CHAPTER 9: NATURE CONSERVATION DESIGNATIONS

Technical Summary

There are numerous nature conservation designations that exist along the east coast of Scotland. Designated sites with the potential to be affected by the Seagreen Project have been identified including those which have been designated at international, national, regional and local level. The impacts of the Seagreen Project, as well as cumulative impacts, on the features of nature conservation designations have been assessed within the relevant chapters of the Environmental Statement. Those features designated under EC Directives and international agreements have been identified in this Environmental Statement. During the consent determination period for the Seagreen Project, a specific Habitat Regulations Appraisal data interpretation report will be submitted to Marine Scotland by Seagreen in support of an Appropriate Assessment.

INTRODUCTION

9.1. This chapter of the Environmental Statement (ES) provides an overview of the nature conservation designations of relevance and describes the international, national, regional and local designated sites of nature conservation value in the vicinity of the Seagreen Project. It outlines the legislation and policy drivers which underpin the designations, setting out the qualifying features of the sites and makes links to the supporting environmental considerations.

9.2. This chapter does not provide Environmental Impact Assessment (EIA), as the assessments of potential impacts relevant to the features of the designated sites are undertaken in the relevant technical chapters of this ES. The following chapters provide EIA and are referenced as appropriate in the following sections of this chapter:

- Chapter 7: Physical Environment;
- Chapter 10: Ornithology;
- Chapter 11: Benthic Ecology and Intertidal Ecology;
- Chapter 12: Natural Fish and Shellfish Resource; and
- Chapter 13: Marine Mammals.

9.3. Further details regarding the impacts on internationally designated sites can be found in the Habitat Regulations Appraisal (HRA) Screening Report (Seagreen, 2011 which can be found can be found in Appendix D1 in ES Volume III: Appendices), which was submitted to Scottish Natural Heritage (SNH) and the Joint Nature Conservation Committee (JNCC) in October 2011. Information to support HRA will be submitted in a separate document to this ES. Therefore, this chapter serves as a baseline for designated sites whereas the receptor chapters assess potential impacts to these sites and the HRA reports highlight the potential impacts to internationally designated sites.

9.4. This chapter of the ES was written by Royal Haskoning, and, where relevant, incorporates results and advice from other contributors, as detailed within the technical chapters listed above. All figures referred to in this chapter can be found in ES Volume II: Figures and appendices can be found in ES Volume III: Appendices.

CONSULTATION

9.5. Table 9.1 summarises issues that were highlighted by the consultees in the Scoping Opinion (Marine Scotland, January 2011, which can be found in Appendix B2 in ES Volume III) and subsequent consultation. The table also provides information regarding where within this ES each issue is discussed. This may be within this chapter of the ES (in which case the relevant paragraph(s) is provided), or may be within another chapter(s).

Table 9.1 Summary of consultation and issues

Date	Consultee	Issue raised in consultation	Relevant paragraph or ES chapter
January 2011	SNH & JNCC	The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007, (applying to the offshore zone beyond 12 nautical miles) and The Conservation (Natural Habitats, &c.) Regulations 1994 as amended, (applying to Scottish territorial waters) protect Natura (European) sites which include a variety of sensitive or rare marine habitats. SNH and JNCC strongly recommend that the inter-relationships between these interests are fully considered.	Inter-relationships are assessed in the relevant technical chapters (Chapter 3, 7, 10, 11, 12 and 13)
January 2011	SNH & JNCC	The Marine Protection Area (MPA) process is likely to be running on a parallel timescale to the applicant's project development and its formal consenting. SNH and JNCC will seek to keep the applicant updated on input to the progress of MPAs, where relevant, and also welcome the applicant's intention to engage in this process.	Paragraphs 9.41 – 9.42
January 2011	Royal Society for the Protection of Birds (RSPB)	The Firth of Forth Ramsar Site should also be listed as an Special Protection Area (SPA)	Noted and amended (see Table 9.4)
January 2011	RSPB	Some goose roost SPAs such as Slammanan Plateau (bean goose) and the Upper Solway Flats and Marshes (Svalbard barnacle goose) should also be included due to potential impacts on passage species.	Both have been included in this Chapter (see Table 9.4) and species discussed in Appendix F1
January 2011	JNCC and SNH	Fish of conservation concern include qualifying interests of adjacent Special Areas of Conservation (SACs) (i.e. Atlantic salmon, sea lamprey and river lamprey, sparling, Allis and Twaite shad) and species listed as a priority on UK Biodiversity Action Plan (UKBAP), International Council for the Exploration of the Sea (ICES) and International Union for Conservation of Nature (IUCN) Red lists (i.e. European eels).	Chapter 12: Natural Fish and Shellfish Resource
February 2012	Marine Scotland	Marine Scotland was satisfied that Seagreen provided a comprehensive HRA Screening Report which addressed all the relevant issues.	Appendix D2
February 2012	SNH and	With reference to HRA screening confirmed	All relevant sites for

Date	Consultee	Issue raised in consultation	Relevant paragraph or ES chapter
	JNCC	relevant SACs and SPAs requiring consideration where likely significant effect is possible. Confirmed SPA advice for breeding bird interest. Still considering approach for seabird species during post-breeding, passage and overwintering periods. Do not identify connectivity or likely significant effect between qualifying interest of the River Tweed SAC and Seagreen Phase 1 or Neart na Gaoithe or Inch Cape offshore wind proposals. Confirm River South Esk, River Tay and River Teith SACs to be considered in combination with Neart na Gaoithe and Inch Cape offshore wind farm proposals. Advice discussed with regard to SACs which include marine mammals as qualifying interests (seal species and bottlenose dolphins). Moray Firth, qualifying interest bottlenose dolphin, to be screened in. Firths of Forth and Tay important with regard to dolphin. Subtidal sandbanks to be screened out. SPA breeding seabird interest advice confirmed. Advise including fulmar and gannet as qualifying interests of SPAs further afield.	HRA are covered in Tables 9.3 and 9.4 and will be included in the future HRA report
February 2012	SNH & JNCC	In response to HRA screening Cumulative impacts in respect to SAC fish need to be considered.	Chapter 12: Natural Fish and Shellfish Resource
November 2011	SNH and JNCC	Reference populations for marine mammals confirmed	Chapter 13: Marine Mammals

METHODOLOGY

Study Area

9.6. This chapter considers sites which are designated through European legislation and have features which are mobile and can cover large areas (i.e. marine mammals and birds) as well as regional and local sites designated for regional and local scale habitats and features. As a result, for the purpose of the nature conservation assessment, different study areas have been applied in different chapters (Chapter 10: Ornithology, Chapter 11: Benthic Ecology and Intertidal Ecology, Chapter 12: Natural Fish and Shellfish Resources and Chapter 13: Marine Mammals in this ES) in order to be appropriate to the qualifying features of the designated site and the scope of the legislation which underpins the designation. For example sites which are designated for ornithological features and may be affected by the Seagreen Project have potential for wider reaching effects within the marine and terrestrial environments. This is because birds, which are highly mobile, have the potential to move between distant sites and the Seagreen Project area.

Data Collection and Survey

9.7. Data collection and field surveys were undertaken to inform the baseline evaluations for ornithology, marine mammals, fish and shellfish, and benthic and intertidal ecology. Within each of these chapters nature conservation designations were also considered if they contributed to the baseline. Additionally, information relating to the potential secondary effects of changes to the physical processes are provided in Chapter 7: Physical Environment of this ES and its corresponding appendices (Appendix E1 – E4).

Impact assessment

9.8. The assessment of the potential impacts on designated sites arising from the Seagreen Project is presented within the chapters relevant to the qualifying features of those sites.

9.9. It is United Kingdom (UK) and Scottish Government's policy that terrestrial and intertidal areas of Natura 2000 sites, as described in Table 9.2 and including Special Areas of Conservation (SACs) and Special Protected Areas (SPAs), should be underpinned by concurrent Site of Special Scientific Interest (SSSI) designations. With respect to this assessment for ornithological interest where a remote SPA has been identified it is only the SPA qualifying bird features of the site which are considered relevant to the assessment. Other features of the underpinning SSSI are not assessed unless an impact route between the Seagreen Project and the SSSI is considered likely.

LEGISLATIVE BACKGROUND

9.10. The designations and underpinning legislation requiring consideration within the EIA are described within this chapter and are listed in Table 9.2

Table 9.2 Description of designations of relevance to the Seagreen Project

Rationality of designation	Designation	Relevant Legislation, or Convention under which sites are designated
Internationally designated sites	Ramsar	The Ramsar Convention (The Convention on Wetlands of International Importance, especially as Waterfowl Habitat). International treaty for the conservation and sustainable utilisation of wetlands.
European designated sites ('Natura 2000')	SPA	Member states of the EU have a duty to safeguard the habitats of migratory birds and certain particularly threatened birds. SPAs and SACs form a European network of protected sites called Natura 2000. European Community Council Directive 79/ 409/ EEC on the Conservation of Wild Birds (Birds Directive); and the Offshore Marine Conservation (Natural Habitats &c.) Regulations 2007 (as amended in 2010) for those sites which have marine components.
	SAC	Strictly protected sites designated under the EC Habitats Directive which requires the establishment of a European network of important high-quality conservation sites. European Community Council Directive 92/ 43/ EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora (Habitats Directive); and The Offshore Marine Conservation (Natural Habitats &c.) Regulations 2007 (as amended in 2010) for those sites which have marine components.
	European Marine Sites	The term 'European Marine Sites' is a grouping or collective term for SACs, SPAs, and Ramsar sites that are wholly or intermittently covered by tidal water.
Nationally designated sites	Site of Special Scientific Interest (SSSI)	Designation denoting a protected area in the UK. Wildlife and Countryside Act 1981; and Nature Conservation (Scotland) Act 2004.
	National Nature Reserve (NNR)	Wildlife and Countryside Act 1981; and Nature Conservation (Scotland) Act 2004.
	Marine Protected Areas (MPA)	Marine (Scotland) Act 2010; and Marine and Coastal Access Act 2009.
Non statutory sites (designated by Local Plans (Local Development Plans) and by-laws) which may be concurrent with nationally designated sites	Local Nature Reserves (LNRs) and Scottish Wildlife Trust (SWT) Reserves	The National Parks and Access to the Countryside Act 1949 (as amended) gives Scottish Local Authorities the power to acquire, declare and manage nature reserves. The term 'Local Nature Reserve' (LNR) is not used in the Act; it has become attributed by custom to nature reserves managed by Local Authorities.

9.11. SNH designates SSSIs under the Nature Conservation (Scotland) Act 2004, and these are protected by law. It is an offence for any person to intentionally or recklessly damage the protected natural features of any SSSI.

9.12. National Nature Reserves can be declared by SNH under the 1949 National Parks and Access to the Countryside Act. Most NNRs are either managed by SNH, under lease or ownership, or are privately owned and managed in collaboration with the owner under a Nature Reserve Agreement (NRA).

9.13. Non-statutory sites (designated by local plans and by-laws) that are not concurrent with SSSI boundaries are not afforded statutory protection. Those of potential relevance to the Seagreen Project could include: Local Nature Reserves (LNR), Geological Conservation Review (GCR) sites, Royal Society for the Protection of Birds (RSPB) reserves and Scottish Wildlife Trust (SWT) reserves. However, there are no such sites within close vicinity of the Seagreen Project.

9.14. This chapter also considers those species and habitats on the OSPAR List of Threatened and Declining Species and Habitats (OSPAR, 2008). OSPAR is the mechanism by which 15 Governments of the western coasts and catchments of Europe (OSPAR, 2012), together with the European Community, cooperate to protect the marine environment of the North-East Atlantic.

9.15. The OSPAR Biological Diversity and Ecosystems Strategy (OSPAR, 2010) sets out that the OSPAR Commission will assess which species and habitats need to be protected. This work is to guide the setting of priorities by the OSPAR Commission for its activities in implementing Annex V to the Convention ('On the Protection and Conservation of the Ecosystems and Biological Diversity of the Maritime Area'). The OSPAR List of Threatened and/ or Declining Species and Habitats has been developed to fulfil this commitment.

9.16. In addition to OSPAR, the UK Biodiversity Action Plan (UK BAP) lists threatened habitats and species in the UK. The UK BAP was published in 1994 and was the UK Government's response to signing the Convention on Biological Diversity (CBD) at the 1992 Rio Earth Summit (JNCC, 2012a).

9.17. The UK BAP sets out a programme for conserving UK biodiversity and led to the production of 436 Biodiversity and Species Action Plans (BAPs/ SAPs) between 1995 and 1999 to help many of the UK's most threatened species and habitats to recover. A review of the UK BAP priority list in 2007 led to the identification of 1,150 species and 65 habitats that meet the BAP criteria at UK level (JNCC, 2012b).

9.18. Assessment of progress with implementation of the UK BAP currently takes place every three years. The most recent reporting round ran from September 2008 to November 2008 and the results were published in early 2010 (JNCC, 2012c).

9.19. Around the Firth of Forth, Angus Council, in common with all UK local authorities, has an active Local BAP; it is a partner in the Tayside BAP which targets and promotes positive action to assist and conserve species and places of biodiversity value which appear on action plan and priority action plan lists (Tayside Biodiversity Partnership, 2012).

HABITAT REGULATIONS APPRAISAL (HRA)

9.20. For sites designated in accordance with the European Commission (EC) Birds or Habitats Directives (Council Directives 2009/ 147/ EC (the consolidated (or 'codified') version of Council Directive 79/ 409/ EEC) and 92/ 43/ EEC respectively) a HRA is required wherever a project is proposed that is not directly connected to, or necessary for, the management of a Natura 2000 site, and has the potential to have a significant effect on integrity (for further information See Appendix D1).

9.21. Together the Habitats and Birds Directives protect species and habitats by establishing a network of internationally important sites designated for their ecological status. SACs, which are designated under the Habitats Directive, promote the protection of flora, fauna and habitats whereas SPAs, which are designated under the Birds Directive protect rare, vulnerable and migratory birds. These sites combine to create a Europe-wide 'Natura 2000' network of designated sites, which are hereafter referred to as 'European sites'. The term 'European site' also includes European Marine Sites (EMSs) which are SACs and SPA which have a marine (or intertidal) component.

9.22. The Conservation of Habitats and Species Regulations 2010 (the "Habitats Regulations") incorporate all SPAs into the definition of 'European sites' and, consequently, the protections afforded to European sites under the Habitats Directive apply to SPAs designated under the Birds Directive.

9.23. In addition to sites designated under European nature conservation legislation, UK Government policy (Office of the Deputy Prime Minister (ODPM) Circular 06/ 2005) states that internationally important wetlands designated under the Ramsar Convention 1971 (Ramsar sites) are afforded the same protection as SPAs and SACs for the purpose of considering development proposals that may affect them. The UK Government also affords the same level of protection to potential SPAs (pSPAs), candidate SACs (cSACs), possible SACs (pSACs) and draft SACs (dSACs).

9.24. Regulation 61 of the Habitats Regulations defines the procedure for the assessment of the implications of plans or projects on European sites. Under this Regulation, if the proposed development is unconnected with site management and is likely to significantly affect the designated site, the competent authority must undertake an 'appropriate assessment' (Regulation 61(1)). A separate (to this ES) document will be submitted to support the HRA. Seagreens proposed approach to HRA is presented in Appendix D3 of ES Volume III.

9.25. Although Marine Scotland as the regulatory authority will conduct the appropriate assessment, they will seek advice from SNH as the statutory advisor. SNH (SNH, 2010) guidance for "*Plan-making bodies in Scotland which are conducting HRA*" recommends a 13 stage appraisal process.

9.26. All stages of the process are referred to cumulatively as the HRA, to clearly distinguish the whole process from steps 8 and 9 within it, which are referred to as the 'Appropriate Assessment'.

9.27. Under the HRA the integrity of a site is defined as "*the coherence of the site's ecological structure and function, across its whole area, which enables it to sustain the habitat, complex of habitats and/or the levels of populations of the species for which it was classified or designated*" (SNH, 2010).

9.28. An adverse effect on integrity, therefore, is likely to be one which prevents the site from making the same contribution to favourable conservation status for the relevant feature as it did at the time of designation.

9.29. This ES assesses impacts upon the constituent features of the designated sites in the relevant chapters, but does not put this assessment in terms of effects on the designated sites themselves. The impact assessments within the EIA consider impacts at a wider population level or habitat status and distribution, i.e. at an immediate, regional and wider study area scale. It is important to note that the tests within the HRA are much more tightly focused and concentrate on the environmental impact that the development may have on the designated features of the Natura sites. The HRA assessment takes account of

impacts on habitats within the sites and on the species which may be using the sites. The key test of 'likely significant effect' on Natura site integrity is undertaken through the separate HRA process. The HRA will therefore draw on and interpret the data gathered and presented within the ES. In designing the data gathering programme for this ES Seagreen have been careful to ensure the data gathered is suitable to support both the EIA and the HRA processes.

STATUTORY INTERNATIONAL DESIGNATED SITES

Special Areas of Conservation

9.30. As part of the early consultation and dialogue with JNCC and SNH, the discussion and identification of relevant SACs was undertaken and this information also formed part of the HRA Screening Report and associated consultation. In their joint response dated 8 September 2010, JNCC and SNH confirmed that eight SACs should be considered as a starting point for the HRA process. As detailed in the HRA Screening Report, the Applicants have undertaken comprehensive consultation with a number of additional organisations including the Sea Mammal Research Unit Limited (SMRU Ltd), Marine Scotland and the Whale and Dolphin Conservation Society (WDCS) regarding the potential impacts upon mobile and migratory species (including pinnipeds, cetaceans and migratory fish). Consultation with respect to HRA is on-going with Marine Scotland. The agreements reached during the consultation with regard to impact assessment have been considered further within the relevant chapters of the ES.

9.31. The qualifying interests (i.e. habitats listed in Annex I and species listed in Annex II of the Habitats Directive) of the SAC sites relevant to the Seagreen Project are indicated in Table 9.3. Habitats and species are listed as being either: a primary feature which is the key reason for the selection of the site (these are regarded as having outstanding quality) (JNCC, 2012d); or as a qualifying feature. Qualifying features are Annex I or II features that also occur on the site but are regarded to be of 'secondary' importance (JNCC, 2012d).

9.32. The locations of the SACs, relative to the Seagreen Project are presented in Figure 9.1.

Table 9.3 SACs of relevance to the Seagreen Project (further detail provided in the HRA Screening Report and presented in Appendix D1 of the ES (Seagreen, 2011)

SAC	Distance to ISA (km)			Site features	
	Alpha	Bravo	ECR corridor landfall	SAC notified feature	Qualifying feature(s) selected for HRA
Isle of May	52.5	54	32	Annex I habitat: Reefs. Annex II species: Grey Seal (*Halichoerus grypus).*	Grey seal
Berwickshire and North Northumberland Coast	64.5	65.4	65	Annex I habitat: Mudflats and sandflats not covered by seawater at low tide, Large shallow inlets and bays, Reefs and Submerged or partially submerged sea caves. Annex II species: Grey seal.	Grey seal
Firth of Tay and Eden Estuary	47	49.5	0	Annex I habitat: Estuaries, Sandbanks which are slightly covered by sea water all the time and Mudflats and sandflats not covered by seawater at low tide. Annex II species: Common seals (*Phoca vitulina).*	Estuaries Common seal
Moray Firth	146	156	140	Annex I habitat: Sandbanks which are slightly covered by sea water all the time. Annex II species: Bottlenose Dolphin (*Tursiops truncatus).*	Bottlenose dolphin
River South Esk	40	46.1	20	Annex II species: Atlantic salmon *(Salmo salar),* Freshwater pearl mussel *(Margaritifera margaritifera).*	Atlantic salmon Freshwater pearl mussel
River Tay	58	61.6	13	Annex I habitat: Oligotrophic to mesotrophic standing waters with vegetation of the *Littorelletea uniflorae* and/ or of the *Isoëto-Nanojuncetea.* Annex II species: Atlantic salmon, Brook lamprey (*Lampetra planeri*), River lamprey, (*Lampetra fluviatilis*) Sea lamprey (*Petromyzon marinus*) and Otter (*Lutra lutra*).	Atlantic salmon Standing open water and canals: Oligotrophic to mesotrophic standing waters with vegetation of the *Littorelletea uniflorae* and/ or of the *Isoëto-Nanojuncetea*

SAC	Distance to ISA (km)			Site features	
	Alpha	Bravo	ECR corridor landfall	SAC notified feature	Qualifying feature(s) selected for HRA
River Teith	131	134	83.5	Annex II species: Atlantic salmon, Brook lamprey, River lamprey, Sea lamprey and Otter.	Atlantic salmon
River Tweed	78	80	66	Annex I habitat: Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation. Annex II species: Atlantic salmon, Brook lamprey, River lamprey, Sea lamprey, and Otter.	Atlantic salmon

Source: Site features taken from JNCC, 2012e

Special Protection Areas and Ramsar Sites

9.33. The SPAs included within the ES correspond to those which have been consulted upon and screened within the HRA Screening Report. These designated sites have been identified as part of an iterative process undertaken with The Forth and Tay Offshore Wind Developers Group (FTOWDG), the JNCC, SNH and the RSPB, as detailed in the HRA Screening Report.

9.34. The original list provided in the HRA Screening Report included twenty SPAs of which seven sites have subsequently been screened out. These are:

1. Coquet Island;
2. Farne Islands;
3. Imperial Dock Lock, Leith;
4. Lindisfarne;
5. Loch of Skene;
6. Muir of Dinnet; and
7. Upper Solway Flats and Marshes.

9.35. Ramsar sites also qualify as European sites in this context; however, as all relevant Ramsar sites in the Firth of Forth region are also designated as SPAs, these are shown in Table 9.4 but are not discussed separately.

9.36. The assessment of potential environmental impacts upon the SPAs identified as sensitive has been conducted in Chapter 10: Ornithology within this ES.

9.37. The notified features (i.e. species listed in Annex II of the Birds Directive) of the SPAs relevant to the Seagreen Project are indicated in Table 9.4. The locations of these SPAs are presented in Figure 9.2

Table 9.4 SACs of relevance to the Seagreen Project (further detail provided in the HRA Screening Report and presented in Appendix D1 of the ES (Seagreen, 2011))

SPA	Distance to ISA (km)			Site features	
	Alpha	Bravo	ECR corridor landfall	SAC notified feature	Qualifying feature(s) selected for HRA
Buchan Ness to Collieston Coast SPA and Ramsar	71.5	76.4	102	A seabird assemblage of international importance. The area qualifies under Article 4.2 of the Directive (79/ 409/ EEC) by regularly supporting at least 20,000 seabirds. During the breeding season, the area regularly supports 95,000 individual seabirds (Count, as at mid-1980s).	Fulmar (*Fulmarus glacialis*) Herring Gull (*Larus argentatus*) Kittiwake (*Rissa tridactyla*) Guillemot (*Uria aalge*)
Firth of Forth SPA and Ramsar	48	50.8	23	This site qualifies under Article 4.1 of the Directive (79/ 409/ EEC) by supporting populations of European importance of the following species listed on Annex I of the Directive: On passage Sandwich Tern (*Sterna sandvicensis)*, 1,611 individuals representing at least 3.8% of the population in Great Britain; Over winter Bar-tailed Godwit (*Limosa lapponica*), 2,600 individuals representing at least 4.9% of the wintering population in Great Britain (winter peak mean); Golden Plover (*Pluvialis apricaria)*, 2,970 individuals representing at least 1.2% of the wintering population in Great Britain (5 year peak mean 1991/ 2 - 1995/ 6); Red-throated Diver (*Gavia stellate)*, 88 individuals representing at least 1.8% of the wintering population in Great Britain (WeBS 1992 to 1997 mean); and Slavonian Grebe (*Podiceps auritus*), 71 individuals representing at least 17.8% of the wintering population in Great Britain (5 year mean 1992/ 3-1996/ 7). This site also qualifies under Article 4.2 of the Directive (79/ 409/ EEC) by supporting populations of European importance of the following migratory species:	Pink-footed Goose Bar-tailed Godwit Knot Dunlin (*Calidris alpine*) Redshank (*Tringa tetanus*) Turnstone Golden Plover Curlew (*Numenius arquata*) Oystercatcher (*Haematopus ostralegus*) Ringed Plover (*Charadrius hiaticula*) Grey Plover (*Pluvialis squatarola*) Lapwing (*Vanellus vanellus*)

SAC	Distance to ISA (km)			Site features	
	Alpha	Bravo	ECR corridor landfall	SAC notified feature	Qualifying feature(s) selected for HRA
				Over winter Knot (*Calidris canutus*), 8,013 individuals representing at least 2.3% of the wintering Northeastern Canada / Greenland / Iceland / Northwestern Europe population (winter peak mean); Pink-footed Goose (*Anser brachyrhynchus*), 12,400 individuals representing at least 5.5% of the wintering Eastern Greenland / Iceland / UK population (winter peak mean); Redshank (*Tringa totanus*), 3,700 individuals representing at least 2.5% of the wintering Eastern Atlantic - wintering population (winter peak mean); Shelduck (*Tadorna tadorna*), 3,586 individuals representing at least 1.2% of the wintering Northwestern Europe population (winter peak mean); Turnstone (*Arenaria interpres*), 1,286 individuals representing at least 1.8% of the wintering Western Palearctic - wintering population (winter peak mean); and A wetland of international importance (Assemblage qualification); The area qualifies under Article 4.2 of the Directive (79/ 409/ EEC) by regularly supporting at least 20,000 waterfowl; and The area regularly supports overwintering populations of 86,067 individual waterfowl (WeBS 1991/ 2-95/ 6).	
Firth of Tay and Eden Estuary SPA and Ramsar	48	50.4	0	This site qualifies under Article 4.1 of the Directive (79/ 409/ EEC) by supporting populations of European importance of the following species listed on Annex I of the Directive: During the breeding season: Little Tern (*Sterna albifrons*), 44 pairs representing at least 1.8% of the breeding population in Great Britain (Seabird Census Register); and Marsh Harrier (*Circus aeruginosus*), 4 pairs representing at least 2.5% of the breeding population in Great Britain (1997)	Pink-footed Goose Bar-tailed Godwit Black-tailed Godwit (*Limosa limosa*) Dunlin Redshank Oystercatcher Grey Plover Sanderling (*Calidris alba)*

SAC	Distance to ISA (km)			Site features	
	Alpha	Bravo	ECR corridor landfall	SAC notified feature	Qualifying feature(s) selected for HRA
				Over winter Bar-tailed Godwit, 2,400 individuals representing at least 4.5% of the wintering population in Great Britain (winter peak mean); and This site also qualifies under Article 4.2 of the Directive (79/ 409/ EEC) by supporting populations of European importance of the following migratory species Over winter Greylag Goose (*Anser anser*), 1,355 individuals representing at least 1.4% of the wintering Iceland/ UK/ Ireland population (5 year peak mean 1991/ 2 - 1995/ 6); Pink-footed Goose, 3,769 individuals representing at least 1.7% of the wintering Eastern Greenland / / Iceland / / UK population (5 year peak mean 1991/ 2 - 1995/ 6); Redshank, 1,800 individuals representing at least 1.2% of the wintering Eastern Atlantic - wintering population (winter peak mean); and A wetland of international importance (Assemblage qualification). The area qualifies under Article 4.2 of the Directive (79/ 409/ EEC) by regularly supporting at least 20,000 waterfowl and over winter, the area regularly supports 34,074 individual waterfowl (5 year peak mean 1991/ 2 - 1995/ 6).	
Loch Leven SPA and Ramsar	94.5	96.1	48.5	This site qualifies under Article 4.1 of the Directive (79/ 409/ EEC) by supporting populations of European importance of the following species listed on Annex I of the Directive: Over winter Whooper Swan (Cygnus Cygnus), 101 individuals representing up to 1.8% of the wintering population in Great Britain (5 year peak mean 1991/ 2 - 1995/ 6); and This site also qualifies under Article 4.2 of the Directive (79/ 409/ EEC) by supporting populations of European importance of the following migratory species.	Pink-footed Goose

SAC	Distance to ISA (km)			Site features	
	Alpha	Bravo	ECR corridor landfall	SAC notified feature	Qualifying feature(s) selected for HRA
				Over winter Pink-footed Goose, 18,230 individuals representing up to 8.1% of the wintering Eastern Greenland/ Iceland/ UK population (winter peak mean); Shoveler (*Anas clypeata*), 520 individuals representing up to 1.3% of the wintering Northwestern/ Central Europe population (winter peak mean); and A wetland of international importance (Assemblage qualification). The area qualifies under Article 4.2 of the Directive (79/ 409/ EEC) by regularly supporting at least 20,000 waterfowl and over winter, the area regularly supports 32,177 individual waterfowl (5 year peak mean 1991/ 2 - 1995/ 6)	
Fala Flow SPA and Ramsar	96	98	73.5	This site qualifies under Article 4.2 of the Directive (79/ 409/ EEC) by supporting populations of European importance of: Over winter Pink-footed Goose, 6,719 individuals representing at least 3.0% of the wintering Eastern Greenland/ Iceland/ UK population (5 year peak mean 1991/ 2 - 1995/ 6)	Pink-footed Goose
Montrose Basin SPA and Ramsar	33.5	41.4	24	This site qualifies under Article 4.2 of the Directive (79/ 409/ EEC) by supporting populations of European importance of the following migratory species: Over winter Greylag Goose, 1,080 individuals representing at least 1.1% of the wintering Iceland/ UK/ Ireland population (5 year peak mean, 1987/ 8-1991/ 2); Knot, 4,500 individuals representing at least 1.3% of the wintering Northeastern Canada/ Greenland/ Iceland/ Northwestern Europe population (5 year peak mean 1991/ 2 - 1995/ 6);	Pink-footed Goose Dunlin Knot Oystercatcher Redshank

SAC	Distance to ISA (km)			Site features	
	Alpha	Bravo	ECR corridor landfall	SAC notified feature	Qualifying feature(s) selected for HRA
				Pink-footed Goose, 31,622 individuals representing at least 14.1% of the wintering Eastern Greenland/ Iceland/ UK population (5 year peak mean 1991/ 2 - 1995/ 6); and Redshank, 2,259 individuals representing at least 1.5% of the wintering Eastern Atlantic - wintering population (5 year peak mean 1991/ 2 - 1995/ 6); and A wetland of international importance (Assemblage qualification). The area qualifies under Article 4.2 of the Directive (79/ 409/ EEC) by regularly supporting at least 20,000 waterfowl and, over winter, the area regularly supports 54,917 individual waterfowl (5 year peak mean 1991/ 2 - 1995/ 6).	
St Abb's Head to Fast Castle SPA	66	67	66	This site contains a seabird assemblage of international importance (Assemblage qualification). The area qualifies under Article 4.2 of the Directive (79/ 409/ EEC) by regularly supporting at least 20,000 seabirds. During the breeding season, the area regularly supports 79,560 individual seabirds (Count, as at 1987) including: Razorbill (*Alca torda*), Guillemot, Kittiwake, Herring Gull, Shag (*Phalacrocorax aristotelis*).	Kittiwake Herring Gull Guillemot Razorbill
Forth Islands SPA	49	60	30	This site qualifies under Article 4.1 of the Directive (79/ 409/ EEC) by supporting populations of European importance of the following species listed on Annex I of the Directive: <u>During the breeding season</u> Arctic Tern (*Sterna paradisaea*), 540 pairs representing at least 1.2% of the breeding population in Great Britain (Mean 1992 to 1996); Common Tern (*Sterna hirundo*), 800 pairs representing at least 6.5% of the breeding population in Great Britain (Seabird Census Register); This site qualifies under Article 4.1 of the Directive (79/ 409/ EEC) by supporting populations of European importance of the following species listed on Annex I of the Directive:	Fulmar Gannet Lesser Black Backed Gull Kittiwake Herring Gull Guillemot Razorbill Puffin

SAC	Distance to ISA (km)			Site features	
	Alpha	Bravo	ECR corridor landfall	SAC notified feature	Qualifying feature(s) selected for HRA
				During the breeding season Arctic Tern (*Sterna paradisaea*), 540 pairs representing at least 1.2% of the breeding population in Great Britain (Mean 1992 to 1996); Common Tern (*Sterna hirundo*), 800 pairs representing at least 6.5% of the breeding population in Great Britain (Seabird Census Register); Roseate Tern, 9 pairs representing at least 15.0% of the breeding population in Great Britain (5 year mean 1994-1998); and Sandwich Tern, 22 pairs representing at least 0.2% of the breeding population in Great Britain (5 year mean, 1993-1997). This site also qualifies under Article 4.2 of the Directive (79/ 409/ EEC) by supporting populations of European importance of the following migratory species: During the breeding season Gannet, 34,400 pairs representing at least 13.1% of the breeding North Atlantic population (count as at 1994); Lesser Black-backed Gull, 2,920 pairs representing at least 2.4% of the breeding Western Europe/ Mediterranean/ Western Africa population (count as at 1994); Puffin (*Fratercula arctica*), 21,000 pairs representing at least 2.3% of the breeding population (count as at 1992); Shag, 2,887 pairs representing at least 2.3% of the breeding Northern Europe population (count as at 1987); and A seabird assemblage of international importance (Assemblage qualification). The area qualifies under Article 4.2 of the Directive (79/ 409/ EEC) by regularly supporting at least 20,000 seabirds and during the breeding season, the area regularly supports 90,000 individual seabirds (three year mean, 1986-1988).	

SAC	Distance to ISA (km)			Site features	
	Alpha	Bravo	ECR corridor landfall	SAC notified feature	Qualifying feature(s) selected for HRA
Fowlsheugh SPA	27.5	41.8	53	This site qualifies under Article 4.2 of the Directive (79/ 409/ EEC) by supporting populations of European importance of the following migratory species: During the breeding season Guillemot, 40,140 pairs representing at least 1.8% of the breeding East Atlantic population (count as at 1992); Kittiwake, 34,870 pairs representing at least 1.1% of the breeding Eastern Atlantic - Breeding population (count as at 1992); and A seabird assemblage of international importance (assemblage qualification). The area qualifies under Article 4.2 of the Directive (79/ 409/ EEC) by regularly supporting at least 20,000 seabirds and during the breeding season, the area regularly supports 170,000 individual seabirds including: Razorbill, Herring Gull, Fulmar, Guillemot, and Kittiwake.	Fulmar Kittiwake Herring Gull Guillemot Razorbill
Slamannan Plateau SPA	135	137	90	This site qualifies under Article 4.1 of the Directive (79/ 409/ EEC) by supporting populations of European importance of the following species listed on Annex I of the Directive: Over winter Bean goose (*Anser fabalis)* Over 53% of the population in Great Britain five year mean for 2000/ 2001 to 2004/ 2005 of 221 individuals.	Bean Goose
South Tayside Goose Roosts SPA and Ramsar	102	104	52	This site qualifies under Article 4.2 of the Directive (79/ 409/ EEC) by supporting populations of European importance of the following migratory species: Over winter Greylag Goose, 3,667 individuals representing at least 3.7% of the wintering Iceland/ UK/ Ireland population (5 year peak mean 1991/ 2 - 1995/ 6);	Pink-footed Goose

SAC	Distance to ISA (km)			Site features	
	Alpha	Bravo	ECR corridor landfall	SAC notified feature	Qualifying feature(s) selected for HRA
				Pink-footed Goose, 43,300 individuals representing at least 19.2% of the wintering Eastern Greenland/ Iceland/ UK population (5 year peak mean 1991/ 2 - 1995/ 6); and A wetland of international importance (Assemblage qualification). The area qualifies under Article 4.2 of the Directive (79/ 409/ EEC) by regularly supporting at least 20,000 waterfowl and over winter, the area regularly supports 52,403 individual waterfowl (5 year peak mean 1991/ 2 - 1995/ 6) including: Greylag Goose., Pink-footed Goose	
Ythan Estuary, Sands of Forvie and Meikle Loch SPA and Ramsar	70	75	99	This site qualifies under Article 4.1 of the Directive (79/ 409/ EEC) by supporting populations of European importance of the following species listed on Annex I of the Directive: <u>During the breeding season</u> Common Tern, 265 pairs representing up to 2.2% of the breeding population in Great Britain (Count, as at early 1990s); Little Tern, 41 pairs representing up to 1.7% of the breeding population in Great Britain (Count, as at early 1990s); and Sandwich Tern, 600 pairs representing up to 4.3% of the breeding population in Great Britain (Seabird Census Register); This site also qualifies under Article 4.2 of the Directive (79/ 409/ EEC) by supporting populations of European importance of the following migratory species: <u>Over winter</u> Pink-footed Goose, 17,213 individuals representing up to 7.7% of the wintering Eastern Greenland/ Iceland/ UK population (winter peak means); and A wetland of international importance (Assemblage qualification).	Pink-footed Goose

SAC	Distance to ISA (km)			Site features	
	Alpha	Bravo	ECR corridor landfall	SAC notified feature	Qualifying feature(s) selected for HRA
				The area qualifies under Article 4.2 of the Directive (79/ 409/ EEC) by regularly supporting at least 20,000 waterfowl and over winter, the area regularly supports 51,265 individual waterfowl (5 year peak mean 1991/ 2 - 1995/ 6) including: Redshank, Lapwing, Eider, Pink-footed Goose.	
Gladhouse Reservoir SPA and Ramsar	111	113	81	This site qualifies under Article 4.2 of the Directive (79/ 409/ EEC) by supporting populations of European importance of the following migratory species: Over winter Pink-footed Goose, 3,068 individuals representing at least 1.4% of the wintering Eastern Greenland/ Iceland/ UK population (5 year peak mean 1991/ 2 - 1995/ 6.	Pink-footed Goose

Source: taken from JNCC, 2012f

NATIONAL DESIGNATIONS

Statutory National Sites

9.38. Large stretches of the coastline inshore of the Seagreen Project have been afforded protection under national designations such as SSSI and National Nature Reserve (NNR). Many of the SSSI site boundaries are concurrent with European sites and also with non-statutory nature conservation areas such as SWT reserves, GCR sites and LNR sites, which therefore are afforded statutory protection.

9.39. Table 9.5 details the national level designations (and where relevant a local non-statutory level), within 2km of the landfall locations (illustrated in Figure 9.3). However, none of the sites listed in Table 9.5, are designated for marine or intertidal features (below MHWS tidal limit), nor are they designated for any bird or mobile species which may be considered susceptible to any impacts. As a result, these designated sites do not require further consideration or assessment within this ES. No statutory national designations are located in the marine environment.

Table 9.5 Statutory national designations within 2km radius of the Seagreen Project landfall

Designated Site	Distance from ECR corridor landfall	Site summary
Barry Links SSSI	Partially sits within landfall	Designated for its dunes, vascular plants, bryophytes, invertebrates, breeding birds and landforms. The sand dune system is one of the largest on the east coast of Scotland and forms a peninsula on the northern edge of the Tay at the mouth of the estuary. It is a complex site which provides a valuable example of an active dune system and a full range of dune habitats which support a wide range of plants, mosses, liverworts, and invertebrates (Barry Links SSSI Citation Document)
Barry Links GCR	Landfall falls within the GCR	See Barry Links SSSI

Non-statutory Designations

9.40. There are no non-statutory designations outwith SSSI boundaries which fall within 2km of the landfall location and therefore it is considered that there are no non-statutory designations that will be affected by the Seagreen project.

FUTURE DESIGNATIONS

Marine Protected Areas

9.41. Marine Scotland (in partnership with SNH, JNCC and others) is leading a process to identify and designate Marine Protected Areas (MPAs) in Scottish waters under new powers and duties introduced by The Marine (Scotland) Act 2010 and The UK Marine and Coastal Access Act 2009. This will contribute to an ecologically coherent network of MPAs throughout the UK (Marine Scotland, 2011). This process is still in the early stages, but at the time of writing the Seagreen Project area overlaps with the Firth of Forth Banks Complex which contains three Priority Marine Features (PMFs) which will form the basis upon which MPAs are put forward for designation. The features which are found within the ISA are:

- Ocean quahog (Arctica islandica) aggregations
- Offshore subtidal sands and gravels; and
- Shelf banks and mounds.

9.42. The designation of sites is expected later in 2012. At present, the three features listed above have not been definitively described and only a provisional site boundary has been proposed.

Future European Sites

9.43. With regards to the potential designations of SACs. There are no potential Annex 1 sandbank habitats within the Seagreen Project area. The nearest location is at Cockenzie within the Firth of Forth. At the time of writing the Applicant is not aware of any plans to designate these habitats. No other areas that could qualify as Annex 1 habitat are located within the ISA.

9.44. Several potential offshore SACs have already been identified, none of which fall within or near to the Seagreen Project, the nearest being Dogger Bank candidate SAC which is over 200km from the Seagreen Project (JNCC, 2012g).

9.45. The Statutory Nature Conservation Bodies (SNCBs) are currently investigating the potential designation of a suite of new marine SPAs, as well as the seaward extension of a number of existing coastal SPAs (JNCC 2012h). This is to supplement the existing network of mostly terrestrial / intertidal SPAs around the UK and to better recognise the ecological requirements of birds using the marine environment. None of these are considered to be of relevance to the Seagreen Project. It is likely that JNCC will release a consultation paper on these projects later in 2012 and should any relevant project be included at this stage they will be considered further.

OSPAR

Threatened and/or Declining Species and Habitats

9.46. The OSPAR List of Threatened and/ or Declining Species and Habitats has been considered in the ES. Part I of the OSPAR list (OSPAR, 2008) includes over 30 invertebrates, birds, fish, reptiles and mammals and Part II details 16 habitat types.

9.47. The Seagreen Project is located within OSPAR Region II: Greater North Sea. This area comprises the North Sea, the English Channel, the Skagerrak and the Kattegat to the limits of the OSPAR maritime area, bounded on the north by latitude 62°N, on the west by longitude 5°W and the east coast of Great Britain, and on the south by latitude 48°N. Those species and habitats found in OSPAR Region II are listed in Tables 9.6 and 9.7 respectively.

9.48. The species and habitats of relevance to the Seagreen Project are described and assessed in Chapter 10: Ornithology; Chapter 11: Benthic Ecology and Intertidal Ecology; Chapter 12: Fish and Shellfish Resource; and Chapter 13: Marine Mammals of this ES. Tables 9.6 and 9.7 detail which of these species and habitats might be present in the Seagreen Project area and those highlighted in light blue have been carried through to the EIA. Those species which are unlikely to be present in the Seagreen Project area have not been considered further.

Table 9.6 OSPAR threatened and declining species and their potential relevance to the Seagreen Project

Scientific name	Common name	Presence at Seagreen Project
Invertebrates		
Arctica islandica	Ocean quahog	Found all round, and offshore from, British and Irish coasts (Sabatini *et al*, 2008). Have been recorded during surveys at the Seagreen Project, although only juveniles were found (see Chapter 11: Benthic Ecology and Intertidal Ecology).
Nucella lapillus	Dog whelk	A common and ubiquitous species found around the rocky coasts of Britain and Ireland. Dog whelk was found to be present in the ISA during the intertidal survey of the cable landfall site (Appendix G3 of Volume III of the ES). However as it was only present on the coastal sea defences and a small exposure of bedrock and wood which will not be disturbed during construction this species is not considered within the impact assessment in Chapter 11: Benthic Ecology and Intertidal Ecology
Ostrea edulis	Flat oyster	Patchy distribution around the British Isles, mainly associated with highly productive English estuarine and shallow coastal water habitats (Jackson and Wilding, 2009). Very limited populations known in west of Scotland. Historically the ISA supported a significant commercial native oyster fishery. No evidence to suggest that this species is present in the ISA (see Chapter 11: Benthic Ecology and Intertidal Ecology).
Birds		
Puffinus mauretanicus	Balearic shearwater	The Balearic Shearwater is an occasional offshore passage migrant in the Firth of Forth. There is no evidence to indicate that the species is present in significant numbers in the ISA and so this species is not considered in the impact assessment of Chapter 10: Ornithology
Rissa tridactyla	Black-legged kittiwake	Commonly occurring seabird in the Firth of Forth and is considered in detail within the impact assessment within the Chapter 10: Ornithology
Uria lomvia	Thick-billed murre	This is a northern species of Auk which very rarely occurs in the UK. There is no evidence to indicate that the species is present in the ISA and so this species is not considered in the impact assessment of Chapter 10: Ornithology
Sterna dougalii	Roseate tern	Roseate tern rarely occur in the wider study area and there is no evidence to indicate that the species is present in the ISA and so this species is not considered in the impact assessment of Chapter 10: Ornithology
Fish		
Acipenser sturio	Sturgeon	No evidence to indicate that the species is present in the ISA (see Chapter 12: Natural Fish and Shellfish Resources).
Alosa alosa	Allis shad	No evidence to indicate that the species is present in the ISA (see Chapter 12: Natural Fish and Shellfish

Scientific name	Common name	Presence at Seagreen Project
		Resources).
Anguilla anguilla	European eel	Although no eels have been recorded in the area, it is possible that they would pass through the ISA on their seaward migrations and also on their return to the coastline (see Chapter 12: Natural Fish and Shellfish Resources).
Centroscymnus coelolepis	Portuguese dogfish	No evidence to indicate that the species is present in the ISA (see Chapter 12: Natural Fish and Shellfish Resources).
Centrophorus squamosus	Leafscale gulper shark	No evidence to indicate that the species is present in the ISA (see Chapter 12: Natural Fish and Shellfish Resources).
Cetorhinus maximus	Basking shark	This species is usually sighted in summer in areas such as western Ireland, western Scotland, the Clyde area, the central Irish Sea, approaches to the Bristol Channel and the western English Channel (Wilding and Pizzolla, 2009). Basking sharks are less frequently sighted on the east coast of the UK but could be present in the ISA.
Coregonus lavaretus oxyrinchus	Houting	No evidence to indicate that the species is present in the ISA (see Chapter 12: Natural Fish and Shellfish Resources).
Dipturus batis	Common Skate	No evidence to indicate that the species is present in the ISA (see Chapter 12: Natural Fish and Shellfish Resources).
Raja montagui	Spotted Ray	This species has nursery grounds / spawning areas which are used at a low intensity across parts of the ISA and therefore is likely to be present in the ISA (see Chapter 12: Natural Fish & Shellfish Resources).
Gadus morhua	Cod	Species likely to be present in the ISA (recorded during site specific survey) (see Chapter 12: Natural Fish & Shellfish Resources).
Hippocampus guttulatus	Long-snouted seahorse	Records indicate that this species is highly unlikely to be present in the ISA as it is out of the recorded geographic range (Sabatini and Ballerstedt, 2007).
Hippocampus hippocampus	Short-snouted seahorse	Records indicate that this species is highly unlikely to be present in the ISA as it is out of the recorded range (Neish, 2010).
Lamna nasus	Porbeagle	An epipelagic oceanic and coastal species, which can be found in surface waters down to a depth of over 700m but can also occasionally venture into close inshore waters (Barnes, 2008). However, there is no evidence that this species is present in the ISA (see Chapter 12: Natural Fish and Shellfish Resources).
Petromyzon marinus	Sea lamprey	Although not recorded during any of the site specific surveys it is known to be present within a number of nearby rivers (see Chapter 12: Natural Fish & Shellfish Resources) and therefore may travel through the ISA.
Raja clavata	Thornback skate / ray	No evidence to indicate that the species is present in the ISA (see Chapter 12: Natural Fish & Shellfish Resources).

Scientific name	Common name	Presence at Seagreen Project
Rostroraja alba	White skate	No evidence to indicate that the species is present in the ISA (see Chapter 12: Natural Fish & Shellfish Resources).
Salmo salar	Salmon	The results presented in Chapter 12: Natural Fish & Shellfish Resources indicate that salmon migrate to a number of rivers in the vicinity of the Seagreen Project and therefore may pass through the ISA.
Squalus acanthias	[North-east Atlantic] spurdog	This species is likely to be present in the ISA, it has been identified in landings data and there are also low intensity nursery grounds across much of the North Sea (see Chapter 12: Natural Fish & Shellfish Resources).
Squatina squatina	Angel shark	No evidence to indicate that the species is present in the ISA (see Chapter 12: Natural Fish and Shellfish Resources).
Reptiles		
Dermochelys coriacea	Leatherback turtle	This species generally inhabits open seas although is present mostly in August and September off the south and west coasts of Britain and Ireland. Records show that it is unlikely to be present in the ISA (Reeds, 2004).
Mammals		
Balaenoptera musculus	Blue whale	This species is an open ocean whale, not often seen near the coast in north-west Europe and is very unlikely to be present in the ISA.
Eubalaena glacialis	Northern right whale	This species is an open ocean whale, not often seen near the coast in north-west Europe and is very unlikely to be present in the ISA.
Phocoena phocoena	Harbour porpoise	Present in low numbers within the ISA (see Chapter 13: Marine Mammals).

Table 9.7 OSPAR threatened and declining habitats and their potential relevance to the Seagreen Project (note that five of the habitats on the OSPAR list do not occur within OSPAR Region II – the Greater North Sea)

Habitats	Presence at Seagreen Project
Coral Gardens	Development site is outside the biogeographic range of coral gardens. (see Chapter 11: Benthic Ecology and Intertidal Ecology and).
Intertidal *Mytilus edulis* beds on mixed and sandy sediments	Although individuals have been recorded within the ISA, there is no evidence to show that beds on mixed and sandy sediments are present at the landfall location (see Chapter 11: Benthic Ecology and Intertidal Ecology).
Intertidal mudflats	This habitat is not present in the ISA (see Chapter 11: Benthic Ecology and Intertidal Ecology).
Littoral chalk communities	This habitat is not present in the ISA (see Chapter 11: Benthic Ecology and Intertidal Ecology).
Lophelia pertusa reefs	This habitat is not present in the ISA (see Chapter 11: Benthic Ecology and Intertidal Ecology). It is found in cold deep waters (200 - >2,000m).
Maerl beds	No evidence to suggest that this habitat is present in the ISA (see Chapter 11: Benthic Ecology and Intertidal Ecology).

Habitats	Presence at Seagreen Project
Modiolus modiolus beds	Individuals have been recorded within both the Project Alpha and Project Bravo sites, however there is no evidence of *M. modiolus* beds in the ISA (see Chapter 11: Benthic Ecology and Intertidal Ecology).
Ostrea edulis beds	This habitat is not present in the ISA (see Chapter 11: Benthic Ecology and Intertidal Ecology).
Sabellaria spinulosa reefs	The species has been found in the ISA although not in aggregations that would be considered as crust or reef habitat (see Chapter 11: Benthic Ecology and Intertidal Ecology).
Sea-pen and burrowing megafauna communities	Found on shallower, muddier sediments inshore of the ISA, within the Firth of Forth and south towards Dunbar, however there is no evidence to suggest that this habitat is present in the ISA (see Chapter 11: Benthic Ecology and Intertidal Ecology).
Zostera beds	No evidence to suggest that this habitat is present in the ISA (see Chapter 11: Benthic Ecology and Intertidal Ecology)

OSPAR Marine Protected Areas

9.49. In addition to habitats and species listed above, a key part of OSPAR's biodiversity strategy was to establish a network of MPAs, which is both ecologically coherent and well-managed by 2012 (OSPAR, 2010). An MPA as defined by OSPAR is: "*an area within the [OSPAR] maritime area for which protective, conservation, restorative or precautionary measures, consistent with international law have been instituted for the purpose of protecting and conserving species, habitats, ecosystems or ecological processes of the marine environment*" (OSPAR 2003 Annex 9 A-4.44a) (JNCC, 2012i).

9.50. A protected area may be considered for contribution towards the OSPAR network of MPAs if it meets one or more of the OSPAR MPA ecological criteria. All OSPAR MPAs are underpinned by another designation such as a SAC or a SPA (JNCC, 2012i). At present, there is no additional formal assessment process associated with the OSPAR network and no additional requirements over and above those needed for the Natura obligations (Jenny Oates, JNCC, pers. comm.)

9.51. Those of relevance to the Seagreen Project are detailed in Table 9.8.

Table 9.8 OSPAR MPAs of potential relevance to the Seagreen Project

OSPAR MPA	Distance to Seagreen Project (km)			Site summary
	Alpha	Bravo	ECR corridor landfall	
Firth of Tay and Eden Estuary	47	49.5	0	Underpinned by the Firth of Tay and Eden Estuary SAC (See Table 9.3 and Figure 9.1)
Isle of May	52.5	54	32	Underpinned by Isle of May SAC (See Table 9.3 and Figure 9.1)
Berwickshire and North Northumberland Coast	64.5	65.4	65	Underpinned by the Berwickshire and North Northumberland Coast SAC (See Table 9.3 and Figure 9.1)

SUMMARY

9.52. This chapter has summarised the key nature conservation designations of relevance to the Seagreen Project.

9.53. The assessment of impacts on these sites during all phases (construction, operation and decommissioning) of the development of the Seagreen Project, both alone and cumulatively with other plans and projects, is detailed within chapters relevant to the qualifying features of the designated sites detailed within this chapter.

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