BERWICK BANK WIND FARM
REPORT TO INFORM APPROPRIATE ASSESSMENT

EXECUTIVE SUMMARY AND CONCLUSION

Habitats Regulations Appraisal

EOR0766
HRA Report
Final

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1. EXECUTIVE SUMMARY

1. This Report to Inform an Appropriate Assessment (RIAA) sets out the findings of a study to inform the second stage of the Habitats Regulations Appraisal (HRA) required for the offshore components of the Berwick Bank Wind Farm Project (the Proposed Development) to ensure compliance with the Habitats Regulations.

2. The study set out in this report (a study to inform an Appropriate Assessment) considers whether the Proposed Development could have adverse effects (either alone or in combination with other plans or projects), on the integrity of 49 European sites (11 Special Areas of Conservation (SAC) and 38 Special Protection Areas (SPA) and Ramsar sites) for which the potential for Likely Significant Effects (LSE) could not be discounted.

3. An Appropriate Assessment of the Proposed Development has been carried out in view of the conservation objectives for each European site screened into the assessment, the best available evidence, and in view of the measures proposed to avoid or mitigate the potential for adverse effects.

4. The consideration of the potential for adverse effects on [European site] integrity is made with reference to the sites' overall ecological functions and the lasting preservation of the constitutive characteristics of the sites.

1.2. ANNEX I HABITATS (COASTAL AND SUBTIDAL)

1.2.1. BERWICKSHIRE AND NORTH NORTHUMBERLAND COAST SAC

5. The Berwickshire and North Northumberland Coast SAC extends from Alnmouth in northeast England to north of St Abbs head in Scotland and is located 34.69 km from the Proposed Development array area and 4.14 km from the Proposed Development export cable corridor. The site contains a complex mix of marine habitats, associated species and communities which is unusually diverse for the North Sea.

6. The HRA screening exercise could not rule out the risk of LSE on the Berwickshire and North Northumberland Coast SAC. The impacts of the Proposed Development have been assessed with respect to the conservation objectives of this site. Annex I habitats that are qualifying features of this European site, and were screened into assessment include:

   - mudflats and sandflats not covered by seawater at low tide;
   - large shallow inlets and bays;
   - reefs; and
   - submerged or partially submerged sea caves.

7. The effect pathways investigated concern increased suspended sediment concentrations and associated sediment deposition (offshore export cables only; during construction and decommission and operation and maintenance phases) and alteration of seabed habitats arising from effects of physical processes (during the operation and maintenance phase).

8. With respect to increased suspended sediment concentrations (SSC) and associated sediment deposition impacts, the qualifying Annex I habitats mudflats and sandflats not covered by seawater at low tide and large shallow inlets and bays are located within the SAC beyond the predicted Zone of Influence (ZOI) of this impact. There is therefore no pathway for effect for these Annex I habitats. With respect to the remaining two Annex I habitats, project specific modelling predicted sedimentation at the coastline will be typically <3 mm and reduce to background levels on slack tides therefore the effects resulting from any changes in water quality, light smothering and siltation rate changes will be reduced due to dispersal. With respect to alteration of seabed habitats arising from effects of physical processes impact, project specific modelling predicted no discernible change in physical processes at the coast where the Berwickshire and North Northumberland Coast SAC is located.

9. The assessment concluded that the conservation objectives for the site would not be undermined and on the evidence herein, **a finding of no adverse effects on integrity of the Berwickshire and North Northumberland Coast SAC is supported** with respect to the Proposed Development acting alone and in-combination with other plans and projects.

1.3. ANNEX II DIADROMOUS FISH SPECIES

1.3.1. TWEED ESTUARY SAC

10. The Tweed Estuary SAC is located 46.5 km from the Proposed Development array area and 29 km from the Proposed Development export cable corridor. The site, located in Northumberland, encompasses the Tweed Estuary, a long and narrow estuary discharging into the North Sea.

11. The HRA screening exercise could not rule out the risk of LSE on the Tweed Estuary SAC. The impacts of the Proposed Development have been assessed with respect to the conservation objectives of this site. Annex II diadromous fish that are qualifying features of this European site and were screened into assessment include:

    - river lamprey *Lampetra fluviatilis*; and
    - sea lamprey *Petromyzon marinus*.

12. The effect pathways investigated concern injury and/or disturbance from underwater noise and vibration and increased SSC and associated sediment deposition (during construction and decommission phases), Electromagnetic Fields (EMF) from subsea electric cabling, and colonisation of foundations, scour protection and cable protection (during the operation and maintenance phase).

13. Project specific modelling indicates that injury and/or mortality to Group 1 fish (sea lamprey and river lamprey) is only expected for individuals within very close proximity to piling operations and Unexploded Ordnance (UXO) clearance. Due to the transient nature of these migratory fish passing through the Proposed Development and soft starts allowing them to flee the area, significant injury/mortality is not expected. Given the distance between the Proposed Development and the coast, barriers to migration from behavioural effects are also not expected.

14. Modelling undertaken specifically for the Proposed Development indicates that increases in SSC are predicted to be temporary, short-lived and at levels well below those naturally expected in estuarine environments. The qualifying species are expected to have some tolerance to naturally high SSC given their migratory routes through estuaries, therefore no barriers to migration are expected.

15. With regards to EMF from subsea cabling, disturbance to river lamprey and sea lamprey occurs at intensities considerably higher than those expected from alternating current (AC) subsea cables. Due to the parasitic nature of the qualifying species when at sea, attached to highly mobile species, well above the seafloor, they can be expected to rarely encounter EMFs.

16. With respect to colonisation of foundations, scour protection and cable protection, this impact may lead to increased predation on the qualifying species by marine mammals attracted to the hard structures. Significant predation on sea lamprey and river lamprey is not expected as individuals likely to interact with the Proposed Development are likely only to do so whilst passing through the area during migration.

17. The assessment concluded that the conservation objectives for the site would not be undermined and on the evidence herein, **a finding of no adverse effects on integrity of the Tweed Estuary SAC is supported** with respect to the Proposed Development acting alone and in-combination with other plans and projects.

1.3.2. RIVER TWEED SAC

18. The River Tweed SAC is located 51.6 km from the Proposed Development array site and 34.1 km from the Proposed Development export cable corridor. The site, located in Eastern Scotland and Northumberland and Tyne and Wear encompasses 3742.62 ha of the River Tweed's catchment and 1,285 km of watercourse.

19. The HRA screening exercise could not rule out the risk of LSE on the River Tweed SAC. The impacts of the Proposed Development have been assessed with respect to the conservation objectives of this site. Annex II diadromous fish that are qualifying features of this European site and were screened into assessment include:

- Atlantic salmon *Salmo salar*;
- river lamprey; and
- sea lamprey.

20. The effect pathways investigated concern injury and/or disturbance from underwater noise and vibration , increased SSC and associated sediment deposition (during construction and decommission phases), EMF from subsea electric cabling and colonisation of foundations, scour protection and cable protection (during the operation and maintenance phase).

21. Project specific modelling indicates that injury and/or mortality to Group 1 fish (sea lamprey and river lamprey) and Group 2 fish (Atlantic salmon) is only expected for individuals close to piling operations and UXO clearance. Due to the transient nature of these migratory fish passing through the Proposed Development and soft starts allowing them to flee the area, significant injury/mortality is not expected. Given the distance between the Proposed Development and the coast, barriers to migration from behavioural effects are also not expected.

22. Project specific modelling indicates that increases in SSC are predicted to be temporary, short-lived and at levels well below those naturally expected in estuarine environments. The qualifying species are expected to have some tolerance to naturally high SSC given their migratory routes through estuaries, therefore no barriers to migration are expected.

23. With regards to EMF from subsea cabling, disturbance to sea lamprey and river lamprey occur at intensities considerably higher than those expected from AC subsea cables. Due to the parasitic nature of sea lamprey and river lamprey species when at sea, attached to highly mobile species, and the pelagic nature of salmon, with all species well above the seafloor, they can be expected to rarely encounter EMFs.

24. With respect to colonisation of foundations, scour protection and cable protection, this impact may lead to increased predation on the qualifying species by marine mammals attracted to the hard structures, significant predation on these fish is not expected as individuals likely to interact with the Proposed Development are likely only to do so whilst passing through the area during migration.

25. The assessment concluded that the conservation objectives for the site would not be undermined and on the evidence herein, **a finding of no adverse effects on integrity of the River Tweed SAC is supported** with respect to the Proposed Development acting alone and in-combination with other plans and projects.

1.3.3. RIVER SOUTH ESK SAC

26. The River South Esk SAC is located 51.35 km from the Proposed Development array area and 76.45 km from the Proposed Development export cable corridor. The site is located in Angus in Eastern Scotland and spans 471.85 ha.

27. The HRA screening exercise could not rule out the risk of LSE on the River South Esk SAC. The impacts of the Proposed Development have been assessed with respect to the conservation objectives of this site. Annex II diadromous fish and Annex II freshwater pearl mussel that are qualifying features of this European site and were screened into assessment include:

- Atlantic salmon; and
- freshwater pearl mussel *Margaritifera margaritifera*.

28. The effect pathways investigated concern injury and/or disturbance from underwater noise and vibration, increased SSC and associated sediment deposition (during construction and decommission phases), Electromagnetic Fields (EMF) from subsea electric cabling and colonisation of foundations, scour protection and cable protection (during the operation and maintenance phase).

29. Project specific modelling indicates that injury and/or mortality to Group 2 fish (Atlantic salmon) is only expected for individuals close to piling operations and UXO clearance. Due to the transient nature of these migratory fish passing through the Proposed Development and soft starts allowing them to flee the area, significant injury/mortality is not expected. Given the distance between the Proposed Development and the coast, barriers to migration from behavioural effects are also not expected.

30. Project specific modelling indicates that increases in SSC are predicted to be temporary, short-lived and at levels well below those naturally expected in estuarine environments. Atlantic salmon is expected to have some tolerance to naturally high SSC given their migratory routes through estuaries, therefore no barriers to migration are expected.

31. Due to the pelagic nature of Atlantic salmon, the species is unlikely to swim at depths sufficient to detect levels of EMF. With respect to colonisation of foundations, scour protection and cable protection, this impact may lead to increased predation on the qualifying species by marine mammals attracted to the hard structures, significant predation on Atlantic salmon is not expected as individuals likely to interact with the Proposed Development are likely only to do so whilst passing through the area during migration.

32. There is potential for indirect adverse effects on the larval stage of freshwater pearl mussel if there are adverse effects on Atlantic salmon (their host species for the first year of their life) to which they are attached. Since the assessment concluded there will be no significant adverse effects on Atlantic salmon, there will be no significant adverse effects freshwater pearl mussel.

33. The assessment concluded that the conservation objectives for the site would not be undermined and on the evidence herein, **a finding of no adverse effects on integrity of the River South Esk SAC is supported** with respect to the Proposed Development acting alone and in-combination with other plans and projects.

1.3.4. RIVER TAY SAC

34. At its closest point, the River Tay SAC is located 87.15 km from the Proposed Development array area and 102.67 km from the Proposed Development export cable corridor. The site comprises the longest river in Scotland, originating in western Scotland, flowing easterly across the Highlands before becoming tidal at the Firth of Tay. The site covers an area of 9461.63 ha.

35. The HRA screening exercise could not rule out the risk of LSE on the River Tay SAC. The impacts of the Proposed Development have been assessed with respect to the conservation objectives of this site. With

respect to Annex II diadromous fish that are qualifying features of this European site and were screened into assessment include:

- Atlantic salmon;
- river lamprey; and
- sea lamprey.

36. The effect pathways investigated concern injury and/or disturbance from underwater noise and vibration, increased SSC and associated sediment deposition (during construction and decommission phases), EMF from subsea electric cabling and colonisation of foundations, scour protection and cable protection (during the operation and maintenance phase).

37. Project specific modelling indicates that injury and/or mortality to Group 1 fish (sea lamprey and river lamprey) and Group 2 fish (Atlantic salmon) is only expected for individuals close to piling operations and UXO clearance. Due to the transient nature of these migratory fish passing through the Proposed Development and soft starts allowing them to flee the area, significant injury/mortality is not expected. Given the distance between the Proposed Development and the coast, barriers to migration from behavioural effects are also not expected.

38. Project specific modelling indicates that increases in SSC are predicted to be temporary, short-lived and at levels well below those naturally expected in estuarine environments. The qualifying species are expected to have some tolerance to naturally high SSC given their migratory routes through estuaries, therefore no barriers to migration are expected.

39. With regards to EMF from subsea cabling, disturbance to sea lamprey and river lamprey occur at intensities considerably higher than those expected from AC subsea cables. Due to the parasitic nature of sea lamprey and river lamprey species when at sea, attached to highly mobile species, and the pelagic nature of salmon, with all species well above the seafloor, they can be expected to rarely encounter EMFs.

40. With respect to colonisation of foundations, scour protection and cable protection, this impact may lead to increased predation on the qualifying species by marine mammals attracted to the hard structures, significant predation on these fish is not expected as individuals likely to interact with the Proposed Development are likely only to do so whilst passing through the area during migration.

41. The assessment concluded that the conservation objectives for the site would not be undermined and on the evidence herein, **a finding of no adverse effects on integrity of the River Tay SAC is supported** with respect to the Proposed Development acting alone and in-combination with other plans and projects.

1.3.5. RIVER DEE SAC

42. At its closest point, the River Dee SAC is located 79.78 km from the Proposed Development array area and 106.57 km from the Proposed Development export cable corridor. The entire length of the River Dee is designated as an SAC due to its importance for salmon, otter and freshwater pearl mussel. The river rises in the Cairngorms and flows through southern Aberdeenshire to reach the North Sea at Aberdeen. The site covers an area of 2334.48 ha.

43. The HRA screening exercise could not rule out the risk of LSE on the River Dee SAC. The impacts of the Proposed Development have been assessed with respect to the conservation objectives of this site. Annex II diadromous fish and Annex II freshwater pearl mussel that are qualifying features of this European site and were screened into assessment include:

- Atlantic salmon; and
- freshwater pearl mussel.

44. The effect pathways investigated concern injury and/or disturbance from underwater noise and vibration , increased SSC and associated sediment deposition (during construction and decommission phases), EMF from subsea electric cabling and colonisation of foundations, scour protection and cable protection (during the operation and maintenance phase).

45. Project specific modelling indicates that injury and/or mortality to Group 2 fish (Atlantic salmon) is only expected for individuals close to piling operations and UXO clearance. Due to the transient nature of these migratory fish passing through the Proposed Development and soft starts allowing them to flee the area, significant injury/mortality is not expected. Given the distance between the Proposed Development and the coast, barriers to migration from behavioural effects are also not expected.

46. Project specific modelling indicates that increases in SSC are predicted to be temporary, short-lived and at levels well below those naturally expected in estuarine environments. Atlantic salmon is expected to have some tolerance to naturally high SSC given their migratory routes through estuaries, therefore no barriers to migration are expected.

47. Due to the pelagic nature of Atlantic salmon, the species is unlikely to swim at depths sufficient to detect levels of EMF. With respect to colonisation of foundations, scour protection and cable protection, this impact may lead to increased predation on the qualifying species by marine mammals attracted to the hard structures, significant predation on Atlantic salmon is not expected as individuals likely to interact with the Proposed Development are likely only to do so whilst passing through the area during migration.

48. There is potential for indirect adverse effects on the larval stage of freshwater pearl mussel if there are adverse effects on Atlantic salmon (their host species for the first year of their life) to which they are attached. Since the assessment concluded there will be no significant adverse effects on Atlantic salmon, there will be no significant adverse effects freshwater pearl mussel.

49. The assessment concluded that the conservation objectives for the site would not be undermined and on the evidence herein, **a finding of no adverse effects on integrity of the River Dee SAC is supported** with respect to the Proposed Development acting alone and in-combination with other plans and projects.

1.3.6. RIVER TEITH SAC

50. At its closest point, the River Teith SAC is located 148.1 km from the Proposed Development array area and 113.81 km from the Proposed Development export cable corridor. The River Teith is a large river that flows eastwards through central Scotland and the SAC covers an area of 1289.33 ha. The river is the most significant tributary of the River Forth.

51. The HRA screening exercise could not discount the risk of LSE on the River Teith SAC. The impacts of the Proposed Development have been assessed with respect to the conservation objectives of this site. Annex II diadromous fish that are qualifying features of this European site and were screened into assessment include:

- Atlantic salmon;
- river lamprey; and
- sea lamprey.

52. The effect pathways investigated concern injury and/or disturbance from underwater noise and vibration , increased SSC and associated sediment deposition (during construction and decommission phases), EMF from subsea electric cabling and colonisation of foundations, scour protection and cable protection (during the operation and maintenance phase).

53. Project specific modelling indicates that injury and/or mortality to Group 1 fish (sea lamprey and river lamprey) and Group 2 fish (Atlantic salmon) is only expected for individuals close to piling operations and UXO clearance. Due to the transient nature of these migratory fish passing through the Proposed Development and soft starts allowing them to flee the area, significant injury/mortality is not expected.

Given the distance between the Proposed Development and the coast, barriers to migration from behavioural effects are also not expected.

54. Project specific modelling indicates that increases in SSC are predicted to be temporary, short-lived and at levels well below those naturally expected in estuarine environments. The qualifying species are expected to have some tolerance to naturally high SSC given their migratory routes through estuaries, therefore no barriers to migration are expected.

55. With regards to EMF from subsea cabling, disturbance to sea lamprey and river lamprey occur at intensities considerably higher than those expected from AC subsea cables. Due to the pelagic nature of Atlantic salmon, the species is unlikely to swim at depths sufficient to detect levels of EMF. With respect to colonisation of foundations, scour protection and cable protection, this impact may lead to increased predation on the qualifying species by marine mammals attracted to the hard structures, significant predation on these fish is not expected as individuals likely to interact with the Proposed Development are likely only to do so whilst passing through the area during migration.

56. The assessment concluded that the conservation objectives for the site would not be undermined and on the evidence herein, **a finding of no adverse effects on integrity of the River Teith SAC is supported** with respect to the Proposed Development acting alone and in-combination with other plans and projects.

1.4. ANNEX II MARINE MAMMALS

1.4.1. BERWICKSHIRE AND NORTH NORTHUMBERLAND COAST SAC

57. The Berwickshire and North Northumberland Coast SAC extends from Alnmouth in northeast England to north of St Abbs head in Scotland and is located 34.69 km from the Proposed Development array area and 4.14 km from the Proposed Development export cable corridor. The site contains a complex mix of marine habitats, associated species and communities which is unusually diverse for the North Sea.

58. The HRA screening exercise could not rule out the risk of LSE on the Berwickshire and North Northumberland Coast SAC. The impacts of the Proposed Development have been assessed with respect to the conservation objectives of this site. Annex II marine mammals that are qualifying features of this European site and were screened into assessment include:

- grey seal *Halichoerus grypus*.

59. The effect pathways investigated concern underwater noise and changes in prey availability during the construction, decommissioning, operation and maintenance phases.

60. In terms of injury and disturbance from elevated underwater noise, it is anticipated that piling, site investigation surveys, UXO clearance (on the application of secondary mitigation measures described herein) and vessel use and other activities will not result in any long-term changes in the trajectory of the population of grey seal of this SAC. Further, it is not anticipated, with a high degree of certainty, that maintenance works resulting in habitat loss/disturbance will influence grey seal population trajectory in the long-term. The impacts of construction, decommissioning, operation and maintenance works will be highly localised, temporary in nature and restricted to the boundaries of the Proposed Development, thus only a small area will ever be affected compared with the available foraging habitat for grey seals in the northern North Sea. It is therefore reasonable to assume that, due to the highly mobile nature of grey seals, there will be similar and suitable prey resources available in the wider area.

61. The assessment concluded that the conservation objectives for the site would not be undermined and on the evidence herein, **a finding of no adverse effects on integrity of Berwickshire and North Northumberland Coast SAC is supported** with respect to the Proposed Development acting alone and in-combination with other plans and projects.

1.4.2. ISLE OF MAY SAC

62. The Isle of May SAC extends over an area of 3.5 km^2 and is located approximately 38.5 km from the Proposed Development array area and 20.9 km from the Proposed Development export cable corridor. It is located at the entrance to the Firth of Forth on the east coast of Scotland and supports the fourth largest breeding group of grey seals in the British Isles (contributes approximately 4.5% of the annual UK pup production) (JNCC, 2015). The SAC is the largest east coast breeding colony of grey seal in Scotland and comprises up to 5,900 individuals. The annual Special Committee on Seals (SCOS) reports suggest that the population of grey seals within this SAC is increasing (e.g. SCOS, 2019; SCOS, 2020). The grey seal feature of the site was last assessed as being in 'favourable maintained' condition in November 2014.

63. The HRA screening exercise could not rule out the risk of LSE on the Isle of May SAC. The impacts of the Proposed Development have been assessed with respect to the conservation objectives of this site. Annex II marine mammals that are qualifying features of this European site and were screened into assessment include:

- grey seal.

64. The effect pathways investigated concern underwater noise and changes in prey availability during the construction, decommissioning, operation and maintenance phases.

65. In terms of injury and disturbance from elevated underwater noise, it is anticipated that piling, site investigation surveys, UXO clearance and vessel use and other activities will not result in any long-term changes in the trajectory of the population of grey seal of this SAC. Further, it is not anticipated, with a high degree of certainty that maintenance works resulting in habitat loss/disturbance will influence grey seal population trajectory in the long-term. The impacts of construction, decommissioning, operation and maintenance works will be highly localised, temporary in nature and restricted to the boundaries of the Proposed Development, thus only a small area will ever be affected compared with the available foraging habitat for grey seals in the northern North Sea.

66. It is therefore reasonable to assume that, due to the highly mobile nature of grey seals, there will be similar and suitable prey resources available in the wider area. to the assessment concluded that the conservation objectives for the site would not be undermined and on the evidence herein, **a finding of no adverse effects on integrity of the Isle of May SAC is supported** with respect to the Proposed Development acting alone and in-combination with other plans and projects.

1.4.3. FIRTH OF TAY AND EDEN ESTUARY SAC

67. The Firth of Tay and Eden Estuary SAC lies approximately 47 km from the Proposed Development array area and 45 km from the Proposed Development export cable corridor, covers an area of approximately 155 km^2 and comprises two high quality estuarine areas, which are integral components of a large, geomorphologically complex area (JNCC, 2021a). The SAC supports a breeding colony of harbour seal. It has been documented that there has been a slow decline of harbour seal numbers since 1990. Sporadic counts in the Firth of Forth indicate, however, that the decline is localised within the SAC and may not represent the trends in the overall MU population. The harbour seal feature of the site was last assessed as being in 'unfavourable declining' condition due to recreation/disturbance.

68. The HRA screening exercise could not rule out the risk of LSE on the Firth of Tay and Eden Estuary SAC. The impacts of the Proposed Development have been assessed with respect to the conservation objectives of this site. Annex II marine mammals that are qualifying features of this European site and were screened into assessment include:

- harbour seal *Phoca vitulina*.

69. The effect pathways investigated concern underwater noise and changes in prey availability during the construction, decommissioning, operation, and maintenance phases.

70. In terms of injury and disturbance from elevated noise, it is anticipated that piling, site investigation surveys, UXO clearance (on the application of secondary mitigation measures described herein) and vessel use and other activities will not result in any long-term changes in the trajectory of the population of harbour seal of this SAC. Further, it is not anticipated, with a high degree of certainty, that maintenance works resulting in habitat loss/disturbance will influence grey seal population trajectory in the long-term. The impacts of construction, decommissioning, operation, and maintenance works will be highly localised, temporary in nature and restricted to the boundaries of the Proposed Development, thus only a small area will ever be affected compared with the available foraging habitat for harbour seals in the northern North Sea. It is therefore reasonable to assume that, due to the highly mobile nature of harbour seals, there will be similar and suitable prey resources available in the wider area. The assessment concluded that the conservation objectives for the site would not be undermined and on the evidence herein, **a finding of no adverse effects on integrity of the Firth of Tay and Eden Estuary SAC is supported** with respect to the Proposed Development acting alone and in-combination with other plans and projects.

1.4.4. SOUTHERN NORTH SEA SAC

71. The Southern North Sea SAC, covering an area of 36,951 km^2, was designated to conserve harbour porpoise (JNCC, 2021b). The site is located 146 km to the south-east from the Proposed Development array area and 151 km from the Proposed Development export cable corridor. The SAC area supports an estimated 17.5% of the UK North Sea MU population. The northern part supports higher densities of porpoises during the summer season (April to September), whilst the southern part is recognised as an important area during the winter season (October to March) (JNCC, 2021b). Harbour porpoise condition has not yet been assessed at this site; however, the site assessment assigns a grade of A conservation to the site, which is deemed excellent.

72. The HRA screening exercise could not rule out the risk of LSE on the Southern North Sea SAC. The impacts of the Proposed Development have been assessed with respect to the conservation objectives of this site. Annex II marine mammals that are qualifying features of this European site and were screened into assessment include:

- harbour porpoise *Phocoena phocoena*.

73. The effect pathways investigated concern underwater noise and changes in prey availability during construction, decommissioning, operation and maintenance phases.

74. In terms of injury and disturbance from elevated underwater noise, it is anticipated that piling, site investigation surveys, UXO clearance (on the application of secondary mitigation measures described herein) and vessel use, and other activities will not result in any long-term changes in the trajectory of the population of harbour porpoise of this SAC. Further, it is not anticipated, with a high degree of certainty, that maintenance works resulting in habitat loss/disturbance will influence harbour porpoise population trajectory in the long-term. The impacts of construction, decommissioning, operation and maintenance works will be highly localised, temporary in nature and restricted to the boundaries of the Proposed Development, thus only a small area will ever be affected compared with the available foraging habitat for harbour porpoise in the northern North Sea.

75. It is therefore reasonable to assume that, due to the highly mobile nature of harbour porpoise, there will be similar and suitable prey resources available in the wider area. The assessment concluded that the conservation objectives for the site would not be undermined and on the evidence herein, **a finding of no adverse effects on integrity of the Southern North Sea SAC is supported** with respect to the Proposed Development acting alone and in-combination with other plans and projects.

1.4.5. MORAY FIRTH SAC

76. The Moray Firth SAC is located approximately 167 km north of the Proposed Development array area and 193 km north of the Proposed Development export cable corridor. The SAC supports the only known resident population of bottlenose dolphin in the North Sea. This SAC covers an area of 1,512 km^2 and extends from the inner firths to Helmsdale on the north coast and Lossiemouth on the south coast (JNCC, 2021c). The site includes areas that are regularly used by the population of bottlenose dolphins occurring along the east coast of Scotland (JNCC, 2021c). NatureScot, has advised in their formal response to the HRA Stage One Screening (February 2022) that there are estimated to be 224 individuals. Data from the site condition monitoring suggest that the proportion of the east coast of Scotland bottlenose dolphin population that use the SAC has declined, although the overall population along the coast is increasing. Bottlenose dolphin at the site was last assessed as being in 'favourable maintained' condition in September 2016.

77. The HRA screening exercise could not rule out the risk of LSE on the Moray Firth SAC. The impacts of the Proposed Development have been assessed with respect to the conservation objectives of this site. With respect to Annex II marine mammals that are qualifying features of this European site and screened into assessment comprise:

- bottlenose dolphin *Tursiops truncatus*.

78. The effect pathways investigated concern underwater noise and changes in prey availability during construction, decommissioning, operation, and maintenance phases.

79. In terms of injury and disturbance from elevated underwater noise, it is anticipated that piling, site investigation surveys, UXO clearance (on the application of secondary mitigation measures described herein) and vessel use and other activities will not result in any long-term changes in the trajectory of the population of harbour porpoise of this SAC. Further, it is not anticipated, with a high degree of certainty, that maintenance works resulting in habitat loss/disturbance will influence harbour porpoise population trajectory in the long-term. The impacts of construction, decommissioning, operation, and maintenance works will be highly localised, temporary in nature and restricted to the boundaries of the Proposed Development, thus only a small area will ever be affected compared with the available foraging habitat for harbour porpoise in the northern North Sea.

80. It is therefore reasonable to assume that, due to the highly mobile nature of harbour porpoise, there will be similar and suitable prey resources available in the wider area. to the assessment concluded that the conservation objectives for the site would not be undermined and on the evidence herein, **a finding of no adverse effects on integrity of the Moray Firth SAC is supported** with respect to the Proposed Development acting alone and in-combination with other plans and projects.

1.5. OFFSHORE ORNITHOLOGY

81. A total of 37 European sites designated for ornithological features were originally advanced to HRA Stage Two Appropriate Assessment in the HRA Stage One Screening Report (SSER, 2021b). These comprised one marine SPA, 19 breeding seabird colony SPAs and 17 migratory waterbird SPAs (and Ramsar sites).

82. Following receipt of the Berwick Bank Wind Farm Scoping Opinion and associated representations and advice (volume 3, appendix 6.2 of the Offshore EIA Report), it was concluded that a further four qualifying features from the Farne Islands SPA should be advanced to HRA Stage Two.

83. In addition, the only additional SPA population taken forward to the HRA Stage Two assessment on the basis of connectivity during the non-breeding period was the West Westray SPA kittiwake population.

84. Thus, in addition to those SPA populations for which it was concluded that LSE could not be excluded in the HRA Stage One Screening Report, a further four populations from two SPAs (i.e. West Westray and

the Farne Islands) were advanced to HRA Stage Two. The inclusion of these means that the final number of SPAs (and Ramsar sites) advanced to HRA Stage Two was 38, of which 20 are breeding seabird colony SPAs.

85. The final list of the SPAs and Ramsar sites which were advanced to HRA Stage Two is presented in Table 1.1, along with details of the finalised list of qualifying features from these sites and the associated effect pathways for which the potential for LSE was concluded.

86. The assessments for each European site advanced to HRA Stage Two are structured such that they are presented in their entirety for each of the relevant qualifying features in turn (including consideration of all relevant effect pathways and of both the project alone and in-combination scenarios). A cross-referencing approach has been adopted to aide readability and reduce repetition where relevant, which has been carefully carried out to ensure that all information required for a robust HRA of each site is presented.

87. For the ornithological features of breeding seabird colony SPAs, a dual assessment approach has been adopted. The Applicant has for the most part adopted the advice on ornithological assessment parameters advised in the Scoping Opinion (volume 3, appendix 6.2 of the Offshore EIA Report). Nevertheless, the Applicant considers elements of the Scoping Opinion to be over-precautionary and a departure from standard advice/practice. As such, the Applicant has presented a dual assessment of potential displacement/barrier effects and collision effect pathways during operation based on:

- The 'Scoping Approach'; and
- The 'Developer Approach'.

88. The outputs from both approaches are presented within the assessment section for each relevant qualifying feature. This enables the outputs and conclusions of the different assessment approaches for each qualifying feature to be more readily examined and compared.

89. Following advice from NatureScot provided through the Ornithology Road Map process (volume 3, appendix 6.2 of the Offshore EIA Report), the in-combination assessments were undertaken for the full suite of plan and projects considered to be potentially relevant at the UK North Sea scale and for the subset of these plans and projects represented by the other Forth and Tay wind farms (which are located in the same region as the Proposed Development). For the purposes of this assessment, the other Forth and Tay wind farms are taken to be the Seagreen 1, Seagreen 1A Project, Inch Cape and Neart na Gaoithe offshore wind farms. The in-combination assessment for this subset of plans and projects was undertaken in relation to those breeding seabird SPAs which were considered in the assessments for the revised designs of the other Forth and Tay wind farms (St Abb's Head to Fast Castle SPA, Forth Islands SPA, Fowlsheugh SPA and Buchan Ness to Collieston Coast SPA).

90. The assessments for each European site have been compiled following the most recent advice received from MS-LOT and NatureScot in relation to the 2022 Highly Pathogenic Avian Influenza (HPAI) outbreak, where the Applicant was advised to progress with assessment based on the advice received both prior to, and following the HPAI outbreak (volume 3, appendix 5.1 of the Offshore EIA Report). As such, no amendments or assumptions have been made to the assessment in light of the HPAI outbreak.

91. A summary of potential adverse effects on integrity for the 38 European sites advanced to HRA Stage Two is presented in Table 1.2.

92. **Under the Developer Approach**, **adverse effects on integrity could not be excluded** for the following five breeding seabird SPAs given the potential for adverse effects on breeding kittiwake:

- **St. Abb's Head to Fast Castle SPA;**
- **Forth Islands SPA;**
- **Fowlsheugh SPA;**
- **East Caithness Cliffs SPA; and**
- **Flamborough and Filey Cliffs SPA**

93. Adverse effects on integrity could not be excluded for the Proposed Development in-combination with other plans and projects, with the exception of St. Abb's Head to Fast Castle SPA where adverse effects on integrity were concluded for both the Proposed Development acting alone and in-combination.

94. Given the possibility of adverse effects on these breeding seabird SPAs, **adverse effects on integrity could not be excluded for the Outer Firth of Forth and St. Andrews Bay Complex SPA** under the Developer Approach given that this site is functionally linked to St. Abb's Head to Fast Castle SPA, Forth Islands SPA and Fowlsheugh SPA.

95. **Under the Scoping Approach, adverse effects on integrity could not be excluded** for the following eight breeding seabird SPAs:

- **St. Abb's Head to Fast Castle SPA;**
- **Forth Islands SPA;**
- **Fowlsheugh SPA;**
- **Farne Islands SPA**
- **Buchan Ness to Collieston Coast SPA**
- **Troup, Pennan and Lion's Heads SPA**
- **East Caithness Cliffs SPA; and**
- **Flamborough and Filey Cliffs SPA**

96. As with the Developer Approach, **adverse effects on integrity could not be excluded for the Outer Firth of Forth and St. Andrews Bay Complex SPA** under the Scoping Approach given that this site is functionally linked to St. Abb's Head to Fast Castle SPA, Forth Islands SPA, Fowlsheugh SPA, Buchan Ness to Collieston Coast SPA and Troup, Pennan and Lion's Heads SPA.

97. Adverse effects on integrity could not be excluded for the Proposed Development acting alone and in-combination with other plans and projects for St. Abb's Head to Fast Castle SPA (given adverse effects predicted for breeding kittiwake and guillemot), Forth Islands SPA (given adverse effects predicted for breeding guillemot) and Fowlsheugh SPA (given adverse effects predicted for breeding guillemot). For the remaining five breeding seabird SPAs, adverse effects on integrity could not be excluded for the Proposed Development in-combination with other plans and projects only (adverse effects could be excluded for the Proposed Development acting alone).

Table 1.1: A summary of all Special Protection Areas (SPAs), Ramsar sites and qualifying features for which LSE could not be discounted at HRA Stage One Screening and for which Appropriate Assessment was required.

No.	European Site	Distance to (km)		Relevant Qualifying Interest Feature(s)	Phase	Effect Pathway
		Proposed Development Array Area	Proposed Development Export Cable Corridor			
Marine SPAs						
1	Outer Firth of Forth and St Andrew's Bay Complex SPA	2.0	0.0	Common eider (non-breeding) Velvet scoter (non-breeding) Long-tailed duck (non-breeding) Common goldeneye (non-breeding) Red-breasted merganser (non-breeding) Red-throated diver (non-breeding) Slavonian grebe (non-breeding) Waterfowl assemblage (non-breeding)	Construction	Direct habitat loss Disturbance Displacement Changes to prey availability
					Operation and maintenance	Direct habitat loss Disturbance Displacement/barrier effects Changes to prey availability
					Decommissioning	Direct habitat loss Disturbance Displacement Changes to prey availability
				Kittiwake (breeding) Herring gull (breeding) Common tern (breeding) Arctic tern (breeding) Guillemot (breeding) Puffin (breeding) Manx shearwater (breeding) Gannet (breeding) Shag (breeding) Seabird assemblage (breeding)	Construction	Direct habitat loss Disturbance Displacement Changes to prey availability
					Operation and maintenance	Direct habitat loss Disturbance Displacement/barrier effects Collision (kittiwake, herring gull, common tern, Arctic tern, little gull, seabird assemblage only) Changes to prey availability
					Decommissioning	Direct habitat loss Disturbance Displacement Changes to prey availability
				Kittiwake (non-breeding) Black-headed gull (non-breeding) Little gull (non-breeding) Common gull (non-breeding) Herring gull (non-breeding) Guillemot (non-breeding) Razorbill (non-breeding) Shag (non-breeding) Seabird assemblage (non-breeding)	Construction	Direct habitat loss Disturbance Displacement Changes to prey availability
					Operation and maintenance	Direct habitat loss Disturbance Displacement/barrier effects Collision (kittiwake, herring gull, little gull, seabird assemblage only) Changes to prey availability
					Decommissioning	Direct habitat loss Disturbance Displacement Changes to prey availability

No.	European Site	Distance to (km)		Relevant Qualifying Interest Feature(s)	Phase	Effect Pathway
		Proposed Development Array Area	Proposed Development Export Cable Corridor			
Breeding Seabird Colonies						
2	St. Abb's Head to Fast Castle SPA	36.7	5.4	Kittiwake (breeding) Herring gull (breeding) Guillemot (breeding) Razorbill (breeding) Seabird assemblage (breeding)	Construction	Disturbance (kittiwake, guillemot, razorbill, seabird assemblage only) Displacement (kittiwake, guillemot, razorbill, seabird assemblage only) Changes to prey availability
					Operation and maintenance	Disturbance (kittiwake, guillemot, razorbill, seabird assemblage only) Displacement/barrier effects (kittiwake, guillemot, razorbill, seabird assemblage only) Collision (kittiwake, herring gull, seabird assemblage only) Changes to prey availability
					Decommissioning	Disturbance (kittiwake, guillemot, razorbill, seabird assemblage only) Displacement (kittiwake, guillemot, razorbill, seabird assemblage only) Changes to prey availability
3	Forth Islands SPA	38.3	13.7	Kittiwake (breeding) Herring gull (breeding) Lesser black-backed gull (breeding) Common tern (breeding) Arctic tern (breeding) Guillemot (breeding) Razorbill (breeding) Puffin (breeding) Gannet (breeding) Seabird assemblage (breeding)	Construction	Disturbance (kittiwake, common tern, Arctic tern, guillemot, razorbill, puffin, gannet, seabird assemblage only) Displacement (kittiwake, common tern, Arctic tern, guillemot, razorbill, puffin, gannet, seabird assemblage only) Changes to prey availability
					Operation and maintenance	Disturbance (kittiwake, common tern, Arctic tern, guillemot, razorbill, puffin, gannet, seabird assemblage only) Displacement/barrier effects (kittiwake, common tern, Arctic tern, guillemot, razorbill, puffin, gannet, seabird assemblage only) Collision (kittiwake, herring gull, lesser black-backed gull, common tern, Arctic tern, gannet, seabird assemblage only) Changes to prey availability
					Decommissioning	Disturbance (kittiwake, common tern, Arctic tern, guillemot, razorbill, puffin, gannet, seabird assemblage only) Displacement (kittiwake, common tern, Arctic tern, guillemot, razorbill, puffin, gannet, seabird assemblage only) Changes to prey availability
4	Fowlsheugh SPA	54.2	80.6	Kittiwake (breeding) Herring gull (breeding) Guillemot (breeding) Razorbill (breeding) Seabird assemblage (breeding)	Construction	Disturbance (kittiwake, guillemot, razorbill, seabird assemblage only) Displacement (kittiwake, guillemot, razorbill, seabird assemblage only) Changes to prey availability
					Operation and maintenance	Disturbance (kittiwake, guillemot, razorbill, seabird assemblage only) Displacement/barrier effects (kittiwake, guillemot, razorbill, seabird assemblage only) Collision (kittiwake, herring gull, seabird assemblage only) Changes to prey availability
					Decommissioning	Disturbance (kittiwake, guillemot, razorbill, seabird assemblage only) Displacement (kittiwake, guillemot, razorbill, seabird assemblage only) Changes to prey availability
5	Farne Islands SPA	55.6	50.5	Kittiwake (breeding) Guillemot (breeding) Puffin (breeding)	Construction	Disturbance (kittiwake, guillemot, razorbill, puffin, seabird assemblage only) Displacement (kittiwake, guillemot, razorbill, puffin, seabird assemblage only) Changes to prey availability

No.	European Site	Distance to (km)		Relevant Qualifying Interest Feature(s)	Phase	Effect Pathway
		Proposed Development Array Area	Proposed Development Export Cable Corridor			
				Lesser black-backed gull (breeding) Herring gull (breeding) Razorbill (breeding) Seabird assemblage (breeding)	Operation and maintenance	Disturbance (kittiwake, guillemot, razorbill, puffin, seabird assemblage only) Displacement/barrier effects (kittiwake, guillemot, razorbill, puffin, seabird assemblage only) Collision (kittiwake, herring gull, lesser black-backed gull, seabird assemblage only) Changes to prey availability
					Decommissioning	Disturbance (kittiwake, guillemot, razorbill, puffin, seabird assemblage only) Displacement (kittiwake, guillemot, razorbill, puffin, seabird assemblage only) Changes to prey availability
6	Coquet Island SPA	90.2	83.2	Kittiwake (breeding) Lesser black-backed gull (breeding) Puffin (breeding) Seabird assemblage (breeding)	Construction	Disturbance (kittiwake, puffin, seabird assemblage only) Displacement (kittiwake, puffin, seabird assemblage only) Changes to prey availability
					Operation and maintenance	Disturbance (kittiwake, puffin, seabird assemblage only) Displacement/barrier effects (kittiwake, puffin, seabird assemblage only) Collision (kittiwake, lesser black-backed gull, seabird assemblage only) Changes to prey availability
					Decommissioning	Disturbance (kittiwake, puffin, seabird assemblage only) Displacement (kittiwake, puffin, seabird assemblage only) Changes to prey availability
7	Buchan Ness to Collieston Coast SPA	96.1	125.0	Kittiwake (breeding) Guillemot (breeding) Seabird assemblage (breeding)	Construction	Disturbance Displacement Changes to prey availability
					Operation and maintenance	Disturbance Displacement/barrier effects Collision (kittiwake, seabird assemblage only) Changes to prey availability
					Decommissioning	Disturbance Displacement Changes to prey availability
8	Troup, Pennan and Lion's Heads SPA	137.8	165.7	Kittiwake (breeding) Guillemot (breeding) Razorbill (breeding) Seabird assemblage (breeding)	Construction	Disturbance Displacement Changes to prey availability
					Operation and maintenance	Disturbance Displacement/barrier effects Collision (kittiwake, seabird assemblage only) Changes to prey availability
					Decommissioning	Disturbance Displacement Changes to prey availability
9	East Caithness Cliffs SPA	213.4	239.6	Kittiwake (breeding) Razorbill (breeding) Seabird assemblage (breeding)	Construction	Disturbance Displacement Changes to prey availability

No.	European Site	Distance to (km)		Relevant Qualifying Interest Feature(s)	Phase	Effect Pathway
		Proposed Development Array Area	Proposed Development Export Cable Corridor			
					Operation and maintenance	Disturbance Displacement/barrier effects Collision (kittiwake, seabird assemblage only) Changes to prey availability
					Decommissioning	Disturbance Displacement Changes to prey availability
10	Flamborough and Filey Coast SPA	219.2	219.9	Kittiwake (breeding) Razorbill (breeding) Puffin (breeding) Gannet (breeding) Seabird assemblage (breeding)	Construction	Disturbance Displacement Changes to prey availability
					Operation and maintenance	Disturbance Displacement/barrier effects Collision (kittiwake, gannet, seabird assemblage only) Changes to prey availability
					Decommissioning	Disturbance Displacement Changes to prey availability
11	North Caithness Cliffs SPA	248.1	274.7	Kittiwake (breeding) Puffin (breeding) Seabird assemblage (breeding)	Construction	Disturbance Displacement Changes to prey availability
					Operation and maintenance	Disturbance Displacement/barrier effects Collision (kittiwake, seabird assemblage only) Changes to prey availability
					Decommissioning	Disturbance Displacement Changes to prey availability
12	Hoy SPA	271.8	298.2	Kittiwake (breeding) Great skua (breeding) Puffin (breeding) Seabird assemblage (breeding)	Construction	Disturbance (kittiwake, puffin, seabird assemblage only) Displacement (kittiwake, puffin, seabird assemblage only) Changes to prey availability
					Operation and maintenance	Disturbance (kittiwake, puffin, seabird assemblage only) Displacement/barrier effects (kittiwake, puffin, seabird assemblage only) Collision (kittiwake, great skua, seabird assemblage only) Changes to prey availability
					Decommissioning	Disturbance (kittiwake, puffin, seabird assemblage only) Displacement (kittiwake, puffin, seabird assemblage only) Changes to prey availability
13	Copinsay SPA	273.8	301.9	Kittiwake (breeding) Seabird assemblage (breeding)	Construction	Disturbance Displacement Changes to prey availability

No.	European Site	Distance to (km)		Relevant Qualifying Interest Feature(s)	Phase	Effect Pathway
		Proposed Development Array Area	Proposed Development Export Cable Corridor			
					Operation and maintenance	Disturbance Displacement/barrier effects Collision (kittiwake, seabird assemblage only) Changes to prey availability
					Decommissioning	Disturbance Displacement Changes to prey availability
14	West Westray SPA	320.4	347.9	Kittiwake (breeding) Seabird assemblage (breeding)	Construction	Disturbance Displacement Changes to prey availability
					Operation and maintenance	Disturbance Displacement/barrier effects Collision (kittiwake, seabird assemblage only) Changes to prey availability
					Decommissioning	Disturbance Displacement Changes to prey availability
15	Sule Skerry and Sule Stack SPA	325.1	351.3	Gannet (breeding) Seabird assemblage (breeding)	Construction	Disturbance Displacement Changes to prey availability
					Operation and maintenance	Disturbance Displacement/barrier effects Collision (gannet, seabird assemblage only) Changes to prey availability
					Decommissioning	Disturbance Displacement Changes to prey availability
16	Fair Isle SPA	334.1	366.1	Gannet (breeding) Seabird assemblage (breeding)	Construction	Disturbance Displacement Changes to prey availability
					Operation and maintenance	Disturbance Displacement/barrier effects Collision (gannet, seabird assemblage only) Changes to prey availability
					Decommissioning	Disturbance Displacement Changes to prey availability
17	North Rona and Sula Sgeir SPA	375.4	398.9	Gannet (breeding) Seabird assemblage (breeding)	Construction	Disturbance Displacement Changes to prey availability

No.	European Site	Distance to (km)		Relevant Qualifying Interest Feature(s)	Phase	Effect Pathway
		Proposed Development Array Area	Proposed Development Export Cable Corridor			
					Operation and maintenance	Disturbance Displacement/barrier effects Collision (gannet, seabird assemblage only) Changes to prey availability
					Decommissioning	Disturbance Displacement Changes to prey availability
18	Foula SPA	402.4	433.4	Great skua (breeding) Seabird assemblage (breeding)	Construction	-
					Operation and maintenance	Collision
					Decommissioning	-
19	Noss SPA	404.3	437.2	Gannet (breeding) Seabird assemblage (breeding)	Construction	Disturbance Displacement Changes to prey availability
					Operation and maintenance	Disturbance Displacement/barrier effects Collision Changes to prey availability
					Decommissioning	Disturbance Displacement Changes to prey availability
20	Fetlar SPA	452.4	485.4	Great skua (breeding) Seabird assemblage (breeding)	Construction	-
					Operation and maintenance	Collision
					Decommissioning	-
21	Hermaness, Saxa Vord and Valla Field SPA	472.0	505.1	Gannet (breeding) Seabird assemblage (breeding)	Construction	Disturbance Displacement Changes to prey availability
					Operation and maintenance	Disturbance Displacement/barrier effects Collision Changes to prey availability
					Decommissioning	Disturbance Displacement Changes to prey availability

No.	European Site	Distance to (km)		Relevant Qualifying Interest Feature(s)	Phase	Effect Pathway
		Proposed Development Array Area	Proposed Development Export Cable Corridor			
Migratory Waterbird Sites (Estuarine)						
22	Firth of Forth SPA and Ramsar site	41.6	5.9	Bar-tailed godwit (non-breeding) Common scoter (non-breeding) Cormorant (non-breeding) Curlew (non-breeding) Dunlin (non-breeding) Eider (non-breeding) Golden plover (non-breeding) Goldeneye (non-breeding) Great crested grebe (non-breeding) Grey plover (non-breeding) Knot (non-breeding) Lapwing (non-breeding) Long-tailed duck (non-breeding) Mallard (non-breeding) Oystercatcher (non-breeding) Pink-footed goose (non-breeding) Red-breasted merganser (non-breeding) Red-throated diver (non-breeding) Redshank (non-breeding) Ringed plover (non-breeding) Sandwich tern (passage) Scaup (non-breeding) Shelduck (non-breeding) Slavonian grebe (non-breeding) Turnstone (non-breeding) Velvet scoter (non-breeding) Wigeon (non-breeding) Waterfowl assemblage (non-breeding)	Operation and maintenance	Collision Barrier effects
23	Montrose Basin SPA and Ramsar site	45.8	70.6	Dunlin (non-breeding) Eider (non-breeding) Greylag goose (non-breeding) Knot (non-breeding) Oystercatcher (non-breeding) Pink-footed goose (non-breeding) Redshank (non-breeding) Shelduck (non-breeding) Wigeon (non-breeding)	Operation and maintenance	Collision Barrier effects
24	Northumbria Coast SPA and Ramsar site	47.6	30.1	Purple sandpiper (non-breeding) Turnstone (non-breeding)	Operation and maintenance	Collision Barrier effects
25	Firth of Tay and Eden Estuary SPA and Ramsar site	47.7	45.3	Bar-tailed godwit (non-breeding) Common scoter (non-breeding) Dunlin (non-breeding) Eider (non-breeding) Goldeneye (non-breeding) Goosander (non-breeding) Grey plover (non-breeding)	Operation and maintenance	Collision Barrier effects

No.	European Site	Distance to (km)		Relevant Qualifying Interest Feature(s)	Phase	Effect Pathway
		Proposed Development Array Area	Proposed Development Export Cable Corridor			
				Greylag goose (non-breeding) Icelandic black-tailed godwit (non-breeding) Long-tailed duck (non-breeding) Oystercatcher (non-breeding) Pink-footed goose (non-breeding) Red-breasted merganser (non-breeding) Redshank (non-breeding) Sanderling (non-breeding) Shelduck (non-breeding) Velvet scoter (non-breeding) Waterfowl assemblage (non-breeding)		
26	Lindisfarne SPA and Ramsar site	49.1	32.6	Bar-tailed godwit (non-breeding) Common scoter (non-breeding) Dunlin (non-breeding) Eider (non-breeding) Golden plover (non-breeding) Grey plover (non-breeding) Greylag goose (non-breeding) Light-bellied brent goose (non-breeding) Long-tailed duck (non-breeding) Red-breasted merganser (non-breeding) Redshank (non-breeding) Ringed plover (non-breeding) Sanderling (non-breeding) Shelduck (non-breeding) Whooper swan (non-breeding) Wigeon (non-breeding) Waterfowl assemblage (non-breeding)	Operation and maintenance	Collision Barrier effects
27	Ythan Estuary, Sands of Forvie and Meikle Loch SPA, Ythan Estuary and Meikle Loch Ramsar site	79.7	106.8	Eider (non-breeding) Lapwing (non-breeding) Pink-footed goose (non-breeding) Redshank (non-breeding) Waterfowl assemblage (non-breeding)	Operation and maintenance	Collision Barrier effects
Migratory Waterbird Sites (Inland Waterbodies)						
28	Cameron Reservoir SPA and Ramsar site	57.0	42.0	Pink-footed goose (non-breeding)	Operation and maintenance	Collision Barrier effects
29	Holburn Lake and Moss SPA and Ramsar site	60.2	44.9	Greylag goose (non-breeding)	Operation and maintenance	Collision Barrier effects
30	Greenlaw Moor SPA and Ramsar site	65.2	25.7	Pink-footed goose (non-breeding)	Operation and maintenance	Collision Barrier effects
31	Loch of Kinnordy SPA and Ramsar site	73.3	84.1	Pink-footed goose (non-breeding) Greylag goose (non-breeding)	Operation and maintenance	Collision Barrier effects
32	Din Moss - Hoselaw Loch	73.8	43.7	Pink-footed goose (non-breeding)	Operation and maintenance	Collision

No.	European Site	Distance to (km)		Relevant Qualifying Interest Feature(s)	Phase	Effect Pathway
		Proposed Development Array Area	Proposed Development Export Cable Corridor			
	SPA and Ramsar site			Greylag goose (non-breeding)		Barrier effects
33	Fala Flow SPA and Ramsar site	79.0	33.4	Pink-footed goose (non-breeding)	Operation and maintenance	Collision Barrier effects
34	Loch Leven SPA and Ramsar site	88.7	59.8	Cormorant (non-breeding) Gadwall (non-breeding) Goldeneye (non-breeding) Pink-footed goose (non-breeding) Pochard (non-breeding) Shoveler (non-breeding) Teal (non-breeding) Tufted duck (non-breeding) Whooper swan (non-breeding) Waterfowl assemblage (non-breeding)	Operation and maintenance	Collision Barrier effects
35	Gladhouse Reservoir SPA and Ramsar site	92.5	47.3	Pink-footed goose (non-breeding)	Operation and maintenance	Collision Barrier effects
36	South Tayside Goose Roosts SPA and Ramsar site	100.7	81.9	Pink-footed goose (non-breeding) Greylag goose (non-breeding) Wigeon (non-breeding) Waterfowl assemblage (non-breeding)	Operation and maintenance	Collision Barrier effects
37	Westwater SPA and Ramsar site	109.5	65.4	Pink-footed goose (non-breeding) Waterfowl assemblage (non-breeding)	Operation and maintenance	Collision Barrier effects
38	Slamannan Plateau SPA	128.8	90.5	Taiga been goose (non-breeding)	Operation and maintenance	Collision Barrier effects

Table 1.2: Summary of Potential Adverse Effect on Integrity (AEoI) for European Sites for Proposed Development alone (Alone) and in-combination with i) other Forth and Tay offshore wind farms (F&T) and ii) other UK North Sea offshore windfarms (UK N Sea) according to the Developer and Scoping Approaches to assessment. ✓ = potential for AEoI, ✗ = no potential for AEoI.

European site	Relevant Qualifying Interest Feature(s)	Current Population (individuals)	Total Predicted Mortality			Developer Approach AEoI			Scoping Approach AEoI		
			Developer	Scoping A	Scoping B	Alone	F&T	UK N.Sea	Alone	F&T	UK N.Sea
Marine SPAs											
Outer Firth of Forth and St. Andrews Bay Complex SPA	Eider (non-breeding)	22,000	N/A	N/A	N/A	✗	✗	✗	✗	✗	✗
	Velvet scoter (non-breeding)	780	N/A	N/A	N/A	✗	✗	✗	✗	✗	✗
	Common scoter (non-breeding)	4,700	N/A	N/A	N/A	✗	✗	✗	✗	✗	✗
	Long-tailed duck (non-breeding)	1,950	N/A	N/A	N/A	✗	✗	✗	✗	✗	✗
	Goldeneye (non-breeding)	590	N/A	N/A	N/A	✗	✗	✗	✗	✗	✗
	Red-breasted merganser (non-breeding)	430	N/A	N/A	N/A	✗	✗	✗	✗	✗	✗
	Red-throated diver (non-breeding)	850	N/A	N/A	N/A	✗	✗	✗	✗	✗	✗
	Slavonian grebe (non-breeding)	30	N/A	N/A	N/A	✗	✗	✗	✗	✗	✗
	Kittiwake (breeding and non-breeding)	N/A	N/A	N/A	N/A	✓	✓	✓	✓	✓	✓
	Black-headed gull (non-breeding)	26,835	N/A	N/A	N/A	✗	✗	✗	✗	✗	✗
	Little gull (non-breeding)	126	N/A	N/A	N/A	✗	✗	✗	✗	✗	✗
	Common gull (non-breeding)	14,647	N/A	N/A	N/A	✗	✗	✗	✗	✗	✗
	Herring gull (breeding and non-breeding)	N/A	N/A	N/A	N/A	✗	✗	✗	✗	✗	✗
	Common tern (breeding)	N/A	N/A	N/A	N/A	✗	✗	✗	✗	✗	✗
	Arctic tern (breeding)	N/A	N/A	N/A	N/A	✗	✗	✗	✗	✗	✗
	Guillemot (breeding and non-breeding)	N/A	N/A	N/A	N/A	✗	✗	✗	✓	✓	✓
	Razorbill (non-breeding)	N/A	N/A	N/A	N/A	✗	✗	✗	✗	✗	✓
	Puffin (breeding)	N/A	N/A	N/A	N/A	✗	✗	✗	✗	✓	✓
	Manx shearwater (breeding)	2,885	N/A	N/A	N/A	✗	✗	✗	✗	✗	✗
	Gannet (breeding)	N/A	N/A	N/A	N/A	✗	✗	✗	✗	✗	✗
	Shag (breeding and non-breeding)	N/A	N/A	N/A	N/A	✗	✗	✗	✗	✗	✗
	Waterfowl assemblage (non-breeding)	>20,000	N/A	N/A	N/A	✗	✗	✗	✗	✗	✗
	Seabird assemblage (breeding)	100,000	N/A	N/A	N/A	✗	✓	✓	✗	✓	✓
	Seabird assemblage (non-breeding)	40,000	N/A	N/A	N/A	✗	✗	✗	✗	✗	✗
Breeding Seabird Colony SPAs											
St. Abb's Head to Fast Castle SPA	Kittiwake (breeding)	10,904	253.3	312.6	371.3	✓	✓	✓	✓	✓	✓
	Herring gull (breeding)	612	0.4	0.8	0.8	✗	✗	✗	✗	✗	✗
	Guillemot (breeding)	61,408	110.8	310.3	576.1	✗	✗	✗	✓	✓	✓
	Razorbill (breeding)	3,928	2.6	8.3	14.4	✗	✗	✗	✗	✗	✓
	Seabird assemblage (breeding)	79,560	N/A	N/A	N/A	✓	✓	✓	✓	✓	✓
Forth Islands SPA	Gannet (breeding)	15,0518	154.8	183.0	245.2	✗	✗	✗	✗	✗	✗
	Kittiwake (breeding)	9,034	28.9	36.2	43.3	✗	✓	✓	✗	✓	✓
	Herring gull (breeding)	11,868	10.2	17.1	17.1	✗	✗	✗	✗	✗	✗
	Lesser black-backed gull (breeding)	4,006	2.0	2.8	2.8	✗	✗	✗	✗	✗	✗
	Arctic tern (breeding)	1,664	0	0.13	0.13	✗	✗	✗	✗	✗	✗
	Common tern (breeding)	60	0	0.50	0.50	✗	✗	✗	✗	✗	✗
	Guillemot (breeding)	34,580	37.2	91.3	180.5	✗	✗	✗	✓	✓	✓
	Razorbill (breeding)	7,878	3.6	10.6	19.0	✗	✗	✗	✗	✓	✓
	Puffin (breeding)	87,240	5.1	18.2	30.2	✗	✗	✗	✗	✓	✓
	Seabird assemblage (breeding)	90,000	N/A	N/A	N/A	✗	✓	✓	✗	✓	✓
Fowlsheugh	Kittiwake (breeding)	26,542	87.0	109.0	130.5	✗	✓	✓	✗	✓	✓
	Herring gull (breeding)	1,414	0.6	1.0	1.0	✗	✗	✗	✗	✗	✗
	Guillemot (breeding)	91,358	89.0	259.9	473.3	✗	✗	✗	✓	✓	✓
	Razorbill (breeding)	1,7817	4.3	12.7	23.0	✗	✗	✗	✗	✓	✓
	Seabird assemblage (breeding)	145,000	N/A	N/A	N/A	✗	✗	✗	✗	✓	✓
Farne Islands SPA	Kittiwake (breeding)	8,804	23.3	29.3	35.2	✗	✗	✗	✗	✗	✓
	Herring gull (breeding)	1,496	0.5	0.9	0.9	✗	✗	✗	✗	✗	✗
	Lesser black-backed gull (breeding)	1,362	0.5	0.7	0.7	✗	✗	✗	✗	✗	✗

	Guillemot (breeding)	85,816	36.6	79.4	167.2	×	×	×	×	×	×
	Razorbill (breeding)	572	0.1	0.2	0.5	×	×	×	×	×	×
	Puffin (breeding)	87,504	3.6	12.9	21.4	×	×	×	×	×	×
	Seabird assemblage (breeding)	163,819	N/A	N/A	N/A	×	×	×	×	×	×
Coquet Island SPA	Kittiwake (breeding)	932	0.3	0.5	0.6	×	×	×	×	×	×
	Lesser black-backed gull (breeding)	40	0.0	0.0	0.0	×	×	×	×	×	×
	Puffin (breeding)	50,058	1.01	3.61	6.00	×	×	×	×	×	×
	Seabird assemblage (breeding)	47,662	N/A	N/A	N/A	×	×	×	×	×	×
Buchan Ness to Collieston Coast SPA	Kittiwake (breeding)	22,590	11.4	16.5	21.0	×	×	×	×	×	✓
	Guillemot (breeding)	39,553	5.0	9.6	21.5	×	×	×	×	×	×
	Seabird assemblage (breeding)	95,000	N/A	N/A	N/A	×	×	×	×	×	×
Troup, Pennan and Lion's Heads SPA	Kittiwake (breeding)	21,232	9.0	14.1	18.4	×	×	×	×	×	✓
	Guillemot (breeding)	31,893	2.5	5.2	11.1	×	×	×	×	×	×
	Razorbill (breeding)	6,054	0.8	1.5	3.2	×	×	×	×	×	×
	Seabird assemblage (breeding)	150,000	N/A	N/A	N/A	×	×	×	×	×	×
East Caithness Cliffs SPA	Kittiwake (breeding)	48,920	18.4	30.7	41.1	×	×	✓	×	×	✓
	Razorbill (breeding)	40,117	3.9	5.3	14.8	×	×	×	×	×	✓
	Seabird assemblage (breeding)	300,000	N/A	N/A	N/A	×	×	×	×	×	✓
Flamborough and Filey Coast SPA	Gannet (breeding)	26,784	2.7	3.2	4.6	×	×	×	×	×	×
	Kittiwake (breeding)	91,008	17.0	28.5	38.2	×	×	✓	×	×	✓
	Razorbill (breeding)	37,476	3.0	3.8	11.0	×	×	×	×	×	×
	Puffin (breeding)	958	0	0.08	0.14	×	×	×	×	×	×
	Seabird assemblage (breeding)	216,730	N/A	N/A	N/A	×	×	×	×	×	×
North Caithness Cliffs SPA	Kittiwake (breeding)	7,712	4.5	7.6	10.2	×	×	×	×	×	×
	Puffin (breeding)	3,034	0.0	0.0	0.1	×	×	×	×	×	×
	Seabird assemblage (breeding)	110,000	N/A	N/A	N/A	×	×	×	×	×	×
Hoy SPA	Kittiwake (breeding)	608	0.3	0.4	0.4	×	×	×	×	×	×
	Puffin (breeding)	361	0.0	0.0	0.0	×	×	×	×	×	×
	Great skua (breeding)	2,082	0.18	0.35	0.35	×	×	×	×	×	×
	Seabird assemblage (breeding)	>20,000	N/A	N/A	N/A	×	×	×	×	×	×
Copinsay SPA	Kittiwake (breeding)	1,910	0.3	0.5	0.6	×	×	×	×	×	×
	Seabird assemblage (breeding)	70,000	N/A	N/A	N/A	×	×	×	×	×	×
West Westray SPA	Kittiwake (breeding)	5,486	5.4	9.0	12.1	×	×	×	×	×	×
	Seabird assemblage (breeding)	>20,000	N/A	N/A	N/A	×	×	×	×	×	×
Sule Skerry and Sule Stack SPA	Gannet (breeding)	18,130	0.5	0.6	0.9	×	×	×	×	×	×
	Seabird assemblage (breeding)	>20,000	N/A	N/A	N/A	×	×	×	×	×	×
Fair Isle SPA	Gannet (breeding)	9,942	0.5	0.6	0.8	×	×	×	×	×	×
	Seabird assemblage (breeding)	>20,000	N/A	N/A	N/A	×	×	×	×	×	×
North Rona and Sula Sgeir SPA	Gannet (breeding)	22,460	0.4	0.5	0.8	×	×	×	×	×	×
	Seabird assemblage (breeding)	>20,000	N/A	N/A	N/A	×	×	×	×	×	×
Foula SPA	Great skua (breeding)	3,600	0.18	0.35	0.35	×	×	×	×	×	×
	Seabird assemblage (breeding)	>20,000	N/A	N/A	N/A	×	×	×	×	×	×
Noss SPA	Gannet (breeding)	27,530	1.4	1.7	2.6	×	×	×	×	×	×
	Seabird assemblage (breeding)	>20,000	N/A	N/A	N/A	×	×	×	×	×	×
Fetlar SPA	Great skua (breeding)	1,836	0.18	0.35	0.35	×	×	×	×	×	×
	Seabird assemblage (breeding)	>20,000	N/A	N/A	N/A	×	×	×	×	×	×
Hermaness, Saxa Vord and Valla Field SPA	Gannet (breeding)	51,160	2.2	2.6	4.1	×	×	×	×	×	×
	Seabird assemblage (breeding)	>20,000	N/A	N/A	N/A	×	×	×	×	×	×
Migratory Waterfowl SPAs (Estuarine)											
Firth of Forth SPA and Ramsar site	Bar-tailed godwit (non-breeding)	1,974	N/A	N/A	N/A	×	×	×	×	×	×
	Common scoter (non-breeding)	2,880	N/A	N/A	N/A	×	×	×	×	×	×
	Cormorant (non-breeding)	682	N/A	N/A	N/A	×	×	×	×	×	×
	Curlew (non-breeding)	1,928	N/A	N/A	N/A	×	×	×	×	×	×
	Dunlin (non-breeding)	9,514	N/A	N/A	N/A	×	×	×	×	×	×
	Eider (non-breeding)	9,400	N/A	N/A	N/A	×	×	×	×	×	×
	Golden plover (non-breeding)	2,949	N/A	N/A	N/A	×	×	×	×	×	×

	Goldeneye (non-breeding)	3,004	N/A	N/A	N/A	×	×	×	×	×	×	
	Great crested grebe (non-breeding)	720	N/A	N/A	N/A	×	×	×	×	×	×	
	Grey plover (non-breeding)	724	N/A	N/A	N/A	×	×	×	×	×	×	
	Knot (non-breeding)	9,258	N/A	N/A	N/A	×	×	×	×	×	×	
	Lapwing (non-breeding)	4,148	N/A	N/A	N/A	×	×	×	×	×	×	
	Long-tailed duck (non-breeding)	1,045	N/A	N/A	N/A	×	×	×	×	×	×	
	Mallard (non-breeding)	2,564	N/A	N/A	N/A	×	×	×	×	×	×	
	Oystercatcher (non-breeding)	7,846	N/A	N/A	N/A	×	×	×	×	×	×	
	Pink-footed goose (non-breeding)	10,852	N/A	N/A	N/A	×	×	×	×	×	×	
	Red-breasted merganser (non-breeding)	670	N/A	N/A	N/A	×	×	×	×	×	×	
	Red-throated diver (non-breeding)	90	N/A	N/A	N/A	×	×	×	×	×	×	
	Redshank (non-breeding)	4,341	N/A	N/A	N/A	×	×	×	×	×	×	
	Ringed plover (non-breeding)	328	N/A	N/A	N/A	×	×	×	×	×	×	
	Sandwich tern (passage)	1,617	N/A	N/A	N/A	×	×	×	×	×	×	
	Scaup (non-breeding)	437	N/A	N/A	N/A	×	×	×	×	×	×	
	Shelduck (non-breeding)	4,509	N/A	N/A	N/A	×	×	×	×	×	×	
	Slavonian grebe (non-breeding)	84	N/A	N/A	N/A	×	×	×	×	×	×	
	Turnstone (non-breeding)	860	N/A	N/A	N/A	×	×	×	×	×	×	
	Velvet scoter (non-breeding)	635	N/A	N/A	N/A	×	×	×	×	×	×	
	Waterfowl assemblage (non-breeding)	>20,000	N/A	N/A	N/A	×	×	×	×	×	×	
Montrose Basin SPA and Ramsar site	Dunlin (non-breeding)	2,244	N/A	N/A	N/A	×	×	×	×	×	×	
	Eider (non-breeding	2,240	N/A	N/A	N/A	×	×	×	×	×	×	
	Greylag goose (non-breeding)	1,080	N/A	N/A	N/A	×	×	×	×	×	×	
	Knot (non-breeding)	2,790	N/A	N/A	N/A	×	×	×	×	×	×	
	Oystercatcher (non-breeding)	3,100	N/A	N/A	N/A	×	×	×	×	×	×	
	Pink-footed goose (non-breeding)	21,800	N/A	N/A	N/A	×	×	×	×	×	×	
	Redshank (non-breeding)	2,240	N/A	N/A	N/A	×	×	×	×	×	×	
	Shelduck (non-breeding)	1,069	N/A	N/A	N/A	×	×	×	×	×	×	
	Wigeon (non-breeding)	5,270	N/A	N/A	N/A	×	×	×	×	×	×	
Northumbria Coast SPA and Ramsar site	Purple sandpiper (non-breeding)	1,739	N/A	N/A	N/A	×	×	×	×	×	×	
	Turnstone (non-breeding)	787	N/A	N/A	N/A	×	×	×	×	×	×	
Firth of Tay and Eden Estuary SPA and Ramsar site	Bar-tailed godwit (non-breeding)	2,400	N/A	N/A	N/A	×	×	×	×	×	×	
	Common scoter (non-breeding)	3,100	N/A	N/A	N/A	×	×	×	×	×	×	
	Dunlin (non-breeding)	5,200	N/A	N/A	N/A	×	×	×	×	×	×	
	Eider (non-breeding)	13,800	N/A	N/A	N/A	×	×	×	×	×	×	
	Goldeneye (non-breeding)	230	N/A	N/A	N/A	×	×	×	×	×	×	
	Goosander (non-breeding)	220	N/A	N/A	N/A	×	×	×	×	×	×	
	Grey plover (non-breeding)	920	N/A	N/A	N/A	×	×	×	×	×	×	
	Greylag goose (non-breeding)	1,200	N/A	N/A	N/A	×	×	×	×	×	×	
	Icelandic black-tailed godwit (non-breeding)	150	N/A	N/A	N/A	×	×	×	×	×	×	
	Long-tailed duck (non-breeding)	560	N/A	N/A	N/A	×	×	×	×	×	×	
	Red-breasted merganser (non-breeding)	470	N/A	N/A	N/A	×	×	×	×	×	×	
	Redshank (non-breeding)	1,800	N/A	N/A	N/A	×	×	×	×	×	×	
	Sanderling (non-breeding)	220	N/A	N/A	N/A	×	×	×	×	×	×	
	Shelduck (non-breeding)	530	N/A	N/A	N/A	×	×	×	×	×	×	
	Velvet scoter (non-breeding)	730	N/A	N/A	N/A	×	×	×	×	×	×	
	Oystercatcher (non-breeding)	5,100	N/A	N/A	N/A	×	×	×	×	×	×	
	Pink-footed goose (non-breeding)	2,800	N/A	N/A	N/A	×	×	×	×	×	×	
	Waterfowl assemblage (non-breeding)	>20,000	N/A	N/A	N/A	×	×	×	×	×	×	
Lindisfarne SPA and Ramsar site	Bar-tailed godwit (non-breeding)	2,946	N/A	N/A	N/A	×	×	×	×	×	×	
	Common scoter (non-breeding)	263	N/A	N/A	N/A	×	×	×	×	×	×	
	Dunlin (non-breeding)	7,703	N/A	N/A	N/A	×	×	×	×	×	×	
	Eider (non-breeding)	1,568	N/A	N/A	N/A	×	×	×	×	×	×	
	Golden plover (non-breeding)	5,300	N/A	N/A	N/A	×	×	×	×	×	×	
	Grey plover (non-breeding)	1,570	N/A	N/A	N/A	×	×	×	×	×	×	
	Greylag goose (non-breeding)	1,416	N/A	N/A	N/A	×	×	×	×	×	×	

	Light-bellied brent goose (non-breeding)	1,844	N/A	N/A	N/A	×	×	×	×	×	×
	Long-tailed duck (non-breeding)	59	N/A	N/A	N/A	×	×	×	×	×	×
	Red-breasted merganser (non-breeding)	18	N/A	N/A	N/A	×	×	×	×	×	×
	Redshank (non-breeding)	904	N/A	N/A	N/A	×	×	×	×	×	×
	Ringed plover (non-breeding)	163	N/A	N/A	N/A	×	×	×	×	×	×
	Sanderling (non-breeding)	218	N/A	N/A	N/A	×	×	×	×	×	×
	Shelduck (non-breeding)	899	N/A	N/A	N/A	×	×	×	×	×	×
	Whooper swan (non-breeding)	53	N/A	N/A	N/A	×	×	×	×	×	×
	Wigeon (non-breeding)	7,857	N/A	N/A	N/A	×	×	×	×	×	×
	Waterfowl assemblage (non-breeding)	>20,000	N/A	N/A	N/A	×	×	×	×	×	×
Ythan Estuary, Sands of Forvie and Meikle Loch SPA, Ythan Estuary and Meikle Loch Ramsar site	Eider (non-breeding)	1,860	N/A	N/A	N/A	×	×	×	×	×	×
	Lapwing (non-breeding)	2,542	N/A	N/A	N/A	×	×	×	×	×	×
	Pink-footed goose (non-breeding)	17,213	N/A	N/A	N/A	×	×	×	×	×	×
	Redshank (non-breeding)	1,149	N/A	N/A	N/A	×	×	×	×	×	×
	Waterfowl assemblage (non-breeding)		N/A	N/A	N/A	×	×	×	×	×	×
Migratory Waterfowl SPAs (Inland Waterbodies)												
Cameron Reservoir SPA and Ramsar site	Pink-footed goose (non-breeding)	6,760	N/A	N/A	N/A	×	×	×	×	×	×
Holburn Lake and Moss SPA and Ramsar site	Greylag goose (non-breeding)	2,150	N/A	N/A	N/A	×	×	×	×	×	×
Greenlaw Moor SPA and Ramsar site	Pink-footed goose (non-breeding)	14,200	N/A	N/A	N/A	×	×	×	×	×	×
Loch of Kinnordy SPA and Ramsar site	Pink-footed goose (non-breeding)	1,650	N/A	N/A	N/A	×	×	×	×	×	×
	Greylag goose (non-breeding)	3,500	N/A	N/A	N/A	×	×	×	×	×	×
Din Moss - Hoselaw Loch SPA and Ramsar site	Pink-footed goose (non-breeding)	1,650	N/A	N/A	N/A	×	×	×	×	×	×
	Greylag goose (non-breeding)	3,500	N/A	N/A	N/A	×	×	×	×	×	×
Fala Flow SPA and Ramsar site	Pink-footed goose (non-breeding)	2,400	N/A	N/A	N/A	×	×	×	×	×	×
Loch Leven SPA and Ramsar site	Gadwall (non-breeding)	245	N/A	N/A	N/A	×	×	×	×	×	×
	Goldeneye (non-breeding)	339	N/A	N/A	N/A	×	×	×	×	×	×
	Pink-footed goose (non-breeding)	17,163	N/A	N/A	N/A	×	×	×	×	×	×
	Pochard (non-breeding)	1,095	N/A	N/A	N/A	×	×	×	×	×	×
	Shoveler (non-breeding)	509	N/A	N/A	N/A	×	×	×	×	×	×
	Teal (non-breeding)	2,771	N/A	N/A	N/A	×	×	×	×	×	×
	Tufted duck (non-breeding)	3,636	N/A	N/A	N/A	×	×	×	×	×	×
	Whooper swan (non-breeding)	97	N/A	N/A	N/A	×	×	×	×	×	×
	Waterfowl assemblage (non-breeding)	>20,000	N/A	N/A	N/A	×	×	×	×	×	×
Gladhouse Reservoir SPA and Ramsar site	Pink-footed goose (non-breeding)	10,500	N/A	N/A	N/A	×	×	×	×	×	×
South Tayside Goose Roosts SPA and Ramsar site	Pink-footed goose (non-breeding)	31,800	N/A	N/A	N/A	×	×	×	×	×	×
	Greylag goose (non-breeding)	9,700	N/A	N/A	N/A	×	×	×	×	×	×
	Wigeon (non-breeding)	16	N/A	N/A	N/A	×	×	×	×	×	×
	Waterfowl assemblage (non-breeding)	>20,000	N/A	N/A	N/A	×	×	×	×	×	×
Westwater SPA and Ramsar site	Pink-footed goose (non-breeding)	29,600	N/A	N/A	N/A	×	×	×	×	×	×
	Waterfowl assemblage (non-breeding)	>20,000	N/A	N/A	N/A	×	×	×	×	×	×
Slamannan Plateau SPA	Taiga been goose (non-breeding)	221	N/A	N/A	N/A	×	×	×	×	×	×

1.6. OVERARCHING CONCLUSION

98. This report sets out the findings of a study to inform the second stage of the Habitats Regulations Appraisal required for the offshore components of the Berwick Bank Wind Farm Project to ensure compliance with the Habitats Regulations.

99. The HRA screening process along with subsequent receipt of the Berwick Bank Wind Farm Scoping Opinion and associated representations and advice, indicated that LSE on Annex I habitats, Annex II diadromous fish and Annex II marine mammal and ornithology features of interest for a total of 11 SACs and 38 SPAs could not be discounted. Accordingly, a systematic assessment for the potential for an adverse effect on the integrity of these European sites (either alone or in combination with other plans or projects) with respect to the site conservation objectives has been undertaken.

100. Table 14.1 in Part Two of this RIAA summarises the information presented in this RIAA with respect to the 11 SACs for which an Appropriate Assessment has been undertaken and presents a finding as to the potential for an adverse effect on integrity to result from the construction, operation and/or decommissioning of the Proposed Development. On the information presented within this RIAA, it is considered that the Proposed Development, acting either alone and or in-combination with other plans and projects, will not lead to an adverse effect on the integrity of the eleven SACs considered.

101. Table 1.1 and Table 1.2 of the Executive Summary for the RIAA summarise the information presented in Part Three of this RIAA with respect to the 38 SPA and Ramsar sites for which an Appropriate Assessment has been undertaken and presents a finding as to the potential for an adverse effect on integrity to result from the construction, operation and/or decommissioning of the Proposed Development.

102. On the information presented within this RIAA, it is considered that the Proposed Development, acting either alone and or in-combination with other plans and projects, has the potential lead to an adverse effect on the integrity of up to nine of the SPAs considered.

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