually ramped up from commencement over a period of at least 20 minutes, to allow for these mobile species to move away from the source. Further, due to the width of the estuary at the point of the Works, the avoidance of injurious noise levels would not cause individuals to deviate sufficiently from their migratory routes to



prevent them reaching their destination. In addition, the RIAA noted that the duration of the piling works is likely to be twelve weeks and therefore no more than one migration season of any of the qualifying species is likely to be affected.

#### Water quality changes

- 8.14 The SRIAA considered the SSC modelling results and concludes that any sediment plume will be short-lived, and the fish will be able to avoid the potential impacts of increased SSC. In terms of potential 'barrier effect', the Applicant concludes that the location of the Works within an estuary which is 8 km wide at the point of the Works (12 km at the point of material deposition), means the finfish will avoid the area and be unimpeded in their migration.

With reference to any release of contaminants, that the SRIAA noted that any contaminants would be bound to fine sediment particles and so would be restricted to the area of the sediment plume and therefore the same reasoning as above can be applied, that the proportion of the migration channel effected even at peak period would be proportionately small and as fish are avoiding the increased SSC they would not be impacted.

#### Habitat quality changes

- 8.15 The SRIAA identified a small area of habitat lost due to dredging at the berth pocket and approach channel however much of the area lost is within areas that are regularly dredged and as such, any loss is expected to be temporary and have little impact on the overall habitat community due to the availability of the same habitats within the nearby sections of the Firth of Forth.

#### NS consultation response and MD-LOT conclusion on diadromous fish

- 8.16 NS broadly agreed with the assessment and conclusions set out in the SRIAA in relation to diadromous fish and on this basis NS advised that the Works would not have an adverse impact on the site integrity of the River Teith SAC.
- 8.17 MD-SEDD advice was largely in agreement with the SRIAA and NS consultation response. MD-SEDD noted however that for salmon soft start procedures are unlikely to provide mitigation in relation to piling, with evidence showing salmon do not respond to the stimulus. MD-SEDD also highlighted the omission of modelling or sample data of sediment and oxygen levels in the water column during dredge deposits noting reduced oxygen levels and might result in fish mortalities. MD-SEDD recommended that a condition be included in any dredging licence which requires the Applicant to report the sighting of

dead, distressed or injured fish which could be connected with the activities of the Works, to MD-LOT immediately. MD-LOT have considered this advice and concluded that this condition is not required to avoid adverse impact on site integrity.

- 8.18 MD-LOT have considered the advice provided by NS and MD-SEDD and have concluded that based on the localised and temporary effects of the Works and adherence to the JNCC Piling Protocol as conditioned in section 4, the Works will not, in isolation, adversely affect the site integrity of the River Teith SAC.

Isle of May SAC, Firth of Tay and Eden Estuary SAC, Berwickshire and North Northumberland SAC, Moray Firth SAC - Marine mammals

#### Underwater Noise

- 8.19 During the construction phase of the Works there is the potential for the grey seal qualifying interest of the Isle of May SAC and the Berwickshire and North Northumberland Coast SAC; the harbour seal qualifying interest of the Firth of Tay and Eden Estuary SAC; and the bottlenose dolphin qualifying interest of the Moray Firth SAC, all to be impacted from underwater noise from impact piling, vibro-piling and dredging. The SRIAA identifies that the potential impacts from these activities are permanent auditory threshold shift (“PTS”), temporary threshold shift (“TTS”), and disturbance.
- 8.20 The Applicant conducted underwater noise modelling to predict the levels of noise that will result from the Works and the impact that may have on qualifying interests of the SACs. NS noted that the PTS impact ranges for impact piling, vibro-piling and dredging are all within 100 m of the Works and that TTS, and therefore disturbance, impact ranges will be much higher than this.
- 8.21 To reduce the impact from both types of piling the SRIAA identified the following mitigation:
- The establishment of a mitigation zone of 500 m from the piling location.
  - Only commence piling operations during the hours of daylight and good visibility (and within the 12 hour construction window).
  - Pre-piling search for marine mammals of mitigation zone by Marine Mammal Observer(s).
  - Delay if marine mammals detected within the mitigation zone.
  - Soft-start and ramp-up of piling for a period of not less than 20 minutes, as per JNCC (‘ [Statutory nature conservation agency protocol](#)

[for minimising the risk of injury to marine mammals from piling noise \(jncc.gov.uk\)](https://jncc.gov.uk)'

- Pre-construction activity search and soft-start procedure should be repeated before piling recommences, if piling operations pause for a period of greater than 10 minutes.
- All mitigation procedures, soft-start and ramp-up, and reporting requirements, are as per the JNCC guidelines, with the exception of the reduced mitigation zone.

8.22 In respect of noise emitted during dredging activities, the SRIAA considered that individuals would have to remain within 100 m of the source of noise for 12 hours in order to be exposed to levels of sound sufficient to induce PTS or TTS auditory injury. Based on modelling the Applicant concluded that although there is potential for disturbance as a result of the dredging work it is anticipated that the effects will be localised and short-lived with mammals being able to return to the area shortly after cessation of activity.

#### Water Quality and Prey Availability Changes

8.23 The SRIAA considered that in respect of changes in water quality, this would occur mostly during dredging activities and based on modelling, the effects would be very localised and within an area that is already routinely dredged. In respect of prey availability, the SRIAA considered that the displacement effect would likely be small and localised. In addition, grey seals, harbour seals and bottlenose dolphins are generalist feeders and are not therefore reliant on a particular species of prey.

#### NS consultation response and MD-LOT conclusion on marine mammals

8.24 NS indicated that they were content with the approach and assessment undertaken by the Applicant in the SRIAA and concluded no adverse impact on site integrity for the Moray Firth SAC, Firth of Tay and Eden Estuary SAC, Isle of May SAC and Berwickshire and North Northumberland Coast SAC for the reasons outlined in the SRIAA and on the basis that the JNCC Piling Protocol is adhered to.

8.25 MD-SEDD agreed with the view of NS that the assessment of impact upon site integrity in the SRIAA was sufficient and also recommended that vessel operators follow Scottish Marine Wildlife Watching Code ("SMWWC") and ensure there are no marine mammals near the barge prior to depositing dredge material. MD-LOT concur with this advice and have included this as a condition in section 4.

Appropriate Assessment for Port of Leith, Outer Berth Additional Works - Construction, Dredging and Sea Deposit, June 2024.

8.26 MD-LOT have considered the advice provided by NS and MD-SEDD and have concluded that provided the conditions detailed in section 4 are adhered to, the Works will not, in isolation, adversely affect the site integrity of the Moray Firth SAC, Firth of Tay and Eden Estuary SAC, Isle of May SAC and Berwickshire and North Northumberland Coast SAC.

## **9 In combination assessment**

9.1 MD-LOT has carried out an in combination assessment to ascertain whether the Applicant's 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, Imperial Dock Lock, Leith SPA, Forth Islands SPA, Outer Firth of Forth and St Andrews Bay Complex SPA, River Teith SAC, Isle of May SAC, Firth of Tay and Eden Estuary SAC, Berwickshire and North Northumberland SAC or Moray Firth SAC.

9.2 The following projects currently have an active marine licence, section 36 consent, European protected species licence or seal licence and associated AA which identified a likely significant effect on the qualifying interests of the Firth of Forth SPA, Imperial Dock Lock, Leith SPA, Forth Islands SPA, Outer Firth of Forth and St Andrews Bay Complex SPA, River Teith SAC, Isle of May SAC, Firth of Tay and Eden Estuary SAC, Berwickshire and North Northumberland SAC or Moray Firth SAC.

### **9.3 Ardersier Port Development**

9.3.1 The Ardersier Port Development is located at the former McDermott Fabrication Yard, which lies approximately 7.5 km to the west of Nairn, 3 km northeast of the village of Ardersier and is bounded by the Moray Firth to the north. The site extends to 307 hectares in total (including marine and terrestrial aspects) and features an existing harbour which is protected by a naturally occurring sand and shingle spit known locally as Whiteness Head. The works involve port entrance/inner channel dredging, quay wall construction/realignment and quayside (berthing) dredging and are scheduled to start in 2024, taking up to 5 years to complete. A dredge of 8,600,000 wet tonnes of sand will be required to deepen the port entrance to -12.9 m chart datum. A cutter suction dredger will be used. An area of the inner channel will be dredged to -3 m chart datum by either plough dredging, backhoe dredger or land based equipment. Once dredging has been completed, the new 464 m sheet pile wall will be constructed alongside the existing quayside.

### **9.4 BEAR Scotland - Bridge Maintenance Works - Kessock Bridge, Inverness-shire**

- 9.4.1 This licence covers routine maintenance activities to be carried out on the bridge over a period of 5 years. All works will be highly localised and take place within the immediate vicinity of the bridge. With the exception of scour repairs and fender replacement, all maintenance activities will take place above MHWS. In most cases, activity duration is likely to be less than three months and for several activities, duration will be less than a few weeks. The exception being the painting of the superstructure which will take approximately 4 years to complete.

## **9.5 Beatrice Offshore Wind Farm**

- 9.5.1 Installation and operation of the Beatrice Offshore Windfarm, which is located in the outer Moray Firth 13.5 km from the Caithness coast. The total area of the development is 131.5 km<sup>2</sup>. The development will comprise of 84 turbines. The eastern edge of the development site is adjacent to the proposed Moray Firth Offshore Renewables Limited Eastern Development Area . The operational lifespan of the wind farm is expected to be 25 years. Construction started in April 2017 and the final turbine was installed in May 2019. Further information regarding the project can be found [here](#).

## **9.6 Beatrice Offshore Wind Farm – Post Consent Benthic and Geophysical Surveys**

- 9.6.1 Developer proposes to undertake the surveys between 1st January 2024 to 31st December 2027, for approximately 4 months per year. Equipment proposed includes USBL. SBI and SBP.

## **9.7 Berwick Bank Offshore Wind Farm**

- 9.7.1 Berwick Bank Wind Farm Limited proposes to construct and operate a large-scale offshore wind farm and associated infrastructure located in the outer Firth of Forth approximately 47.6km from the East Lothian coastline and 37.8km from the Scottish Border coastline. The Berwick Bank OWF will consist of a maximum of 307 WTGs with a combined maximum generating output of around 4.1GW. See Table 1 for the physical parameters of the WTGs. The WTG foundations will comprise either suction caisson jacket or piled jacket design. In addition to the WTGs, up to 10 OSPs are proposed to be installed on either suction caisson jacket or piled jacket foundations and 8 OECs comprising a maximum length of 872km are proposed which will run from the OSPs to the landfall point at Skateraw Harbour, East Lothian. The Berwick Bank OWF is proposed to cover an area of 1,178.1km squared to include the

wind farm array area and export cable corridor. The section 36 consent and marine licences applied for are for an operational period of 35 years.

## **9.8 Berwick Bank Offshore Wind Farm**

9.8.1 Berwick Bank Wind Farm Limited proposes to construct and operate a large-scale offshore wind farm and associated infrastructure located in the outer Firth of Forth approximately 47.6km from the East Lothian coastline and 37.8km from the Scottish Border coastline. The Berwick Bank OWF will consist of a maximum of 307 WTGs with a combined maximum generating output of around 4.1GW. See Table 1 for the physical parameters of the WTGs. The WTG foundations will comprise either suction caisson jacket or piled jacket design. In addition to the WTGs, up to 10 OSPs are proposed to be installed on either suction caisson jacket or piled jacket foundations and 8 OECs comprising a maximum length of 872km are proposed which will run from the OSPs to the landfall point at Skateraw Harbour, East Lothian. The Berwick Bank OWF is proposed to cover an area of 1,178.1km squared to include the wind farm array area and export cable corridor. The section 36 consent and marine licences applied for are for an operational period of 35 years.

## **9.9 Berwick Bank - Cambois Cable Connections**

9.9.1 Construction and operation of HVDC export cables from up to two offshore converter station platforms within Berwick Bank Wind Farm to landfall at Cambois, Northumberland. A range of trenching tools may be used, and cable protection will be used where target burial cannot be achieved. Proposed to begin in Q4 2026 with completion expected in Q4 2029.

## **9.10 BP North East Offshore Wind Limited - Array Area and Export Cable Corridor Geophysical Surveys**

9.10.1 BP North East Offshore Wind Limited propose to undertake a geophysical survey campaign in order to map the seabed, collect data on bathymetry, characterise layers of sediment or rock below the seabed, and assess marine habitats for the BP INTOG Flora Offshore Wind Farm area and export cable corridor.

## **9.11 City of Edinburgh Council – Longcraig Pier repair works**

9.11.1 The City of Edinburgh Council is planning to undertake consolidation and repair works to Longcraig Pier, South Queensferry. The works consist of reinstatement and consolidation of the existing surface at the Pier end to form a level surface for usability, plus other minor repairs such as refixing of a large

Appropriate Assessment for Port of Leith, Outer Berth Additional Works - Construction, Dredging and Sea Deposit, June 2024.

Masonry Block which has fallen into the sea, masonry pointing and relaying of Stone Setts. The works are anticipated to be completed by 30 November 2024.

## **9.12 Culzean Floating Offshore Wind Turbine Pilot Project**

9.12.1 Construction and operation of one floating offshore wind turbine generator (“WTG”) with a maximum generating capacity of 3 megawatts (“MW”). The turbine will be connected to the existing Culzean Central Processing Facility Platform. It will take approximately one month for the pre-construction, construction and installation of the WTG, moorings, and cable installation activities which are proposed to take place in Q3, 2025.

## **9.13 Dalgety Bay Sailing Club - Moorings - Dalgety Bay**

9.13.1 Dalgety Bay Sailing Club are increasing the number of moorings in Dalgety Bay from 50 mooring to 80 moorings for private pleasure boating activities. The moorings will be in use from April to September each year.

## **9.14 Dundee City Council – Dighty Burn Construction**

9.14.1 Dundee City Council are proposing to construct a bridge over the Dighty Burn in Monifieth and carry out shoreline works as part of a wider upgrade of the cycle path from Monifieth to Broughty Ferry, Dundee. The works are expected to take place from 01 April to 30 September each year, the marine licence last for 2 years until 30 September 2024. A new 45 metre piled bridge will be constructed and the existing one metre wide bridge will be removed during the construction phase using the crane on the temporary working platform. To facilitate the construction, the Dighty Burn will be temporarily re-routed using culverts to allow for the construction of a temporary working platform spanning the full width of the burn and two working access routes to the platform. This platform and routes will be made of course material and will be structurally sound to allow for a crane to work from it, it will account for the temporary loss of 0.927 hectares of habitat. Concrete steps from the cycle path on the east side of the burn to the beach will also be installed, this will comprise of approximately 30 concrete steps and steel handrail. The rock revetments on the east and west of the burn will also be reprofiled using 2,250 tonnes of existing rock armour and 2,300 tonnes of additional rock armour will installed as part of the shoreline works, during which beach groynes will also be removed before being reinstated on completion of the rock armour works.

## **9.15 Eastern Green Link 4 - Geophysical and Geotechnical Surveys**

- 9.15.1 Scottish Power Transmission require to carry out geophysical, geotechnical and benthic surveys for the EGL4 HDVC cable route. The surveys will obtain baseline data that will contribute to determining the physical and ecological conditions and the location of the final cable route. The surveys will span a proposed cable route corridor (0.5 - 1 kilometre wide) from a landfall area near Westfield, Fife and will take place between August 2023 and August 2024

## **9.16 Forthwind**

- 9.16.1 The Development consists of two, two-bladed lattice structure wind turbine generators (“WTGs”), associated infrastructure and electricity export cables approximately 1.5 km off the northern shore of the Firth of Forth at Methil, Fife. The WTGs will be located in waters 10 to 20 m deep, have a hub height of 109 to 121 m, a maximum tip height of 198.5 m and a generating capacity per turbine of up to 9 megawatts (“MW”). The maximum rotor diameter of the turbines is 155 m. Each turbine will have a substructure of steel jackets with pin piles. The turbines will have three main elements i.e. rotor, nacelle and tower. The project footprint for each turbine (includes turbine foundations, trenching for export cables and jack up barge/vessel footprint) will be 37,400 m<sup>2</sup>. There will be an export cable for each turbine that will connect to the sub-station and control building at Fife Energy Park. Construction will take place over a 3 to 6 month period (with installation of the turbines and export cable expected to take 8 weeks) followed by testing and commissioning before becoming operational. Further information regarding the project can be found [here](#). Construction works have not yet commenced on site and the developer is currently applying to vary the permitted works.

## **9.17 Forthwind Demonstration Turbine**

- 9.17.1 A single test and demonstration offshore wind turbine with an installed capacity of 20MW, as well as a metmast, located approximately 1.5km sea ward of MHWS level of the northern shore of the Firth of Forth at Methil, Scotland. Construction is yet to commence.

## **9.18 Granton Harbour Redevelopment**

- 9.18.1 This project forms part of the Granton Harbour Regeneration Development. On the west side of the existing west harbour, 225 m of sloping masonry revetment will be reconstructed and this will be extended to the south by the construction of a new quay wall, 110 m in length. This will be a sheet piled wall which will be backfilled with material from on site to reclaim land. The existing western breakwater (north mole) will be extended with a 50 m concrete wall.



This will have an inclined slope of rock armour on the seaward side and an additional 25 m of rock revetment on the end for additional protection.

- 9.18.2 A 340 berth marina will be created with floating berths and pontoons and will extend to approximately 22,879 square metres. Capital dredging will be required in the new marina area and also the approach channel. Due to contamination identified in the pre-dredge sediment analysis, all material from below 1.2- m and all material from around sample locations 8 and 9 will be taken ashore for land based disposal, 154,385 cubic metres. In addition, a small amount of material will be re-used within the land reclamation, 19,322 cubic metres. The remainder of the material, 86,980 cubic metres, will be taken for sea deposit at a licensed deposit site in the Firth of Forth. Dredging will be carried out using a backhoe dredger.

## **9.19 Green Volt Offshore Wind Farm and Associated Transmission Infrastructure**

- 9.19.1 Green Volt Offshore Wind Farm and Associated Transmission infrastructure. The INTOG project consists of up to 35 WTGs 80 km off the Aberdeenshire coast with a cable to landfall near Peterhead and another export cable to the Buzzard platform. Construction is due to commence in 2025 with the project becoming operational in 2027.

## **9.20 Inch Cape Offshore Transmission Infrastructure**

- 9.20.1 Inch Cape Offshore Limited development ("ICOL"), is approximately 15 km to the east off the Angus coastline. Further information regarding the development can be found [here](#). It was collectively assessed as part of the Forth and Tay Windfarm Developments which also includes Neart na Gaoithe and Seagreen Alpha and Bravo. These projects all received marine licences and consents under section 36 of the Electricity Act 1989 in October 2014. These projects have not been progressed due to delays associated with a judicial review and all three projects have submitted applications for new consents and licences during 2018. ICOL has now received a new consent and licences, details of which are included in sections XX. Although the project now has permission for two different proposals, only one of these will be built out.

## **9.21 Inch Cape Offshore Wind Farm (revised design)**

- 9.21.1 Construction and operation of a wind farm 15-22 km east of the Angus coastline. The development will consist of a maximum of 72 wind turbines. Construction activities are anticipated to start in 2021 with works taking

approximately 24 months over a 3 year period. Further information regarding the project can be found [here](#).

## **9.22 Inch Cape Transmission Infrastructure (revised design)**

9.22.1 Construction of offshore transmission infrastructure associated with the Inch Cape Offshore Wind Farm, 15-22 km east of the Angus coastline. The development will consist of up to two offshore substation platforms. In addition up to two export cables will connect the development to the landfall at Cockenzie in East Lothian. Construction activities are anticipated to start in 2021 with works taking approximately 24 months over a 3 year period. Further information regarding the project can be found [here](#).

## **9.23 Inch Cape Offshore Wind Farm – Cofferdam Installation**

9.23.1 Installation, operation and removal of a cofferdam as part of the wider Offshore Export Cables installation for the Inch Cape Offshore Wind Farm. Estimated start date is January 2025, with installation of the cofferdam expected to take 10-12 weeks. The cofferdam and associated piling platform is proposed to remain in place for up to 23 months prior to removal.

## **9.24 Installation of new long sea outfall, Spey Bay**

9.24.1 Construction of a long sea outfall of approximately 1.9 km in length to discharge effluent from a distillery into the Moray Firth. The pipe is made of High Density Polyethylene and will be fitted with 2 discharge diffusers, one at the midline and one at the end of the outfall. This will be protected with approximately 300 tonnes of cobbles and 1500 tonnes of boulders. Land based trenching will be carried out in the nearshore intertidal section and the subtidal section will be trenched using marine plant, likely a back-hoe dredger. Material removed during trenching will be stockpiled adjacent to the trench to be used as backfill once the pipe and diffusers are installed. Anti-scour rock mattresses will be used to protect the diffusers. A temporary mooring buoy will be used to attach to the pipes in a storage area until they are required during the construction process. This buoy will be removed at the end of the construction process.

## **9.25 Kincardine Offshore Wind Farm**

9.25.1 Kincardine Offshore Windfarm ("KOWL") is a demonstrator floating offshore windfarm development that is located to the south east of Aberdeen, approximately eight miles from the Scottish coastline in approximately 60 to 80 m of water. The development is considered a commercial demonstrator

site, which utilises floating semi-submersible technology to install six turbines including a temporary data gathering platform of 2 MW. The maximum generating capacity of all six turbines will not exceed 50 MW. The proposal also includes inter-array cabling to the connection point at the onshore Redmoss substation, Altens, Aberdeen. The 2 MW turbine was deployed in September 2018, while the other five turbines (9.5 MW each) will be deployed after September 2020. Further information regarding the project can be found [here](#).

## **9.26 Leith Outer Berth**

9.26.1 Expansion of Outer Berth, Port of Leith. Includes construction of new berthing facility. The Works involve redeveloping an existing berth on the inner edge of the eastern breakwater and capital dredging and sea deposit of 215,000 wet tonnes of dredged material in order to accommodate windfarm construction and service vessels in Port of Leith. The Works include the following components located below the Mean High Water Springs (“MHWS”): removal of existing infrastructure and construction of a 125 metre (“m”) long berth; provision of an area of hardstanding to be used for loading/unloading vessels; capital dredging to enlarge the existing berth pocket; and deposit of dredged material at the Narrow Deep B deposit area. The Works will be carried out as one continuous delivery programme. The expected time to complete the Works is approximately 15 months with various elements of the project being potentially completed concurrently.

## **9.27 Levenmouth Demonstration Turbine**

9.27.1 The project involves the construction, operation and decommissioning of a site for the testing of new designs of offshore wind turbines with a capacity of up to 7 MW at the Fife Energy Park, Methil. There is potential for more than one turbine model to be tested at the site. Once one turbine has been tested it will be removed from the site and replaced with a new turbine which falls within the same design parameters (maximum hub height of 110 m, rotor diameter of 172 m, and maximum height to turbine tip from Mean Sea Level of 196 m). Only one turbine will ever be installed at any one time. The base will remain in place throughout the Development. The consent for this development expires in 2029. In addition to the wind turbine, the consent also includes a personnel bridge connection between the Fife Energy Park (“FEP”) and turbine tower, construction of an onshore crane pad on the FEP and construction of an onshore Control compound. Further information regarding this project can be found [here](#). One turbine has been installed and is currently operational.

## **9.28 Manhole Maintenance and Repairs - Broughty Ferry, Dundee**

- 9.28.1 Replacement of 75 kilograms of concrete surrounding a manhole with new 75 kilograms of concrete. Any leaks in the manhole will be filled with fast setting water stopping mortar to ensure the integrity of the manhole.

## 9.29 **Meygen Tidal Turbines**

- 9.29.1 Construction and operation of a tidal array in the Inner Sound of the Pentland Firth. Phase 1a of the project is complete with four tidal turbines having been installed. A construction timeline for phases 1b and 1c has not yet been determined. Phase 1b of the project (also known as Project Stroma) will consist of the installation of a further four tidal turbines along with the deployment of a subsea hub. Two tidal turbines will be initially installed and then monitored for a period of time in order to inform decisions on future deployment of the remaining two tidal turbines for Phase 1b and the remaining tidal turbines (53) for deployment during phase 1c. Further information regarding the project can be found [here](#).

## 9.30 **Moray East Offshore Wind Farm**

- 9.30.1 The current design envelope is for a maximum generating capacity of up to 1,116 MW and for a maximum of 186 wind turbines. The proposals are located on the Smith Bank in the outer Moray Firth (approximately 22 km from the Caithness coastline, in water depths of 38 to 57 m). The operational lifespan of the wind farms is expected to be 25 years. The three proposed wind farm sites: the Telford, Stevenson and MacColl wind farms lie within the Eastern Development Area, part of Zone 1 of Round 3 leasing agreements in the UK Renewable Energy Zone. Substructure and foundation design for the wind turbines will consist of either a mixture of, or one design option of: concrete gravity base foundation with ballast and a gravel/grout bed, or steel lattice jackets with pin piles. Construction work is currently ongoing with piling works completed and all construction work is due to be completed by April 2022. Further information regarding the Moray Offshore East Development can be found [here](#).

## 9.31 **Moray West Offshore Wind Farm**

- 9.31.1 The wind farm is located 22.5 km southeast off the Caithness coastline. The operational lifespan of the project is expected to be 25 years. The project covers a total area of approximately 225 km<sup>2</sup> and will be comprised of no more than 85 wind turbines with a maximum generating capacity of around 850 MW, along with associated offshore transmission infrastructure. Further details of the proposed works can be found [here](#).

### **9.32 Moray West Offshore Wind Farm - UXO Clearance**

9.32.1 Whilst all known UXO have already been cleared from the within the Moray West array area and Export Cable Corridor, there remains the potential for previously unidentified UXO to be encountered. If during construction further unexploded UXO device are detected these shall be disposed of using low order deflagration techniques. As this relates to, as yet undetected devices Moray (West) Offshore Wind Limited has specified 20 as the maximum the number of low order deflagration attempts and the size of the donor charges as 0.25 kilograms (“kg”) rather than specifying the maximum number of UXO that may be cleared.

### **9.33 Neart na Gaoithe Offshore Wind Farm**

9.33.1 Neart na Gaoithe Offshore Windfarm Limited development (“NNGOWL”), is approximately 15.5 km to the east of Fife Ness in the outer Firth of Forth. Further information regarding the development can be found [here](#). It was collectively assessed as part of the Forth and Tay Windfarm Developments which also includes Inch Cape and Seagreen Alpha and Bravo. These projects all received marine licences and consents under section 36 of the Electricity Act 1989 in October 2014. These projects have not been progressed due to delays associated with a judicial review and all three projects have submitted applications for new consents and licences during 2018. NNGOWL has now received a new consent and licences, details of which are included in section 9.29. Although this project now has permission for two different proposals, only one of these will be built out.

### **9.34 Neart na Gaoithe Offshore Wind Farm (revised design)**

9.34.1 Construction and operation of a wind farm located 15.5 km east of Fife Ness in the Firth of Forth. Consent has been granted for up to 54 wind turbines with piled jacket foundations. The operational lifespan of the project is expected to be 50 years. Construction activities are scheduled to commence in Q3 2021 and conclude in late 2022. Further information regarding this project can be found [here](#).

### **9.35 Neart na Gaoithe Offshore Wind Farm – Use of survey equipment**

9.35.1 EPS licence which relates to construction activities at the Neart na Gaoithe Wind Farm and Export Cable Corridor. These activities are expected to be undertaken throughout construction which is due to conclude by July 2025.

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The licence also relates to the use of survey equipment including USBL positioning devices, multi-beam echosounders and side-sonar scanners.

### **9.36 Outfall Pipe - Pittenweem, Fife**

9.36.1 Installation of a new outfall pipe within Pittenweem Harbour walls. Concrete will be poured over the pipe and boulders set into it to provide protection. Scour protection mattresses will be used at the end of the outfall before the trench is backfilled with previously excavated material. Works are proposed to take place between September 2023 and April 2024

### **9.37 Outfall installation, Dunmore, Falkirk**

9.37.1 Construct of an outfall with an HDPE flap valve, headwall and finishing with rock armour. The works are expected to be completed by 03 July 2024.

### **9.38 Pentland Floating Offshore Wind Farm**

9.38.1 A floating offshore windfarm with an installed capacity of around 100 megawatts within the Pentland Firth, approximately 7.5 kilometres seaward of mean high water springs at Dounreay, Caithness. The windfarm will consist of up to 6 floating offshore wind turbine structures and associated floating substructures. Offshore construction activities are anticipated to commence in 2027. Project will take 14 months to complete and will be operational for a period of 25 years.

### **9.39 Restoration Forth – Native Oyster Restoration**

9.39.1 Restoration Forth propose to reintroduce native oysters, a Priority Marine Feature at 2 locations (Inchkeith and Inchmickery) over the summer and autumn of 2024 with monitoring ongoing into 2026. The translocated oysters will be deposited by scientific diver or by broadcasting from the surface dependent on weather and tidal conditions at the time of the deposit and the availability of staff and equipment. The deposited oysters will not be removed at the end of the trial as the proposal is being undertaken in an effort to re-establish a self-sustaining population of native oysters within the Frith of Forth.

### **9.40 Royal National Lifeboat Institution ("RNLI") - Low Impact Maintenance to Construction Projects - Kyle of Lochalsh/Kinghorn and North Berwick Lifeboat Station**

9.40.1 This project covers routine, ongoing maintenance works for a 6 year period at a number of sites around Scotland that are owned and managed by the RNLI.

The activities covered will be maintenance and repair including like for like replacement of elements of the structure including re-enforcing or repairing the slipway toe up to a maximum additional area of 6 m<sup>2</sup>. In addition, cleaning of the slipway structure for safety purposes may be carried out. These works do not include any piling. Although the licence covers a 6 year period, the proposed works will only be carried out infrequently and work programmes will generally last one to two weeks and some programmes may be completed in a single day.

#### **9.41 Seagreen Bravo Offshore Wind Farm**

9.41.1 Seagreen Bravo Wind Energy Limited development is approximately 38km off the Angus coastline. Further information regarding the development can be found [here](#). It was collectively assessed as part of the Forth and Tay Windfarm Developments which also includes Neart na Gaoithe, Inch Cape and Seagreen Alpha.

#### **9.42 Seagreen Alpha Offshore Wind Farm**

9.42.1 Seagreen Alpha Wind Energy Limited development is approximately 27km off the Angus coastline. Further information regarding the development can be found [here](#). It was collectively assessed as part of the Forth and Tay Windfarm Developments which also includes Neart na Gaoithe, Inch Cape and Seagreen Bravo.

#### **9.43 Seagreen Wind Energy Limited - Unexploded Ordnance Clearance (“UXO”)**

9.43.1 Seagreen proposes to remove several UXO at 20 spare WTG locations across the Seagreen Alpha and Bravo Offshore Wind Farm area which is located in the Firth of Forth. Seagreen are currently undertaking geophysical survey work to confirm and identify UXO and debris within the area. As this survey has not yet been completed, Seagreen has applied for a marine licence and a European protected species licence based on a worst case assumption that the clearance of up to five UXO will each require to be detonated. Seagreen have stated that the most powerful UXO which may be present and therefore require detonation would be 930 kg Net Explosive Quantity (“NEQ”); however, that based on desk-based studies, that it is unlikely or very unlikely that individual items of UXO will exceed 300 kg NEQ. Detonation of the UXO generates a loud underwater sound which poses a risk to marine wildlife in the vicinity. UXO clearance is expected to occur over an estimated maximum of 5 days (1 UXO per day) with debris removal also taking place throughout this period.

#### **9.44 Seagreen Offshore Transmission Asset Final Construction and Operations and Maintenance Activities**

9.44.1 Phase 1 of the Seagreen development was commissioned in October 2023. Seagreen now propose to complete the landfall duct burial, which is the final remaining construction campaign associated with the offshore transmission assets (“OTA”) and also propose to undertake operation and maintenance activities associated with the OTA. This is to include routine inspection and maintenance activities as well as some unscheduled activities which may be required to carry out repairs or other remedial works to return the assets to a serviceable condition. High-resolution geophysical survey, positioning and communication equipment is required to undertake such activities.

9.44.2 The proposed activities are expected to take place over a three year period with a total duration anticipated to be up to five months in 2024 (including up to three months of landfall duct works). With a potential sale to an Offshore Transmission Owner after 2024, activities are uncertain, but would not exceed two months in 2025 and 2026. The geographic scope of activities includes the entire OTA, encompassing the Export Cable Corridor, and also extending into the offshore windfarm site, within which the Offshore Substation Platform is located.

#### **9.45 Scottish English Green Link (“SEGL”) 1 HVDC Cable and Cable Protection**

9.45.1 National Grid Electricity Transmission (“NGET”) and Scottish Power Transmission (“SPT”) are jointly developing a subsea High Voltage Direct Current (“HVDC”) link between Torness in East Lothian and Hawthorn Pit in County Durham. NGET and SPT propose that works will start in January 2025 with completion of installation and initial commission testing expected to occur in December 2027.

#### **9.46 Sea wall repair - Valleyfield, Fife**

9.46.1 The toe of the existing sea wall east of the Lagoon 5 Scottish Water sewage works in Valleyfield Fife has been identified as requiring repairs. An area of 178 metres of the existing wall has been identified as requiring repair works.

9.46.2 Repair works will only take place during low tide, during which an excavator will be used to reduce the existing ground to reach the toe of the seawall. The excavator will then be used to place rock armour at the exposed toe of the sea wall. All materials will be delivered to the site by land and storage area above



the sea wall. From storage area the excavator shall use its bucket to lift sufficient rock armour and then transport and carefully place into repair area. All plant and storage will be stored above Mean Highwater Springs (“MHWS”).

#### **9.47 Tay Road Bridge Joint Board - Bridge Maintenance - Tay Road Bridge, Dundee**

9.47.1 The proposed works are to carry out carriageway maintenance across the full extents of the Tay Road Bridge at Dundee. The existing surfacing on the bridge will be stripped of existing asphalt pavement, the existing concrete deck will be repaired and prepared (as necessary), the concrete deck will be waterproofed, new kerbs and asphalt pavement will be laid and new expansion joints will be installed. The works will be undertaken over 2 calendar years utilising carriageway closures with contraflow traffic management this will allow access to the bridge deck cantilever soffits to undertake necessary concrete repairs to maintain the integrity of the structure. Work is to be carried out in 2 phases. Phase 1 is to run from June 2023 to October 2023 and phase 2 will run from April 2024 to August 2024.

#### **9.48 Fish Farms**

9.48.1 There are a number of fish farms and freshwater storage pens which were identified as having a likely significant effect on designated sites which could also be affected by the Forth Port’s proposal. The table below summarises these projects.

**Table 4: Fish farms identified as having a likely significant effect on designated sites also affected by the Works**

Site Name	Licensee	Licensed Equipment	Dates of Licence	Designated Site(s)
Gairsay Sound, Orkney	Scottish Sea Farms Ltd.	9 ring cages (120m circumference), 1 feed barge and 22 grid moorings.	29/06/2023 – 28/06/2048	Forth Islands SPA
Fiunary, Sound of Mull	Scottish Sea Farms Ltd.	8 120m ring cages, 21 grid moorings, 5 boat moorings, 1 feedbarge and pole	14/12/2024 – 13/12/2024	Forth Islands SPA

		supported top nets.		
Northeast Rum	MOWI Scotland Ltd	8 160m ring cages, 30 grid moorings, 15 marked buoys and 1 feed barge.	31/01/2024 – 06/03/2047	Forth Islands SPA
Isle of Muck	MOWI Scotland Ltd	8 ring cages of 160 metre circumference, 30 grid moorings, 15 marked buoys, and feed barge.	01/05/2024 – 02/06/2026	Forth Islands SPA
Creag an T-sagairt, Loch Hourn	MOWI Scotland Ltd	8 ring cages, 1 feedbarge, 1 raft, 3 boat moorings and 30 grid moorings	29/07/2023 – 28/07/2048	Forth Islands SPA

#### 9.49 Dredging Operations

9.49.1 There are a number of dredging operations which were identified as having a likely significant effect on the Moray Firth SAC, Firth of Forth SPA, Imperial Dock Lock, Leith SPA or Outer Firth of Forth and St Andrews Bay SPA designated sites which could also be affected by the Forth Ports proposal. The table below summarises these projects.

**Table 5: Dredging operations identified as having a likely significant effect on Moray Firth SAC, Firth of Forth SPA, Imperial Dock Lock, Leith SPA and the Outer Firth of Forth and St Andrews Bay Complex SPA designated site also affected by the Forth Ports proposal**

Location of Dredge	Licensee	Amount of Dredge Material	Dredge Spoil Deposit Area	Dates of Licence	Designated Site
Port of Newhaven	Forth Ports Limited	58,500 wet tonnes	Oxcars deposit site	02/12/2022 - 01/12/2025	Firth of Forth SPA

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Arbroath Harbour	Angus Council	20,640 wet tonnes	Arbroath Deposit Site	13/07/2022 – 12/07/2024	Moray Firth SAC
Aberdeen North and South	Aberdeen Harbour Board	1,285,500 wet tonnes	Aberdeen Deposit Site	01/02/2023 – 31/01/2026	Moray Firth SAC
Cullen Harbour	Moray Council	21,000 wet tonnes	Buckie Deposit Site	10/02/2024 – 09/02/2027	Moray Firth SAC
Port of Nigg	Global Energy Nigg Limited	140,000 wet tonnes	Souter Deposit Site	30/06/2023 – 29/06/2023	Moray Firth SAC
Montrose Harbour	Montrose Port Authority	246,000 wet tonnes	Lunan Bay Deposit Site	24/09/2023 – 23/09/2024	Moray Firth SAC
Buckie Harbour	Moray Council	168,000 wet tonnes	Buckie Deposit Site	16/01/2024 – 15/01/2027	Moray Firth SAC
Burghead Harbour	Moray Council	60,000 Wet tonnes	Burghead Deposit site	16/03/2024 – 15/03/2027	Moray Firth SAC
Findochty Harbour	Moray Council	21,000 wet tonnes	Buckie Deposit Site	20/02/2024 – 19/02/2027	Moray Firth SAC
Hopeman Harbour	Moray Council	21,000 wet tonnes	Burghead Deposit Area	07/02/2024 – 06/02/2027	Moray Firth SAC
Portknockie Harbour	Moray Council	21,000 wet tonnes	Buckie Deposit Site	07/02/2024 – 06/02/2027	Moray Firth SAC
Port of Inverness	Port of Inverness	9,750 wet tonnes	Inverness Deposit Site	01/07/2022 – 30/06/2025	Moray Firth SAC
Boddam Harbour	SSE	24,000 wet tonnes	North Buchan Ness Deposit Site	01/10/2021 – 30/09/2024	Moray Firth SAC

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Port of Rosyth	Forth Ports Limited	1,560,000 wet tonnes over three years	Oxcars deposit site	11/03/2024 - 10/03/2027	<ul style="list-style-type: none"> <li>• Firth of Forth SPA</li> <li>• Outer Firth of Forth and St Andrews Bay Complex SPA</li> </ul>
Port Edgar	Port Edgar Marina Limited	60,000 wet tonnes over three years	Firth of Forth	27/01/2023 - 09/09/2025	<ul style="list-style-type: none"> <li>• Firth of Forth SPA</li> </ul>
Leith Docks	Forth Ports Limited	130,000 wet tonnes per year over three years	Narrow deep B	03/12/2021 – 02/12/2024	<ul style="list-style-type: none"> <li>• Firth of Forth SPA</li> <li>• Outer Firth of Forth and St Andrews Bay Complex SPA</li> </ul>
Port of Kirkcaldy	Forth Ports Limited	63,000 wet tonnes over three years	Kirkcaldy	22/12/2021 – 21/12/2024	<ul style="list-style-type: none"> <li>• Firth of Forth SPA</li> <li>• Outer Firth of Forth and St Andrews Bay Complex SPA</li> </ul>
Dysart	Dysart sailing club	1,200 wet tonnes per year	Beach deposit	01/06/2022 – 31/05/2025	<ul style="list-style-type: none"> <li>• Firth of Forth SPA</li> </ul>

		over three years	west of Dysart		
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**9.50 Assessment of in combination effects on the Firth of Forth SPA designated site**

9.50.1 The following projects currently have an active marine licence, section 36 consent or European protected species licence and associated AA which identified a likely significant effect on the qualifying interests of the Firth of Forth SPA.

- Berwick Bank Offshore Windfarm (Section 9.8)
- City of Edinburgh Council – Longcraig Pier repair works (Section 9.11)
- Inch Cape Offshore Wind Farm – Cofferdam Installation (Section 9.23)
- Dalgety Bay Sailing Club - Moorings - Dalgety Bay (Section 9.13)
- Forthwind (Section 9.16)
- Forthwind Demonstration Turbine (Section 9.17)
- Granton Harbour Redevelopment (Section 9.18)
- Leith Outer Berth (Section 9.26)
- Levenmouth Demonstration Turbine (Section 9.27)
- Restoration Forth – Native Oyster Restoration (Section 9.39)
- Outfall installation, Dunmore, Falkirk (section 9.37)
- Royal National Lifeboat Institution - Low Impact Maintenance to Construction Projects - Kyle of Lochalsh/Kinghorn and North Berwick Lifeboat Station (Section 9.40)
- Eastern Green Link 4 - Geophysical and Geotechnical Surveys (Section 9.15)
- Sea wall repair - Valleyfield, Fife (section 9.46)
- Dredging Operations (Section 9.49)

9.50.2 There is the potential for in combination effects with all the projects, however, providing all the projects are undertaken in line with the conditions in its respective AA's, MD-LOT concludes that any in combination effects will not adversely affect the site integrity of the Firth of Forth SPA.

**9.51 Assessment of in combination effects on the Imperial Dock Lock, Leith SPA designated site**

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9.51.1 The following projects currently have an active marine licence and associated AA which identified a likely significant effect on the qualifying interests of the Imperial Dock Lock, Leith SPA.

- Leith Outer Berth (Section 9.26)
- Dredging Operations (Section 9.49)
- Granton Harbour Redevelopment (Section 9.18)

9.51.2 There is potential for in combination effect with all the projects however provided they are undertaken in line with the conditions in its respective AA's, MD-LOT concludes that any in combination effects will not adversely affect the site integrity of the Imperial Dock Lock, Leith SPA.

## **9.52 Assessment of in combination effects on the Forth Islands SPA designated site**

9.52.1 The following projects currently have an active marine licence, section 36 consent or European protected species licence and associated AA which identified a likely significant effect on the qualifying interests of the Forth Islands SPA.

- Berwick Bank Offshore Windfarm (Section 9.8)
- Berwick Bank - Cambois Cable Connections (section 9.9)
- City of Edinburgh Council – Longcraig Pier repair works (Section 9.11)
- Culzean Floating Offshore Wind Turbine Pilot Project (Section 9.12)
- Inch Cape Offshore Wind Farm – Cofferdam Installation (Section 9.23)
- Dalgety Bay Sailing Club - Moorings - Dalgety Bay (Section 9.13)
- Forthwind (Section 9.16)
- Forthwind Demonstration Turbine (Section 9.17)
- Granton Harbour Redevelopment (Section 9.18)
- Green Volt Offshore Wind Farm and Associated Transmission Infrastructure (Section 9.19)
- Inch Cape Offshore Transmission Infrastructure (Section 9.20)
- Inch Cape Offshore Wind Farm (revised design) (Section 9.21)
- Inch Cape Transmission Infrastructure (revised design) (Section 9.22)
- Kincardine Offshore Wind Farm (Section 9.25)
- Leith Outer Berth (Section 9.26)
- Neart na Gaoithe Offshore Wind Farm (Section 9.33)
- Neart na Gaoithe Offshore Wind Farm (revised design) (Section 9.34)
- Pentland Floating Offshore Wind Farm (Section 9.38)
- Restoration Forth – Native Oyster Restoration (Section 9.39)

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- Seagreen Bravo Offshore Wind Farm (Section 9.41)
- Seagreen Alpha Offshore Wind Farm (Section 9.42)
- Fish Farms (Section 9.48)

9.52.2 There is potential for in combination effect with all the projects however provided they are undertaken in line with the conditions in its respective AA's, MD-LOT concludes that any in combination effects will not adversely affect the site integrity of the Forth Islands SPA.

### **9.53 Assessment of in combination effects on the Outer Firth of Forth and St Andrews Bay Complex SPA designated site**

9.53.1 The following projects currently have an active marine licence, section 36 consent or European protected species licence and associated AA which identified a likely significant effect on the qualifying interests of the Outer Firth of Forth and St Andrews Bay Complex SPA.

- Berwick Bank Offshore Windfarm (Section 9.8)
- Berwick Bank - Cambois Cable Connections (section 9.9)
- City of Edinburgh Council – Longcraig Pier repair works (Section 9.11)
- Inch Cape Offshore Wind Farm – Cofferdam Installation (Section 9.23)
- Dalgety Bay Sailing Club - Moorings - Dalgety Bay (Section 9.13)
- Dundee City Council – Dighty Burn Construction (Section 9.14)
- Forthwind (Section 9.16)
- Forthwind Demonstration Turbine (Section 9.17)
- Granton Harbour Redevelopment (Section 9.18)
- Inch Cape Offshore Wind Farm (revised design) (Section 9.21)
- Kincardine Offshore Wind Farm (Section 9.25)
- Leith Outer Berth (Section 9.26)
- Levenmouth Demonstration Turbine (Section 9.27)
- Neart na Gaoithe Offshore Wind Farm (revised design) (Section 9.34)
- Outfall Pipe - Pittenweem, Fife (Section 9.38)
- Restoration Forth – Native Oyster Restoration (Section 9.39)
- Eastern Green Link 4 - Geophysical and Geotechnical Surveys (Section 9.15)
- Scottish English Green Link (“SEGL”) 1 HVDC Cable and Cable Protection (Section 9.45)
- Tay Road Bridge Joint Board - Bridge Maintenance - Tay Road Bridge, Dundee (Section 9.47)
- Dredging Operations (Section 9.49)

9.53.2 There is potential for in combination effect with all the projects however provided they are undertaken in line with the conditions in its respective AA's, MD-LOT concludes that any in combination effects will not adversely affect the site integrity of the Outer Firth of Forth and St Andrews Bay Complex SPA.

#### **9.54 Assessment of in combination effects on the River Teith SAC designated site**

9.54.1 The following projects currently have an active marine licence, section 36 consent or European protected species licence and associated AA which identified a likely significant effect on the qualifying interests of the River Teith SAC.

- Inch Cape Offshore Transmission Infrastructure (Section 9.19)
- Forthwind Demonstration Turbine (Section 9.17)
- Inch Cape Offshore Wind Farm (Section 9.20)
- Granton Harbour Redevelopment (Section 9.18)
- Leith Outer Berth (Section 9.26)
- Meygen Tidal Turbines (Section 9.29)
- Neart na Gaoithe Offshore Wind Farm (Section 9.33)
- Pentland Floating Offshore Wind Farm (Section 9.38)

9.54.2 There is potential for in combination effect with the above projects however provided they are undertaken in line with the conditions in its respective AA's, MD-LOT concludes that any in combination effects will not adversely affect the site integrity of the River Teith SAC.

#### **9.55 Assessment of in combination effects on the Isle of May SAC designated site**

9.55.1 The following projects currently have an active marine licence, section 36 consent or European protected species licence and associated AA which identified a likely significant effect on the qualifying interests of the Isle of May SAC.

- Berwick Bank Offshore Windfarm (Section 9.8)
- Forthwind (Section 9.16)
- Forthwind Demonstration Turbine (Section 9.17)
- Inch Cape Offshore Transmission Infrastructure (Section 9.19)
- Inch Cape Offshore Wind Farm (Section 9.20)
- Inch Cape Offshore Wind Farm (revised design) (Section 9.21)



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- Granton Harbour Redevelopment (Section 9.18)
- Leith Outer Berth (Section 9.26)
- Neart na Gaoithe Offshore Wind Farm (Section 9.33)
- Neart na Gaoithe Offshore Wind Farm (Revised Design) (Section 9.34)
- Neart na Gaoithe Offshore Wind Farm – Use of survey equipment (Section 9.35)
- Eastern Green Link 4 - Geophysical and Geotechnical Surveys (Section 9.15)
- Seagreen Bravo Offshore Wind Farm (Section 9.41)
- Seagreen Alpha Offshore Wind Farm (Section 9.42)

9.55.2 There is potential for in combination effect with the above projects however provided they are undertaken in line with the conditions in its respective AA's, MD-LOT concludes that any in combination effects will not adversely affect the site integrity of the Isle of May SAC.

#### **9.56 Assessment of in combination effects on the Firth of Tay and Eden Estuary SAC designated site**

9.56.1 The following projects currently have an active marine licence, section 36 consent or European protected species licence and associated AA which identified a likely significant effect on the qualifying interests of the Firth of Tay and Eden Estuary SAC.

- Berwick Bank Offshore Windfarm (Section 9.8)
- Dundee City Council – Dighty Burn Construction (Section 9.14)
- Forthwind (Section 9.16)
- Forthwind Demonstration Turbine (Section 9.17)
- Inch Cape Offshore Transmission Infrastructure (Section 9.19)
- Inch Cape Offshore Wind Farm (Section 9.20)
- Inch Cape Offshore Wind Farm (revised design) (Section 9.21)
- Leith Outer Berth (Section 9.26)
- Neart na Gaoithe Offshore Wind Farm (Section 9.33)
- Neart na Gaoithe Offshore Wind Farm (Revised Design) (Section 9.34)
- Neart na Gaoithe Offshore Wind Farm – Use of survey equipment (Section 9.35)
- Manhole Maintenance and Repairs - Broughty Ferry, Dundee (Section 9.28)
- Seagreen Bravo Offshore Wind Farm (Section 9.41)
- Seagreen Alpha Offshore Wind Farm (Section 9.42)
- Seagreen Wind Energy Limited - Unexploded Ordnance Clearance (“UXO”) (Section 9.43)

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- Seagreen Offshore Transmission Asset Final Construction and Operations and Maintenance Activities (Section 9.44)
- Tay Road Bridge Joint Board - Bridge Maintenance - Tay Road Bridge, Dundee (Section 9.47)

9.56.2 There is potential for in combination effect with the above projects however provided they are undertaken in line with the conditions in its respective AA's, MD-LOT concludes that any in combination effects will not adversely affect the site integrity of the Firth of Tay and Eden Estuary SAC.

### **9.57 Assessment of in combination effects on the Berwickshire and North Northumberland Coast SAC designated site**

9.57.1 The following projects currently have an active marine licence, section 36 consent or European protected species licence and associated AA which identified a likely significant effect on the qualifying interests of the Berwickshire and North Northumberland Coast SAC.

- Berwick Bank Offshore Windfarm (Section 9.8)
- Berwick Bank - Cambois Cable Connections (section 9.9)
- Forthwind Demonstration Turbine (Section 9.17)
- Granton Harbour Redevelopment (Section 9.18)
- Inch Cape Offshore Transmission Infrastructure (Section 9.20)
- Inch Cape Offshore Wind Farm (revised design) (Section 9.21)
- Inch Cape Transmission Infrastructure (revised design) (Section 9.22)
- Leith Outer Berth (Section 9.26)
- Neart na Gaoithe Offshore Wind Farm (Section 9.33)
- Neart na Gaoithe Offshore Wind Farm (revised design) (Section 9.34)
- Neart na Gaoithe Offshore Wind Farm – Use of survey equipment (Section 9.35)
- Seagreen Bravo Offshore Wind Farm (Section 9.41)
- Seagreen Alpha Offshore Wind Farm (Section 9.42)

9.57.2 There is potential for in combination effect with the above projects however provided they are undertaken in line with the conditions in its respective AA's, MD-LOT concludes that any in combination effects will not adversely affect the site integrity of the Berwickshire and North Northumberland Coast SAC.

### **9.58 Assessment of in combination effects on the Moray Firth SAC designated site**

9.58.1 The following projects currently have an active marine licence, section 36 consent or European protected species licence and associated AA which identified a likely significant effect on the qualifying interests of the Moray Firth SAC.

- Ardersier Port Development (Section 9.3)
- BEAR Scotland - Bridge Maintenance Works - Kessock Bridge, Inverness-shire (Section 9.4)
- Beatrice Offshore Wind Farm (Section 9.5)
- Beatrice Offshore Wind Farm – Post Consent Benthic and Geophysical Surveys (Section 9.6)
- Berwick Bank Offshore Windfarm (Section 9.8)
- Forthwind Demonstration Turbine (Section 9.17)
- Green Volt Offshore Wind Farm and Associated Transmission Infrastructure (Section 9.19)
- Inch Cape Offshore Transmission Infrastructure (Section 9.20)
- Inch Cape Offshore Wind Farm (revised design) (Section 9.21)
- Inch Cape Transmission Infrastructure (revised design) (Section 9.22)
- Installation of new long sea outfall, Spey Bay (Section 9.24)
- Kincardine Offshore Wind Farm (Section 9.25)
- Leith Outer Berth (Section 9.26)
- Moray West Offshore Wind Farm (Section 9.31)
- Moray West Offshore Wind Farm – UXO Clearance (Section 9.32)
- Moray East Offshore Wind Farm (Section 9.33)
- Neart na Gaoithe Offshore Wind Farm (Section 9.33)
- Neart na Gaoithe Offshore Wind Farm (revised design) (Section 9.34)
- Neart na Gaoithe Offshore Wind Farm – Use of survey equipment (Section 9.35)
- Pentland Floating Offshore Wind Farm (Section 9.38)
- Seagreen Offshore Transmission Asset Final Construction and Operations and Maintenance Activities (Section 9.44)
- Tay Road Bridge Joint Board - Bridge Maintenance - Tay Road Bridge, Dundee (Section 9.47)
- Dredging Operations (Section 9.49)

9.58.2 Although in combination effects with the remaining projects are possible, providing the conditions in all AAs are adhered to, there will be no adverse effect on the site integrity of the Moray Firth SAC.

## 10 MD-LOT Conclusion

MD-LOT concludes that providing the conditions listed in Section 4 are adhered to, there will be no adverse effect on the site integrity of the Firth of Forth SPA, Imperial Dock Lock, Leith SPA, Forth Islands SPA, Outer Firth of Forth and St Andrews Bay Complex SPA, River Teith SAC, Isle of May SAC, Firth of Tay and Eden Estuary SAC, Berwickshire and North Northumberland SAC or Moray Firth SAC from the Forth Ports Ltd proposal either in isolation or in combination with other projects.

## **SECTION 4: CONDITIONS**

### **11 Requirement for conditions**

- 11.1 The following conditions are required to ensure the project will not adversely affect the site integrity of the Firth of Forth SPA, Imperial Dock Lock, Leith SPA, Forth Islands SPA, Outer Firth of Forth and St Andrews Bay Complex SPA, River Teith SAC, Isle of May SAC, Firth of Tay and Eden Estuary SAC, Berwickshire and North Northumberland SAC or the Moray Firth SAC:

#### Conditions required for the Marine Licence for construction:

- 11.2 The Licensee must ensure that a piling shroud is used at all times when piling takes place during the common tern breeding and post-breeding periods from 1 May to 30 September, inclusive.
- 11.3 The Licensee must avoid undertaking any piling works during the common tern breeding and post breeding seasons 1 May to 30 September, inclusive. If piling is carried out between 1 May and 30 September, inclusive the Licensee must appoint a suitably qualified and experienced Environmental Clerk of works (“ECoW”) prior to commencement of the piling activities. The ECoW must be on site during piling and is responsible for monitoring any disturbance to the common tern colony of the Imperial Dock Lock, Leith Special Area of Conservation. The ECoW must have authority to halt the piling activities if any disturbance of breeding common terns is observed and the Licensing Authority must be notified. The piling works can only re-commence with further written approval of the Licensing Authority. The ECoW must report to the Licensing Authority detailing monitoring and compliance with the Marine Licence on at least an annual basis.
- 11.4 The Licensee must ensure that all provisions of the ‘Statutory nature conservation agency protocol for minimising the risk of injury to marine mammals from piling noise’ (2010) (“the JNCC piling protocol”) are adhered to.

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Conditions required for the Marine Licence for dredging and deposit:

- 11.5 The Licensee must ensure that the relevant provisions of The Scottish Marine Wildlife Watching Code (2017) are adhered to at all times.
- 11.6 The Licensee must not carry out any dredging activities between 01 May and 15 September inclusive.