



codling
wind park



Natura Impact Statement

Volume 3

Screening



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Abbreviations

Abbreviation	Term in full
AA	Appropriate assessment
ABP	An Bord Pleanála
CEMP	Construction Environmental Management Plan
CWP	Codling Wind Park
CWPL	Codling Wind Park Limited
EC	European Commission
EDF	Électricité de France
EDR	Effective Deterrence Ranges
EIA	Environmental Impact Assessment
EIA Report	Environmental Impact Assessment Report
EMF	Electromagnetic fields
EPA	Environmental Protection Agency
EU	European Union
FOS	Fred. Olsen Seawind
FWPM	Freshwater Pearl Mussel
HWM	High water mark
IAC	Inter-array cable
INNS	Invasive Non-Native Species
JNCC	Joint Nature Conservation Committee
LSE	Likely Significant Effect
MHW	Mean high water
MU	Management Unit
NBDC	National Biodiversity Data Centre
NIS	Natura Impact Statement
NPWS	National Parks and Wildlife Services
NRA	National Roads Authority
OECC	Offshore export cable corridor
OTI	Onshore transmission infrastructure
OWF	Offshore wind farm
OSS	Offshore substation structure
PTS	Permanent Threshold Shift

Abbreviation	Term in full
QI	Qualifying Interest
SAC	Special Area of Conservation
SCI	Special Conservation Interest
SPA	Special Protection Area
SSC	Suspended Sediment Concentration
TTS	Temporary Threshold Shift
UXO	Unexploded ordnance
WTG	Wind turbine generators
ZoI	Zone of influence
ZSC	Zones Spéciale de Conservation (French SACs)

Definitions

Glossary	Meaning
the Applicant	The developer, Codling Wind Park Limited (CWPL).
Codling Wind Park Project	The proposed development as a whole is referred to as the Codling Wind Park Project, comprising of the offshore Infrastructure the onshore infrastructure and any associated temporary works.
Codling Wind Park Limited	A joint venture between Fred. Olsen Seawind (FOS) and Électricité de France (EDF) Renewables, established to develop the CWP Project.
Environmental Impact Assessment (EIA)	A systematic means of assessing a development projects likely significant effects (LSEs) undertaken in accordance with the EIA Directive and the relevant Irish legislation.
Environmental Impact Assessment Report (EIAR)	The report prepared by the Applicant to describe the findings of the EIA for the CWP Project.
European site	European sites are a European network of important ecological sites, made up of Special Protection Areas (SPAs), established under the EU Birds Directive (79/409/EEC), and SACs, established under the Habitats Directive (92/43/EEC). European sites are also often referred to as Natura 2000 sites.
receptor	Environmental component that may be affected, adversely or beneficially, by the project.
study area	Study areas are defined for each receptor based on the relevant characteristics of the receptor (e.g. mobility/range), some receptors may have different study areas defined at different scales (e.g. local, regional, management unit level etc.)
zone of influence (Zol)	Spatial extent of potential impacts resulting from the project.
Offshore components	
array site	The area within which the wind turbine generators (WTGs), inter-array cables (IACs) and the offshore substation structures (OSSs) are proposed.
inter-array cables (IACs)	The subsea electricity cables between each WTG between and the OSSs.
interconnector cables	The subsea electricity cables between OSSs
offshore export cables	The cables which transport electricity generated by the wind turbine generators (WTGs) from the offshore substation structures (OSSs) to the TJBs at the landfall.
offshore export cable corridor (OECC)	The area between the array site and the landfall, within which the offshore export cables cable will be installed along with cable protection and other temporary works for construction.
offshore development area	The entire footprint of the offshore infrastructure and associated temporary works that will form the offshore boundary for the development consent application.

Glossary	Meaning
offshore infrastructure	The permanent offshore infrastructure, comprising of the WTGs, IACsOSSs, interconnector cables, the offshore export cables and other associated infrastructure such as cable and scour protection.
Onshore components	
landfall	The point at which the offshore export cables are brought onshore and connected to the onshore export cables via the transition joint bays (TJB). For the CWP Project The landfall works include the installation of the offshore export cables within Dublin Bay out to approximately 4 km offshore, where water depths that are too shallow for conventional cable lay vessels to operate.
onshore export cables	The cables which would bring electricity from the landfall to the onshore substation.
onshore development area	The entire footprint of the OTI and associated temporary works that will form the onshore boundary for the planning application.
onshore transmission infrastructure (OTI)	The onshore transmission assets comprising the TJBs, onshore export cables and the onshore substation. The EIAR considers both permanent and temporary works associated with the OTI.
onshore substation	Site containing electrical equipment to enable connection to the national grid.
Key Stakeholders and Relevant Bodies	
Department of the Environment, Climate and Communications (DECC)	The Irish government department responsible for environment and climate action, natural resources and waste; energy; and communications.
Department of Housing, Local Government and Heritage (DHLGH)	The Irish government department responsible for housing, local government (including planning) and heritage.
EirGrid	State-owned electric power transmission system operator in Ireland.
Environmental Protection Agency (EPA)	National agency responsible for protecting and improving the environment of Ireland under the Environmental Protection Agency (EPA) Acts 1992 as amended.
European Commission (EC)	The executive body of the European Union (EU) responsible for proposing legislation, enforcing European law, setting objectives and priorities for action, negotiating trade agreements and managing implementing EU policies and the budget.
National Parks and Wildlife Service (NPWS)	The National Parks and Wildlife Service is a division of the Department of Housing, Local Government and Heritage which manages the Irish State's nature conservation responsibilities. As well as managing the national parks, the activities of the NPWS include the protection of Natural Heritage Areas, Special Areas of Conservation and Special Protection Areas.

1 INTRODUCTION

1. This Volume of the Natura Impact Statement (NIS) provides the information to inform Appropriate Assessment (AA) screening.
2. The NIS is laid out as follows:
 - **Volume 1** contains the introduction to the CWP Project, document structure and a summary of the conclusions of the other volumes.
 - **Volume 2** contains the introductory sections of the document, detailing the relevant legislation, assessment methodology, and the project description.
 - This Volume (**Volume 3**) provides the report to inform AA Screening.
 - **Volume 4** provides the scientific examination of the CWP Project on relevant European sites (Special Area of Conservation (SACs)), to identify and characterise any possible implications of the CWP Project on the integrity of European sites.
 - **Volume 5 (Part 1 and Part 2)** provides the scientific examination of the CWP Project on relevant European sites (Special Protection Areas (SPAs)), to identify and characterise any possible implications of the CWP Project on the integrity of European sites.
 - **Volume 6 (Part 1 and Part 2)** provides the scientific examination of the CWP Project and examines the in-combination impacts screened into the analysis of project-only assessment (**Volume 4 and 5**).
 - Relevant outline plans or other supporting information as referred to within the NIS are included in **Volume 7** as appendices.
3. The structure of this volume (**Volume 3**) is as follows:
 - **Section 2 - Approach to Screening:** this section provides detail on the adopted methodology used in this Supporting Information for Screening for Appropriate Assessment Report;
 - **Section 3 - Determination of the Potential for LSE from the Project Alone:** identification of sites and features which may potentially be affected by the CWP Project, including an assessment of the potential for LSEs to arise with regard to the designated features of the European sites under consideration;
 - **Section 4 - The Screening process for the Project in-combination:** approach to in-combination assessment.
4. The purpose of this report is to:
 - a) present the CWP Project's findings in relation to its own determination of LSE, and
 - b) provide the information required to enable the Competent Authority to determine where LSEs cannot be ruled out for the CWP Project alone or in combination with other plans and projects (Stage 1 screening) and therefore require AA (Stage 2), in accordance with the requirements as set out under Article 6(3) of the Habitats Directive (92/42/EEC).
5. For the avoidance of doubt, it is considered that the CWP Project is not directly connected to, or necessary for, the management of any European Site, and the assessment is undertaken on that basis.

2 APPROACH TO SCREENING

6. In line with the Office of the Planning Regulator's practice note (2021), and the European Commission's (EC's) Methodological Guidance on Articles 6(3) and (4) of the Habitats Directive (EC 2019,)), the following stages and steps have been undertaken:
 - Stage 1 – AA screening: Screening is the process that addresses and records the reasoning and conclusions in relation to the first two tests of Article 6(3), which are:
 - i) whether a plan or project is directly connected to, or necessary for, the management of the site (see **Paragraph 5**) and;
 - ii) whether a plan or project, alone or in combination with other plans and projects, is likely to have significant effects on a Natura 2000 site in view of its conservation objectives.
7. As noted in **Section 1** it is considered that the CWP Project is not directly connected to, or necessary for, the management of any European Site, as such the remainder of this document focuses on Stage 1 (ii) and identifies whether the CWP Project is likely to have a significant effect on a Natura 2000 site (LSE).
8. Screening is the first step to identify those sites and features for which LSE cannot be discounted beyond reasonable scientific doubt. This stage is essentially a site-identification / -selection process, which, while it forms part of the overall LSE determination stage of the NIS (which informs the AA), has been separated out to refine the list of sites taken forward for a more detailed consideration of LSE.
9. Once a site / feature is identified, the screening exercise considers whether or not a significant effect can be foreseen, either directly or indirectly. A precautionary approach is followed, where if it is not currently possible to exclude LSE for the project alone and in combination with other plans or projects, based on best scientific knowledge and beyond reasonable doubt, then the site / feature is progressed to the AA Stage (Stage 2).
10. In relation to each European site considered in the screening exercise, it will be concluded that either:
 - No LSE on the European site(s) is identified and therefore no further assessment is required; or
 - LSE on the European site(s) cannot be discounted, and these are taken forwards into the NIS.
11. With respect to in-combination effects, this Screening Report identifies the categories of plans and projects that will need to be considered.
12. Based on the Project Description, the following sections detail the potential impacts that the CWP Project may have on the Qualifying Interests (QIs) or Special Conservation Interests (SCIs) of relevant European sites during the Construction, Operation and Decommissioning phases (termed C,O,D in the tables).
13. For all receptors, the approach to screening has been highly conservative. Where there is considered to be connectivity with a QI or SCI of a European Site as defined by the criteria below, and there is considered to be a route to potential impact on the QI or SCI, it has been determined that LSE cannot be ruled out in that instance, and the European Site has been screened in for inclusion in the NIS and Stage 2 Appropriate Assessment.
14. As a general approach, the assessment of LSE has not relied upon mitigation where that mitigation is directly applied to reduce effects on the designated site. It should however be noted that pollution prevention measures are incorporated in the design of the project not with the aim of reducing the negative effects of that project on a given site, but as standard features required for all projects of the same type. Therefore, it is considered that pollution prevention controls are suitably built into the design of the project in order to meet existing legislative obligations, and accordingly, risk of pollution

events is reduced as far as is reasonably practical. Potential for LSE is thus screened out accordingly for all European sites alone and in-combination with other plans and projects.

2.1 Benthic and intertidal ecology

15. Assessments under this section (and the subsequent corresponding sections of this Screening Volume of this NIS) relate to those habitat QIs that are present below Mean High Water (MHW).
16. For potential direct effects on habitats, and effects from the presence of electromagnetic fields (EMF) and associated temperature changes, the potential for connectivity between the Project and Natura 2000 sites for which Annex I habitats are a QI was assessed based on whether the array site, offshore export cable corridor (OECC), landfall and / or the onshore substation overlapped with the Special Areas of Conservation (SAC) boundary (plus the reasonable area over which EMF may be detectable for that impact).
17. For indirect effects on habitats, including temporary increases in suspended sediments / smothering, remobilisation of contaminated sediments and the introduction of invasive non-native species (INNS), connectivity is defined by the hydrodynamic modelling presented in EIAR **Appendix 6.3 Modelling Report** and **Appendix 6.4 Hydraulic Modelling**. For increases in suspended sediments, this modelling determines the range of any sediment plume resulting from the CWP Project construction, taking into consideration local sediment types and hydrodynamic regimes. For suspended sediment connectivity, all Natura 2000 sites with Annex I habitats within the modelled range of sediment particle transport from the associated works within the array site, OECC, landfall location, and onshore substation are included, as this is considered to be representative of the hydrodynamic conditions and thus the maximum area over which indirect effects may reasonably act.
18. Based upon the conclusions of the hydrological modelling report, there is a negligible effect on hydrodynamics beyond the array site and onshore substation (see EIAR **Appendix 6.3 Modelling Report** and **Appendix 6.4 Hydraulic Modelling**), and as such indirect effects arising from hydrodynamic changes from installation of CWP Project Infrastructure are screened out as having no potential to lead to LSE on any SAC with benthic or intertidal QIs.
19. Potential routes to impact of the CWP Project on Annex I habitat QIs below MHW have been described in **Table 2-1** along with their Zones of Influence (ZoI). Noting that there is no anticipated connectivity or interaction with Annex I habitat QIs as a result of the proposed onshore substation works and as such the onshore substation works are screened out from further consideration.

Table 2-1 Description of potential impacts - benthic and intertidal ecology

Benthic and intertidal ecology					
Potential impact	C	O	D	Zone of potential effect	Rationale
Direct impacts on habitats	✓	✓	✓	Array site, OECC and / or landfall	Direct physical habitat disturbance and / or loss may occur from a variety of activities associated with the CWP Project that have direct contact with the seabed (i.e., through construction activities such as pile driving, installation of wind turbine generators (WTGs), cable route preparation and installation, and rock placement, and surveys) in those locations where benthic QIs exist.
Temporary increases in suspended sediments / smothering	✓	✓	✓	<p>The Zol for temporary increases in suspended sediments / smothering is determined by the greatest ranges predicted by the modelling outputs from the CWP Project hydrological model (EIAR Appendix 6.3 Modelling Report). This can be summarised as:</p> <ul style="list-style-type: none"> Dredge disposal plumes in array site: <ul style="list-style-type: none"> Transient increase in SSC of up to 100–150 mg/L over 4–6 km eastwards in c.10–15 days Maximum cumulative sediment deposition thickness of c. 3–6 cm. Dredge disposal plumes in the OECC: <ul style="list-style-type: none"> Transient increase in SSC of up to 80 mg/L travelling over 4 km westward, or up to 50 mg/L, travelling a maximum of 5 km south eastward 	<p>Increased suspended sediment concentration (SSC) may be introduced by a variety of activities associated with the CWP Project that physically disturb the sediment, for example during deployment of equipment on seabed, pile driving and other construction-related activities (e.g., route preparation, cable installation, trenching and rock placement). Spatially limited increases in SSC (within metres) may also occur during sediment and seabed sampling surveys.</p> <p>The potential Zol varies depending on the activity and the sensitivity of the receptor with QI habitats having varying degrees of tolerance to increases in SSC.</p> <p>These increases in SSC can affect filter feeding species by blocking feeding apparatus, smothering sessile species, or interfering with respiratory function, or can increase scour in areas of strong tidal movement (Shin et al., 2002).</p>

Benthic and intertidal ecology

Potential impact	C	O	D	Zone of potential effect	Rationale
				<ul style="list-style-type: none"> ○ Cumulative sediment deposition thickness of c. 2–4 cm. • Sediment plumes from cable installation activities across the array site: <ul style="list-style-type: none"> ○ Sediments transported eastward up to 4–10 km at an increase of 20–40 mg/L. ○ Cumulative sediment deposition thickness of <0.5–1 cm, near the release location. • Sediment plumes generated during cable installation activities across the OECC <ul style="list-style-type: none"> ○ SSC of 50–80 mg/L being transported for up to 7 km eastward ○ cumulative sediment deposition thickness of c. <1–2 cm, near the release location 	
Remobilisation of contaminated sediments	✓	✓	✓	See Temporary increases in Suspended Sediments / smothering above	Pollution by contaminated sediments can impact on the fitness or health of organisms or communities and thus alter community structure or habitats. Potential connectivity is considered to be in line with that associated with increases in SSC.
Introduction of INNS	✓	✓	✓	Array site, OECC and / or landfall	Introduction of INNS can alter community composition through changes in predation or competition for

Benthic and intertidal ecology					
Potential impact	C	O	D	Zone of potential effect	Rationale
					resource, which can lead to a change in habitat, or loss of native species (Bax et al., 2003). The introduction of such invasive species can be via vessel or through contaminated equipment (i.e., colonised by invasive species). The results of CWP Project site specific benthic surveys contained no INNS species.
Presence of EMF and / or Temperature changes resulting from presence of electrical infrastructure		✓		Array site, OECC and / or landfall, noting the additional area defined by EMF model outputs.	EMF and small localised temperature changes in the sediment will be present around export and inter-array cables associated with the CWP Project. The distance over which EMF persist is typically dependant on the strength of the electrical charge, characteristics of the surrounding environment and characteristics of the cable (Tethys, 2022).

2.2 Marine Mammals

20. The potential for connectivity between the CWP Project and SACs (and French Zones Spéciale de Conservation (ZSCs)¹) for which marine mammals are a QI was assessed based on whether the CWP Project fell within the management unit (MU) for cetaceans or likely foraging range of seals using these SACs. These ranges have been defined on a species by species basis as follows:
- **Bottlenose dolphin:** Sites (SACs) were selected if the zone of effect of the potential impact fell within the same management unit. All impacts from the CWP Project for bottlenose dolphins are restricted to the Irish Sea MU. In addition to this, studies have found that bottlenose dolphins can undertake movements of up to a few hundred kilometres around Ireland (O'Brien et al., 2009). Therefore, SACs on the west coast of RoI have also been screened in, though it is noted that they are located in different MUs (West Coast of Ireland MU, Shannon Estuary MU and Oceanic waters MU) and are thus considered to be a different population to that in the Irish Sea MU.
 - **Harbour porpoise:** Sites (SACs and French ZSCs) were selected if the zone of effect of the potential impact fell within the same MU. Harbour porpoise impacts from the CWP Project were restricted to the Celtic and Irish Seas MU, therefore only sites within the Celtic and Irish Seas MU were selected.
 - **Grey and harbour seals:** All SACs within the RoI were also included following advice from National Parks and Wildlife Service (NPWS) (see **NIS Volume 2 - Introduction**). These were then screened so that sites (SACs) were selected if the zone of effect of the potential impact fell within the foraging range of the seal species for which the SAC was designated. Based on tracking data, grey seals typically forage within 100 km of an SAC, and harbour seals within 50 km (Carter et al., 2022).
21. Increased underwater noise may be introduced by a variety of equipment and activities associated with the CWP Project (geophysical surveys, Unexploded Ordnance (UXO) clearance, pile driving including both at the array site and the onshore substation, other construction-related activities, vessels, operation). These potential (increased underwater noise) impacts have therefore been considered separately in **Table 2-2**.
22. Potential effects of underwater noise on marine mammals include auditory injury (Permanent Threshold Shift, PTS), and behavioural responses (disturbance / displacement). Codling Wind Park Limited (CWPL) has determined the potential for PTS onset using criteria developed by Southall et al. (2019) (see **EIAR Appendix 9.4 Underwater Noise Modelling**). The potential for behavioural responses has been determined using underwater noise modelling (see *ibid*) and dose-response relationships (Graham et al., 2019; Whyte et al., 2020).
23. The zones of potential effect vary depending on the source (see 'Zone of potential effect' column in **Table 2-2**).
24. Potential routes to impact of the CWP Project on marine mammal QIs have been described in **Table 2-2** along with their zones of potential effect.

¹ Zones Spéciale de Conservation (ZSCs) is the name for SACs in France.

Table 2-2 Description of potential routes to impact on marine mammals and their zones of potential effect

Marine mammals					
Potential impact	Project phase			Zone of potential effect	Rationale
	C	O	D		
Increased underwater noise – Surveys	✓	✓	✓	Array site and OECC and associated extent of anticipated noise propagation.	<p>Geophysical surveys emit sound which may be audible to marine mammals depending on the frequency or frequencies used.</p> <p>The noise emitted from these sources will be rapidly attenuated with distance from source such that noise levels at which behavioural disturbance would be anticipated to occur will be of small spatial extent.</p> <p>Effective deterrence ranges² (EDRs) of ≤5 km are generally used for geophysical surveys (Joint Nature Conservation Committee (JNCC), 2020)</p> <p>Due to the potential for all Annex II marine mammal species with connectivity to the CWP Project (see paragraph 9) to be affected by this potential impact, it has been considered within the screening assessment.</p>
Increased underwater noise – UXO clearance	✓			Array site and OECC and associated extent of noise propagation.	<p>Guidance states that for high-order clearance, a 26 km EDR should be used for porpoise disturbance. The same is assumed for other species.</p> <p>Guidance states that for low-order clearance, a 5 km EDR should be used for porpoise disturbance (JNCC, 2023). The same is assumed for other species.</p> <p>Due to the potential for all Annex II marine mammal species with connectivity to the CWP Project (see paragraph 9) to be affected by this potential impact, it has been considered within the screening assessment.</p>

² JNCC recommends using use fixed disturbance distances for different activities, based on empirical evidence (JNCC, 2020). These are termed effective deterrence ranges (EDRs) and have been informed by published ranges where the bulk of the effect (reduction in vocal activity or sightings) was detected. It should be noted that they are not equivalent to 100% deterrence / disturbance in the associated area nor do they represent the limit range at which effects have been detected.

Marine mammals

Potential impact	Project phase			Zone of potential effect	Rationale
	C	O	D		
Increased underwater noise – Pile driving	✓			Array site, OECC, onshore substation and extending to modelled disturbance ranges.	<p>Pile driving is widely acknowledged to produce levels of anthropogenic sound that may be significant (DAHG, 2014). Pile driving produces pulsed sound and, due to sound pressure and exposure levels, it is important to assess the potential for instantaneous as well as cumulative effects.</p> <p>Project-specific modelling shows disturbance contours using the porpoise dose-response that extend across the majority of the Irish Sea (although a low proportion of animals will respond at the lower received levels).</p> <p>Due to the potential for all Annex II marine mammal species with connectivity to the CWP Project (see paragraph 9) to be affected by this potential impact, it has been considered within the screening assessment.</p>
Increased underwater noise – Other construction-related activities	✓		✓	Array site and OECC.	<p>Ranges of potential effect for other construction-related activities are expected to be <5 km</p> <p>Due to the potential for all Annex II marine mammal species with connectivity to the CWP Project (see paragraph 9) to be affected by this potential impact, it has been considered within the screening assessment.</p>
Increased underwater noise – Vessels	✓	✓	✓	Array site, OECC and vessels in transit.	<p>Vessel noise will primarily be a consideration when vessels are on transit; when vessels are undertaking other work that increases underwater noise, that work will be considered as the dominant sound source.</p> <p>Ranges of potential effect for vessel noise are expected to be out to a maximum of 4 km for porpoise (Benhemma-Le Gall et al., 2021).</p> <p>Due to the potential for all Annex II marine mammal species with connectivity to the CWP Project (see paragraph 9) to be affected by this potential impact, it has been considered within the screening assessment.</p>
Increased underwater noise – Operation		✓		Array site only.	<p>The reported noise levels from operating wind turbines are low and are very unlikely to impair hearing in marine mammals (Madsen et al., 2006; Bosman, 2022). Furthermore, animals are not displaced from operational wind farms</p>

Marine mammals

Potential impact	Project phase			Zone of potential effect	Rationale
	C	O	D		
					<p>(Russell et al., 2014; Dähne et al., 2014). However, because this evidence comes from smaller WTGs than the Project proposes, operational noise will be considered within the screening assessment.</p> <p>Although it is not anticipated that animals will be displaced from operational wind farms using larger WTGs, CWPL has chosen to take a precautionary approach to assessment and therefore, due to the potential for all Annex II marine mammal species with connectivity to the CWP Project (see paragraph 9) to be affected by this potential impact, it has been considered within the screening assessment</p>
Collision risk	✓	✓	✓	Array site, OECC and vessels in transit.	<p>Collisions with vessels have been documented in Annex II cetaceans and pinnipeds (Van Waerebeek et al., 2007; Bloom and Jager, 1994). Injuries from such collisions can be divided into two broad categories: blunt trauma from impact and lacerations from propellers. Injuries may result in individuals becoming vulnerable to secondary infections or predation.</p> <p>Vessels which are stationary or travelling at slow speeds following a consistent trajectory allow marine mammals the opportunity to avoid collisions.</p> <p>Marine mammals in the area are exposed to marine traffic on a regular basis and should therefore be habituated to vessel movements.</p> <p>Due to the potential for all Annex II marine mammal species with connectivity to the CWP Project (see paragraph 9) to be affected by this potential impact, it has been considered within the screening assessment.</p>
Changes in prey availability	✓	✓	✓	Array site and OECC	<p>Changes in prey availability may occur as a result of increased noise and / or habitat disturbance, e.g., changes in suspended sediments. These changes generally have the potential to occur at a local level, and usually in the short term (e.g., construction phase). Because marine megafauna range and forage widely, short-term local-level changes are unlikely to result in large-scale impacts because animals are likely to use suitable alternative habitat.</p>

Marine mammals

Potential impact	Project phase			Zone of potential effect	Rationale
	C	O	D		
					<p>Changes in prey availability may also occur during the operational phase due to the presence of turbine foundations in the water (see 'Changes in available habitat' row below).</p> <p>Due to the potential for all Annex II marine mammal species with connectivity to the CWP Project (see paragraph 9) to be affected by this potential impact, it has been considered within the screening assessment.</p>
Changes in available habitat	✓	✓	✓	Array site and OECC	<p>Evidence now exists that marine animals quickly habituate to the presence of turbine foundations in the water, that there is sufficient distance between turbines to allow movement between foundations³, and that usage of the wider area may increase compared to prior to wind farm development (Russell et al., 2016). Furthermore, GPS-tagged seals have been shown to exhibit grid-like patterns as they concentrate foraging activity at individual turbines (Russell et al., 2014).</p> <p>Due to the potential for all Annex II marine mammal species with connectivity to the CWP Project (see paragraph 9) to be affected by this potential impact, it has been considered within the screening assessment.</p>

³ This statement is true for Annex II species therefore it is not necessary to consider barrier to movement as a potential impact during the AA/NIS process.

2.3 Offshore and Intertidal ornithology

25. The potential for connectivity between the CWP Project and Special Protection Areas (SPAs) for which ornithological features are a SCI are assessed based on four broad species groupings. SPAs designated in relation to:
 - Breeding seabird SCIs;
 - Non-breeding seabird SCIs;
 - Migratory wildfowl and wader SCIs; and
 - Other migratory SCIs.
26. In addition to this, three marine area SPAs designated in relation to their importance to breeding or non-breeding SCIs were considered.
27. Connectivity ranges for each of the species groupings (and marine area SPAs) detailed above, with justification of the rationale used to define those ranges, are provided in **Annex A Table A-5**.
28. Five potential impacts to SPAs for which ornithological features are a SCI were identified;
 - **Direct effects on habitat** impacts are considered effects which directly remove or alter habitats in such a way as to remove or otherwise affect their value to ornithological receptors so as to prevent or reduce the use of those habitats by receptors;
 - **Disturbance and displacement** impacts are considered behavioural responses to wind farm infrastructure or associated activity leading to effective **indirect habitat loss** through the avoidance of use of particular areas, or **barrier effects** through additional energetic consequences from the avoidance of passage through particular areas;
 - **Changes in prey availability** impacts are considered effects which result in changes to the distribution, abundance or behaviour of prey species in such a way as to alter their availability for bird species which forage upon them. These changes may result in energetic consequences to, and redistribution of, ornithological receptors;
 - **Introduction or spread of INNS** impacts are considered effects which result from the accidental release or redistribution of invasive species during proposed works, which may impact ornithological receptors by reducing the quality of the habitats which they use; and
 - **Collision** impacts are considered as the death (or injury) of ornithological receptors where individuals collide with OWF infrastructure, specifically rotating WTG blades during the operational phase.
29. Potential routes to impact of the CWP Project on each of the SCI species groupings have been described in **Table 2-3**; impacts on SCIs that may be considered offshore, such as Arctic terns, are considered in **Section 2.7 et seq** in the context of works associated with in the onshore substation. The CWP Project overlaps two SPAs, which may result in in situ effects; however, ex situ effects are also considered throughout the NIS, these relating to effects which occur on habitats that may be used within the SCI's wider natural range. Where this distinction is relevant it is referred to throughout the NIS Volumes.

Table 2-3 Description of potential impact - offshore and intertidal ecology

Potential Impact	Offshore and intertidal ornithology				
	Project phase			Zone of potential effect	Rationale
	C	O	D		
Direct effects on habitat	✓	✓	✓	<p>SPAs designated in relation to breeding seabird SCIs: With several exceptions, as outlined below, SPAs were selected on the basis of the array site, OECC or intertidal landfall location falling within foraging range of designated seabird SCIs of those SPAs. Foraging range was defined from the species-specific mean-maximum foraging range plus one standard deviation as stated in Woodward et al., 2019. As foraging ranges differ between seabird species, the zone of impact is treated as differing between species. Species-specific foraging ranges are provided in Table A-1, Annex A.</p> <p>For Manx shearwater and fulmar, species known to have extremely large foraging ranges, an exception to this approach was taken. For these species, very distant SPAs, classed as sites for which the by sea distance between the SPA and project areas is greater than the foraging range of gannet (509.4 km), there was not considered to be any meaningful pathway to impact with project activities or infrastructure on account that numbers of individuals potentially using project areas would be negligible.</p>	<p>Direct effects on habitat may occur during the construction, operation and maintenance and decommissioning phases of the CWP Project within the array site and the intertidal landfall area of the OECC.</p> <p>For the purpose of assessment, direct effects on habitat are considered specifically in relation to habitat use only for non-foraging behaviours such as roosting, or as areas in which to undertake particular social interactions or maintenance activities. Habitat use in relation to foraging is separately considered within assessment of impacts upon prey availability.</p> <p>Within the offshore extent of the OECC, during construction, operation and decommissioning, as there will be no above sea level project infrastructure (beyond transient installation, maintenance and decommissioning vessel activity), there will be no alteration of sea surface areas in such a way as to exclude any SCIs. Consequently, there are considered to be no direct effect on habitat impacts in relation to the offshore extent of the OECC.</p> <p>Within the array site, during construction, direct effects on habitat will occur in relation to above sea level infrastructure, which as it is installed will progressively cover a larger area up to the spatial extent it will occupy throughout the operational phase. During decommissioning, within the array site, as above sea level infrastructure is removed, the spatial extent of direct effects on habitat will reduce from operational phase levels to zero. The direct occupancy of this area of the sea surface by project infrastructure represents a habitat alteration, potentially excluding breeding and wintering seabird SCIs from occupying the sea-level footprint of project infrastructure.</p> <p>Within the intertidal landfall area of the OECC, during construction, direct effects on habitat will occur as temporary habitat alteration during export cable installation when cable laying trenches are excavated and refilled across areas of intertidal habitat. During operation direct effects on habitat will occur only in relation to temporary habitat alteration, should excavation be required for maintenance purposes. During decommissioning, direct effects on habitat will occur as temporary habitat alteration where excavation is required to facilitate removal of infrastructure within intertidal habitats. The alteration of intertidal habitat by project activities may temporarily exclude, in particular, migratory wader and waterfowl SCIs and non-breeding seabird SCIs (specifically post-breeding roosting terns and wintering gulls) from occupying affected intertidal areas.</p>
Disturbance and displacement (from presence of vessels, WTGs and other works)	✓	✓	✓	<p>For little tern, although not within foraging range of the array site, works and infrastructure within this area of the project were considered in relation to The Murrough SPA on account of observations of this species in this area during breeding season ObSERVE surveys in 2016 (Jessopp et al., 2018). As no other little tern colonies occur locally and information relating to little tern foraging range is minimal, assessment was undertaken on the conservative assumption that little tern recorded within the array site and surrounding areas during ObSERVE surveys may have</p>	<p>Disturbance and displacement may occur during the construction, operation and maintenance and decommissioning phases of the CWP Project within the array site, offshore extent of the OECC and the intertidal landfall area of the OECC.</p> <p>Within the array site and offshore extent of the OECC, during construction, operation and maintenance and decommissioning phases, indirect habitat loss to breeding and wintering seabird SCIs as a consequence of disturbance and displacement may occur in relation to vessel activity.</p> <p>Within the array site and immediately surrounding areas, indirect habitat loss to breeding and wintering seabird SCIs as a consequence of disturbance and displacement may also occur in relation to the presence of above sea level infrastructure (specifically WTGs). During construction the spatial extent of indirect habitat loss from behavioural response to project infrastructure will increase from zero to around the entire installed array as turbine installation is completed during the construction process. During the operation and maintenance phase, unless receptors habituate to the presence of operational infrastructure, the spatial extent of indirect habitat loss from behavioural response to infrastructure will remain around the array site. During decommissioning the spatial extent of indirect habitat loss from behavioural response to project infrastructure will decrease from around the entire array to zero as turbine removal is undertaken during the decommissioning process.</p> <p>Displacement in relation to the array site may also manifest as barrier effects, where individuals which would otherwise pass through the array alter flight pathways so as not to do so. As with indirect habitat loss, the spatial extent of areas in which barrier effects may occur will increase (as turbines are installed) during construction, occur throughout the operational phase at this level (unless receptors habituate), and decrease (as turbines are removed) during decommissioning. However, unlike indirect habitat loss (which only has the potential to impact seabird SCIs), barrier effects may occur to migrant non-seabird SCIs.</p> <p>Within the offshore extent of the OECC, during construction, operation and decommissioning, as there will be no above sea level infrastructure, there will be no indirect habitat loss as a consequence of disturbance and displacement from behavioural responses to project infrastructure for any SCIs. Consequently, disturbance and displacement within the offshore extent of the OECC is considered to relate only to behavioural responses to vessel activity for breeding and wintering seabird SCIs.</p> <p>Within the intertidal landfall area of the OECC, during construction, disturbance and displacement may occur in relation to behavioural responses to acoustic and visual stimuli associated with export cable installation works. In particular, acoustic stimuli from piling activities</p>

Potential Impact	Offshore and intertidal ornithology				Rationale
	Project phase			Zone of potential effect	
	C	O	D		
				originated from the breeding colony within The Murrough SPA. SPAs designated in relation to wintering seabird SCIs: SPAs within the Irish Sea Region were selected. The Irish Sea Region is here defined as the sea area between a direct line between Fair Head (Northern Ireland) and the Mull of Kintyre (Scotland) in the north, and a direct line between Carnsore Point (Ireland) and St David's Head (Wales) in the South. This corresponds with the region used to define Irish Sea non-breeding populations of seabird species developed by and agreed with Dublin Array OWF during Phase 1 project consultation. The rationale for the selection of this region to define zone of impact is to allow for the potential that wintering seabirds may move between sites around the Irish Sea. SPAs designated in relation to migratory wildfowl and wader SCIs: Coastal, estuarine and lowland SPAs from the eastern coast of Northern Ireland and along the Irish eastern and southern coasts were selected on the basis that SCIs of these SPAs may pass through the CWP array site or through South Dublin Bay and River Tolka Estuary in the vicinity of the export cable landfall during migration.	and visual stimuli from works along cable pathways. During operation, as cables are buried and passive infrastructure, disturbance and displacement will only occur should maintenance be required to repair landfall infrastructure, with such activities likely to be localised and of short duration. During decommissioning, disturbance and displacement will occur as per during construction, but where export cable and ancillary infrastructure are removed from intertidal areas. Disturbance and displacement within the intertidal landfall area of the OECC is considered to have potential to impact in particular, migratory wader and waterfowl SCIs and non-breeding seabird SCIs (specifically post-breeding roosting terns and wintering gulls).
Changes in prey availability	✓	✓	✓	Changes in prey availability may occur during the construction, operation and maintenance and decommissioning phases of the CWP Project within the array site, offshore extent of the OECC and the intertidal landfall area of the OECC. Within the array site, during construction, changes to prey availability to breeding and wintering seabird SCIs may occur in relation to: <ul style="list-style-type: none">Underwater noise impacts to prey species resulting in their mortality, injury or causing a temporary change to hearing (Temporary Threshold Shift – TTS) during high energy activities such as foundation piling or UXO removal;Direct effects to prey species habitats, where project infrastructure results in the removal or alteration of prey species habitat; andIncreased SSCs, where sediments released by construction works which affect the seabed alter water column conditions and are deposited over areas of seabed resulting in potential changes to prey species interactions with their environment and smothering of sedentary prey species. During the operational phase, as maintenance activities are unlikely to include high energy activities such as piling or UXO removal and as increased SSC levels from seabed disturbance are likely to be localised to loci where repairs are required, changes in prey availability within the array site will primarily relate to direct effects on prey species habitats associated with the footprint of project infrastructure. During decommissioning, as high energy underwater noise inducing activities such as piling and UXO removal are not anticipated to occur, underwater noise impacts to prey species are considered likely to be less than during construction. Direct effects on prey species habitats will reduce as project infrastructure is removed during the decommissioning process and increased SSC levels may occur up to similar levels than during construction in areas where infrastructure is removed from the seabed. Within the offshore extent of the OECC the same factors potentially affecting prey species populations may apply; namely, direct effects to prey species habitats, temporary SSC increases and underwater noise impacts, although for the latter, as no piling will be undertaken within the OECC, high energy activities shall be limited to UXO removal and the overall magnitude of this effect will be much less than within the array site. Within the intertidal landfall area of the OECC, during construction, changes to prey availability may occur as a consequence of temporary habitat alteration during export cable installation when cable laying trenches are excavated and refilled across areas of intertidal habitat. During operation, as cables are buried and passive infrastructure, potential changes to prey availability will occur only in relation to temporary habitat alteration, should excavation be required for maintenance purposes. During decommissioning, potential changes to prey availability will occur as temporary habitat alteration where excavation is required to facilitate removal of infrastructure within intertidal habitats. The alteration of intertidal habitat by project activities may temporarily impact the availability of prey for, in particular, migratory wader and waterfowl SCIs and non-breeding seabird SCIs within affected intertidal areas.	
Introduction or spread of invasive species	✓	✓	✓	SPAs designated in relation to other migratory non-seabird SCIs: All Irish SPAs designated in relation to wintering or breeding populations of the following terrestrial (i.e., non seabird and non-wader or wildfowl species) migratory SCIs were selected on the basis that these SCIs may pass through the CWP array site during migration: <ul style="list-style-type: none">Hen harrierMerlin Introduction or spread of invasive species may occur during the construction, operation and maintenance and decommissioning phases of the CWP Project within the array site, offshore extent of the OECC and the intertidal landfall area of the OECC. Accidental introduction or spread of INNS may occur in relation to construction, operation and maintenance or decommissioning activities which involve: <ul style="list-style-type: none">The movement of 'fouled' vessels, plant or other equipment. (i.e. vessels, plant or equipment occupied by INNS). Where fouled equipment is moved to areas presently unoccupied by INNS there is the potential for the establishment of INNS within those areas.The release of INNS contaminated materials, such as vessel ballast. Where contaminated materials are released in areas presently unoccupied by INNS there is the potential for the establishment of INNS within those areas. INNS are considered to result in potential impacts to ornithological receptors through effects upon receiving ecosystems insofar that INNS may result in reduction of the value of habitats for foraging (such as through predation or out-competition of ornithological prey species) or non-foraging behaviours (such as through restructuring of roosting or loafing sites).	

Potential Impact	Offshore and intertidal ornithology				
	Project phase			Zone of potential effect	Rationale
	C	O	D		
Collision		✓		<ul style="list-style-type: none">• Corncrake <p>SPAs designated in relation to important marine areas: SPAs within the Irish Sea Region were selected. The Irish Sea Region is here defined as the sea area between a direct line between Fair Head (Northern Ireland) and the Mull of Kintyre (Scotland) in the north, and a direct line between Carnsore Point (Ireland) and St David’s Head (Wales) in the South.</p>	<p>Collision with rotating WTG blades may occur during the operation and maintenance phase within the array site. This impact may occur to SCIs which fly through the array site at altitudes which coincide with the rotor swept altitude range of turbines, specifically seabird species and migratory non-seabirds.</p> <p>For seabirds, collision risk may vary between species in relation to a range of factors associated with flight behaviour but with flight heights being of fundamental importance in predicting the vulnerability to this effect (Johnston et al., 2014 a,b). Thus, species which fly at low heights and below the rotor swept area (for example, Manx shearwater, fulmar and auk species) are not vulnerable to this effect pathway, in contrast to other species which generally fly at greater heights and are at risk of collision for a proportion of their flight time (e.g. kittiwake, large gull species and gannet). Table A-6, Annex A, provides a summary of predicted seabird species sensitivities to collision risk, with a breakdown of factors contributing to assessed sensitivity.</p> <p>For migratory non-seabirds, collision risk may arise from annual migratory movements of individuals to and from SPAs as they pass through the array site. Given the offshore location of the array site, it is extremely unlikely that any migratory non-seabird species associated with European sites would make more frequent movements across the array site (e.g. when commuting between foraging and roosting sites), and it is considered that collision risk for these species is limited to their migratory movements.</p>

2.4 Annex II Migratory Fish

30. The potential for connectivity between the CWP Project and SACs for which Annex II diadromous fish are a QI is assessed based on whether the array site, OECC, landfall and / or onshore substation is adjacent to or overlapping with an SAC boundary designated for Annex II migratory fish. The CWP Project does not overlap and is not adjacent to any SACs for which Annex II diadromous fish are a QI. There is also potential for connectivity with the SAC if species designated as QIs of European Sites are likely to migrate through, or in proximity to, the array site, OECC and / or landfall (i.e., within the western Irish Sea). These ex situ effects form the primary basis for the assessment. The migration range used for each species is defined below.
- Twaite and allis shad: a recent acoustic-tagging study of 73 twaite shad from the River Severn (within the Severn estuary SAC) recorded a movement distance of up to 950 km, with one individual detected in Blackwater estuary (Davies et al., 2020). Whilst this relates to a single individual, a highly precautionary approach has been adopted, whereby SACs with allis or twaite shad as QIs within 950 km have therefore been considered to have potential connectivity with the CWP Project.
 - Atlantic salmon: Atlantic salmon are known to undertake long-distance migrations. Recent studies found populations migrate towards oceanographic fronts for feeding (Rikardsen et al., 2021). As such, rivers in Ireland, Northern Ireland and the west coast of the UK with Atlantic salmon QIs have been considered to have potential connectivity with the CWP Project.⁴
 - Sea lamprey: It is considered that the abundance of sea lamprey is linked to the abundance of suitable prey, in particular shad and salmon (Mota et al. 2016). Accordingly, a highly precautionary approach is adopted, whereby it is considered that potential connectivity exists to those SACs with sea lamprey QIs over the same extent as those key prey species, i.e., 950 km.
 - River lamprey: river lamprey are known to mainly inhabit estuarine and riverine environments, with some near coastal habitat also utilised. As such, rivers in Ireland, Northern Ireland and the west coast of the UK with river lamprey QIs have been considered to have potential connectivity with the CWP Project.
31. The above-specified ranges over which SACs may be considered, and the area over which interaction may be present with CWP Project activities (i.e., the western Irish Sea) are considered to encompass both direct and indirect impacts (i.e., increases in suspended sediment, presence of contaminated sediments, and increased underwater noise).

⁴ Freshwater Pearl Mussel (FWPM) are dependent on salmonid individuals on which their larvae develop during a parasitic phase. As such it is considered that where the potential for LSE on salmon can be ruled out, it can be similarly ruled out for FWPM where they are QIs of the same SAC. Conversely, should LSE not be ruled out on salmon for a given European Site, neither shall it be ruled out on FWPM where both are QIs of the same SAC. Accordingly, FWPM are not listed here or elsewhere in the NIS as separate receptors.

Table 2-4 Description of potential impact - migratory fish⁴

Annex II Migratory Fish					
Potential impact	C	O	D	Zone of potential effect	Rationale
Direct impacts on habitats	✓	✓	✓	Array site, OECC, landfall, and onshore substation area where this overlaps with species' migratory routes	Habitat disturbance and / or loss may occur from a variety of activities associated with the CWP Project that have direct contact with the seabed (i.e., through construction activities such as pile driving, installation of WTGs, cable route preparation and installation, and rock placement, and surveys). This can lead to reduced foraging / sheltering habitat and increases in SSC (see below).
Temporary increase in suspended sediments concentrations (SSC) and contaminated sediments	✓	✓	✓	<p>The Zol for temporary increases in Suspended Sediments / smothering is determined by the greatest ranges predicted by the modelling outputs from the CWP Project hydrological model (Appendix 6.3 Modelling Report) where this overlaps with species' migratory routes. This can be summarised as:</p> <ul style="list-style-type: none"> • Dredge disposal plumes in Array Site: <ul style="list-style-type: none"> ○ Transient increase in SSC of up to 100–150 mg/L over 4–6 km eastwards in c.10–15 days • Dredge disposal plumes in the OECC: <ul style="list-style-type: none"> ○ Transient increase in SSC of up to 80 mg/L travelling over 4 km westward, or up to 50 mg/L, travelling a maximum of 5 km south eastward 	<p>Increased SSC and pollution by contaminated sediments may be introduced by a variety of activities associated with the CWP Project that physically disturb the substrate, for example during surveys, deployment of metocean equipment, pile driving and other construction-related activities (e.g., route preparation, cable installation, trenching and rock placement).</p> <p>In general, fish are more likely to undergo sublethal stress from increased suspended sediments rather than lethal effects because of their ability to move away from or out of an area of higher concentration to a lower concentration versus sessile or less mobile species (Kjelland et al., 2015). Sublethal metabolic and behavioural effects could include, e.g., temporary respiratory difficulties from depleted oxygen levels and reduced foraging / predator avoidance (Kjelland et al., 2015).</p> <p>Pollution by contaminated sediments can impact on the fitness or health of benthic organisms and thus alter prey availability.</p>

Annex II Migratory Fish

Potential impact	C	O	D	Zone of potential effect	Rationale
				<ul style="list-style-type: none"> Sediment plumes from cable installation activities across the array site: <ul style="list-style-type: none"> Sediments transported eastward up to 4–10 km at an increase of 20–40 mg/L. Sediment plumes generated during cable installation activities across the OECC <ul style="list-style-type: none"> SSC of 50–80 mg/L being transported for up to 7 km eastward 	
Increase in underwater noise and vibration	✓	✓	✓	<p>The greatest distance over which noise related effects are predicted to be observed (against best available published thresholds (Popper et al., 2014) is 34 km from the noise source (see Underwater Noise Modelling Appendix). The Zol for this impact is therefore considered to be at 34 km, where this area overlaps migratory range of species.</p>	<p>Underwater noise may be introduced by a variety of activities associated with the CWP Project for example during geophysical / geotechnical surveys, pile driving at both the array site and onshore substation and other construction-related activities (e.g., route preparation, cable installation, trenching and rock placement).</p> <p>Fish vary in their abilities to detect and utilise sound as well as their potential susceptibility to damage by sound (Popper et al., 2014; Popper and Hawkins, 2019; Popper et al., 2022).</p> <p>Potential effects of underwater noise on fish include mortality and potential mortal injury (including PTS, impairment (recoverable injury, TTS and masking) and behavioural responses (disturbance / displacement) (Popper et al., 2014).</p>
Presence of EMF		✓		<p>The area over which EMF is predicted to be detectable is c. 2 m from the position of the cable, at the level of the seabed.</p>	<p>EMF may be generated around export, interconnector and inter-array cables associated with the CWP Project. Heat is also generated as</p>

Annex II Migratory Fish

Potential impact	C	O	D	Zone of potential effect	Rationale
				The Zol for this impact is therefore considered to be the Array site, OECC and / or landfall areas, plus a buffer of 5 m (includes conservative allowance) where this overlaps with species' migratory routes.	electricity passes through cables as a result of the resistance of the conductor material. The distance over which EMF persist is typically dependant on the strength of the electrical charge, characteristics of the surrounding environment and characteristics of the cable (Tethys, 2022).
Presence of structures and associated predator aggregation		✓		Array site where this overlaps with species' migratory routes	Due to the presence of structures, there is potential for predator aggregation (e.g., piscivorous fish, birds, or mammals) and thus increased predatory pressure in such areas on migratory fish species.

2.5 Onshore Terrestrial Habitats and Flora

2.5.1 Direct Effects on Habitats (above the High Water Mark (HWM))

32. The onshore development area at the landfall site overlaps with the northern boundary of South Dublin Bay SAC. The proposed onshore transmission infrastructure (OTI) works will result in the temporary loss of habitat within the boundary of the SAC.
33. A specialist habitat survey was undertaken by AQUAFAC within the area of SAC which overlaps with the onshore development boundary and confirmed that none of the terrestrial QI habitats occur within the area which will be disturbed (refer to supratidal habitat report EIAR **Appendix 21.3**). Habitats which will be impacted during the construction and decommissioning phases (in the event the cables are removed) comprise grassy verges (GS2), rock armour (CC1) and artificial surfaces (BL3). These habitats do not correspond to any Annex I habitats and are not a QI of the SAC. Following completion of the construction and decommissioning works, the area will be fully reinstated.
34. Although the construction works at the landfall site will not result in the loss of Annex I habitat QIs, the loss of habitats within the SAC boundary could result in indirect effects on the site. Therefore habitat loss has been considered within the screening assessment (**Section 3.5**).

2.5.2 Presence of EMF and / or Temperature changes resulting from presence of electrical infrastructure

35. There is potential for EMF and small localised temperature changes in the sediment to be present around the export cables associated with the CWP Project. The distance over which EMF persist is typically dependant on the strength of the electrical charge, characteristics of the surrounding environment and characteristics of the cable (Tethys, 2022). At the landfall area (above the HWM), the export cable will be installed to a depth of ca. 3 m. Considering the depth of the export cable and the absence of any of the terrestrial QI habitats within the onshore development area there is no pathway for effects to the terrestrial QI habitats within the SAC, above the HWM.

2.5.3 Introduction and / or spread of terrestrial INNS (C, O&M, D)

36. A total of six terrestrial INNS were recorded within the onshore development area during field surveys. Of the six INNS recorded, three species, Japanese knotweed, bohemian knotweed (*Fallopia x bohemica*) and sea buckthorn (*Hippophae rhamnoides*), are high-risk species and are listed on the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations 2011.
37. The proposed construction works associated with the OTI at the landfall site have the potential to result in the disturbance of INNS identified within the onshore development area. The disturbance / spread of INNS during the construction phase, particularly the high impact species, can result in the introduction or spread of the INNS into the SAC site boundary, and establishing within terrestrial habitats. The infestation of INNS has the potential to have long-term effects on native plant species composition, diversity and abundance in affected habitats.
38. Therefore the introduction and / or spread of INNS has been considered within the screening assessment (**Section 3.5**).

2.5.4 Air quality (C, O&M, D)

39. Potential air quality impacts may occur as a result of the generation of dust from the OTI during the construction and decommissioning phases. Dust generation would be restricted to working machinery and dust emissions that may arise during trackout and earthwork activities. Dust deposition due to earthworks, construction and trackout has the potential to affect sensitive habitats and plant communities (IAQM, 2023). As per the guidelines, dust impacts are considered High risk within 20 m and Medium risk within 50 m of the source. The onshore development area overlaps with the boundary of South Dublin Bay SAC. However, as mentioned, the Annex I habitat QIs do not occur within the Application site boundary. In addition, the Annex I habitats are marine and coastal habitats which do not contain plant species which are sensitive to dust.
40. There is therefore no potential for dust impacts to result in LSEs.

2.6 Onshore Terrestrial Mammals

41. Only onshore terrestrial mammals within the ZOI of the onshore development area have been considered within this section.

2.6.1 Noise and visual disturbance (C, O&M, D)

42. The OTI would result in an increase in noise levels due to the presence of construction vehicles and machinery and the type of works been carried out. Noisy construction techniques which may be used during the construction works will include the use of excavating machinery, piling and horizontal directional drilling. The construction works will also result in an increase in personnel and traffic movement to and from the construction site. Lighting will also be required during the construction phase, and in some cases will be required over 24-hour periods to facilitate the trenchless works.
43. Sensitive species may be disturbed and displaced from suitable habitat locations due to construction-related disturbance as a result of such noise emissions and visual disturbance. For example, otters require lying up areas throughout their territory where they are secure from disturbance (NPWS, 2021) and construction activities can create disturbance which could reduce the suitability of terrestrial and estuarine habitats for this species.
44. Transport Infrastructure Ireland (formally the National Roads Authority (NRA)) has produced a series of best practice planning and construction guidelines for the treatment of certain protected mammal species (e.g. otter), which indicate that disturbance effects to otter breeding sites would not be expected to extend beyond 150 m (NRA, 2006).
45. During the operational phase, there will be movement to and from the CWP Project site which will result in an increase in noise levels and disturbance. It should be noted however that existing background noise levels are already elevated within the area.
46. Therefore, the risk of the disturbance of Annex II terrestrial species has been considered further within the screening assessment (**Section 3.5**).

Table 2-5 Description of potential impacts - Onshore Terrestrial Habitats and Flora and Mammals⁵

Receptor	Onshore Terrestrial Habitats and Flora and Mammals				
	C	O	D	Zone of potential effect	Rationale
Direct effects on habitats	✓		✓	Onshore development area above the HWM	Direct physical disturbance of habitats may occur from a variety of activities associated with the construction and decommissioning of the OTI within the onshore development area.
Introduction / spread of terrestrial INNS	✓	✓	✓	Onshore development area and surrounding terrestrial habitats.	The proposed construction works associated with the OTI and the landfall site have the potential to result in the disturbance of INNS identified within the onshore development area. INNS can be spread / introduced by machinery / vehicles and site personnel into surrounding habitats.
Noise and disturbance	✓	✓	✓	Onshore development area, plus a 150 m buffer.	Noise and disturbance may occur during the construction, operation and decommissioning phases of the CWP Project, which may disturb species using the onshore development area, plus habitat within 150 m (NRA, 2006).

⁵ (Construction (C), Operation (O), Decommissioning (D))

2.7 Onshore Ornithology

47. Only onshore ornithology within the Zol of the onshore development area has been considered within this section. Ornithology outside of the onshore Zol has been considered within **Section 3.3**.

2.7.1 Direct effects on habitat (C)

48. The OTI will result in the permanent loss of habitat at the landfall and substation locations. Temporary habitat loss will also occur along sections of the cable route; however, these cable trenches will be infilled immediately after works are completed, and the habitats will be reinstated. No OTI will be undertaken within the boundaries of any SPA and therefore, there will be no habitat areas lost.
49. There is one SPA site locally, the South Dublin Bay and River Tolka SPA, which has bird species listed as SCIs for its breeding and wintering populations. These species are primarily waterbirds and typically feed on the intertidal flats. The proposed OTI will not result in the loss of any coastal or inland waterways, and therefore any onshore habitat loss / fragmentation will not affect the breeding success of the SCIs of this SPA.

2.7.2 Disturbance and displacement (C, O&M, D)

50. For the purposes of determining LSE, disturbance and displacement are considered together although these effects will be treated as separate pathways in the assessment for adverse effects on integrity.
51. The presence of machinery and personnel may disturb bird species from onshore foraging, breeding or roosting areas during the construction phase. Temporary disturbance / displacement may lead to a reduction in foraging opportunities, reduced nesting success or increased energy expenditure, resulting in decreased survival rates or productivity in the population.
52. During the operational phase, there will be regular movement to and from the onshore substation which will result in an increase in noise levels and disturbance. It should be noted however that existing background noise levels are already elevated within the area. Therefore, the increase in human presence and noise levels during the operational phase is unlikely to impact birds. The impacts during the decommissioning phase are considered to be similar and potentially less than those outlined above for the construction phase.
53. Due to the potential for Annex I bird species with connectivity to the CWP Project to be affected by this route to impact, it has been considered within the screening assessment (**Section 3.7**).

2.7.3 Introduction and / or spread of terrestrial INNS (C, O&M, D)

54. The OTI have the potential to affect habitats within and in the vicinity of the development during construction and / or operation as a result of introducing or spreading terrestrial INNS. This may reduce the amount of foraging, breeding or roosting habitat available for SCI species of nearby European sites.
55. Due to the potential for Annex I bird species with connectivity to the CWP Project to be affected by this route to impact, it has been considered within the screening assessment (**Section 3.7**).

2.7.4 Presence of onshore buildings / infrastructure (O)

56. The OTI will result in the permanent construction of buildings / infrastructure. These structures have the potential to cast a shadow on surrounding habitat which could potentially impact foraging, breeding or roosting habitat available for SCI species of nearby European sites. The presence of the onshore buildings and infrastructure could also create perching opportunities for species such as peregrine falcon or hooded crow, which may increase the actual or perceived, predator threat on SCI species of nearby European sites.
57. Due to the potential for Annex I bird species with connectivity to the CWP Project to be affected by this route to impact, it has been considered within the screening assessment (**Section 3.7**).

Table 2-6 Description of potential impacts - Onshore Ornithology

Receptor	Onshore Ornithology				Rationale
	C	O	D	Zone of potential effect	
Direct effects on habitats	✓		✓	Onshore development area above the HWM	Direct physical disturbance to habitats may occur from a variety of activities associated with the OTI within the onshore development area.
Introduction / spread of terrestrial INNS	✓	✓	✓	Onshore development area and surrounding terrestrial habitats.	The proposed construction works associated with the OTI and the landfall site have the potential to result in the disturbance of INNS identified within the onshore development area. INNS can be spread/introduced by machinery / vehicles and site personnel into surrounding habitats.
Noise and Disturbance	✓	✓	✓	Onshore development area nearby suitable terrestrial habitats.	Noise and disturbance may occur during the construction, operation and decommissioning phases of the CWP Project, which may disturb species using the onshore development area and nearby suitable terrestrial habitats.
Presence of onshore buildings / infrastructure		✓		Onshore development area nearby suitable terrestrial habitats.	Permanent structures following construction works associated with the OTI, have the potential to result in shadow effects and the provision of perching opportunities for avian predator species (e.g., peregrine falcon or hooded crow).

2.8 Onshore Aquatic Ecology

58. There are no watercourses present within the onshore development area and thus there will be no direct impact to any instream aquatic habitats or fauna. No hydrological pathways via watercourses exist between the onshore works and Dublin Bay which is part of the South Dublin Bay SAC and the South Dublin Bay and River Tolka Estuary SPA. Therefore, effects on onshore aquatic ecology has been screened out from assessment (**Section 3.7**).

3 DETERMINATION OF THE POTENTIAL FOR LSE FROM THE PROJECT ALONE

59. The following sections present the conclusions of the screening process, with the screened in / out columns utilising blue for impact pathways that are screened in, green for impact pathways screened out due to no LSE, and grey for impact pathways for which there is no effect-receptor pathway.

3.1 Benthic and Intertidal ecology

60. **Table 3-1** presents the results of the screening for benthic and intertidal habitat QIs, based on application of the approach set out in **Section 2.1**. SACs considered are shown in **Figure 3-1**.

Table 3-1 Project alone screening of Natura 2000 sites designated for benthic and intertidal ecology

Relevant SAC (Distance from Project in km)	QI	Potential impact	Screened in / out			Reasoning
			C	O&M	D	
South Dublin Bay SAC [IE0000210] (0 km)	[1140] Mudflats and sandflats not covered by seawater at low tide [1310] <i>Salicornia</i> and other annuals colonizing mud and sand	Direct impacts on habitats	In	In	In	There is direct overlap with the OECC and the SAC. As such there is potential for QIs of this SAC to be present within the Zol of these potential effects. Therefore, the potential for LSE cannot be ruled out.
		Increased SSC leading to smothering	In	In	In	
		Remobilisation of contaminated sediments	In	In	In	

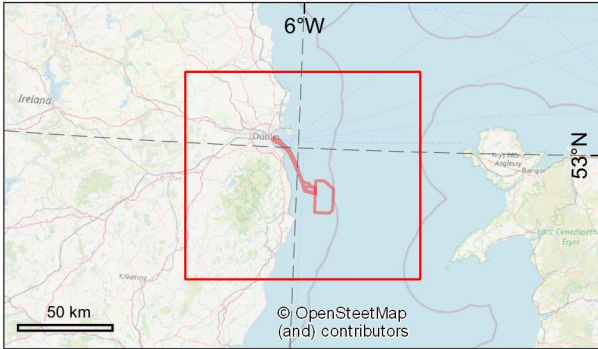
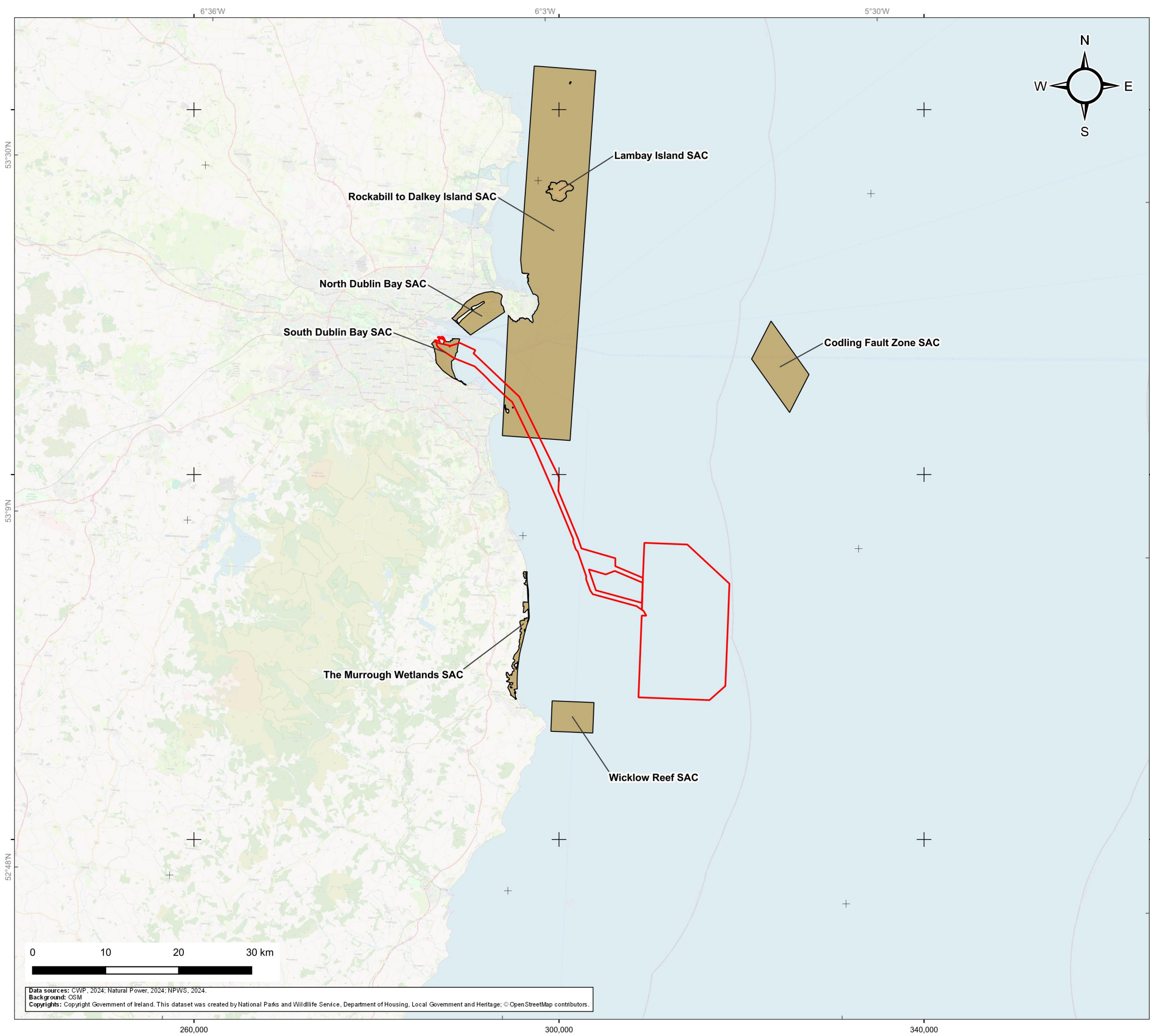
Relevant SAC (Distance from Project in km)	QI	Potential impact	Screened in / out			Reasoning
			C	O&M	D	
Rockabill to Dalkey Island SAC [IE0003000] (0 km)	[1170] Reefs	Introduction of INNS	In	In	In	There is direct overlap with the OECC and the SAC. As such there is potential for QIs of this SAC to be present within the Zol of these potential effects. Therefore, the potential for LSE cannot be ruled out.
		Presence of EMF / temperature changes		In		
		Direct impacts on habitats	In	In	In	
		Increased SSC leading to smothering	In	In	In	
		Remobilisation of contaminated sediments	In	In	In	
North Dublin Bay SAC [IE000206] (1.28 km)	[1140] Mudflats and sandflats not covered by seawater at low tide	Introduction of INNS	In	In	In	There is no direct overlap between the QIs of this SAC and the offshore development area. As such there is no potential for the QIs of this SAC to be within the Zol of these potential effects. Therefore, the potential for LSE can be ruled out.
		Presence of EMF / temperature changes		In		
		Direct impacts on habitats	Out	Out	Out	
		Increased SSC leading to smothering				
		Remobilisation of contaminated sediments				

Relevant SAC (Distance from Project in km)	QI	Potential impact	Screened in / out			Reasoning
			C	O&M	D	
	[1310] <i>Salicornia</i> and other annuals colonizing mud and sand					The SAC lies in close proximity to the OECC and Landfall (1.28 km). Disturbance of the fine sediments in South Dublin Bay have the potential to lead to an increase in SSC. Therefore, the potential for LSE cannot be ruled out.
	[1330] Atlantic salt meadows					
	[1410] Mediterranean salt meadows	Increased SSC leading to smothering	In	In	In	
		Remobilisation of contaminated sediments	In	In	In	
		Introduction of INNS	In	In	In	
		Presence of EMF / temperature changes		Out		There is no planned infrastructure within North Dublin Bay SAC and therefore no potential for EMF or temperature changes to affect QIs of this SAC. Therefore, the potential for LSE can be ruled out.
Wicklow Reef SAC	[1170] Reefs	Direct impacts on habitats	Out	Out	Out	There is no direct overlap between the QIs of this SAC and the offshore development area. As such,

Relevant SAC (Distance from Project in km)	QI	Potential impact	Screened in / out			Reasoning
			C	O&M	D	
[IE002274] (4.91 km)						there is no potential for the QIs of this SAC to be within the Zol of these potential effects.
		Increased SSC leading to smothering	Out	Out	Out	Based upon the hydrodynamic conditions present in and around the offshore development area, it is concluded that there is no potential for any connectivity with the CWP Project (see Section 2). Therefore, the potential for LSE can be ruled out.
		Remobilisation of contaminated sediments	Out	Out	Out	
		Introduction of INNS	Out	Out	Out	
		Presence of EMF / temperature changes	Out	Out	Out	
Murrough Wetlands SAC [IE002249] (6.45 km)	Atlantic salt meadows [1330]	Direct impacts on habitats	Out	Out	Out	This SAC and its QIs lie behind a gravel bar that maintains a physical separation of the wetlands from the marine environment. As such there is no potential for the QIs of this SAC to be within the Zol of these potential effects. Therefore, the potential for LSE can be ruled out.
	Mediterranean salt meadows [1410]	Increased SSC leading to smothering	Out	Out	Out	
		Remobilisation of contaminated sediments	Out	Out	Out	
		Introduction of INNS	Out	Out	Out	

Relevant SAC (Distance from Project in km)	QI	Potential impact	Screened in / out			Reasoning
			C	O&M	D	
		Presence of EMF / temperature changes	Out	Out	Out	
Baldoyle Bay [IE000199] (12.31 km)	[1140] Mudflats and sandflats not covered by seawater at low tide	Direct impacts on habitats	Out	Out	Out	<p>There is no direct overlap between the QIs of this SAC and the offshore development area. As such, there is no potential for the QIs of this SAC to be within the ZOI of these potential effects.</p> <p>Based upon the hydrodynamic conditions present in and around the offshore development area, it is concluded that there is no potential for any connectivity with the CWP Project (See Section 2). Therefore, the potential for LSE can be ruled out.</p>
Malahide Estuary [IE000205] (17.67 km)	<i>Salicornia</i> and other annuals colonising mud and sand [1310]	Increased SSC leading to smothering	Out	Out	Out	
Rogerstown Estuary [IE000208] (17.49 km)	Atlantic salt meadows [1330]	Remobilisation of contaminated sediments	Out	Out	Out	
	Mediterranean salt meadows [1410]	Introduction of INNS	Out	Out	Out	
		Presence of EMF / temperature changes	Out	Out	Out	
Lambay Island SAC [IE000204] (20.55 km)	[1170] Reefs	Direct impacts on habitats	Out	Out	Out	<p>There is no direct overlap between the Reef QIs of this SAC and the CWP Project. In addition, based upon the hydrodynamic conditions present in and around the offshore development area, it is concluded</p>
		Increased SSC leading to smothering	Out	Out	Out	



Relevant SAC (Distance from Project in km)	QI	Potential impact	Screened in / out			Reasoning
			C	O&M	D	
		Remobilisation of contaminated sediments	Out	Out	Out	that there is no potential for any connectivity with the CWP Project (see Section 2). As such there is no potential for the QIs of this SAC to be within the Zol of these potential effects. Therefore, the potential for LSE can be ruled out.
		Introduction of INNS	Out	Out	Out	
		Presence of EMF / temperature changes	Out	Out	Out	
Codling Fault Zone SAC [IE003015] (18.31 km)	[1180] Submarine structures made by leaking gases	Direct impacts on habitats	Out	Out	Out	There is no direct overlap between the QIs of this SAC and the offshore development area. As such there is no potential for the QIs of this SAC to be within the Zol of these potential effects. Therefore, the potential for LSE can be ruled out.
		Increased SSC leading to smothering	Out	Out	Out	
		Remobilisation of contaminated sediments	Out	Out	Out	Based upon the hydrodynamic conditions present in and around the offshore development area, it is concluded that there is no potential for any connectivity with the CWP Project (see Section 2). Therefore, the potential for LSE can be ruled out.
		Introduction of INNS	Out	Out	Out	
		Presence of EMF / temperature changes	Out	Out	Out	There is no potential for the QIs of this SAC to be within the Zol of these potential effects. Therefore, the potential for LSE can be ruled out.



Legend

Planning Application Boundary (PAB)

Special Area of Conservation (SAC)

		Project: Codling Wind Park		Contractor:  www.naturalpower.com	
Figure 3.1 Benthic and intertidal ecology designated sites					
CWP doc. number: CWP-NPC-ENG-08-01-MAP-1520					
Internal descriptive code: IS - PAB - SACs BENTHIC, INTERTIDAL - (NIS, Vol. 03, Sec. 03, FIG. 01)			Size: A3 Scale: 1:400,000	CRS: EPSG 25830	
Rev.	Updates		Date	By	Chk'd App'd
00	Final for issue		2024/08/15	AC	DL/EA SM

3.2 Marine Mammals

61. **Table 3-2** considers the potential for LSE from the effects identified in **Section 2.2** on the Annex II marine mammal QIs of sites (in Ireland, Northern Ireland, Wales, Scotland, England and France) with which there is potential for connectivity (see **Section 2.2**). SACs (including French ZSCs for harbour porpoise) have been grouped and considered together for each marine mammal QI.
62. Sites (SACs, ZSCs) have been screened in where LSE could not be ruled out for one or more QI, or for one or more routes to impact. Sites have been screened out where LSE could be ruled out for all routes to impact for all QIs.

Table 3-2 Project alone screening of Natura 2000 sites designated for marine mammal QIs

QI	Relevant SAC (distance from Project in km)	Potential impact	Screened in / out			Reasoning
			C	O&M	D	
Bottlenose dolphin (1349)	Duvillaun Islands SAC [IE000495] (562.88 km)	Increased underwater noise ⁶	In	In	In	The SAC is located within the same MU as the reference population for bottlenose dolphins against which impacts are assessed. There is potential for individuals which use these SACs to be impacted (see Section 2.2). Therefore, the potential for LSE cannot be ruled out.
	Lower River Shannon SAC [IE002165] (506.57 km)					
	Slyne Head Islands SAC [IE000328] (599.52 km)	Collision risk	In	In	In	
	Slyne Head Peninsula SAC [IE002074] (597.48 km)	Changes in prey availability	In	In	In	
	West Connacht Coast SAC [IE002998] (533.54 km)	Changes in available habitat	In	In	In	
	Cardigan Bay SAC [UK0012712] (99.62 km)					
	Llein Peninsula and the Sarnau SAC [UK0013117] (61.45 km)					
	Hook Head SAC (IE000764) (~135 km)					
	Belgica Mound Province SAC (IE002327) (~550 km)					
	Porcupine Bank Canyon SAC (IE003001) (~620 km)					
	South-West Porcupine Bank SAC (IE002329) (~615 km)					
	Johns Point SAC (IE000191)					

⁶ Includes all sources of increased underwater noise as described in **Table 2-2**

QI	Relevant SAC (distance from Project in km)	Potential impact	Screened in / out			Reasoning
			C	O&M	D	
Harbour porpoise (1351)	Blasket Islands SAC [IE002172] (443.45 km)	Increased underwater noise ⁶	In	In	In	The SAC is located within the same MU as the reference population for harbour porpoise against which impacts are assessed. There is potential for individuals which use these SACs to be impacted (see Section 2.2). Therefore, the potential for LSE cannot be ruled out.
	Roaringwater Bay and Islands SAC [IE000101] (324.79 km)	Collision risk	In	In	In	
	Rockabill to Dalkey Island SAC [IE003000] (0 km)	Changes in prey availability	In	In	In	
	North Channel SAC [UK0030399] (106.88 km)	Changes in available habitat	In	In	In	
	North Anglesey Marine SAC [UK0030398] (37.77 km)					
	West Wales Marine SAC [UK0030397] (57.38 km)					
	Bristol Channel Approaches SAC [UK0030396] (180.55 km)					
	Carnsore Point SAC (IE002269) (~88 km)					
	Codling Fault Zone SAC (IE003015) (18.31 km)					
	Hook Head SAC (IE000764) (~135 km)					
	Kenmare River SAC (IE002158) (~430 km)					
	Belgica Mound Province SAC (IE002327) (~550 km)					
	Porcupine Bank Canyon SAC (IE003001) (~620 km)					
	South-West Porcupine Bank SAC (IE002329) (~615 km)					
	Kilkieran Bay and Islands SAC (IE002111) (~550 km)					
	Inishmore Island SAC (IE000213) (~540 km)					
	West Connacht Coast SAC (IE002998) (~600 km)					
	Récifs et Landes de la Hague ZSC [FR2500084] (602.06 km)					
	Anse de Vauville ZSC [FR2502019] (603.30 km)					
	Banc et récifs de Surtainville ZSC [FR2502018] (603.70 km)					
	Chausey ZSC [FR2500079] (626.04 km)					

QI	Relevant SAC (distance from Project in km)	Potential impact	Screened in / out			Reasoning
			C	O&M	D	
	Baie du Mont Saint-Michel ZSC [FR2500077] (649.60 km) Estuaire de la Rance ZSC [FR5300061] (640.27 km) Baie de Lancieux, Baie de l'Arguenon, Archipel de Saint Malo et Dinard ZSC [FR5300012] (626.73 km) Cap d'Erquy-Cap Fréhel ZSC [FR5300011] (601.05 km) Baie de Saint-Brieuc - Est ZSC [FR5300066] (601.79 km) Tregor Goëlo ZSC [FR5300010] (533.21 km) Côte de Granit rose-Sept-Iles ZSC [FR5300009] (510.28 km) Nord Bretagne DH ZSC [FR2502022] (446.79 km) Baie de Morlaix ZSC [FR5300015] (514.49 km) Abers - Côte des légendes ZSC [FR5300017] (502.03 km) Ouessant-Molène ZSC [FR5300018] (502.95 km) Côtes de Crozon ZSC [FR5302006] (542.42 km) Chaussée de Sein ZSC [FR5302007] (551.44 km) Mers Celtiques - Talus du golfe de Gascogne ZSC [FR5302015] (434.13 km)					
Grey seal (1364)	Lambay Island SAC [IE000204] (20.55 km) Llyn Peninsula and the Sarnau SAC [UK0013117] (61.45 km)	Increased underwater noise ⁶	In	In	In	The zones of effect of these potential impacts fall within the likely foraging range of grey
		Collision risk	In	In	In	

QI	Relevant SAC (distance from Project in km)	Potential impact	Screened in / out			Reasoning
			C	O&M	D	
		Changes in prey availability	In	In	In	seals using these SACs (100 km; see Section 2.2). Therefore, the potential for LSE cannot be ruled out.
		Changes in available habitat	In	In	In	
	Blasket Islands SAC [IE002172] (443.45 km)	Increased underwater noise ⁶	Out	Out	Out	The zones of effect of these potential impacts do not fall within the likely foraging range of grey seals using these SACs (100 km; see Section 2.2). Therefore, the potential for LSE on grey seals which use these SACs can be ruled out (because there is no potential for connectivity).
	Duvillaun Islands SAC [IE000495] (562.88 km)	Collision risk	Out	Out	Out	
	Horn Head and Rinclevan SAC [IE000147] (366.64 km)	Changes in prey availability	Out	Out	Out	
	Inishbofin and Inishshark SAC [IE000278] (616.18 km)	Changes in available habitat	Out	Out	Out	
	Inishkea Islands SAC [IE000507] (555.73 km)		Out	Out	Out	
	Roaringwater Bay and Islands SAC [IE000101] (324.79 km)					
	Slieve Tooey/Tormore Island/Loughros Beg Bay SAC [IE000190] (440.13 km)					
	Slyne Head Islands SAC [IE000328] (599.52 km)					
	Pembrokeshire Marine SAC [UK0013116] (117.98 km)					
	Saltee Islands SAC (IE000707) (110 km)					
	Cardigan Bay SAC (UK0012712) (120 km)					

QI	Relevant SAC (distance from Project in km)	Potential impact	Screened in / out			Reasoning
			C	O&M	D	
Harbour seal (1365)	Lambay Island SAC [IE000204] (20.55 km)	Increased underwater noise ⁶	In	In	In	The zones of effect of these potential impacts fall within the likely foraging range of harbour seals using these SACs <50 km; see Section 2.2). Therefore, the potential for LSE cannot be ruled out.
		Collision risk	In	In	In	
		Changes in prey availability	In	In	In	
		Changes in available habitat	In	In	In	
	Ballysadare Bay SAC [IE000622] (513.09 km) Clew Bay Complex SAC [IE001482] (622.22 km) Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC [IE000627] (501.12 km) Donegal Bay (Murvagh) SAC [IE000133] (503.74 km) Galway Bay Complex SAC [IE000268] (607.51 km) Glengarriff Harbour and Woodland SAC [IE000090] (421.11 km) Kenmare River SAC [IE002158] (386.23 km) Kilkieran Bay and Islands SAC [IE002111] (585.83 km) Killala Bay/Moy Estuary SAC [IE000458] (508.24 km) Rutland Island and Sound SAC [IE002283] (409.39 km) West of Ardara/Maas Road SAC [IE000197] (433.73 km)	Increased underwater noise ⁶	Out	Out	Out	The zones of effect of these potential impacts do not fall within the likely foraging range of harbour seals using these SACs (50 km; see Section 2.2). Therefore, the potential for LSE on harbour seals which use these SACs can be ruled out (because there is no potential for connectivity).
		Collision risk	Out	Out	Out	
		Changes in prey availability	Out	Out	Out	
		Changes in available habitat	Out	Out	Out	

QI	Relevant SAC (distance from Project in km)	Potential impact	Screened in / out			Reasoning
			C	O&M	D	
	Slaney River Valley SAC [IE000781] (80.24 km) Murlough SAC [UK0016612] (93.60 km) Strangford Lough SAC [UK0016618] (117.53 km)					

3.3 Offshore and Intertidal Ornithology

63. **Table 3-3 to Table 3-8** consider the potential for LSE from the effects identified in **Section 2.3** on SCIs of SPAs for which there is potential connectivity with the CWP Project (see **Section 2.3**). SCIs are considered in relation to the broad ecotype categories described in **Section 2.3**. **Figure 3-2** displays the SPAs considered.
64. To minimise repetition, the order of the first two columns (SCI and SPA) of **Table 3-3 to Table 3-8** have been switched as appropriate, to allow for concise consideration of a range of SCIs from particular SPAs, or a range of SPAs for particular SCIs, where the same conclusions of potential impact LSE can be made.
65. Distances presented in column 2 of the tables (Relevant SPAs and nearest distance to each project component (km)) relate specifically to the distance from the array, OECC, Intertidal landfall, to the SPA as measured both in a straight line and distance by sea.

3.3.1 Sites designated for breeding seabird SCIs

66. Where the distance between an SPA and proposed works is less than the mean-maximum foraging range (plus one standard deviation), from Woodward et al., 2019, of SCIs of that SPA, that SPA is considered to have potential connectivity to proposed works for those SCIs.
67. An assessment of LSE for impacts upon breeding seabird SCIs of SPAs within mean-maximum foraging range (plus one standard deviation) (Woodward et al., 2019), is provided in **Table 3-3**.

Table 3-3 Project alone screening of Natura 2000 sites designated for breeding seabird SCIs

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
Kittiwake	<p>Wicklow Head (IE004127) [10.58; 14.04; 40.27], straight line [10.61; 14.07; 41.42], by sea</p> <p>Howth Head Coast (IE004113) [27.49; 6.83; 8.19], straight line [27.54; 6.85; 8.41], by sea</p>	Direct effects on habitat	Array site	In	In	In	As the by sea distance between these SPAs and the array site is less than the mean maximum (+ 1 SD) breeding season foraging range of kittiwake (300.6 km; Woodward et al., 2019), there is potential for non-negligible numbers of individuals which use these SPAs to be present within the Zol of this impact (see Section 2.3) and a pathway to impact to this receptor is identified. Therefore, the potential for LSE cannot be ruled out.

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
	<p>Ireland's Eye (IE004117) [31.44; 9.0; 9.69], straight line [31.49; 11.09; 12.61], by sea</p> <p>Lambay Island (IE004069) [38.83; 18.27; 18.49], straight line [38.88; 20.22; 21.74], by sea</p> <p>Saltee Islands (IE004002)</p>		OECC	Out	Out	Out	As direct effect on habitat to breeding seabird SCIs in offshore areas relate to the occupancy of areas of sea surface by project infrastructure and there will be no above sea infrastructure beyond transient construction vessel traffic within the offshore extent of the OECC, there is assessed to be no source of impact. Therefore, it is considered that there is no potential for LSE in relation to this effect.

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
	<p>[107.06; 114.1; 133.87], straight line</p> <p>[113.58; 121.73; 149.8], by sea</p> <p>Helvick Head to Ballyquin (IE004192)</p> <p>[155.23 ; 158.32 ; 167.74], straight line</p> <p>[179.75 ; 187.9 ; 215.97], by sea</p> <p>Ailsa Craig (Scotland) (UK9003091)</p> <p>[235.67; 220.55; 220.55], straight line</p> <p>[235.71; 223.37; 224.9], by sea</p>		Intertidal cable route landfall Onshore infrastructure	Out	Out	Out	Use of intertidal and terrestrial habitats by this marine SCI is minimal and, as such, there is no pathway to impact from direct effects on habitat. Therefore, it is considered that there is no potential for LSE in relation to this effect.

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
	<p>Rathlin Island (IE004120) [235.82; 213.12; 213.12], straight line [249.51; 237.11; 238.64], by sea</p> <p>Old Head of Kinsale (IE004021) [239.97; 242.28; 248.23], straight line [262.53; 270.68; 298.75], by sea</p>	Disturbance and displacement	Array site OECC	Out	Out	Out	Although the by sea distance between these SPAs and the array site and OECC is less than the mean maximum (+ 1 SD) breeding season foraging range of kittiwake (300.6 km; Woodward et al., 2019), and there is potential for non-negligible numbers of individuals which use these SPAs to be present within the Zol of this impact (see Section 2.3), kittiwake are considered to be insensitive to disturbance and displacement effects from either vessel activity or from offshore wind farm infrastructure (i.e., low behavioural sensitivity (Table A-2, Table A-4 and Table A-5, Annex A)). As such, there is no pathway to impact from disturbance and displacement effects. Therefore, it is considered that there is no potential for LSE in relation to this effect.
			Intertidal cable route landfall Onshore infrastructure	Out	Out	Out	Use of intertidal and terrestrial habitats by this marine SCI is minimal and, as such, there is no pathway to impact from disturbance and displacement effects. Therefore, it is considered that there is no potential for LSE in relation to this effect.

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
		Collision	Array site		In		As the by sea distance between these SPAs and the array site is less than the mean maximum (+ 1 SD) breeding season foraging range of kittiwake (300.6 km; Woodward et al., 2019), there is potential for non-negligible numbers of individuals which use these SPAs to be present within the Zol of this impact (see Section 2.3). Furthermore, kittiwake frequently fly within the rotor swept altitude range of the development and therefore may be vulnerable to collisions within the array site (Table A-6, Annex A). As such, a pathway to impact is identified and the potential for LSE cannot be ruled out.
		Changes in prey availability	Array site OECC	In	In	In	As the by sea distance between these SPAs and the array site and the OECC is less than the mean maximum (+ 1 SD) breeding season foraging range of kittiwake (300.6 km; Woodward et al., 2019), there is potential for non-negligible numbers of individuals which use these SPAs to be present within the Zol of this impact (see Section 2.3) and a pathway to impact to this receptor is identified. Therefore, the potential for LSE cannot be ruled out.
			Intertidal cable route landfall	Out	Out	Out	As this SCI exclusively utilises offshore marine environments for foraging, there is considered

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
			Onshore infrastructure				to be no pathway for activities in these areas to result in changes in the availability of prey for this SCI. Therefore, it is considered that there is no potential for LSE in relation to this effect.
		Introduction or spread of invasive species	Array site OECC Intertidal cable route landfall Onshore infrastructure	In	In	In	<p>As mitigation measures to prevent the introduction or spread on INNS are not a requirement of underlying legislation and may be construed as being implemented specifically to address risks in relation to the Habitats Regulations, these measures cannot be applied at the screening phase.</p> <p>In the absence of mitigation measures, introduction or spread of invasive species may occur due to the CWP Project and, therefore, a pathway to impact to this receptor is identified. Furthermore, as the by sea distance between these SPAs and the project infrastructure is less than the mean maximum (+ 1 SD) breeding season foraging range of kittiwake (300.6 km; Woodward et al., 2019), there is potential for non-negligible numbers of individuals which use these SPAs to be present within the Zol of this impact (see Section 2.3). As such, the potential for LSE cannot be ruled out.</p>

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
Gannet	<p>Saltee Islands (IE004002) [107.06; 114.1; 133.87], straight line [113.58; 121.73; 149.8], by sea</p> <p>Grassholm (Wales) (UK9014041) [139.91; 149.15; 181.22], straight line [139.91; 149.18; 182.2], by sea</p> <p>Ailsa Craig (Scotland) (UK9003091) [235.67; 220.55; 220.55], straight line [235.71; 223.37; 224.9], by sea</p>	Direct effects on habitat	Array site	In	In	In	As the by sea distance between these SPAs and the array site is less than the mean maximum (+ 1 SD) breeding season foraging range of gannet (509.4 km; Woodward et al., 2019), there is potential for non-negligible numbers of individuals which use these SPAs to be present within the Zol of this impact (see Section 2.3) and a pathway to impact to this receptor is identified. Therefore, the potential for LSE cannot be ruled out.
			OECC	Out	Out	Out	As direct effect on habitat to breeding seabird SCIs in offshore areas relate to the occupancy of areas of sea surface by project infrastructure and there will be no above sea infrastructure beyond transient construction vessel traffic within the offshore extent of the OECC, there is assessed to be no source of impact. Therefore, it is considered that there is no potential for LSE in relation to this effect.
			Intertidal cable route landfall Onshore infrastructure	Out	Out	Out	Use of intertidal and terrestrial habitats by this marine SCI is minimal and, as such, there is no pathway to impact from direct effects on habitat. Therefore, it is considered that there is no potential for LSE in relation to this effect.

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
	<p>The Bull and The Cow Rocks (IE004066) [337.77; 334.57; 334.57], straight line [385.59; 393.74; 421.82], by sea</p> <p>Skelligs (IE004007) [344.91; 338.34; 338.34], straight line [414.84; 422.99; 451.06], by sea</p>	Disturbance and displacement	Array site	In	In	In	<p>The by sea distance between these SPAs and the array site is less than the mean maximum (+ 1 SD) breeding season foraging range of gannet (509.4 km; Woodward et al., 2019), and there is potential for non-negligible numbers of individuals which use these SPAs to be present within the Zol of this impact (see Section 2.3). Gannet are considered to be insensitive to disturbance by vessel traffic, but sensitive to displacement from OWF infrastructure (Table A-2, Table A-4 and Table A-5, Annex A).</p> <p>Although there is no pathway to impact from disturbance and displacement effects in relation to vessel activity and consequently no potential for LSE in relation to such activities, a pathway to disturbance and displacement effects in relation to the presence of OWF infrastructure is identified (in the form of indirect habitat loss and barrier effects as turbines are erected during the construction phase, present throughout the operational phase and until they are removed during the decommissioning phase). Therefore, the potential for LSE cannot be ruled out.</p>

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
			OECC	Out	Out	Out	Although the by sea distance between these SPAs and the OECC is less than the mean maximum (+ 1 SD) breeding season foraging range of gannet (509.4 km; Woodward et al., 2019), and there is potential for non-negligible numbers of individuals which use these SPAs to be present within the Zol of this impact (see Section 2.3), gannet are insensitive to disturbance by vessel traffic (Table A-2, Annex A). As such, there is no pathway to impact from disturbance and displacement effects. Therefore, it is considered that there is no potential for LSE in relation to this effect.
			Intertidal cable route landfall Onshore infrastructure	Out	Out	Out	Use of intertidal and terrestrial habitats by this marine SCI is minimal and, as such, there is no pathway to impact from disturbance and displacement effects. Therefore, it is considered that there is no potential for LSE in relation to this effect.
		Collision	Array site		In		As the by sea distance between these SPAs and the array site is less than the mean maximum (+ 1 SD) breeding season foraging range of gannet (509.4 km; Woodward et al., 2019), There is potential for non-negligible

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
							numbers of individuals which use these SPAs to be present within the Zol of this impact (see Section 2.3). Furthermore, gannet frequently fly within the rotor swept altitude range of the development and therefore may be vulnerable to collisions within the array site (Table A-6, Annex A). As such, a pathway to impact is identified and the potential for LSE cannot be ruled out.
		Changes in prey availability	Array site OECC	In	In	In	As the by sea distance between these SPAs and the array site and OECC is less than the mean maximum (+ 1 SD) breeding season foraging range of gannet (509.4 km; Woodward et al., 2019), There is potential for non-negligible numbers of individuals which use these SPAs to be present within the Zol of this impact (see Section 2.3) and a pathway to impact to this receptor is identified. Therefore, the potential for LSE cannot be ruled out.
			Intertidal cable route landfall Onshore infrastructure	Out	Out	Out	As this SCI exclusively utilises offshore marine environments for foraging, there is considered to be no pathway for activities in these areas to result in changes in the availability of prey for this SCI. Therefore, it is considered that there is no potential for LSE in relation to this effect.

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
		Introduction or spread of invasive species	Array site OECC Intertidal cable route landfall Onshore infrastructure	In	In	In	<p>As mitigation measures to prevent the introduction or spread on INNS are not a requirement of underlying legislation and may be construed as being implemented specifically to address risks in relation to the Habitats Regulations, these measures cannot be applied at the screening phase.</p> <p>In the absence of mitigation measures, introduction or spread of invasive species may occur due to the CWP Project and, therefore, a pathway to impact to this receptor is identified. Furthermore, as the by sea distance between these SPAs and the project infrastructure is less than the mean maximum (+ 1 SD) breeding season foraging range of gannet (509.4 km; Woodward et al., 2019), there is potential for non-negligible numbers of individuals which use these SPAs to be present within the Zol of this impact (see Section 2.3). As such, the potential for LSE cannot be ruled out.</p>

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
Fulmar	<p>Lambay Island (IE004069) [38.83; 18.27; 18.49], straight line [38.88; 20.22; 21.74], by sea</p> <p>Saltee Islands (IE004002) [107.06; 114.1; 133.87], straight line [113.58; 121.73; 149.8], by sea</p> <p>Horn Head to Fanad Head (IE004194) [253.21; 223.47; 223.47], straight line [347.24; 334.85; 336.38], by sea</p>	Direct effects on habitat	Array site	In	In	In	As the by sea distance between these SPAs and the array site is less than the foraging range extent used to define the Zol for effects to this species (509.4 km - see Section 2.3), there is potential for non-negligible numbers of individuals which use these SPAs to be present within the Zol of this impact and a pathway to impact to this receptor is identified. Therefore, the potential for LSE cannot be ruled out.
	<p>Beara Peninsula (IE004155) [311.42; 310.17; 310.17], straight line</p>		OECC	Out	Out	Out	As direct effect on habitat to breeding seabird SCIs in offshore areas relate to the occupancy of areas of sea surface by project infrastructure and there will be no above sea infrastructure beyond transient construction

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
	[372.29; 380.43; 408.51], by sea Tory Island (IE004073) [280.39; 249.27; 249.27], straight line [379.96; 367.57; 369.1], by sea						vessel traffic within the offshore extent of the OECC, there is assessed to be no source of impact. Therefore, it is considered that there is no potential for LSE in relation to this effect.
	West Donegal Coast (IE004150) [243.06; 210.47; 210.47], straight line [396.77; 384.37; 385.9], by sea Deenish Islands and Scariff Island (IE004175) [328.71; 323.98; 323.98], straight line	Disturbance and displacement	Intertidal cable route landfall Onshore infrastructure	Out	Out	Out	Use of intertidal and terrestrial habitats by this marine SCI is minimal and, as such, there is no pathway to impact from direct effects on habitat. Therefore, it is considered that there is no potential for LSE in relation to this effect.
			Array site OECC	Out	Out	Out	Although the by sea distance between these SPAs and the array site and OECC is less than the foraging range extent used to define the Zol for effects to this species (509.4 km - see Section 2.3), and there is potential for non-negligible numbers of individuals which use these SPAs to be present within the Zol of this impact, fulmar are considered to be insensitive to disturbance and displacement effects from either vessel activity or from offshore infrastructure (Table A-2, Table A-4 and Table A-5, Annex A). As such, there is no pathway to impact from disturbance and displacement effects. Therefore, it is

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
	[398.72; 406.87; 434.94], by sea Iveragh Peninsula (IE004154) [300.42; 292.53; 292.53], straight line [399.16; 407.31; 435.38]						considered that there is no potential for LSE in relation to this effect.
			Intertidal cable route landfall Onshore infrastructure	Out	Out	Out	Use of intertidal and terrestrial habitats by this marine SCI is minimal and, as such, there is no pathway to impact from disturbance and displacement effects. Therefore, it is considered that there is no potential for LSE in relation to this effect.
	Skelligs (IE004007) [344.91; 338.34; 338.34], straight line [414.84; 422.99; 451.06], by sea Puffin Island (IE004003) [335.54; 328.67; 328.76], straight line [414.7; 422.85; 450.93], by sea	Collision	Array site		Out		Although the by sea distance between these SPAs and the array site is less than the foraging range extent used to define the Zol for effects to this species (509.4 km - see Section 2.3), and there is potential for non-negligible numbers of individuals which use these SPAs to be present within the Zol of this impact, flight activity by fulmar occurs almost exclusively below 20 m (Table A-6, Annex A). Given the proposed minimum tip height of the CWP Project is 36 m Mean Sea Level (MSL), there is therefore considered to be no pathway to impact from collision effects. As such, it is considered that there is no potential for LSE in relation to this effect.
			Array site	In	In	In	As the by sea distance between these SPAs and the array site and OECC is less than the

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
	Mingulay and Berneray (Scotland) (UK9001121) [417.63; 390.95; 390.95], straight line [438.51; 426.11; 427.64], by sea	Changes in prey availability	OECC				foraging range extent used to define the Zol for effects to this species (509.4 km - see Section 2.3), there is potential for non-negligible numbers of individuals which use these SPAs to be present within the Zol of this impact and a pathway to impact to this receptor is identified. Therefore, the potential for LSE cannot be ruled out.
	Dingle Peninsula (IE004153) [293.61; 281.89; 281.89], straight line [446.78; 454.92; 483.00], by sea		Intertidal cable route landfall Onshore infrastructure	Out	Out	Out	As this SCI exclusively utilises offshore marine environments for foraging, there is considered to be no pathway for activities in these areas to result in changes in the availability of prey for this SCI. Therefore, it is considered that there is no potential for LSE in relation to this effect.

	Kerry Head (IE002263) [268.57; 254.90; 254.90], straight line [498.86; 507.00; 535.08], by sea	Introduction or spread of invasive species	Array site OECC Intertidal cable route landfall Onshore infrastructure	In	In	In	<p>As mitigation measures to prevent the introduction or spread on INNS are not a requirement of underlying legislation and may be construed as being implemented specifically to address risks in relation to the Habitats Regulations, these measures cannot be applied at the screening phase.</p> <p>In the absence of mitigation measures, introduction or spread of invasive species may occur due to the CWP Project and, therefore, a pathway to impact to this receptor is identified. Furthermore, as the by sea distance between these SPAs and the project infrastructure is less than the foraging range extent used to define the Zol for effects to this species (509.4 km - see Section 2.3), there is potential for non-negligible numbers of individuals which use these SPAs to be present within the Zol of this impact (see Section 2.3). As such, the potential for LSE cannot be ruled out.</p>
		Direct effects on habitat	Array site	In	In	In	As the by sea distance between these SPAs and the array site is less than the foraging

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
Manx shearwater	<p>Aberdaron Coast and Bardsey Island (Wales) (UK9013121) [57.68; 67.87; 101.81], straight line [57.73; 67.92; 101.85], by sea</p> <p>Skomer, Skokholm and the Seas off Pembrokeshire (Wales) (UK9014051) [137.98; 147.65; 180.81], straight line [138.01; 147.68; 181.56], by sea</p> <p>Copeland Islands (Northern Ireland) (UK9020291) [170.51; 153.86; 153.86], straight line</p>						range extent used to define the Zol for effects to this species (509.4 km - see Section 2.3), there is potential for non-negligible numbers of individuals which use these SPAs to be present within the Zol of this impact and a pathway to impact to this receptor is identified. Therefore the potential for LSE cannot be ruled out.
			OECC	Out	Out	Out	As direct effect on habitat to breeding seabird SCIs in offshore areas relate to the occupancy of areas of sea surface by project infrastructure and there will be no above sea infrastructure beyond transient construction vessel traffic within the offshore extent of the OECC, there is assessed to be no source of impact. Therefore, it is considered that there is no potential for LSE in relation to this effect.
			Intertidal cable route landfall Onshore infrastructure	Out	Out	Out	Use of intertidal and terrestrial habitats by this marine SCI is minimal and, as such, there is no pathway to impact from direct effects on habitat. Therefore, it is considered that there is no potential for LSE in relation to this effect.
			Array site	In	In	In	As the by sea distance between these SPAs and the array site is less than the foraging

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
	<p>[172.55; 160.15; 161.68], by sea</p> <p>Deenish Islands and Scariff Island (IE004175)</p> <p>[328.71; 323.98; 323.98], straight line</p> <p>[398.72; 406.87; 434.94], by sea</p> <p>Skelligs (IE004007)</p> <p>[344.91; 338.34; 338.34], straight line</p> <p>[414.84; 422.99; 451.06], by sea</p> <p>Puffin Island (IE004003)</p> <p>[335.54; 328.67; 328.76], straight line</p> <p>[414.7; 422.85; 450.93], by sea</p>	Disturbance and displacement					<p>range extent used to define the Zol for effects to this species (509.4 km - see Section 2.3), there is potential for non-negligible numbers of individuals which use these SPAs to be present within the Zol of this impact. Manx shearwater are considered to be insensitive to disturbance by vessel traffic, but sensitive to displacement from OWF infrastructure (Table A-2 and Table A-4, Annex A).</p> <p>Although there is no pathway to impact from disturbance and displacement effects in relation to vessel activity and consequently no potential for LSE in relation to such activities, a pathway to disturbance and displacement effects in relation to the presence of OWF infrastructure is identified (in the form of indirect habitat loss and barrier effects as turbines are erected during the construction phase, present throughout the operational phase and until they are removed during the decommissioning phase). Therefore, the potential for LSE cannot be ruled out.</p>
			OECC	Out	Out	Out	<p>Although the by sea distance between these SPAs and the OECC is less than the foraging range extent used to define the Zol for effects to this species (509.4 km - see Section 2.3) and there is potential for non-negligible</p>

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
	<p>Rum (Scotland) (UK0012594) [418.72; 396.3; 396.3], straight line [431.18; 418.79; 420.32], by sea</p> <p>Blasket Islands (IE0004008) [330.6; 319.6; 319.6], straight line [440.6; 448.7; 476.8], by sea</p>						numbers of individuals which use these SPAs to be present within the Zol of this impact, however, Manx shearwater are insensitive to disturbance by vessel traffic (Table A-2, Annex A). As such, there is no pathway to impact from disturbance and displacement effects. Therefore, it is considered that there is no potential for LSE in relation to this effect.
			Intertidal cable route landfall Onshore infrastructure	Out	Out	Out	Use of intertidal and terrestrial habitats by this marine SCI is minimal and, as such, there is no pathway to impact from disturbance and displacement effects. Therefore, it is considered that there is no potential for LSE in relation to this effect.
		Collision	Array site		Out		Although the by sea distance between these SPAs and the array site is less than the foraging range extent used to define the Zol for effects to this species (509.4 km - see Section 2.3) and there is potential for non-negligible numbers of individuals which use these SPAs to be present within the Zol of this impact (see Section 2.3), flight activity by Manx shearwater occurs almost exclusively below 20 m (Table A-6, Annex A). Given the proposed minimum tip height of the CWP Project is 36 m MSL, there is therefore considered to be no

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
							pathway to impact from collision effects. As such, it is considered that there is no potential for LSE in relation to this effect.
		Changes in prey availability	Array site OECC	In	In	In	As the by sea distance between these SPAs and the array site and OECC is less than the foraging range extent used to define the Zol for effects to this species (509.4 km - see Section 2.3), there is potential for non-negligible numbers of individuals which use these SPAs to be present within the Zol of this impact and a pathway to impact to this receptor is identified. Therefore, the potential for LSE cannot be ruled out.
			Intertidal cable route landfall Onshore infrastructure	Out	Out	Out	As this SCI exclusively utilises offshore marine environments for foraging, there is considered to be no pathway for activities in these areas to result in changes in the availability of prey for this SCI. Therefore, it is considered that there is no potential for LSE in relation to this effect.

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
		Introduction or spread of invasive species	Array site OECC Intertidal cable route landfall Onshore infrastructure	In	In	In	<p>As mitigation measures to prevent the introduction or spread on INNS are not a requirement of underlying legislation and may be construed as being implemented specifically to address risks in relation to the Habitats Regulations, these measures cannot be applied at the screening phase.</p> <p>In the absence of mitigation measures, introduction or spread of invasive species may occur due to the CWP Project and, therefore, a pathway to impact to this receptor is identified. Furthermore, as the by sea distance between these SPAs and the project infrastructure is less than the foraging range extent used to define the Zol for effects to this species (509.4 km - see Section 2.3), there is potential for non-negligible numbers of individuals which use these SPAs to be present within the Zol of this impact (see Section 2.3). As such, the potential for LSE cannot be ruled out.</p>
European storm petrel	Skomer, Skokholm and the Seas off Pembrokeshire (UK9014051) (Wales)	Direct effects on habitat	Array site	In	In	In	<p>As the by sea distance between these SPAs and the array site is less than the maximum breeding season foraging range of European storm petrel (336 km; Woodward et al., 2019), there is potential for non-negligible numbers of individuals which use these SPAs to be present within the Zol of this impact (see</p>

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
	[137.98; 147.65; 180.81], straight line [138.01; 147.68; 181.56], by sea Isles of Scilly (England) (UK9020288) [336.88; 345.36; 371.72], straight line [336.9; 345.39; 375.2], by sea						Section 2.3) and a pathway to impact to this receptor is identified. Therefore, the potential for LSE cannot be ruled out.
			OECC	Out	Out	Out	As direct effect on habitat to breeding seabird SCIs in offshore areas relate to the occupancy of areas of sea surface by project infrastructure and there will be no above sea infrastructure beyond transient construction vessel traffic within the offshore extent of the OECC, there is assessed to be no source of impact. Therefore, it is considered that there is no potential for LSE in relation to this effect.
			Intertidal cable route landfall Onshore infrastructure	Out	Out	Out	Use of intertidal and terrestrial habitats by this marine SCI is minimal and, as such, there is no pathway to impact from direct effects on habitat. Therefore, it is considered that there is no potential for LSE in relation to this effect.
		Disturbance and displacement	Array site OECC	Out	Out	Out	Although the by sea distance between these SPAs and the array site and OECC is less than the maximum breeding season foraging range of European storm petrel (336 km; Woodward et al., 2019), and there is potential for non-negligible numbers of individuals which use these SPAs to be present within the ZoI of

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
							this impact (see Section 2.3), storm petrel are considered to be insensitive to disturbance and displacement effects from either vessel activity or from offshore infrastructure (Table A-2 and Table A-4, Annex A). As such, there is no pathway to impact from disturbance and displacement effects. Therefore, it is considered that there is no potential for LSE in relation to this effect.
			Intertidal cable route landfall Onshore infrastructure	Out	Out	Out	Use of intertidal and terrestrial habitats by this marine SCI is minimal and, as such, there is no pathway to impact from disturbance and displacement effects. Therefore, it is considered that there is no potential for LSE in relation to this effect.
		Collision	Array site		Out		Although the by sea distance between these SPAs and the array site is less than the maximum breeding season foraging range of European storm petrel (336 km; Woodward et al., 2019), and there is potential for non-negligible numbers of individuals which use these SPAs to be present within the ZoI of this impact (see Section 2.3); however, flight activity by European storm petrel occurs almost exclusively below 20 m (Table A-6 ,

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
							Annex A). Given the proposed minimum tip height of the CWP Project is 36 m MSL, there is therefore considered to be no pathway to impact from collision effects. As such, it is considered that there is no potential for LSE in relation to this effect.
		Changes in prey availability	Array site OECC	In	In	In	As the by sea distance between these SPAs and the array site and OECC is less than the maximum breeding season foraging range of European storm petrel (336 km; Woodward et al., 2019), there is potential for non-negligible numbers of individuals which use these SPAs to be present within the Zol of this impact (see Section 2.3) and a pathway to impact to this receptor is identified. Therefore, the potential for LSE cannot be ruled out.
			Intertidal cable route landfall Onshore infrastructure	Out	Out	Out	As this SCI exclusively utilises offshore marine environments for foraging, there is considered to be no pathway for activities in these areas to result in changes in the availability of prey for this SCI. Therefore, it is considered that there is no potential for LSE in relation to this effect.

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
		Introduction or spread of invasive species	Array site OECC Intertidal cable route landfall Onshore infrastructure	In	In	In	<p>As mitigation measures to prevent the introduction or spread on INNS are not a requirement of underlying legislation and may be construed as being implemented specifically to address risks in relation to the Habitats Regulations, these measures cannot be applied at the screening phase.</p> <p>In the absence of mitigation measures, introduction or spread of invasive species may occur due to the CWP Project and, therefore, a pathway to impact to this receptor is identified. Furthermore, as the by sea distance between these SPAs and the project infrastructure is less than the maximum breeding season foraging range of European storm petrel (336 km; Woodward et al., 2019), there is potential for non-negligible numbers of individuals which use these SPAs to be present within the ZoI of this impact (see Section 2.3). As such, the potential for LSE cannot be ruled out.</p>
Cormorant	Ireland's Eye (IE004117) [31.44; 9.0; 9.69], straight line	Direct effects on habitat	Array site (for Ireland's Eye SPA)	In	In	In	<p>As the by sea distance between this SPA and the array site is less than the mean maximum (+ 1 SD) breeding season foraging range of cormorant (33.9 km; Woodward et al., 2019), there is potential for non-negligible numbers of</p>

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
	[31.49; 11.09; 12.61], by sea Lambay Island (IE004069) [38.83; 18.27; 18.49], straight line [38.88; 20.22; 21.74], by sea						individuals which use this SPA to be present within the Zol of this impact (see Section 2.3) and a pathway to impact to this receptor is identified. Therefore, the potential for LSE cannot be ruled out.
			Array site (for Lambay Island SPA)	Out	Out	Out	As the by sea distance between this SPA and the array site is greater than the mean maximum (+ 1 SD) breeding season foraging range of cormorant (33.9 km; Woodward et al., 2019), there is no potential for non-negligible numbers of individuals which use this SPA to be present within the Zol of this impact (see Section 2.3). As such, there is no pathway to impact from direct effects on habitat. Therefore, it is considered that there is no potential for LSE in relation to this effect.

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
			OECC	Out	Out	Out	As direct effects on habitat to breeding seabird SCIs in offshore areas relate to the occupancy of areas of sea surface by project infrastructure and there will be no above sea infrastructure beyond transient construction vessel traffic within the offshore extent of the OECC, there is assessed to be no source of impact. Therefore, it is considered that there is no potential for LSE in relation to this effect.

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
			Intertidal cable route landfall	In	In	In	<p>The by sea distance between these SPAs and the intertidal cable route landfall and associated onshore infrastructure is less than the mean maximum (+ 1 SD) breeding season foraging range of cormorant (33.9 km; Woodward et al., 2019). It is considered that non-foraging behaviours such as roosting, loafing and, importantly for cormorant, plumage maintenance (drying) after foraging may occur within intertidal cable route landfall areas in which temporary direct effects to habitat may occur (which may be immediately adjacent to marine foraging areas).</p> <p>As such, a pathway to impact to this receptor is identified and the potential for LSE cannot be ruled out.</p>

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
			Onshore infrastructure	Out	Out	Out	Direct effects on habitat from the footprint of onshore infrastructure within the industrialised Pigeon Park area, south of the Liffey channel, does not coincide with any areas of important terrestrial habitat used by this SCI. As such, no pathway to impact is identified and it is considered that there is no potential for LSE in relation to this effect.
		Disturbance and displacement	Array site (for Ireland's Eye SPA)	In	In	In	As the by sea distance between this SPA and the array site is less than the mean maximum (+ 1 SD) breeding season foraging range of cormorant (33.9 km; Woodward et al., 2019), there is potential for non-negligible numbers of individuals which use this SPA to be present within the Zol of this impact (see Section 2.3). Cormorant are considered to be sensitive to disturbance by vessel traffic, but insensitive to displacement from OWF infrastructure (Table A-2 and Table A-4, Annex A). Although there is no pathway to impact from disturbance and displacement effects in relation to OWF infrastructure (either in the form of indirect habitat loss or barrier effects), a pathway to disturbance and displacement effects in relation to vessel activity is identified. Therefore, the potential for LSE cannot be ruled out.

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
			Array site (for Lambay Island SPA)	Out	Out	Out	As the by sea distance between this SPA and the array site is greater than the mean maximum (+ 1 SD) breeding season foraging range of cormorant (33.9 km; Woodward et al., 2019), there is no potential for non-negligible numbers of individuals which use this SPA to be present within the Zol of this impact (see Section 2.3). As such, there is no pathway to impact from disturbance and displacement effects. Therefore, it is considered that there is no potential for LSE in relation to this effect.
			OECC	In	In	In	As the by sea distance between these SPAs and the OECC is less than the mean maximum (+ 1 SD) breeding season foraging range of cormorant (33.9 km; Woodward et al., 2019), there is potential for non-negligible numbers of individuals which use these SPAs to be present within the Zol of this impact (see Section 2.3) and cormorant are sensitive to disturbance by vessel traffic (Table A-2, Annex A). As such, a pathway to impact is identified and the potential for LSE cannot be ruled out.

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
			Intertidal cable route landfall	In	In	In	As the by sea distance between these SPAs and the intertidal cable route landfall is less than the mean maximum (+ 1 SD) breeding season foraging range of cormorant (33.9 km; Woodward et al., 2019), and cormorant were regularly observed within submerged and non-submerged areas of South Dublin Bay during baseline surveys, it is considered that individuals from these SPAs may occur within intertidal cable route landfall areas in which disturbance and displacement impacts may occur. As such, a pathway to impact to this receptor is identified and the potential for LSE cannot be ruled out.
			Onshore infrastructure	Out	Out	Out	Onshore infrastructure within the industrialised Pigeon Park area, south of the Liffey channel, does not coincide with any areas of important terrestrial habitat used by this SCI. As such, no pathway to impact is identified and it is considered that there is no potential for LSE in relation to this effect.
		Collision	Array site (for Ireland's Eye SPA)		In		As the by sea distance between this SPA and the array site is less than the mean maximum (+ 1 SD) breeding season foraging range of cormorant (33.9 km; Woodward et al., 2019),

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
							there is potential for non-negligible numbers of individuals which use this SPA to be present within the Zol of this impact (see Section 2.3). Furthermore, cormorant fly within the rotor swept altitude range of the development and therefore may be vulnerable to collisions within the array site (Table A-6, Annex A). As such, a pathway to impact is identified and the potential for LSE cannot be ruled out.
			Array site (for Lambay Island SPA)		Out		As the by sea distance between this SPA and the array site is greater than the mean maximum (+ 1 SD) breeding season foraging range of cormorant (33.9 km; Woodward et al., 2019), there is no potential for non-negligible numbers of individuals which use these SPAs to be present within the Zol of this impact (see Section 2.3). As such, there is no pathway to impact from collision effects. Therefore, it is considered that there is no potential for LSE in relation to this effect.
		Changes in prey availability	Array site (for Ireland's Eye SPA)	In	In	In	As the by sea distance between this SPA and the array site is less than the mean maximum (+ 1 SD) breeding season foraging range of cormorant (33.9 km; Woodward et al., 2019), there is potential for non-negligible numbers of individuals which use this SPA to be present within the Zol of this impact (see Section 2.3)

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
							and a pathway to impact to this receptor is identified. Therefore the potential for LSE cannot be ruled out.
			Array site (for Lambay Island SPA)	Out	Out	Out	As the by sea distance between this SPA and the array site is greater than the mean maximum (+ 1 SD) breeding season foraging range of cormorant (33.9 km; Woodward et al., 2019), there is no potential for non-negligible numbers of individuals which use this SPA to be present within the Zol of this impact (see Section 2.3). As such, there is no pathway to impact from changes in prey availability effects. Therefore, it is considered that there is no potential for LSE in relation to this effect.
			OECC	In	In	In	As the by sea distance between these SPAs and the OECC is less than the mean maximum (+ 1 SD) breeding season foraging range of cormorant (33.9 km; Woodward et al., 2019), there is potential for non-negligible numbers of individuals which use these SPAs to be present within the Zol of this impact (see Section 2.3) and a pathway to impact to this receptor is identified. Therefore, the potential for LSE cannot be ruled out.

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
			Intertidal cable route landfall	In	In	In	<p>As the by sea distance between these SPAs and the intertidal cable route landfall is less than the mean maximum (+ 1 SD) breeding season foraging range of cormorant (33.9 km; Woodward et al., 2019), and cormorant were regularly observed within submerged and non-submerged areas of South Dublin Bay during baseline surveys, it is considered that individuals from these SPAs may occur within intertidal cable route landfall areas in which temporary changes to prey availability may occur.</p> <p>As such, a pathway to impact to this receptor is identified and the potential for LSE cannot be ruled out.</p>
			Onshore infrastructure	Out	Out	Out	<p>As this SCI does not forage within terrestrial environments, there is considered to be no pathway for activities in this area to result in changes in the availability of prey for this SCI. Therefore, it is considered that there is no potential for LSE in relation to this effect.</p>

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
		Introduction or spread of invasive species	Array site OECC Intertidal cable route landfall Onshore infrastructure	In	In	In	<p>As mitigation measures to prevent the introduction or spread on INNS are not a requirement of underlying legislation and may be construed as being implemented specifically to address risks in relation to the Habitats Regulations, these measures cannot be applied at the screening phase.</p> <p>In the absence of mitigation measures, introduction or spread of invasive species may occur due to the CWP Project and, therefore, a pathway to impact to this receptor is identified. Furthermore, as the by sea distance between this SPA and project activities is less than the mean maximum (+ 1 SD) breeding season foraging range of cormorant (33.9 km; Woodward et al., 2019), there is potential for non-negligible numbers of individuals which use these SPAs to be present within the Zol of</p>

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
Herring gull	Ireland's Eye (IE004117) [31.44; 9.0; 9.69], straight line [31.49; 11.09; 12.61], by sea Lambay Island (IE004069) [38.83; 18.27; 18.49], straight line [38.88; 20.22; 21.74], by sea Skerries Islands (IE004122) [49.82; 26.12; 26.12], straight line	Direct effects on habitat	Array site	In	In	In	As the by sea distance between these SPAs and the array site is less than the mean maximum (+ 1 SD) breeding season foraging range of herring gull (85.6 km; Woodward et al., 2019), there is potential for non-negligible numbers of individuals which use these SPAs to be present within the Zol of this impact (see Section 2.3) and a pathway to impact to this receptor is identified. Therefore, the potential for LSE cannot be ruled out.
			OECC	Out	Out	Out	As direct effects on habitat to breeding seabird SCIs in offshore areas relate to the occupancy of areas of sea surface by project infrastructure and there will be no above sea infrastructure beyond transient construction vessel traffic within the offshore extent of the OECC, there is assessed to be no source of impact. Therefore, it is considered that there is no potential for LSE in relation to this effect.

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
	[49.86; 30.2; 31.72], by sea		Intertidal cable route landfall	In	In	In	As herring gull utilise intertidal habitats for non-foraging behaviours (such as roosting) and the by sea distance between these SPAs and the intertidal cable route landfall is less than the mean maximum (+ 1 SD) breeding season foraging range of herring gull (85.6 km; Woodward et al., 2019) and herring gull were frequently observed within the intertidal habitats of South Dublin Bay during baseline surveys, there is potential for non-negligible numbers of individuals which use these SPAs to be present within the Zol of this impact (see Section 2.3) and a pathway to impact to this receptor is identified. Therefore, the potential for LSE cannot be ruled out.

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
			Onshore infrastructure	Out	Out	Out	Direct effects on habitat from the footprint of onshore infrastructure within the industrialised Pigeon Park area, south of the Liffey channel, does not coincide with any areas of important terrestrial habitat used by this SCI. As such, no pathway to impact is identified and it is considered that there is no potential for LSE in relation to this effect.
		Disturbance and displacement	Array site OECC	Out	Out	Out	Although the by sea distance between these SPAs and the array site and OECC is less than the mean maximum (+ 1 SD) breeding season foraging range of herring gull (85.6 km; Woodward et al., 2019), and there is potential for non-negligible numbers of individuals which use these SPAs to be present within the ZoI of this impact (see Section 2.3), however, herring gull are considered to be insensitive to disturbance and displacement effects from either vessel activity or from offshore wind farm infrastructure (Table A-2, Table A-4 and Table A-5, Annex A). As such, there is no pathway to impact from disturbance and displacement effects. Therefore, it is considered that there is no potential for LSE in relation to this effect.

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
			Intertidal cable route landfall	In	In	In	As the by sea distance between these SPAs and the intertidal cable route landfall is less than the mean maximum (+ 1 SD) breeding season foraging range of herring gull (85.6 km; Woodward et al., 2019), and herring gull were regularly observed within South Dublin Bay during baseline surveys, it is considered that individuals from these SPAs may occur within intertidal cable route landfall areas in which disturbance and displacement impacts may occur. Although herring gull is considered insensitive to disturbance and displacement from vessel activity, visual and acoustic stimuli from onshore activities within intertidal areas may affect this receptor. As such, a pathway to impact to this receptor is identified and the potential for LSE cannot be ruled out.
			Onshore infrastructure	Out	Out	Out	Direct effects on habitat from the footprint of onshore infrastructure within the industrialised Pigeon Park area, south of the Liffey channel, does not coincide with any areas of important terrestrial habitat used by this SCI. As such, no pathway to impact is identified and it is considered that there is no potential for LSE in relation to this effect.

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
		Collision	Array site		In		As the by sea distance between these SPAs and the array site is less than the mean maximum (+ 1 SD) breeding season foraging range of herring gull (85.6 km; Woodward et al., 2019), there is potential for non-negligible numbers of individuals which use these SPAs to be present within the Zol of this impact (see Section 2.3). Furthermore, herring gull frequently fly within the rotor swept altitude range of the development and therefore may be vulnerable to collisions within the array site (Table A-6, Annex A). As such, a pathway to impact is identified and the potential for LSE cannot be ruled out.
		Changes in prey availability	Array site OECC	In	In	In	As the by sea distance between these SPAs and the array site is less than the mean maximum (+ 1 SD) breeding season foraging range of herring gull (85.6 km; Woodward et al., 2019), there is potential for non-negligible numbers of individuals which use these SPAs to be present within the Zol of this impact (see Section 2.3) and a pathway to impact to this receptor is identified. Therefore, the potential for LSE cannot be ruled out.
			Intertidal cable route landfall	In	In	In	As the by sea distance between these SPAs and the intertidal cable route landfall is less

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
							<p>than the mean maximum (+ 1 SD) breeding season foraging range of herring gull (85.6 km; Woodward et al., 2019), and herring gull were regularly observed within South Dublin Bay during baseline surveys, it is considered that individuals from these SPAs may occur within intertidal cable route landfall areas in which temporary changes to prey availability may occur.</p> <p>As such, a pathway to impact to this receptor is identified and the potential for LSE cannot be ruled out.</p>
			Onshore infrastructure	Out	Out	Out	<p>Direct effects on habitat from the footprint of onshore infrastructure within the industrialised Pigeon Park area, south of the Liffey channel, does not coincide with any areas of important terrestrial habitat used by this SCI. As such, no pathway to impact is identified and it is considered that there is no potential for LSE in relation to this effect.</p>

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
		Introduction or spread of invasive species	Array site OECC Intertidal cable route landfall Onshore infrastructure	In	In	In	<p>As mitigation measures to prevent the introduction or spread on INNS are not a requirement of underlying legislation and may be construed as being implemented specifically to address risks in relation to the Habitats Regulations, these measures cannot be applied at the screening phase.</p> <p>In the absence of mitigation measures, introduction or spread of invasive species may occur due to the CWP Project and, therefore, a pathway to impact to this receptor is identified. Furthermore, as the by sea distance between these SPAs and the project infrastructure is less than the mean maximum (+ 1 SD) breeding season foraging range of herring gull (85.6 km; Woodward et al., 2019), there is potential for non-negligible numbers of individuals which use these SPAs to be present within the Zol of this impact (see Section 2.3). As such, the potential for LSE cannot be ruled out.</p>

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
Lesser black-backed gull	Lambay Island (IE004069) [38.83; 18.27; 18.49], straight line [38.88; 20.22; 21.74], by sea	Direct effects on habitat	Array site	In	In	In	As the by sea distance between these SPAs and the array site is less than the mean maximum (+ 1 SD) breeding season foraging range of lesser black-backed gull (236 km; Woodward et al., 2019), there is potential for non-negligible numbers of individuals which use these SPAs to be present within the Zol of this impact (see Section 2.3) and a pathway to impact to this receptor is identified. Therefore, the potential for LSE cannot be ruled out.
	Saltee Islands (IE004002) [107.06; 114.1; 133.87], straight line [113.58; 121.73; 149.8], by sea Skomer, Skokholm and the Seas off Pembrokeshire (UK9014051) (Wales)		OECC	Out	Out	Out	As direct effect on habitat to breeding seabird SCIs in offshore areas relate to the occupancy of areas of sea surface by project infrastructure and there will be no above sea infrastructure beyond transient construction vessel traffic within the offshore extent of the OECC, there is assessed to be no source of impact. Therefore, it is considered that there is no potential for LSE in relation to this effect.

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
	<p>[137.98; 147.65; 180.81], straight line</p> <p>[138.01; 147.68; 181.56], by sea</p> <p>Ribble & Alt Estuaries (England) (UK9005103)</p> <p>[177.24; 185.31; 201.57], straight line</p> <p>[178.65; 186.37; 201.61], by sea</p> <p>Morecambe Bay and Duddon Estuary (England) (UK9020326)</p>		Intertidal cable route landfall	In	In	In	As lesser black-backed gull utilise intertidal habitats for non-foraging behaviours (such as roosting) and the by sea distance between these SPAs and the array site is less than the mean maximum (+ 1 SD) breeding season foraging range of lesser black-backed gull (236 km; Woodward et al., 2019) and lesser black-backed gull were frequently observed within the intertidal habitats of South Dublin Bay during baseline surveys, there is potential for non-negligible numbers of individuals which use these SPAs to be present within the Zol of this impact (see Section 2.3) and a pathway to impact to this receptor is identified. Therefore, the potential for LSE cannot be ruled out.

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
	<p>[190.7; 197.67; 202.67], straight line</p> <p>[190.74; 197.72; 202.94], by sea</p> <p>Ailsa Craig (UK9003091) (Scotland)</p> <p>[235.67; 220.55; 220.55], straight line</p> <p>[235.71; 223.37; 224.9], by sea</p>		Onshore infrastructure	Out	Out	Out	<p>Direct effects on habitat from the footprint of onshore infrastructure within the industrialised Pigeon Park area, south of the Liffey channel, does not coincide with any areas of important terrestrial habitat used by this SCI. As such, no pathway to impact is identified and it is considered that there is no potential for LSE in relation to this effect.</p>

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
		Disturbance and displacement	Array site OECC	Out	Out	Out	Although the by sea distance between these SPAs and the array site and OECC is less than the mean maximum (+ 1 SD) breeding season foraging range of lesser black-backed gull (236 km; Woodward et al., 2019), and there is potential for non-negligible numbers of individuals which use these SPAs to be present within the ZOI of this impact (see Section 2.3), lesser black-backed gull are considered to be insensitive to disturbance and displacement effects from either vessel activity or from offshore wind farm infrastructure (Table A-2, Table A-4 and Table A-5, Annex A). As such, there is no pathway to impact from disturbance and displacement effects. Therefore, it is considered that there is no potential for LSE in relation to this effect.

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
			Intertidal cable route landfall	In	In	In	As the by sea distance between these SPAs and the intertidal cable route landfall is less than the mean maximum (+ 1 SD) breeding season foraging range of lesser black-backed gull (236 km; Woodward et al., 2019), and lesser black-backed gull were regularly observed within South Dublin Bay during baseline surveys, it is considered that individuals from these SPAs may occur within intertidal cable route landfall areas in which disturbance and displacement impacts may occur. Although lesser black-backed gull is considered insensitive to disturbance and displacement from vessel activity, visual and acoustic stimuli from onshore activities within intertidal areas may affect this receptor. As such, a pathway to impact to this receptor is identified and the potential for LSE cannot be ruled out.
			Onshore infrastructure	Out	Out	Out	Direct effects on habitat from the footprint of onshore infrastructure within the industrialised Pigeon Park area, south of the Liffey channel, does not coincide with any areas of important terrestrial habitat used by this SCI. As such, no pathway to impact is identified and it is considered that there is no potential for LSE in relation to this effect.

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
		Collision	Array site		In		As the by sea distance between these SPAs and the array site is less than the mean maximum (+ 1 SD) breeding season foraging range of lesser black-backed gull (236 km; Woodward et al., 2019), there is potential for non-negligible numbers of individuals which use these SPAs to be present within the Zol of this impact (see Section 2.3). Furthermore, lesser black-backed gull frequently fly within the rotor swept altitude range of the development and therefore may be vulnerable to collisions within the array site (Table A-6, Annex A). As such, a pathway to impact is identified and the potential for LSE cannot be ruled out.
		Changes in prey availability	Array site OECC	In	In	In	As the by sea distance between these SPAs and the array site and OECC is less than the mean maximum (+ 1 SD) breeding season foraging range of lesser black-backed gull (236 km; Woodward et al., 2019), there is potential for non-negligible numbers of individuals which use these SPAs to be present within the Zol of this impact (see Section 2.3) and a pathway to impact to this receptor is identified. Therefore the potential for LSE cannot be ruled out.

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
			Intertidal cable route landfall	In	In	In	<p>As the by sea distance between these SPAs and the intertidal cable route landfall is less than the mean maximum (+ 1 SD) breeding season foraging range of lesser black-backed gull (236 km; Woodward et al., 2019), and lesser black-backed gull were regularly observed within South Dublin Bay during baseline surveys, it is considered that individuals from these SPAs may occur within intertidal cable route landfall areas in which temporary changes to prey availability may occur.</p> <p>As such, a pathway to impact to this receptor is identified and the potential for LSE cannot be ruled out.</p>
			Onshore infrastructure	Out	Out	Out	<p>Direct effects on habitat from the footprint of onshore infrastructure within the industrialised Pigeon Park area, south of the Liffey channel, does not coincide with any areas of important terrestrial habitat used by this SCI. As such, no pathway to impact is identified and it is considered that there is no potential for LSE in relation to this effect.</p>

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
		Introduction or spread of invasive species	Array site OECC Intertidal cable route landfall Onshore infrastructure	In	In	In	<p>As mitigation measures to prevent the introduction or spread on INNS are not a requirement of underlying legislation and may be construed as being implemented specifically to address risks in relation to the Habitats Regulations, these measures cannot be applied at the screening phase.</p> <p>In the absence of mitigation measures, introduction or spread of invasive species may occur due to the CWP Project and, therefore, a pathway to impact to this receptor is identified. Furthermore, as the by sea distance between these SPAs and the project infrastructure is less than the mean maximum (+ 1 SD) breeding season foraging range of lesser black-backed gull (236 km; Woodward et al., 2019), there is potential for non-negligible numbers of individuals which use these SPAs to be present within the Zol of this impact (see Section 2.3). As such, the potential for LSE cannot be ruled out.</p>

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
Little tern	The Murrough (IE0004186) [7.51; 0.0; 22.87], straight line [7.51; 0.0; 23.77], by sea	Direct effects on habitat	Array site	In	In	In	<p>Although the distance between the little tern breeding colony within the Murrough SPA at Kilcoole and the array site is considerably greater than the maximum recorded foraging range of this species (13.1 km compared to a maximum foraging range of 5 km – Woodward et al., 2019), little tern were reported foraging in offshore areas within the vicinity of the Array Site during the visual aerial ObSERVE surveys during the summer and autumn periods of 2016 (Jessopp et al., 2018).</p> <p>As such, assessment is undertaken on the conservative allowance that, for the Murrough SPA breeding colony, little tern may be foraging further afield than the maximum range observed elsewhere. Consequently, there is considered to be the potential that little tern breeding within The Murrough SPA may experience direct effects on habitat impacts as a result of infrastructure within the array site.</p> <p>If the potential for individuals which use this SPA to be present within the Zol of this impact is considered (see Section 2.3) a pathway to impact this receptor is identified. Therefore, allowing for a conservative approach in relation to breeding season connectivity, the potential for LSE cannot be ruled out.</p>

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
			OECC	Out	Out	Out	As direct effects on habitat to breeding seabird SCIs in offshore areas relate to the occupancy of areas of sea surface by project infrastructure and there will be no above sea infrastructure beyond transient construction vessel traffic within the offshore extent of the OECC, there is assessed to be no source of impact. Therefore, it is considered that there is no potential for LSE in relation to this effect.
			Intertidal cable route landfall	Out	Out	Out	As the by sea distance between cable landfall and The Murrough SPA is considerably greater (23.77 km) than the maximum foraging range of little tern (5 km, Woodward et al., 2019) and little tern were not recorded within the intertidal habitats of South Dublin Bay during baseline surveys, any use of habitats within the cable route landfall area by this receptor is considered negligible. As such, no pathway to impact from direct effects on habitat is identified and it is considered that there is no potential for LSE in relation to this effect.

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
			Onshore infrastructure	Out	Out	Out	Use of terrestrial habitats by this marine SCI is minimal and, as such, there is no pathway to impact from direct effects on habitat. Therefore, it is considered that there is no potential for LSE in relation to this effect.
		Disturbance and displacement	Array site OECC	Out	Out	Out	Away from breeding colonies, when foraging or otherwise utilising marine environments, tern species are considered to be insensitive to disturbance and displacement effects from either vessel activity or from offshore wind farm infrastructure (Table A-2 and Table A-4, Annex A). As such, there is no pathway to impact from disturbance and displacement effects. Therefore, it is considered that there is no potential for LSE in relation to this effect.
			Intertidal cable route landfall	Out	Out	Out	As the by sea distance between cable landfall and The Murrough SPA is considerably greater (23.77 km) than the maximum foraging range of little tern (5 km, Woodward et al., 2019) and little tern were not recorded within the intertidal habitats of South Dublin Bay during baseline surveys, any use of habitats within the cable route landfall area by this receptor is

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
							considered negligible. As such, no pathway to impact from disturbance and displacement is identified and it is considered that there is no potential for LSE in relation to this effect.
			Onshore infrastructure	Out	Out	Out	Use of terrestrial habitats by this marine SCI is minimal and, as such, there is no pathway to impact from disturbance and displacement. Therefore, it is considered that there is no potential for LSE in relation to this effect.

		Collision	Array site		In		<p>Although the distance between the little tern breeding colony within the Murrough SPA at Kilcoole and the array site is considerably greater than the maximum recorded foraging range of this species (13.1 km compared to a maximum foraging range of 5 km – Woodward et al., 2019), little tern were reported foraging in offshore areas within the vicinity of the array site during the visual aerial ObSERVE surveys during the summer and autumn periods of 2016 (Jessopp et al., 2018).</p> <p>As such, if assessment is undertaken on the conservative allowance that, for the Murrough SPA breeding colony, little tern may be foraging further afield than the maximum range observed elsewhere. Consequently, there is considered to be the potential that little tern breeding within The Murrough SPA may experience collision risk through from flight activity within the array site.</p> <p>If there is considered to be the potential for individuals which use this SPA to be present within the Zol of this impact (see Section 2.3) a pathway to impact to this receptor is identified. Therefore, allowing for a conservative approach in relation to breeding season connectivity, the potential for LSE cannot be ruled out.</p>
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		Changes in prey availability	Array site OECC	In	In	In	<p>Although the distance between the little tern breeding colony within the Murrough SPA at Kilcoole and the array site and OECC is considerably greater than the maximum recorded foraging range of this species (13.1 km and 6.3 km, respectively, compared to a maximum foraging range of 5 km – Woodward et al., 2019), little tern were reported foraging in offshore areas within the vicinity of the array site and OECC during the visual aerial ObSERVE surveys during the summer and autumn periods of 2016 (Jessopp et al., 2018).</p> <p>As such, if assessment is undertaken on the conservative allowance that, for the Murrough SPA breeding colony, little tern may be foraging further afield than the maximum range observed elsewhere. Consequently, there is considered to be the potential that little tern breeding within The Murrough SPA may experience changes in prey availability impacts through the use of habitats within and surrounding the OECC and array site.</p> <p>If there is considered to be the potential for individuals which use this SPA to be present within the Zol of this impact (see Section 2.3) a pathway to impact to this receptor is identified. Therefore, allowing for a conservative approach in relation to breeding season connectivity, the potential for LSE cannot be ruled out.</p>
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SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
			Intertidal cable route landfall	Out	Out	Out	As the by sea distance between cable landfall and The Murrough SPA is considerably greater (23.77 km) than the maximum foraging range of little tern (5 km, Woodward et al., 2019) and little tern were not recorded within the intertidal habitats of South Dublin Bay during baseline surveys, any use of habitats within the cable route landfall area by this receptor is considered negligible. As such, no pathway to impact from changes in prey availability is identified and it is considered that there is no potential for LSE in relation to this effect.
			Onshore infrastructure	Out	Out	Out	Use of terrestrial habitats by this marine SCI is minimal and, as such, there is no pathway to impact from changes in prey availability. Therefore, it is considered that there is no potential for LSE in relation to this effect.
		Introduction or spread of invasive species	Array site OECC Intertidal cable route landfall Onshore infrastructure	In	In	In	As mitigation measures to prevent the introduction or spread on INNS are not a requirement of underlying legislation and may be construed as being implemented specifically to address risks in relation to the Habitats Regulations, these measures cannot be applied at the screening phase.

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
							In the absence of mitigation measures, introduction or spread of invasive species may occur due to the CWP Project and, therefore, a pathway to impact to this receptor is identified. As such, the potential for LSE cannot be ruled out.
Common tern	South Dublin Bay and River Tolka Estuary [26.2; 0.0; 0.0], straight line [26.22; 0.0; 0.0], by sea Rockabill (IE0004014) [47.36; 26.39; 26.39], straight line [47.38; 29.8; 31.32], by sea	Direct effects on habitat	Array site (for South Dublin Bay and River Tolka Estuary SPA)	In	In	In	As the by sea distance between this SPA and the array site is less than the mean maximum (+ 1 SD) breeding season foraging range of common tern (26.9 km; Woodward et al., 2019), there is potential for non-negligible numbers of individuals which use this SPA to be present within the Zol of this impact (see Section 2.3) and a pathway to impact to this receptor is identified. Therefore, the potential for LSE cannot be ruled out.
			Array site (for Rockabill SPA)	Out	Out	Out	As the by sea distance between this SPA and the array site is greater than the mean maximum (+ 1 SD) breeding season foraging range of common tern (26.9 km; Woodward et al., 2019), there is no potential for non-negligible numbers of individuals which use this SPA to be present within the Zol of this impact (see Section 2.3). As such, there is no pathway to impact from direct effects on habitat. Therefore, it is considered that there

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
							is no potential for LSE in relation to this effect.
			OECC	Out	Out	Out	As direct effects on habitat to breeding seabird SCIs in offshore areas relate to the occupancy of areas of sea surface by project infrastructure and there will be no above sea infrastructure beyond transient construction vessel traffic within the offshore extent of the OECC, there is assessed to be no source of impact. Therefore, it is considered that there is no potential for LSE in relation to this effect.
			Intertidal cable route landfall	In	In	In	As common tern utilise intertidal habitats for non-foraging behaviours (such as roosting) and the by sea distance between these SPAs and the intertidal cable route landfall is less than the mean maximum (+ 1 SD) breeding season foraging range of common tern (26.9 km; Woodward et al., 2019) and common tern were frequently observed within the intertidal habitats of South Dublin Bay during baseline surveys, there is potential for non-negligible numbers of individuals which use these SPAs to be present within the Zol of this impact (see Section 2.3) and a pathway to impact to this

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
							receptor is identified. Therefore, the potential for LSE cannot be ruled out.
			Onshore infrastructure	Out	Out	Out	Use of terrestrial habitats by this marine SCI is minimal and, as such, there is no pathway to impact from direct effects on habitat. Therefore, it is considered that there is no potential for LSE in relation to this effect.
		Disturbance and displacement	Array site OECC	Out	Out	Out	Common tern are considered to be insensitive to disturbance and displacement effects from either vessel activity or from offshore infrastructure (Table A-2 and Table A-4, Annex A). As such, there is no pathway to impact from disturbance and displacement effects. Therefore, it is considered that there is no potential for LSE in relation to this effect.

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
			Intertidal cable route landfall	In	In	In	<p>As the by sea distance between these SPAs and the intertidal cable route landfall is less than the mean maximum (+ 1 SD) breeding season foraging range of common tern (26.9 km; Woodward et al., 2019), and common tern were regularly observed within intertidal areas of South Dublin Bay during baseline surveys, it is considered that individuals from these SPAs may occur within areas in which disturbance and displacement impacts may occur in relation to intertidal landfall activities.</p> <p>As such, a pathway to impact to this receptor is identified and the potential for LSE cannot be ruled out.</p>

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
			Onshore infrastructure (for South Dublin Bay and River Tolka Estuary SPA)	In	In	In	<p>As common tern is sensitive to anthropogenic disturbance at breeding colonies and is a breeding SCI of South Dublin Bay and River Tolka Estuary SPA and onshore infrastructure will be located close to SPA breeding colonies (300 m southwest) and associated colonies (60 m south) within the River Liffey channel, it is considered that individuals from this SPA may occur within areas in which disturbance and displacement impacts may occur in relation to intertidal landfall activities.</p> <p>As such, a pathway to impact to this receptor is identified and the potential for LSE cannot be ruled out.</p>

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
			Onshore infrastructure (for Rockabill SPA)	Out	Out	Out	Although intertidal cable route landfall is less than the mean maximum (+ 1 SD) breeding season foraging range of common tern (26.9 km; Woodward et al., 2019) and common tern breed upon structures within the River Liffey channel (with colonies approximately 60 m to the north), it is considered that individuals which breed at Rockabill SPA would not be affected by potential disturbance and displacement impacts to common tern breeding at colonies within the River Liffey channel. As such, there is no pathway to impact from disturbance and displacement effects. Therefore, it is considered that there is no potential for LSE in relation to this effect.
		Collision	Array site (for South Dublin Bay and River Tolka Estuary SPA)		In		As the by sea distance between this SPA and the array site is less than the mean maximum (+ 1 SD) breeding season foraging range of common tern (26.9 km; Woodward et al., 2019), there is potential for non-negligible numbers of individuals which use this SPA to be present within the ZoI of this impact (see Section 2.3). Furthermore, common tern fly within the rotor swept altitude range of the development and therefore may be vulnerable to collisions within the array site (Table A-6 ,

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
							Annex A). As such, a pathway to impact is identified and the potential for LSE cannot be ruled out .
			Array site (for Rockabill SPA)		Out		As the by sea distance between this SPA and the array site is greater than the mean maximum (+ 1 SD) breeding season foraging range of common tern (26.9 km; Woodward et al., 2019), there is no potential for non-negligible numbers of individuals which use this SPA to be present within the Zol of this impact (see Section 2.3). As such, there is no pathway to impact from collision effects. Therefore, it is considered that there is no potential for LSE in relation to this effect .
		Changes in prey availability	Array site (for South Dublin Bay and River Tolka Estuary SPA)	In	In	In	As the by sea distance between this SPA and the array site is less than the mean maximum (+ 1 SD) breeding season foraging range of common tern (26.9 km; Woodward et al., 2019), there is potential for non-negligible numbers of individuals which use this SPA to be present within the Zol of this impact (see Section 2.3) and a pathway to impact to this receptor is identified. Therefore the potential for LSE cannot be ruled out .
			Array site	Out	Out	Out	As the by sea distance between this SPA and the array site is greater than the mean

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
			(for Rockabill SPA)				maximum (+ 1 SD) breeding season foraging range of common tern (26.9 km; Woodward et al., 2019), there is no potential for non-negligible numbers of individuals which use this SPA to be present within the Zol of this impact (see Section 2.3). As such, there is no pathway to impact from collision effects. Therefore, it is considered that there is no potential for LSE in relation to this effect.
			OECC	In	In	In	As the by sea distance between these SPAs and the OECC is less than the mean maximum (+ 1 SD) breeding season foraging range of common tern (26.9 km; Woodward et al., 2019), there is potential for non-negligible numbers of individuals which use these SPAs to be present within the Zol of this impact (see Section 2.3) and a pathway to impact on this receptor is identified. Therefore, the potential for LSE cannot be ruled out.
			Intertidal cable route landfall	In	In	In	As the by sea distance between these SPAs and the intertidal cable route landfall is less than the mean maximum (+ 1 SD) breeding season foraging range of common tern (26.9 km; Woodward et al., 2019), and common tern were regularly observed within areas of South Dublin Bay during baseline surveys, it is considered that individuals from these SPAs

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
							may occur within intertidal cable route landfall areas in which temporary changes to prey availability may occur. As such, a pathway to impact to this receptor is identified and the potential for LSE cannot be ruled out.
			Onshore infrastructure	Out	Out	Out	As this SCI does not forage within terrestrial environments, there is considered to be no pathway for activities in this area to result in changes in the availability of prey for this SCI. Therefore, it is considered that there is no potential for LSE in relation to this effect.
		Introduction or spread of invasive species	Array site OECC Intertidal cable route landfall Onshore infrastructure	In	In	In	As mitigation measures to prevent the introduction or spread on INNS are not a requirement of underlying legislation and may be construed as being implemented specifically to address risks in relation to the Habitats Regulations, these measures cannot be applied at the screening phase. In the absence of mitigation measures, introduction or spread of invasive species may occur due to the CWP Project and, therefore, a pathway to impact to this receptor is identified. Furthermore, as the by sea distance between these SPAs and the project infrastructure is less than the mean maximum (+ 1 SD)

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
							breeding season foraging range of common tern (26.9 km; Woodward et al., 2019), there is potential for non-negligible numbers of individuals which use these SPAs to be present within the Zol of this impact (see Section 2.3). As such, the potential for LSE cannot be ruled out.
Arctic tern	Rockabill (IE0004014) [47.36; 26.39; 26.39], straight line [47.38; 29.8; 31.32], by sea	Direct effects on habitat	Array site	Out	Out	Out	As the by sea distance between this SPA and the array site is greater than the mean maximum (+ 1 SD) breeding season foraging range of common tern (40.5 km; Woodward et al., 2019), there is no potential for non-negligible numbers of individuals which use this SPA to be present within the Zol of this impact (see Section 2.3). As such, there is no pathway to impact from direct effects on habitat. Therefore, it is considered that there is no potential for LSE in relation to this effect.

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
			OECC	Out	Out	Out	As direct effects on habitat to breeding seabird SCIs in offshore areas relate to the occupancy of areas of sea surface by project infrastructure and there will be no above sea infrastructure beyond transient construction vessel traffic within the offshore extent of the OECC, there is assessed to be no source of impact. Therefore, it is considered that there is no potential for LSE in relation to this effect.
			Intertidal cable route landfall	In	In	In	As Arctic tern utilise intertidal habitats for non-foraging behaviours (such as roosting) and the by sea distance between this SPA and the intertidal cable route landfall is less than the mean maximum (+ 1 SD) breeding season foraging range of common tern (40.5 km; Woodward et al., 2019) and common tern were frequently observed within the intertidal habitats of South Dublin Bay during baseline surveys, there is potential for non-negligible numbers of individuals which use this SPA to be present within the Zol of this impact (see Section 2.3) and a pathway to impact to this receptor is identified. Therefore, the potential for LSE cannot be ruled out.

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
			Onshore infrastructure	Out	Out	Out	Use of terrestrial habitats by this marine SCI is minimal and, as such, there is no pathway to impact from direct effects on habitat. Therefore, it is considered that there is no potential for LSE in relation to this effect.
		Disturbance and displacement	Array site OECC	Out	Out	Out	Arctic tern are considered to be insensitive to disturbance and displacement effects from either vessel activity or from offshore infrastructure (Table A-2 and Table A-4, Annex A). As such, there is no pathway to impact from disturbance and displacement effects. Therefore, it is considered that there is no potential for LSE in relation to this effect.

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
			Intertidal cable route landfall	In	In	In	<p>As the by sea distance between this SPA and the intertidal cable route landfall is less than the mean maximum (+ 1 SD) breeding season foraging range of Arctic tern (40.5 km; Woodward et al., 2019), and Arctic tern were regularly observed within intertidal areas of South Dublin Bay during baseline surveys, it is considered that individuals from this SPA may occur within areas in which disturbance and displacement impacts may occur in relation to intertidal landfall activities.</p> <p>As such, a pathway to impact to this receptor is identified and the potential for LSE cannot be ruled out.</p>

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
			Onshore infrastructure	Out	Out	Out	Although intertidal cable route landfall is less than the mean maximum (+ 1 SD) breeding season foraging range of Arctic tern (40.5 km; Woodward et al., 2019) and Arctic tern breed upon structures within the River Liffey channel (with colonies approximately 60 m to the north), it is considered that individuals which breed at Rockabill SPA would not be affected by potential disturbance and displacement impacts to Arctic tern breeding at colonies within the River Liffey channel. As such, there is no pathway to impact from disturbance and displacement effects. Therefore, it is considered that there is no potential for LSE in relation to this effect.
		Collision	Array site		In		As the by sea distance between this SPA and the array site is less than the mean maximum (+ 1 SD) breeding season foraging range of Arctic tern (40.5 km; Woodward et al., 2019), there is potential for non-negligible numbers of individuals which use this SPA to be present within the Zol of this impact (see Section 2.3). Furthermore, Arctic tern fly within the rotor swept altitude range of the development and therefore may be vulnerable to collisions within the array site (Table A-6, Annex A). As such,

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
							a pathway to impact is identified and the potential for LSE cannot be ruled out.
		Changes in prey availability	Array site	In	In	In	As the by sea distance between this SPA and the array site is less than the mean maximum (+ 1 SD) breeding season foraging range of Arctic tern (40.5 km; Woodward et al., 2019), there is potential for non-negligible numbers of individuals which use this SPA to be present within the Zol of this impact (see Section 2.3) and a pathway to impact to this receptor is identified. Therefore, the potential for LSE cannot be ruled out.
			OECC	In	In	In	As the by sea distance between this SPA and the OECC is less than the mean maximum (+ 1 SD) breeding season foraging range of Arctic tern (40.5 km; Woodward et al., 2019), there is potential for non-negligible numbers of individuals which use this SPA to be present within the Zol of this impact (see Section 2.3) and a pathway to impact to this receptor is identified. Therefore, the potential for LSE cannot be ruled out.
			Intertidal cable route landfall	In	In	In	As the by sea distance between this SPA and the intertidal cable route landfall is less than the mean maximum (+ 1 SD) breeding season foraging range of Arctic tern (40.5 km;

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
							Woodward et al., 2019), and Arctic tern were regularly observed within areas of South Dublin Bay during baseline surveys, it is considered that individuals from this SPA may occur within intertidal cable route landfall areas in which temporary changes to prey availability may occur. As such, a pathway to impact to this receptor is identified and the potential for LSE cannot be ruled out.
			Onshore infrastructure	Out	Out	Out	As this SCI does not forage within terrestrial environments, there is considered to be no pathway for activities in this area to result in changes in the availability of prey for this SCI. Therefore, it is considered that there is no potential for LSE in relation to this effect.
		Introduction or spread of invasive species	Array site OECC Intertidal cable route landfall Onshore infrastructure	In	In	In	As mitigation measures to prevent the introduction or spread on INNS are not a requirement of underlying legislation and may be construed as being implemented specifically to address risks in relation to the Habitats Regulations, these measures cannot be applied at the screening phase. In the absence of mitigation measures, introduction or spread of invasive species may occur due to the CWP Project and, therefore, a

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
							pathway to impact on this receptor is identified. Furthermore, as the by sea distance between these SPAs and the project infrastructure is less than the mean maximum (+ 1 SD) breeding season foraging range of common tern (26.9 km; Woodward et al., 2019), there is potential for non-negligible numbers of individuals which use these SPAs to be present within the Zol of this impact (see Section 2.3). As such, the potential for LSE cannot be ruled out.
Guillemot	Ireland's Eye (IE004117) [31.44; 9.0; 9.69], straight line [31.49; 11.09; 12.61], by sea Lambay Island (IE004069) [38.83; 18.27; 18.49], straight line [38.88; 20.22; 21.74], by sea	Direct effects on habitat	Array site	In	In	In	As the by sea distance between these SPAs and the array site is less than the mean maximum (+ 1 SD) breeding season foraging range of guillemot (153.7 km; Woodward et al., 2019), there is potential for non-negligible numbers of individuals which use these SPAs to be present within the Zol of this impact (see Section 2.3) and a pathway to impact to this receptor is identified. Therefore, the potential for LSE cannot be ruled out.
			OECC	Out	Out	Out	As direct effects on habitat to breeding seabird SCIs in offshore areas relate to the occupancy of areas of sea surface by project infrastructure and there will be no above sea infrastructure beyond transient construction vessel traffic within the offshore extent of the

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
	Saltee Island (IE004002) [107.06; 114.1; 133.87], straight line [113.58; 121.73; 149.8], by sea						OECC, there is assessed to be no source of impact. Therefore, it is considered that there is no potential for LSE in relation to this effect.
			Intertidal cable route landfall Onshore infrastructure	Out	Out	Out	Use of intertidal and terrestrial habitats by this marine SCI is minimal and, as such, there is no pathway to impact from direct effects on habitat. Therefore, it is considered that there is no potential for LSE in relation to this effect.
		Disturbance and displacement	Array site OECC	In	In	In	The by sea distance between these SPAs and the array site is less than the mean maximum (+ 1 SD) breeding season foraging range of guillemot (153.7 km; Woodward et al., 2019), and there is potential for non-negligible numbers of individuals which use these SPAs to be present within the ZoI of this impact (see Section 2.3). Guillemot are considered to be sensitive to disturbance and displacement effects from vessel activity and OWF infrastructure (Table A-2, Table A-4 and Table A-5, Annex A). Pathways to disturbance and displacement effects are therefore identified in relation to vessel activity (in the form of indirect habitat loss) and in relation to the presence of OWF

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
							infrastructure (in the form of indirect habitat loss and barrier effects as turbines are erected during the construction phase and are present throughout the operational phase until they are removed during the decommissioning phase). Consequently, the potential for LSE cannot be ruled out.
			Intertidal cable route landfall Onshore infrastructure	Out	Out	Out	Use of intertidal and terrestrial habitats by this marine SCI is minimal and, as such, there is no pathway to impact from disturbance and displacement effects. Therefore, it is considered that there is no potential for LSE in relation to this effect.
		Collision	Array site		Out		Although the sea distance between these SPAs and the array site is less than the mean maximum (+ 1 SD) breeding season foraging range of guillemot (153.7 km; Woodward et al., 2019), and there is potential for non-negligible numbers of individuals which use these SPAs to be present within the Zol of this impact (see Section 2.3), flight activity by guillemot occurs almost exclusively below 20 m (Table A-6, Annex A). Given that the proposed minimum tip height of the CWP Project is 36 m MSL, there is therefore considered to be no pathway to impact from collision effects. As such, it is

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
							considered that there is no potential for LSE in relation to this effect.
		Changes in prey availability	Array site OECC	In	In	In	As the by sea distance between these SPAs and the array site and the OECC is less than the mean maximum (+ 1 SD) breeding season foraging range of guillemot (153.7 km; Woodward et al., 2019), there is potential for non-negligible numbers of individuals which use these SPAs to be present within the ZoI of this impact (see Section 2.3) and a pathway to impact to this receptor is identified. Therefore, the potential for LSE cannot be ruled out.
			Intertidal cable route landfall Onshore infrastructure	Out	Out	Out	As this SCI exclusively utilises offshore marine environments for foraging, there is considered to be no pathway for activities in these areas to result in changes in the availability of prey for this SCI. Therefore, it is considered that there is no potential for LSE in relation to this effect.

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
		Introduction or spread of invasive species	Array site OECC Intertidal cable route landfall Onshore infrastructure	In	In	In	<p>As mitigation measures to prevent the introduction or spread on INNS are not a requirement of underlying legislation and may be construed as being implemented specifically to address risks in relation to the Habitats Regulations, these measures cannot be applied at the screening phase.</p> <p>In the absence of mitigation measures, introduction or spread of invasive species may occur due to the CWP Project and, therefore, a pathway to impact to this receptor is identified. Furthermore, as the by sea distance between these SPAs and the project infrastructure is less than the mean maximum (+ 1 SD) breeding season foraging range of guillemot (153.7 km; Woodward et al., 2019), there is potential for non-negligible numbers of individuals which use these SPAs to be present within the ZOI of this impact (see Section 2.3). As such, the potential for LSE cannot be ruled out.</p>
Razorbill	Ireland's Eye (IE004117) [31.44; 9.0; 9.69], straight line	Direct effects on habitat	Array site	In	In	In	<p>As the by sea distance between these SPAs and the array site is less than the mean maximum (+ 1 SD) breeding season foraging range of razorbill (164.6 km; Woodward et al., 2019), there is potential for non-negligible numbers of individuals which use these SPAs</p>

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
	[31.49; 11.09; 12.61], by sea Lambay Island (IE004069) [38.83; 18.27; 18.49], straight line [38.88; 20.22; 21.74], by sea Saltee Island (IE004002) [107.06; 114.1; 133.87], straight line [113.58; 121.73; 149.8], by sea						to be present within the Zol of this impact (see Section 2.3) and a pathway to impact to this receptor is identified. Therefore, the potential for LSE cannot be ruled out.
			OECC	Out	Out	Out	As direct effects on habitat to breeding seabird SCIs in offshore areas relate to the occupancy of areas of sea surface by project infrastructure and there will be no above sea infrastructure beyond transient construction vessel traffic within the offshore extent of the OECC, there is assessed to be no source of impact. Therefore, it is considered that there is no potential for LSE in relation to this effect.
			Intertidal cable route landfall Onshore infrastructure	Out	Out	Out	Use of intertidal and terrestrial habitats by this marine SCI is minimal and, as such, there is no pathway to impact from direct effects on habitat. Therefore, it is considered that there is no potential for LSE in relation to this effect.
		Disturbance and displacement	Array site OECC	In	In	In	The by sea distance between these SPAs and the array site is less than the mean maximum (+ 1 SD) breeding season foraging range of razorbill (164.6 km; Woodward et al., 2019), and there is potential for non-negligible numbers of individuals which use these SPAs

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
							to be present within the Zol of this impact (see Section 2.3). Razorbill are considered to be sensitive to disturbance and displacement effects from vessel activity and OWF infrastructure (Table A-2, Table A-4 and Table A-5, Annex A). Pathways to disturbance and displacement effects are therefore identified in relation to vessel activity (in the form of indirect habitat loss) and in relation to the presence of OWF infrastructure (in the form of indirect habitat loss and barrier effects as turbines are erected during the construction phase and are present throughout the operational phase until they are removed during the decommissioning phase). Consequently, the potential for LSE cannot be ruled out.
			Intertidal cable route landfall Onshore infrastructure	Out	Out	Out	Use of intertidal and terrestrial habitats by this marine SCI is minimal and, as such, there is no pathway to impact from disturbance and displacement effects. Therefore, it is considered that there is no potential for LSE in relation to this effect.
		Collision	Array site		Out		Although the sea distance between these SPAs and the array site is less than the mean

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
							maximum (+ 1 SD) breeding season foraging range of razorbill (164.6 km; Woodward et al., 2019), and there is potential for non-negligible numbers of individuals which use these SPAs to be present within the Zol of this impact (see Section 2.3), flight activity by razorbill occurs almost exclusively below 20 m (Table A-6, Annex A). Given the proposed minimum tip height of the CWP Project is 36 m MSL, there is therefore considered to be no pathway to impact from collision effects. As such, it is considered that there is no potential for LSE in relation to this effect.
		Changes in prey availability	Array site OECC	In	In	In	As the by sea distance between these SPAs and the array site and the OECC is less than the mean maximum (+ 1 SD) breeding season foraging range of razorbill (164.6 km; Woodward et al., 2019), there is potential for non-negligible numbers of individuals which use these SPAs to be present within the Zol of this impact (see Section 2.3) and a pathway to impact to this receptor is identified. Therefore the potential for LSE cannot be ruled out.
			Intertidal cable route landfall	Out	Out	Out	As this SCI exclusively utilises offshore marine environments for foraging, there is considered to be no pathway for activities in these areas to result in changes in the availability of prey for

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
			Onshore infrastructure				this SCI. Therefore, it is considered that there is no potential for LSE in relation to this effect.
		Introduction or spread of invasive species	Array site OECC Intertidal cable route landfall Onshore infrastructure	In	In	In	<p>As mitigation measures to prevent the introduction or spread on INNS are not a requirement of underlying legislation and may be construed as being implemented specifically to address risks in relation to the Habitats Regulations, these measures cannot be applied at the screening phase.</p> <p>In the absence of mitigation measures, introduction or spread of invasive species may occur due to the CWP Project and, therefore, a pathway to impact to this receptor is identified. Furthermore, as the by sea distance between these SPAs and the project infrastructure is less than the mean maximum (+ 1 SD) breeding season foraging range of razorbill (164.6 km; Woodward et al., 2019), there is potential for non-negligible numbers of individuals which use these SPAs to be present within the Zol of this impact (see Section 2.3). As such, the potential for LSE cannot be ruled out.</p>
Puffin	Lambay Island (IE004069)	Direct effects on habitat	Array site	In	In	In	As the by sea distance between these SPAs and the array site is less than the mean

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
	[38.83; 18.27; 18.49], straight line [38.88; 20.22; 21.74], by sea Saltee Island (IE004002) [107.06; 114.1; 133.87], straight line [113.58; 121.73; 149.8], by sea Skomer, Skokholm and the Seas off Pembrokeshire (Wales) (UK9014051) [137.98; 147.65; 180.81], straight line [138.01; 147.68 ; 181.56], by sea						maximum (+ 1 SD) breeding season foraging range of puffin (265.4 km; Woodward et al., 2019), there is potential for non-negligible numbers of individuals which use these SPAs to be present within the Zol of this impact (see Section 2.3) and a pathway to impact on this receptor is identified. Therefore the potential for LSE cannot be ruled out.
			OECC	Out	Out	Out	As direct effects on habitat to breeding seabird SCIs in offshore areas relate to the occupancy of areas of sea surface by project infrastructure and there will be no above sea infrastructure beyond transient construction vessel traffic within the offshore extent of the OECC, there is assessed to be no source of impact. Therefore, it is considered that there is no potential for LSE in relation to this effect.
			Intertidal cable route landfall Onshore infrastructure	Out	Out	Out	Use of intertidal and terrestrial habitats by this marine SCI is minimal and, as such, there is no pathway to impact from direct effects on habitat. Therefore, it is considered that there is no potential for LSE in relation to this effect.
			Array site OECC	In	In	In	The by sea distance between these SPAs and the array site is less than the mean maximum

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
		Disturbance and displacement					<p>(+ 1 SD) breeding season foraging range of puffin (265.4 km; Woodward et al., 2019), and there is potential for non-negligible numbers of individuals which use these SPAs to be present within the ZOI of this impact (see Section 2.3). Puffin are considered to be sensitive to disturbance and displacement effects from vessel activity and OWF infrastructure (Table A-2 and Table A-5, Annex A). In the absence of information relating specifically to puffin, other auk species, namely guillemot and razorbill, are considered as proxies.</p> <p>Pathways to disturbance and displacement effects are therefore identified in relation to vessel activity (in the form of indirect habitat loss) and in relation to the presence of OWF infrastructure (in the form of indirect habitat loss and barrier effects as turbines are erected during the construction phase and are present throughout the operational phase until they are removed during the decommissioning phase). Consequently, the potential for LSE cannot be ruled out.</p>

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
			Intertidal cable route landfall Onshore infrastructure	Out	Out	Out	Use of intertidal and terrestrial habitats by this marine SCI is minimal and, as such, there is no pathway to impact from disturbance and displacement effects. Therefore, it is considered that there is no potential for LSE in relation to this effect.
		Collision	Array site		Out		Although the sea distance between these SPAs and the array site is less than the mean maximum (+ 1 SD) breeding season foraging range of puffin (265.4 km; Woodward et al., 2019), and there is potential for non-negligible numbers of individuals which use these SPAs to be present within the Zol of this impact (see Section 2.3), flight activity by puffin occurs almost exclusively below 20 m (Table A-6, Annex A). Given that the proposed minimum tip height of the CWP Project is 36 m MSL, there is therefore considered to be no pathway to impact from collision effects. As such, it is considered that there is no potential for LSE in relation to this effect.
		Changes in prey availability	Array site OECC	In	In	In	As the by sea distance between these SPAs and the array site and the OECC is less than the mean maximum (+ 1 SD) breeding season foraging range of puffin (265.4 km; Woodward et al., 2019), there is potential for non-

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
							negligible numbers of individuals which use these SPAs to be present within the Zol of this impact (see Section 2.3) and a pathway to impact on this receptor is identified. Therefore the potential for LSE cannot be ruled out.
			Intertidal cable route landfall Onshore infrastructure	Out	Out	Out	As this SCI exclusively utilises offshore marine environments for foraging, there is considered to be no pathway for activities in these areas to result in changes in the availability of prey for this SCI. Therefore, it is considered that there is no potential for LSE in relation to this effect.
		Introduction or spread of invasive species	Array site OECC Intertidal cable route landfall Onshore infrastructure	In	In	In	As mitigation measures to prevent the introduction or spread on INNS are not a requirement of underlying legislation and may be construed as being implemented specifically to address risks in relation to the Habitats Regulations, these measures cannot be applied at the screening phase. In the absence of mitigation measures, introduction or spread of invasive species may occur due to the CWP Project and, therefore, a pathway to impact on this receptor is identified. Furthermore, as the by sea distance between these SPAs and the project infrastructure is less than the mean maximum (+ 1 SD)

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
							breeding season foraging range of puffin (265.4 km; Woodward et al., 2019), there is potential for non-negligible numbers of individuals which use these SPAs to be present within the Zol of this impact (see Section 2.3). As such, the potential for LSE cannot be ruled out.

3.3.2 Sites designated for non-breeding seabird SCIs

68. SPAs designated for non-breeding seabird SCIs within the Irish Sea region are considered to have potential connectivity to the CWP Project.
69. The CWP OECC passes through South Dublin Bay and River Tolka Estuary SPA, a key Irish east coast designated site for post-breeding tern aggregations. As such, this site and the nearby Dalkey Island SPA are considered in **Table 3-4** separately from all other Irish Sea Region SPAs (**Table 3-5**).

Table 3-4 Project alone screening of Natura 2000 sites designated for post-breeding tern aggregation SCIs (South Dublin Bay and River Tolka Estuary SPA and Dalkey Islands SPA)

Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Relevant SCIs	Potential Impact	Project component	Screened in/out			Reasoning
				C	O&M	D	
South Dublin Bay and River Tolka Estuary SPA [26.22; 0.0; 0.0], straight line [26.22; 0.0; 0.0], by sea Dalkey Islands SPA (IE0004172) [21.12; 0.51; 7.4], straight line [21.12; 0.51; 7.41], by sea	Post-breeding aggregations: Common tern, Arctic tern Roseate tern	Direct effects on habitat	Array site	In	In	In	Given the relative proximity of these SPAs to the array site and the absence of information relating to the foraging range of terns in attendance at the South Dublin Bay post-breeding aggregation, a pathway to impact on this receptor is identified. Therefore, there is potential for non-negligible numbers of individuals which use these SPAs to occur within impacted areas. Consequently, the potential for LSE cannot be ruled out.
			OECC	Out	Out	Out	As direct effects on habitat to non-breeding seabird SCIs in offshore areas relate to the occupancy of areas of sea surface by project infrastructure and there will be no above sea infrastructure beyond transient construction vessel traffic within the offshore extent of the OECC, there is assessed to

Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Relevant SCIs	Potential Impact	Project component	Screened in/out			Reasoning
				C	O&M	D	
							be no source of impact. Therefore, it is considered that there is no potential for LSE in relation to this effect.
			Intertidal cable route landfall	In	In	In	Temporary direct effects on habitat within the intertidal cable route landfall will result from any construction, operational and decommissioning phase activities within this area which involve the excavation of intertidal habitats (such as export cable installation, repair or removal). Such affected habitats lie within the South Dublin Bay and River Tolka Estuary SPA. Post-breeding tern aggregation SCI features of the nearby Dalkey Islands SPA are considered to be linked to post-breeding tern aggregation SCI features of South Dublin Bay and River Tolka Estuary SPA (NPWS, 2015). Consequently, there is the potential for non-negligible numbers of individuals from these SPAs to be present within the Zol of this impact (see Section 2.3) and a pathway to impact to this receptor is identified. Therefore, the potential for LSE cannot be ruled out.
			Onshore infrastructure	Out	Out	Out	Use of terrestrial habitats by these marine SCIs is minimal and, as such, there is no pathway to impact from direct effects on habitat. Therefore, it is considered that there is no potential for LSE in relation to this effect.

Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Relevant SCIs	Potential Impact	Project component	Screened in/out			Reasoning
				C	O&M	D	
		Disturbance and displacement	Array site OECC	Out	Out	Out	<i>Sterna</i> tern species (including common, Arctic and roseate terns) are considered insensitive to disturbance and displacement effects from either vessel activity or from offshore wind farm infrastructure (Table A-2 and Table A-4, Annex A). As such, there is no pathway to impact from disturbance and displacement effects. Therefore, it is considered that there is no potential for LSE in relation to this effect.
			Intertidal cable route landfall	In	In	In	Temporary disturbance and displacement impacts within the intertidal cable route landfall may result from visual and acoustic stimuli associated with construction, operational and decommissioning phase activities within this area. Areas in which these SCIs may be exposed to acoustic and visual stimuli from project activities lie within the South Dublin Bay and River Tolka Estuary SPA. Post-breeding tern aggregation SCI features of the nearby Dalkey Islands SPA are considered to be linked to post-breeding tern aggregation SCI features of South Dublin Bay and River Tolka Estuary SPA (NPWS, 2015). Consequently, there is the potential for non-negligible numbers of individuals from these SPAs to be present within the ZOI of this impact (see Section 2.3). Roosting terns are considered particularly sensitive to disturbance and displacement and a pathway to impact to these

Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Relevant SCIs	Potential Impact	Project component	Screened in/out			Reasoning
				C	O&M	D	
							receptors is identified. Therefore, the potential for LSE cannot be ruled out.
			Onshore infrastructure	In	Out	Out	<p>Temporary disturbance and displacement impacts on post-breeding tern aggregations within intertidal habitats of South Dublin Bay may result from acoustic stimuli associated with construction phase activities within onshore areas on the Poolbeg peninsula, specifically tunnelling and drilling works to connect the export cable landfall with the onshore substation. There is the potential for non-negligible numbers of individuals from these SPAs to be present within the Zol of this impact (see Section 2.3). Roosting terns are considered particularly sensitive to disturbance and displacement and a pathway to impact on these receptors is identified. Therefore, the potential for LSE cannot be ruled out (for construction phase only).</p> <p>During the operation and maintenance and decommissioning phases, no such tunnelling and drilling works are anticipated to occur and no route to impact is identified. Therefore, it is considered that there is no potential for LSE in relation to this effect (for operation and maintenance and decommissioning phases).</p>

Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Relevant SCIs	Potential Impact	Project component	Screened in/out			Reasoning
				C	O&M	D	
		Collision	Array site		In		<p>Given the relative proximity of these SPAs to the array site and the absence of information relating to the foraging range of terns in attendance at the South Dublin Bay post-breeding aggregation, plus the probability that a proportion of the aggregation population may pass through the array site upon dispersal and subsequent migration from the post-breeding aggregation site, it is considered that potentially non-negligible numbers of <i>Sterna</i> tern SCIs (including common, Arctic and roseate terns) from post-breeding aggregations within these SPAs may either utilise or pass through the array site.</p> <p>As <i>Sterna</i> terns fly within the rotor swept altitude range of the CWP Project, a pathway to impact is identified for these receptors to experience collisions within the array site (Table A-6, Annex A). Therefore, the potential for LSE cannot be ruled out.</p>
		Changes in prey availability	Array site OECC	In	In	In	<p>Given the relative proximity of these SPAs to the array site and OECC, and the absence of information relating to the foraging range of terns in attendance at the South Dublin Bay post-breeding aggregation, it is considered that potentially non-negligible numbers of <i>Sterna</i> tern SCIs (including common, Arctic and roseate terns) from post-breeding aggregations within these SPAs may either utilise offshore areas within or surrounding</p>

Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Relevant SCIs	Potential Impact	Project component	Screened in/out			Reasoning
				C	O&M	D	
							the array site and OECC in which potential changes to prey availability may occur. As such, a pathway to impact is identified for these receptors to experience changes in prey availability and the potential for LSE cannot be ruled out.
			Intertidal cable route landfall	In	In	In	Temporary changes in prey availability within the intertidal cable route landfall may result from any construction, operational and decommissioning phase activities within this area which involve the excavation of intertidal habitats (such as export cable installation, repair or removal). Such affected habitats lie within the South Dublin Bay and River Tolka Estuary SPA. Post-breeding tern aggregation SCI features of the nearby Dalkey Islands SPA are considered to be linked to post-breeding tern aggregation SCI features of South Dublin Bay and River Tolka Estuary SPA (NPWS, 2015). Consequently, there is the potential for non-negligible numbers of individuals from these SPAs to be present within the Zol of this impact (see Section 2.3) and a pathway to impact to this receptor is identified. Therefore, the potential for LSE cannot be ruled out.
			Onshore infrastructure	Out	Out	Out	As these SCIs do not forage within terrestrial environments, there is considered to be no pathway for activities in this area to result in changes in the availability of prey for these SCIs. Therefore, it is

Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Relevant SCIs	Potential Impact	Project component	Screened in/out			Reasoning
				C	O&M	D	
							considered that there is no potential for LSE in relation to this effect.
		Introduction or spread of invasive species	Array site OECC Intertidal cable route landfall Onshore infrastructure	In	In	In	<p>As mitigation measures to prevent the introduction or spread on INNS are not a requirement of underlying legislation and may be construed as being implemented specifically to address risks in relation to the Habitats Regulations, these measures cannot be applied at the screening phase.</p> <p>In the absence of mitigation measures, introduction or spread of invasive species may occur due to the CWP Project and, therefore, a pathway to impact to this receptor is identified. Furthermore, there is potential for non-negligible numbers of individuals which use these SPAs to be present within the Zol of this impact (see Section 2.3). As such, the potential for LSE cannot be ruled out.</p>

Table 3-5 Project alone screening of Natura 2000 sites designated for non-breeding seabird SCIs (Irish Sea Region SPAs, excluding consideration of post breeding tern aggregation SCIs)

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential Effect	Project component	Screened in/out			Reasoning
				C	O&M	D	
Red-throated diver	The Murrrough (IE0004186) [7.5; 0.0; 22.87], straight line [7.51; 0.0; 23.77], by sea	Direct effects on habitat	Array site	In	In	In	On the assumption that individuals from SPAs within the ZoI of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, there is potential for individuals which use these SPAs to be present within areas in which direct effects on habitat may occur and a pathway to impact to this receptor is identified. Therefore, the potential for LSE cannot be ruled out.
	The Raven (IE0004019) [70.52; 78.09; 100.19], straight line [70.59; 78.32; 106.32], by sea Dundalk Bay (IE004026) [83.99; 58.14; 58.14], straight line		OECC Intertidal cable route landfall	Out	Out	Out	As direct effects on habitat to non-breeding seabird SCIs in offshore areas relate to the occupancy of areas of sea surface by project infrastructure and there will be no above sea infrastructure beyond transient construction vessel traffic within the offshore extent of the OECC, there is assessed to be no source of impact. Therefore, it is considered that there is no potential for LSE in relation to this effect.

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential Effect	Project component	Screened in/out			Reasoning
				C	O&M	D	
	[84.12; 64.45; 65.97], by sea Liverpool Bay		Onshore infrastructure	Out	Out	Out	Use of terrestrial habitats by this marine SCI is minimal and, as such, there is no pathway to impact from direct effects on habitat. Therefore, it is considered that there is no potential for LSE in relation to this effect.

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential Effect	Project component	Screened in/out			Reasoning
				C	O&M	D	
	<p>(England) (UK9020294) [100.93; 108.96, 125.48], straight line [102.73; 110.45; 125.82], by sea</p> <p>Liverpool Bay / Bae Lerpwl (Wales) (UK9020294) [100.93; 108.96; 125.48], straight line [102.73; 110.45; 125.82], by sea</p> <p>Solway Firth (Scotland) (UK9005012)</p>	Disturbance and displacement	Array site OECC	In	In	In	<p>On the assumption that individuals from SPAs within the ZoI of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, there is potential for individuals which use these SPAs to be present within areas in which disturbance and displacement impacts may occur. Red-throated diver is considered to be highly sensitive to disturbance and displacement effects from vessel activity and OWF infrastructure (Table A-2 and Table A-4, Annex A).</p> <p>Pathways to disturbance and displacement effects are therefore identified in relation to vessel activity (in the form of indirect habitat loss) and in relation to the presence of OWF infrastructure (in the form of indirect habitat loss and barrier effects as turbines are erected during the construction phase and are present throughout the operational phase until they are removed during the decommissioning phase). Consequently, the potential for LSE cannot be ruled out.</p>

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential Effect	Project component	Screened in/out			Reasoning
				C	O&M	D	
	<p>[201.12; 195.8;196.28], straight line</p> <p>[202.17; 198.0; 199.52], by sea</p> <p>Solway Firth (England) (UK9005012)</p> <p>[201.12; 195.8; 196.28], straight line</p> <p>[202.17; 198.0; 199.52], by sea</p>		Intertidal cable route landfall	In	In	In	On the assumption that individuals from SPAs within the ZoI of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, and red-throated diver were regularly observed within the intertidal habitats of South Dublin Bay during baseline surveys, there is potential for non-negligible numbers of individuals which use these SPAs to be present within intertidal areas in which disturbance and displacement impacts may occur. As such, a pathway to impact to this receptor is identified and the potential for LSE cannot be ruled out.
			Onshore infrastructure	Out	Out	Out	Use of terrestrial habitats by this marine SCI is minimal and, as such, there is no pathway to impact from disturbance and displacement effects. Therefore, it is considered that there is no potential for LSE in relation to this effect.

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential Effect	Project component	Screened in/out			Reasoning
				C	O&M	D	
		Collision	Array site		In		On the assumption that individuals from SPAs within the ZoI of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, there is potential for individuals which use these SPAs to pass through the operational array site and thereby experience risk of collision with turbines. Furthermore, red-throated diver fly within the rotor swept altitude range of the development and therefore may be vulnerable to collisions within the array site (Table A-6, Annex A). As such, a pathway to impact is identified and the potential for LSE cannot be ruled out.
		Changes in prey availability	Array site OECC	In	In	In	On the assumption that individuals from SPAs within the ZoI of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, there is potential for individuals which use these SPAs to be present within areas in which changes in prey availability impacts may occur and a pathway to impact to this receptor is identified. Therefore the potential for LSE cannot be ruled out.

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential Effect	Project component	Screened in/out			Reasoning
				C	O&M	D	
			Intertidal cable route landfall	In	In	In	On the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, and red-throated diver were regularly observed within the intertidal habitats of South Dublin Bay during baseline surveys, there is potential for non-negligible numbers of individuals which use these SPAs to be present within intertidal areas in which changes to prey availability impacts may occur. As such, a pathway to impact to this receptor is identified and the potential for LSE cannot be ruled out.
			Onshore infrastructure	Out	Out	Out	As this SCI exclusively utilises offshore marine environments for foraging, there is considered to be no pathway for activities in these areas to result in changes in the availability of prey for this SCI. Therefore, it is considered that there is no potential for LSE in relation to this effect.
		Introduction or spread of invasive species	Array site OECC Intertidal cable route landfall	In	In	In	As mitigation measures to prevent the introduction or spread on INNS are not a requirement of underlying legislation and may be construed as being implemented specifically to address risks in relation to the Habitats Regulations, these measures cannot be applied at the screening phase.

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential Effect	Project component	Screened in/out			Reasoning
				C	O&M	D	
			Onshore infrastructure				In the absence of mitigation measures, introduction or spread of invasive species may occur due to the CWP Project and, therefore, a pathway to impact to this receptor is identified. Furthermore, on the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, there is potential for individuals which use these SPAs to be present within areas in which introduction or spread of invasive species impacts may occur. As such, the potential for LSE cannot be ruled out.
Common scoter	The Raven (IE0004019) [70.52; 78.09; 100.19], straight line [70.59; 78.32; 106.32], by sea	Direct effects on habitat	Array site	In	In	In	On the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, there is potential for individuals which use these SPAs to be present within areas in which direct effects on habitat may occur and a pathway to impact to this receptor is identified. Therefore the potential for LSE cannot be ruled out.

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential Effect	Project component	Screened in/out			Reasoning
				C	O&M	D	
	Dundalk Bay (IE004026) [83.99; 58.14; 58.14], straight line [84.12; 64.45; 65.97], by sea		OECC Intertidal cable route landfall	Out	Out	Out	As direct effects on habitat to non-breeding seabird SCIs in offshore areas relate to the occupancy of areas of sea surface by project infrastructure and there will be no above sea infrastructure beyond transient construction vessel traffic within the offshore extent of the OECC, there is assessed to be no source of impact. Therefore, it is considered that there is no potential for LSE in relation to this effect.
	Liverpool Bay (England) (UK9020294) [100.93; 108.96, 125.48], straight line [102.73; 110.45; 125.82], by sea		Onshore infrastructure	Out	Out	Out	Use of terrestrial habitats by this marine SCI is minimal and, as such, there is no pathway to impact from direct effects on habitat. Therefore, it is considered that there is no potential for LSE in relation to this effect.
	Liverpool Bay / Bae Lerpwl (Wales) (UK9020294) [100.93; 108.96; 125.48], straight line [102.73; 110.45; 125.82], by sea	Disturbance and displacement	Array site OECC	In	In	In	Common scoter is considered to be highly sensitive to disturbance and displacement effects from either vessel activity (during construction, operational maintenance or decommissioning) or from operational offshore infrastructure (Table A-2 and Table A-4, Annex A). The potential for LSE in relation to this effect pathway cannot be excluded for this SCI of this SPA.

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential Effect	Project component	Screened in/out			Reasoning
				C	O&M	D	
	<p>Solway Firth (Scotland) (UK9005012)</p> <p>[201.12; 195.8;196.28], straight line</p> <p>[202.17; 198.0; 199.52], by sea</p> <p>Solway Firth (England) (UK9005012)</p> <p>[201.12; 195.8; 196.28], straight line</p> <p>[202.17; 198.0; 199.52], by sea</p>		Intertidal cable route landfall	In	In	In	On the assumption that individuals from SPAs within the ZoI of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, and common scoter were regularly observed within the intertidal habitats of South Dublin Bay during baseline surveys, there is potential for non-negligible numbers of individuals which use these SPAs to be present within intertidal areas in which disturbance and displacement impacts may occur. As such, a pathway to impact to this receptor is identified and the potential for LSE cannot be ruled out.
			Onshore infrastructure	Out	Out	Out	Use of terrestrial habitats by this marine SCI is minimal and, as such, there is no pathway to impact from disturbance and displacement effects. Therefore, it is considered that there is no potential for LSE in relation to this effect.
		Collision	Array site		In		On the assumption that individuals from SPAs within the ZoI of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, there is potential for individuals which use these SPAs to pass through the operational array site and thereby experience risk of collision with turbines. Furthermore, common scoter fly within the rotor

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential Effect	Project component	Screened in/out			Reasoning
				C	O&M	D	
							swept altitude range of the development and therefore may be vulnerable to collisions within the array site (Table A-6, Annex A). As such, a pathway to impact is identified and the potential for LSE cannot be ruled out.
		Changes in prey availability	Array site OECC	In	In	In	On the assumption that individuals from SPAs within the ZoI of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, there is potential for individuals which use these SPAs to be present within areas in which changes in prey availability impacts may occur and a pathway to impact to this receptor is identified. Therefore the potential for LSE cannot be ruled out.
			Intertidal cable route landfall	In	In	In	On the assumption that individuals from SPAs within the ZoI of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, and common scoter were regularly observed within the intertidal habitats of South Dublin Bay during baseline surveys, there is potential for non-negligible numbers of individuals which use these SPAs to be present within intertidal areas in which changes to prey availability impacts may occur. As such, a pathway to impact to this receptor

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential Effect	Project component	Screened in/out			Reasoning
				C	O&M	D	
							is identified and the potential for LSE cannot be ruled out.
			Onshore infrastructure	Out	Out	Out	As this SCI exclusively utilises offshore marine environments for foraging, there is considered to be no pathway for activities in these areas to result in changes in the availability of prey for this SCI. Therefore, it is considered that there is no potential for LSE in relation to this effect.
		Introduction or spread of invasive species	Array site OECC Intertidal cable route landfall Onshore infrastructure	In	In	In	As mitigation measures to prevent the introduction or spread on INNS are not a requirement of underlying legislation and may be construed as being implemented specifically to address risks in relation to the Habitats Regulations, these measures cannot be applied at the screening phase. In the absence of mitigation measures, introduction or spread of invasive species may occur due to the CWP Project and, therefore, a pathway to impact on this receptor is identified. Furthermore, on the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, there is potential for individuals which use these SPAs to be present within areas in which introduction

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential Effect	Project component	Screened in/out			Reasoning
				C	O&M	D	
							or spread of invasive species impacts may occur. As such, the potential for LSE cannot be ruled out.
Cormorant	The Raven (IE0004019) [70.52; 78.09; 100.19], straight line [70.59; 78.32; 106.32], by sea	Direct effects on habitat	Array site	In	In	In	On the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, there is potential for individuals which use these SPAs to be present within areas in which direct effects on habitat may occur and a pathway to impact to this receptor is identified. Therefore, the potential for LSE cannot be ruled out.
	Wexford Harbour and Slobs (IE0004076) [74.82; 79.7; 96.48], straight line [82.01; 89.77; 117.75], by sea		OECC	Out	Out	Out	As direct effects on habitat of non-breeding seabird SCIs in offshore areas relate to the occupancy of areas of sea surface by project infrastructure and there will be no above sea infrastructure beyond transient construction vessel traffic within the offshore extent of the OECC, there is assessed to be no source of impact. Therefore, it is considered that there is no potential for LSE in relation to this effect.
	Solway Firth (Scotland) (UK9005012)		Intertidal cable route landfall	In	In	In	On the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, and cormorant were regularly

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential Effect	Project component	Screened in/out			Reasoning
				C	O&M	D	
	<p>[201.12; 195.8;196.28], straight line</p> <p>[202.17; 198.0; 199.52], by sea</p> <p>Solway Firth (England) (UK9005012)</p> <p>[201.12; 195.8; 196.28], straight line</p> <p>[202.17; 198.0; 199.52], by sea</p>						observed within the intertidal habitats of South Dublin Bay during baseline surveys, there is potential for non-negligible numbers of individuals which use these SPAs to be present within intertidal areas in which direct effects to habitat may occur. As such, a pathway to impact to this receptor is identified and the potential for LSE cannot be ruled out.
			Onshore infrastructure	Out	Out	Out	Direct effects on habitat from the footprint of onshore infrastructure within the industrialised Pigeon Park area, south of the Liffey channel, do not coincide with any areas of important terrestrial habitat used by this SCI. As such, no pathway to impact is identified and it is considered that there is no potential for LSE in relation to this effect.
		Disturbance and displacement	Array site OECC	In	In	In	On the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, there is potential for individuals which use these SPAs to be present within areas in which disturbance and displacement impacts may occur. Cormorant is considered to be sensitive to disturbance by vessel activity, but insensitive to displacement from OWF infrastructure.

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential Effect	Project component	Screened in/out			Reasoning
				C	O&M	D	
							Although there is no pathway to impact from disturbance and displacement effects in relation to OWF infrastructure (either in the form of indirect habitat loss or barrier effects), a pathway to disturbance and displacement effects in relation to vessel activity is identified. Therefore, the potential for LSE cannot be ruled out.
			Intertidal cable route landfall	In	In	In	On the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, and cormorant were regularly observed within the intertidal habitats of South Dublin Bay during baseline surveys, there is potential for non-negligible numbers of individuals which use these SPAs to be present within intertidal areas in which disturbance and displacement impacts may occur. As such, a pathway to impact to this receptor is identified and the potential for LSE cannot be ruled out.
			Onshore infrastructure	Out	Out	Out	Direct effects on habitat from the footprint of onshore infrastructure within the industrialised Pigeon Park area, south of the Liffey channel, does not coincide with any areas of important terrestrial habitat used by this SCI. As such, no pathway to

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential Effect	Project component	Screened in/out			Reasoning
				C	O&M	D	
							impact is identified and it is considered that there is no potential for LSE in relation to this effect.
		Collision	Array site		In		On the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, there is potential for individuals which use these SPAs to pass through the operational array site and thereby experience risk of collision with turbines. Furthermore, cormorant fly within the rotor swept altitude range of the development and therefore may be vulnerable to collisions within the array site (Table A-6, Annex A). As such, a pathway to impact is identified and the potential for LSE cannot be ruled out.
		Changes in prey availability	Array site OECC	In	In	In	On the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, there is potential for individuals which use these SPAs to be present within areas in which changes in prey availability impacts may occur and a pathway to impact to this receptor is identified. Therefore, the potential for LSE cannot be ruled out.

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential Effect	Project component	Screened in/out			Reasoning
				C	O&M	D	
			Intertidal cable route landfall	In	In	In	On the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, and cormorant were regularly observed within the intertidal habitats of South Dublin Bay during baseline surveys, there is potential for non-negligible numbers of individuals which use these SPAs to be present within intertidal areas in which changes to prey availability impacts may occur. As such, a pathway to impact on this receptor is identified and the potential for LSE cannot be ruled out.
			Onshore infrastructure	Out	Out	Out	As this SCI exclusively utilises offshore marine environments for foraging, there is considered to be no pathway for activities in these areas to result in changes in the availability of prey for this SCI. Therefore, it is considered that there is no potential for LSE in relation to this effect.
		Introduction or spread of invasive species	Array site OECC Intertidal cable route landfall	In	In	In	As mitigation measures to prevent the introduction or spread on INNS are not a requirement of underlying legislation and may be construed as being implemented specifically to address risks in relation to the Habitats Regulations, these measures cannot be applied at the screening phase.

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential Effect	Project component	Screened in/out			Reasoning
				C	O&M	D	
			Onshore infrastructure				In the absence of mitigation measures, introduction or spread of invasive species may occur due to the CWP Project and, therefore, a pathway to impact to this receptor is identified. Furthermore, on the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, there is potential for individuals which use these SPAs to be present within areas in which introduction or spread of invasive species impacts may occur. As such, the potential for LSE cannot be ruled out.
Black-headed gull	The Murrough (IE0004186) [7.5; 0.0; 22.87], straight line [7.51; 0.0; 23.77], by sea South Dublin Bay and River Tolka Estuary [26.2; 0.0; 0.0], straight line	Direct effects on habitat	Array site	In	In	In	On the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, there is potential for individuals which use these SPAs to be present within areas in which direct effects on habitat may occur and a pathway to impact to this receptor is identified. Therefore the potential for LSE cannot be ruled out.
			OECC	Out	Out	Out	As direct effects on habitat of non-breeding seabird SCIs in offshore areas relate to the occupancy of areas of sea surface by project infrastructure and there will be no above sea infrastructure beyond

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential Effect	Project component	Screened in/out			Reasoning
				C	O&M	D	
	[26.22; 0.0; 0.0], by sea						transient construction vessel traffic within the offshore extent of the OECC, there is assessed to be no source of impact. Therefore, it is considered that there is no potential for LSE in relation to this effect.
	North Bull Island (IE0004006) [28.72; 1.27; 1.46], straight line [28.88; 1.29; 1.47], by sea		Intertidal cable route landfall	In	In	In	On the assumption that individuals from SPAs within the ZoI of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, and black-headed gull were regularly observed within the intertidal habitats of South Dublin Bay during baseline surveys, there is potential for non-negligible numbers of individuals which use these SPAs to be present within intertidal areas in which direct effects to habitat may occur. As such, a pathway to impact to this receptor is identified and the potential for LSE cannot be ruled out.
	Wexford Harbour and Slob (IE0004076) [74.82; 79.7; 96.48], straight line [82.01; 89.77; 117.75], by sea		Onshore infrastructure	Out	Out	Out	Direct effects on habitat from the footprint of onshore infrastructure within the industrialised Pigeon Park area, south of the Liffey channel, do not coincide with any areas of important terrestrial habitat used by this SCI. As such, no pathway to impact is identified and it is considered that there is no potential for LSE in relation to this effect.
	Dundalk Bay (IE004026) [83.99; 58.14; 58.14], straight line						

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential Effect	Project component	Screened in/out			Reasoning
				C	O&M	D	
	<p>[84.12; 64.45; 65.97], by sea</p> <p>Lady's Island Lake (IE0004009)</p> <p>[94.51; 102.39; 124.22], straight line</p> <p>[96.28; 104.43; 132.5], by sea</p> <p>Solway Firth (Scotland) (UK9005012)</p> <p>[201.12; 195.8; 196.28], straight line</p> <p>[202.17; 198.0; 199.52], by sea</p>	Disturbance and displacement	Array site OECC	Out	Out	Out	Although individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods and there is potential for individuals which use these SPAs to be present within areas in which disturbance and displacement impacts may occur, black-headed gull are considered to be insensitive to disturbance and displacement effects from either vessel activity or from OWF infrastructure (Table A-2 and Table A-4, Annex A). As such, there is no pathway to impact from disturbance and displacement effects. Therefore, it is considered that there is no potential for LSE in relation to this effect.
			Intertidal cable route landfall	In	In	In	On the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, and black-headed gull were regularly observed within the intertidal habitats of South Dublin Bay during baseline surveys, there is potential for non-negligible numbers of individuals which use these SPAs to be present within intertidal areas in which disturbance and displacement impacts may occur. As such, a pathway to impact on this receptor

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential Effect	Project component	Screened in/out			Reasoning
				C	O&M	D	
Solway Firth (England) (UK9005012) [201.12; 195.8; 196.28], straight line [202.17; 198.0; 199.52], by sea							is identified and the potential for LSE cannot be ruled out.
			Onshore infrastructure	Out	Out	Out	Direct effects on habitat from the footprint of onshore infrastructure within the industrialised Pigeon Park area, south of the Liffey channel, do not coincide with any areas of important terrestrial habitat used by this SCI. As such, no pathway to impact is identified and it is considered that there is no potential for LSE in relation to this effect.
		Collision	Array site		In		On the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, there is potential for individuals which use these SPAs to pass through the operational array site and thereby experience risk of collision with turbines. Furthermore, black-headed gull fly within the rotor swept altitude range of the development and therefore may be vulnerable to collisions within the array site (Table A-6, Annex A). As such, a pathway to impact is identified and the potential for LSE cannot be ruled out.
			Array site OECC	In	In	In	On the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential Effect	Project component	Screened in/out			Reasoning
				C	O&M	D	
		Changes in prey availability					breeding periods, there is potential for individuals which use these SPAs to be present within areas in which changes in prey availability impacts may occur and a pathway to impact to this receptor is identified. Therefore, the potential for LSE cannot be ruled out.
			Intertidal cable route landfall	In	In	In	On the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, and black-headed gull were regularly observed within the intertidal habitats of South Dublin Bay during baseline surveys, there is potential for non-negligible numbers of individuals which use these SPAs to be present within intertidal areas in which changes to prey availability impacts may occur. As such, a pathway to impact to this receptor is identified and the potential for LSE cannot be ruled out.
			Onshore infrastructure	Out	Out	Out	Direct effects on habitat from the footprint of onshore infrastructure within the industrialised Pigeon Park area, south of the Liffey channel, do not coincide with any areas of important terrestrial habitat used by this SCI. As such, no pathway to impact is identified and it is considered that there is no potential for LSE in relation to this effect.

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential Effect	Project component	Screened in/out			Reasoning
				C	O&M	D	
		Introduction or spread of invasive species	Array site OECC Intertidal cable route landfall Onshore infrastructure	In	In	In	<p>As mitigation measures to prevent the introduction or spread on INNS are not a requirement of underlying legislation and may be construed as being implemented specifically to address risks in relation to the Habitats Regulations, these measures cannot be applied at the screening phase.</p> <p>In the absence of mitigation measures, introduction or spread of invasive species may occur due to the CWP Project and, therefore, a pathway to impact to this receptor is identified. Furthermore, on the assumption that individuals from SPAs within the ZoI of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, there is potential for individuals which use these SPAs to be present within areas in which introduction or spread of invasive species impacts may occur. As such, the potential for LSE cannot be ruled out.</p>
Red-breasted merganser	Malahide Estuary (IE004025) [37.92; 11.83; 11.83], straight line	Direct effects on habitat	Array site	Out	Out	Out	<p>As red breasted merganser were recorded only once within the array site during baseline surveys (one individual in flight), any use of habitats within the array site by this receptor is considered negligible. As such, no pathway to impact from direct effects on habitat is identified and it is</p>

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential Effect	Project component	Screened in/out			Reasoning
				C	O&M	D	
	[38.19; 17.77; 19.3], by sea						considered that there is no potential for LSE in relation to this effect.
	Wexford Harbour and Slob (IE0004076) [74.82; 79.7; 96.48], straight line [82.01; 89.77; 117.75], by sea		OECC Intertidal cable route landfall	Out	Out	Out	As direct effects on habitat to non-breeding seabird SCIs in offshore areas relate to the occupancy of areas of sea surface by project infrastructure and there will be no above sea infrastructure beyond transient construction vessel traffic within the offshore extent of the OECC, there is assessed to be no source of impact. Therefore, it is considered that there is no potential for LSE in relation to this effect.
	Dundalk Bay (IE004026) [83.99; 58.14; 58.14], straight line [84.12; 64.45; 65.97], by sea		Onshore infrastructure	Out	Out	Out	Use of terrestrial habitats by this marine SCI is minimal and, as such, there is no pathway to impact from direct effects on habitat. Therefore, it is considered that there is no potential for LSE in relation to this effect.
	Traeth Lafan / Lavan Sands, Conway Bay (Wales) (UK9013031)	Disturbance and displacement	Array site	Out	Out	Out	As red-breasted merganser were recorded only once within the array site or surrounding 2 km buffer area during baseline surveys (one individual in flight), any use of habitats within the array site or surrounding areas, or passage through such areas, by this receptor is considered negligible. As such, no pathway to impact from disturbance and displacement is identified and it is considered that

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential Effect	Project component	Screened in/out			Reasoning
				C	O&M	D	
	[107.88; 116.21; 137.21], straight line [112.59; 120.6; 144.74], by sea						there is no potential for LSE in relation to this effect.
			OECC	Out	Out	Out	As no red-breasted merganser were identified in offshore waters during breeding or non-breeding seasons in ObSERVE surveys undertaken down the Irish east coast in 2016 (Jessopp et al., 2018), supported by a similar lack of observations from site-specific baseline surveys of the array site and surrounding buffers (during which only one individual was observed), it is concluded that any use of habitats within the OECC or surrounding areas, or passage through such areas, by this receptor is negligible. As such, no pathway to impact from disturbance and displacement is identified and it is considered that there is no potential for LSE in relation to this effect.
			Intertidal cable route landfall	In	In	In	On the assumption that individuals from SPAs within the ZoI of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, and red-breasted merganser were regularly observed within the intertidal habitats of South Dublin Bay during baseline surveys, there is potential for non-negligible numbers of individuals which use these SPAs to be present within intertidal

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential Effect	Project component	Screened in/out			Reasoning
				C	O&M	D	
							areas in which disturbance and displacement impacts may occur. As such, a pathway to impact to this receptor is identified and the potential for LSE cannot be ruled out.
			Onshore infrastructure	Out	Out	Out	Use of terrestrial habitats by this marine SCI is minimal and, as such, there is no pathway to impact from disturbance and displacement effects. Therefore, it is considered that there is no potential for LSE in relation to this effect.
		Collision	Array site		Out		As red breasted merganser were recorded only once within the array site during baseline surveys (one individual in flight), levels of passage through the array site by this receptor are considered negligible. As such, there is no pathway to impact from collision impacts. Therefore, it is considered that there is no potential for LSE in relation to this effect.
		Changes in prey availability	Array site OECC	Out	Out	Out	As red-breasted merganser were only once recorded within the array site and surrounding areas during baseline ornithological surveys and as this species was also not recorded within the wider OECC area during breeding or non-breeding seasons in ObSERVE surveys undertaken down the Irish east coast in 2016 (Jessopp et al., 2018), it is concluded that the use of habitats within the array

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential Effect	Project component	Screened in/out			Reasoning
				C	O&M	D	
							<p>site, OECC or surrounding areas, by this receptor is negligible.</p> <p>As such, no pathway to impact from changes in prey availability impacts is identified and it is considered that there is no potential for LSE in relation to this effect.</p> <p>Note that, for impacts associated with the array site, factors contributing to potential changes in prey availability (such as increased SSCs or TTS effects) may theoretically extend beyond the array site and 4 km buffer covered by baseline ornithological surveys. Therefore, the absence of records of a seabird species from these baseline datasets cannot be used to evidence there not being an impact pathway, as the species may utilise impacted areas beyond the extent of baseline surveys.</p> <p>Consequently, on the assumption that individuals from SPAs within the ZoI of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, there is potential for individuals which use these SPAs to be present within areas around the array site, or within or around the OECC, in which changes in prey availability impacts may occur.</p>

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential Effect	Project component	Screened in/out			Reasoning
				C	O&M	D	
							A pathway to impact to this receptor is identified and therefore the potential for LSE cannot be ruled out.
			Intertidal cable route landfall	In	In	In	On the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, and red-breasted merganser were regularly observed within the intertidal habitats of South Dublin Bay during baseline surveys, there is potential for non-negligible numbers of individuals which use these SPAs to be present within intertidal areas in which changes to prey availability impacts may occur. As such, a pathway to impact on this receptor is identified and the potential for LSE cannot be ruled out.
			Onshore infrastructure	Out	Out	Out	As this SCI exclusively utilises offshore marine environments for foraging, there is considered to be no pathway for activities in these areas to result in changes in the availability of prey for this SCI. Therefore, it is considered that there is no potential for LSE in relation to this effect.

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential Effect	Project component	Screened in/out			Reasoning
				C	O&M	D	
		Introduction or spread of invasive species	Array site OECC Intertidal cable route landfall Onshore infrastructure	In	In	In	<p>As mitigation measures to prevent the introduction or spread on INNS are not a requirement of underlying legislation and may be construed as being implemented specifically to address risks in relation to the Habitats Regulations, these measures cannot be applied at the screening phase.</p> <p>In the absence of mitigation measures, introduction or spread of invasive species may occur due to the CWP Project and, therefore, a pathway to impact to this receptor is identified. Furthermore, on the assumption that individuals from SPAs within the ZoI of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, there is potential for individuals which use these SPAs to be present within areas in which introduction or spread of invasive species impacts may occur. As such, the potential for LSE cannot be ruled out.</p>
Goldeneye	Malahide Estuary (IE004025) [37.92; 11.83; 11.83], straight line [38.19; 17.77; 19.3], by sea	Direct effects on habitat	Array site	Out	Out	Out	<p>As goldeneye were not recorded within the array site during baseline surveys, any use of habitats within the array site by this receptor is considered negligible. As such, no pathway to impact from direct effects on habitat is identified and it is considered that there is no potential for LSE in relation to this effect.</p>

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential Effect	Project component	Screened in/out			Reasoning
				C	O&M	D	
	Wexford Harbour and Slobs (IE0004076) [74.82; 79.7; 96.48], straight line [82.01; 89.77; 117.75], by sea		OECC Intertidal cable route landfall	Out	Out	Out	As direct effects on habitat to non-breeding seabird SCIs in offshore areas relate to the occupancy of areas of sea surface by project infrastructure and there will be no above sea infrastructure beyond transient construction vessel traffic within the offshore extent of the OECC, there is assessed to be no source of impact. Therefore, it is considered that there is no potential for LSE in relation to this effect.
			Onshore infrastructure	Out	Out	Out	Use of terrestrial habitats by this marine SCI is minimal and, as such, there is no pathway to impact from direct effects on habitat. Therefore, it is considered that there is no potential for LSE in relation to this effect.
	Solway Firth (Scotland) (UK9005012) [201.12; 195.8; 196.28], straight line [202.17; 198.0; 199.52], by sea	Disturbance and displacement	Array site	Out	Out	Out	As goldeneye were not recorded within the array site or surrounding 2 km buffer area during baseline surveys, any use of habitats within the array site or surrounding areas, or passage through such areas, by this receptor is considered negligible. As such, no pathway to impact from disturbance and displacement is identified and it is considered that there is no potential for LSE in relation to this effect.

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential Effect	Project component	Screened in/out			Reasoning
				C	O&M	D	
			OECC	Out	Out	Out	As no goldeneye were identified in offshore waters down the Irish east coast during breeding or non-breeding seasons in ObSERVE surveys undertaken down the Irish east coast in 2016 (Jessopp et al., 2018), supported by a similar lack of observations from site-specific baseline surveys of the array site and surrounding buffers, it is concluded that any use of habitats within the OECC or surrounding areas, or passage through such areas, by this receptor is considered negligible. As such, no pathway to impact from disturbance and displacement is identified and it is considered that there is no potential for LSE in relation to this effect.
			Intertidal cable route landfall	In	In	In	On the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, and goldeneye were occasionally observed within the intertidal habitats of South Dublin Bay during baseline surveys, there is potential for non-negligible numbers of individuals which use these SPAs to be present within intertidal areas in which disturbance and displacement impacts may occur. As such, a pathway to impact to

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential Effect	Project component	Screened in/out			Reasoning
				C	O&M	D	
							this receptor is identified and the potential for LSE cannot be ruled out.
			Onshore infrastructure	Out	Out	Out	Use of terrestrial habitats by this marine SCI is minimal and, as such, there is no pathway to impact from disturbance and displacement effects. Therefore, it is considered that there is no potential for LSE in relation to this effect.
		Collision	Array site		Out		As goldeneye were not recorded within the array site during baseline surveys, levels of passage through the array site by this receptor are considered negligible. As such, there is no pathway to impact from collision impacts. Therefore, it is considered that there is no potential for LSE in relation to this effect.
		Changes in prey availability	Array site OECC	Out	Out	Out	As goldeneye were not recorded within the array site or surrounding areas during baseline ornithological surveys and as this species was also not recorded within the wider OECC area during breeding or non-breeding seasons in ObSERVE surveys undertaken down the Irish east coast in 2016 (Jessopp et al., 2018), it is concluded that the use of habitats within the array site, OECC or surrounding areas, by this receptor is negligible. As such, no pathway to impact from changes in prey availability impacts are identified and it is

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential Effect	Project component	Screened in/out			Reasoning
				C	O&M	D	
							considered that there is no potential for LSE in relation to this effect.
			Intertidal cable route landfall	In	In	In	On the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, and goldeneye were occasionally observed within the intertidal habitats of South Dublin Bay during baseline surveys, there is potential for non-negligible numbers of individuals which use these SPAs to be present within intertidal areas in which changes to prey availability impacts may occur. As such, a pathway to impact to this receptor is identified and the potential for LSE cannot be ruled out.
			Onshore infrastructure	Out	Out	Out	As this SCI exclusively utilises offshore marine environments for foraging, there is considered to be no pathway for activities in these areas to result in changes in the availability of prey for this SCI. Therefore, it is considered that there is no potential for LSE in relation to this effect.
		Introduction or spread of invasive species	Array site OECC	In	In	In	As mitigation measures to prevent the introduction or spread on INNS are not a requirement of underlying legislation and may be construed as being implemented specifically to address risks in relation

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential Effect	Project component	Screened in/out			Reasoning
				C	O&M	D	
			Intertidal cable route landfall Onshore infrastructure				to the Habitats Regulations, these measures cannot be applied at the screening phase. In the absence of mitigation measures, introduction or spread of invasive species may occur due to the CWP Project and, therefore, a pathway to impact to this receptor is identified. Furthermore, on the assumption that individuals from SPAs within the ZoI of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, there is potential for individuals which use these SPAs to be present within areas in which introduction or spread of invasive species impacts may occur. As such, the potential for LSE cannot be ruled out.
Herring gull	The Murrough (IE0004186) [7.5; 0.0; 22.87], straight line Lambay Island (IE004069) [38.83; 18.27; 18.49], straight line	Direct effects on habitat	Array site	In	In	In	On the assumption that individuals from SPAs within the ZoI of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, there is potential for individuals which use these SPAs to be present within areas in which direct effects on habitat may occur and a pathway to impact to this receptor is identified. Therefore the potential for LSE cannot be ruled out.
			OECC	Out	Out	Out	As direct effects on habitat of non-breeding seabird SCIs in offshore areas relate to the occupancy of

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential Effect	Project component	Screened in/out			Reasoning
				C	O&M	D	
	[38.88; 20.22; 21.74], by sea Skerries Islands (IE004122) [49.82; 26.12; 26.12], straight line [49.86; 30.2; 31.72], by sea River Nanny Estuary and Shore (IE004158) [61.67; 34.69; 34.69], straight line [62.74; 43.06; 44.59], by sea Dundalk Bay (IE004026) [83.99; 58.14; 58.14], straight line						areas of the sea surface by project infrastructure and there will be no above sea infrastructure beyond transient construction vessel traffic within the offshore extent of the OECC, there is assessed to be no source of impact. Therefore, it is considered that there is no potential for LSE in relation to this effect.
			Intertidal cable route landfall	In	In	In	On the assumption that individuals from SPAs within the ZoI of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, and herring gull were regularly observed within the intertidal habitats of South Dublin Bay during baseline surveys, there is potential for non-negligible numbers of individuals which use these SPAs to be present within intertidal areas in which direct effects to habitat may occur. As such, a pathway to impact on this receptor is identified and the potential for LSE cannot be ruled out.
			Onshore infrastructure	Out	Out	Out	Direct effects on habitat from the footprint of onshore infrastructure within the industrialised Pigeon Park area, south of the Liffey channel, does not coincide with any areas of important terrestrial habitat used by this SCI. As such, no pathway to

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential Effect	Project component	Screened in/out			Reasoning
				C	O&M	D	
	[84.12; 64.45; 65.97], by sea						impact is identified and it is considered that there is no potential for LSE in relation to this effect.
	Solway Firth (Scotland) (UK9005012) [201.12; 195.8; 196.28], straight line [202.17; 198.0; 199.52], by sea	Disturbance and displacement	Array site OECC	Out	Out	Out	Although individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods and there is potential for individuals which use these SPAs to be present within areas in which disturbance and displacement impacts may occur, herring gull are considered to be insensitive to disturbance and displacement effects from either vessel activity or from OWF infrastructure (Table A-2 and Table A-4, Annex A). As such, there is no pathway to impact from disturbance and displacement effects. Therefore, it is considered that there is no potential for LSE in relation to this effect.
	Solway Firth (England) (UK9005012) [201.12; 195.8; 196.28], straight line [202.17; 198.0; 199.52], by sea		Intertidal cable route landfall	In	In	In	On the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, and herring gull were regularly observed within the intertidal habitats of South Dublin Bay during baseline surveys, there is potential for non-negligible numbers of individuals which use these SPAs to be present within intertidal areas in which disturbance and displacement

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential Effect	Project component	Screened in/out			Reasoning
				C	O&M	D	
							impacts may occur. As such, a pathway to impact to this receptor is identified and the potential for LSE cannot be ruled out.
			Onshore infrastructure	Out	Out	Out	Direct effects on habitat from the footprint of onshore infrastructure within the industrialised Pigeon Park area, south of the Liffey channel, do not coincide with any areas of important terrestrial habitat used by this SCI. As such, no pathway to impact is identified and it is considered that there is no potential for LSE in relation to this effect.
		Collision	Array site		In		On the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, there is potential for individuals which use these SPAs to pass through the operational array site and thereby experience risk of collision with turbines. Furthermore, herring gull fly within the rotor swept altitude range of the development and therefore may be vulnerable to collisions within the array site (Table A-6, Annex A). As such, a pathway to impact is identified and the potential for LSE cannot be ruled out.
			Array site OECC	In	In	In	On the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential Effect	Project component	Screened in/out			Reasoning
				C	O&M	D	
		Changes in prey availability					breeding periods, there is potential for individuals which use these SPAs to be present within areas in which changes in prey availability impacts may occur and a pathway to impact to this receptor is identified. Therefore the potential for LSE cannot be ruled out.
			Intertidal cable route landfall	In	In	In	On the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, and herring gull were regularly observed within the intertidal habitats of South Dublin Bay during baseline surveys, there is potential for non-negligible numbers of individuals which use these SPAs to be present within intertidal areas in which changes to prey availability impacts may occur. As such, a pathway to impact to this receptor is identified and the potential for LSE cannot be ruled out.
			Onshore infrastructure	Out	Out	Out	Direct effects on habitat from the footprint of onshore infrastructure within the industrialised Pigeon Park area, south of the Liffey channel, do not coincide with any areas of important terrestrial habitat used by this SCI. As such, no pathway to impact is identified and it is considered that there is no potential for LSE in relation to this effect.

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential Effect	Project component	Screened in/out			Reasoning
				C	O&M	D	
		Introduction or spread of invasive species	Array site OECC Intertidal cable route landfall Onshore infrastructure	In	In	In	<p>As mitigation measures to prevent the introduction or spread on INNS are not a requirement of underlying legislation and may be construed as being implemented specifically to address risks in relation to the Habitats Regulations, these measures cannot be applied at the screening phase.</p> <p>In the absence of mitigation measures, introduction or spread of invasive species may occur due to the CWP Project and, therefore, a pathway to impact on this receptor is identified. Furthermore, on the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, there is potential for individuals which use these SPAs to be present within areas in which introduction or spread of invasive species impacts may occur. As such, the potential for LSE cannot be ruled out.</p>
Common gull	Dundalk Bay (IE004026) [83.99; 58.14; 58.14], straight line [84.12; 64.45; 65.97], by sea	Direct effects on habitat	Array site	In	In	In	<p>On the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, there is potential for individuals which use these SPAs to be present within areas in which direct effects on habitat may occur and a pathway to impact on this receptor is identified.</p>

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential Effect	Project component	Screened in/out			Reasoning
				C	O&M	D	
	<p>Solway Firth (Scotland) (UK9005012)</p> <p>[201.12; 195.8;196.28], straight line</p> <p>[202.17; 198.0; 199.52], by sea</p> <p>Solway Firth (England) (UK9005012)</p> <p>[201.12; 195.8; 196.28], straight line</p> <p>[202.17; 198.0; 199.52], by sea</p>						Therefore the potential for LSE cannot be ruled out.
			OECC	Out	Out	Out	As direct effects on habitat to non-breeding seabird SCIs in offshore areas relate to the occupancy of areas of sea surface by project infrastructure and there will be no above sea infrastructure beyond transient construction vessel traffic within the offshore extent of the OECC, there is assessed to be no source of impact. Therefore, it is considered that there is no potential for LSE in relation to this effect.
			Intertidal cable route landfall	In	In	In	On the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, and common gull were regularly observed within the intertidal habitats of South Dublin Bay during baseline surveys, there is potential for non-negligible numbers of individuals which use these SPAs to be present within intertidal areas in which direct effects to habitat may occur. As such, a pathway to impact to this receptor is identified and the potential for LSE cannot be ruled out.
			Onshore infrastructure	Out	Out	Out	Direct effects on habitat from the footprint of onshore infrastructure within the industrialised

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential Effect	Project component	Screened in/out			Reasoning
				C	O&M	D	
							Pigeon Park area, south of the Liffey channel, do not coincide with any areas of important terrestrial habitat used by this SCI. As such, no pathway to impact is identified and it is considered that there is no potential for LSE in relation to this effect.
		Disturbance and displacement	Array site OECC	Out	Out	Out	Although individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods and there is potential for individuals which use these SPAs to be present within areas in which disturbance and displacement impacts may occur, common gull are considered to be insensitive to disturbance and displacement effects from either vessel activity or from OWF infrastructure (Table A-2 and Table A-4, Annex A). As such, there is no pathway to impact from disturbance and displacement effects. Therefore, it is considered that there is no potential for LSE in relation to this effect.
			Intertidal cable route landfall	In	In	In	On the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, and common gull were regularly observed within the intertidal habitats of South Dublin Bay during baseline surveys, there is

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential Effect	Project component	Screened in/out			Reasoning
				C	O&M	D	
							potential for non-negligible numbers of individuals which use these SPAs to be present within intertidal areas in which disturbance and displacement impacts may occur. As such, a pathway to impact to this receptor is identified and the potential for LSE cannot be ruled out.
			Onshore infrastructure	Out	Out	Out	Direct effects on habitat from the footprint of onshore infrastructure within the industrialised Pigeon Park area, south of the Liffey channel, do not coincide with any areas of important terrestrial habitat used by this SCI. As such, no pathway to impact is identified and it is considered that there is no potential for LSE in relation to this effect.
		Collision	Array site		In		On the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, there is potential for individuals which use these SPAs to pass through the operational array site and thereby experience risk of collision with turbines. Furthermore, common gull fly within the rotor swept altitude range of the development and therefore may be vulnerable to collisions within the array site (Table A-6, Annex A). As such, a pathway to impact is identified and the potential for LSE cannot be ruled out.

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential Effect	Project component	Screened in/out			Reasoning
				C	O&M	D	
		Changes in prey availability	Array site OECC	In	In	In	On the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, there is potential for individuals which use these SPAs to be present within areas in which changes in prey availability impacts may occur and a pathway to impact to this receptor is identified. Therefore the potential for LSE cannot be ruled out.
			Intertidal cable route landfall	In	In	In	On the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, and common gull were regularly observed within the intertidal habitats of South Dublin Bay during baseline surveys, there is potential for non-negligible numbers of individuals which use these SPAs to be present within intertidal areas in which changes to prey availability impacts may occur. As such, a pathway to impact to this receptor is identified and the potential for LSE cannot be ruled out.
			Onshore infrastructure	Out	Out	Out	Direct effects on habitat from the footprint of onshore infrastructure within the industrialised Pigeon Park area, south of the Liffey channel, do not coincide with any areas of important terrestrial

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential Effect	Project component	Screened in/out			Reasoning
				C	O&M	D	
							habitat used by this SCI. As such, no pathway to impact is identified and it is considered that there is no potential for LSE in relation to this effect.
		Introduction or spread of invasive species	Array site OECC Intertidal cable route landfall Onshore infrastructure	In	In	In	As mitigation measures to prevent the introduction or spread on INNS are not a requirement of underlying legislation and may be construed as being implemented specifically to address risks in relation to the Habitats Regulations, these measures cannot be applied at the screening phase. In the absence of mitigation measures, introduction or spread of invasive species may occur due to the CWP Project and, therefore, a pathway to impact to this receptor is identified. Furthermore, on the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, there is potential for individuals which use these SPAs to be present within areas in which introduction or spread of invasive species impacts may occur. As such, the potential for LSE cannot be ruled out.
Scaup	Wexford Harbour and Slobs (IE0004076)	Direct effects on habitat	Array site	Out	Out	Out	As scaup were not recorded within the array site during baseline surveys, any use of habitats within the array site by this receptor is considered negligible. As such, no pathway to impact from

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential Effect	Project component	Screened in/out			Reasoning
				C	O&M	D	
	[74.82; 79.7; 96.48], straight line [82.01; 89.77; 117.75], by sea						direct effects on habitat is identified and it is considered that there is no potential for LSE in relation to this effect.
			OECC	Out	Out	Out	As direct effects on habitat of non-breeding seabird SCIs in offshore areas relate to the occupancy of areas of sea surface by project infrastructure and there will be no above sea infrastructure beyond transient construction vessel traffic within the offshore extent of the OECC, there is assessed to be no source of impact. Therefore, it is considered that there is no potential for LSE in relation to this effect.
			Intertidal cable route landfall	Out	Out	Out	As scaup were not recorded within the intertidal habitats of South Dublin Bay during baseline surveys, any use of habitats within the cable route landfall area by this receptor is considered negligible. As such, no pathway to impact from direct effects on habitat is identified and it is considered that there is no potential for LSE in relation to this effect.
			Onshore infrastructure	Out	Out	Out	Use of terrestrial habitats by this marine SCI is minimal and, as such, there is no pathway to impact from direct effects on habitat. Therefore, it is considered that there is no potential for LSE in relation to this effect.

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential Effect	Project component	Screened in/out			Reasoning
				C	O&M	D	
		Disturbance and displacement	Array site	Out	Out	Out	As scaup were not recorded within the array site or surrounding 2 km buffer area during baseline surveys, any use of habitats within the array site or surrounding areas, or passage through such areas, by this receptor is considered negligible. As such, no pathway to impact from disturbance and displacement is identified and it is considered that there is no potential for LSE in relation to this effect.
			OECC	Out	Out	Out	As no scaup were identified in offshore waters down the Irish east coast during breeding or non-breeding seasons in ObSERVE surveys undertaken down the Irish east coast in 2016 (Jessopp et al., 2018), supported by a similar lack of observations from site-specific baseline surveys of the array site and surrounding buffers, it is concluded that any use of habitats within the OECC or surrounding areas, or passage through such areas, by this receptor is considered negligible. As such, no pathway to impact from disturbance and displacement is identified and it is considered that there is no potential for LSE in relation to this effect.

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential Effect	Project component	Screened in/out			Reasoning
				C	O&M	D	
			Intertidal cable route landfall	Out	Out	Out	As scaup were not recorded within the intertidal habitats of South Dublin Bay during baseline surveys, any use of habitats within the cable route landfall area by this receptor is considered negligible. As such, no pathway to impact from disturbance and displacement is identified and it is considered that there is no potential for LSE in relation to this effect.
			Onshore infrastructure	Out	Out	Out	Use of terrestrial habitats by this marine SCI is minimal and, as such, there is no pathway to impact from disturbance and displacement effects. Therefore, it is considered that there is no potential for LSE in relation to this effect.
		Collision	Array site		Out		As scaup were not recorded within the array site during baseline surveys, levels of passage through the array site by this receptor are considered negligible. As such, there is no pathway to impact from collision impacts. Therefore, it is considered that there is no potential for LSE in relation to this effect.
		Changes in prey availability	Array site OECC	Out	Out	Out	As scaup were not recorded within the array site or surrounding areas during baseline ornithological surveys and as this species was also not recorded within the wider OECC area during breeding or non-breeding seasons in ObSERVE surveys undertaken

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential Effect	Project component	Screened in/out			Reasoning
				C	O&M	D	
							down the Irish east coast in 2016 (Jessopp et al., 2018), it is concluded that the use of habitats within the array site, OECC or surrounding areas, by this receptor is negligible. As such, no pathway to impact from changes in prey availability impacts are identified and it is considered that there is no potential for LSE in relation to this effect.
			Intertidal cable route landfall	Out	Out	Out	As scaup were not recorded within the intertidal habitats of South Dublin Bay during baseline surveys, any use of habitats within the cable route landfall area by this receptor is considered negligible. As such, no pathway to impact from changes in prey availability impacts is identified and it is considered that there is no potential for LSE in relation to this effect.
			Onshore infrastructure	Out	Out	Out	As this SCI exclusively utilises offshore marine environments for foraging, there is considered to be no pathway for activities in these areas to result in changes in the availability of prey for this SCI. Therefore, it is considered that there is no potential for LSE in relation to this effect.
		Introduction or spread of	Array site OECC	In	In	In	As mitigation measures to prevent the introduction or spread on INNS are not a requirement of underlying legislation and may be construed as being

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential Effect	Project component	Screened in/out			Reasoning
				C	O&M	D	
		invasive species	Intertidal cable route landfall Onshore infrastructure				implemented specifically to address risks in relation to the Habitats Regulations, these measures cannot be applied at the screening phase. In the absence of mitigation measures, introduction or spread of invasive species may occur due to the CWP Project and, therefore, a pathway to impact to this receptor is identified. Furthermore, on the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, there is potential for individuals which use these SPAs to be present within areas in which introduction or spread of invasive species impacts may occur. As such, the potential for LSE cannot be ruled out.
Great crested grebe	Malahide Estuary (IE004025) [37.92; 11.83; 11.83], straight line [38.19; 17.77; 19.3], by sea	Direct effects on habitat	Array site	Out	Out	Out	As great crested grebe were not recorded within the array site during baseline surveys, any use of habitats within the array site by this receptor is considered negligible. As such, no pathway to impact from direct effects on habitat is identified and it is considered that there is no potential for LSE in relation to this effect. Therefore, it is considered that there is no potential for LSE in relation to this effect pathway for this SCI for this SPA for the project alone.

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential Effect	Project component	Screened in/out			Reasoning
				C	O&M	D	
	Wexford Harbour and Slobs (IE0004076) [74.82; 79.7; 96.48], straight line [82.01; 89.77; 117.75], by sea		OECC Intertidal cable route landfall	Out	Out	Out	As direct effects on habitat to non-breeding seabird SCIs in offshore areas relate to the occupancy of areas of sea surface by project infrastructure and there will be no above sea infrastructure beyond transient construction vessel traffic within the offshore extent of the OECC, there is assessed to be no source of impact. Therefore, it is considered that there is no potential for LSE in relation to this effect.
	Dundalk Bay (IE004026) [83.99; 58.14; 58.14], straight line [84.12; 64.45; 65.97], by sea		Onshore infrastructure	Out	Out	Out	Use of terrestrial habitats by this marine SCI is minimal and, as such, there is no pathway to impact from direct effects on habitat. Therefore, it is considered that there is no potential for LSE in relation to this effect.
	Traeth Lafan / Lavan Sands, Conway Bay (Wales) (UK9013031) [107.88; 116.21; 137.21], straight line	Disturbance and displacement	Array site	Out	Out	Out	As great crested grebe were not recorded within the array site or surrounding 2 km buffer area during baseline surveys, any use of habitats within the array site or surrounding areas, or passage through such areas, by this receptor is considered negligible. As such, no pathway to impact from disturbance and displacement is identified and it is considered that there is no potential for LSE in relation to this effect.

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential Effect	Project component	Screened in/out			Reasoning
				C	O&M	D	
	<p>[112.59; 120.6; 144.74], by sea</p> <p>Belfast Lough Open Water (Northern Ireland) (UK9020290)</p> <p>[165.7; 145.3; 145.03], straight line</p> <p>[185.01; 172.62; 174.14], by sea</p> <p>Belfast Lough (Northern Ireland) (UK9020101)</p> <p>[164.8; 144.07; 144.07], straight line</p> <p>[185.23; 172.84; 174.36], by sea</p>		OECC	Out	Out	Out	<p>As no great crested grebe were identified in offshore waters down the Irish east coast during breeding or non-breeding seasons in ObSERVE surveys undertaken down the Irish east coast in 2016 (Jessopp et al., 2018), supported by a similar lack of observations from site-specific baseline surveys of the array site and surrounding buffers, it is concluded that any use of habitats within the OECC or surrounding areas, or passage through such areas, by this receptor is considered negligible.</p> <p>As such, no pathway to impact from disturbance and displacement is identified and it is considered that there is no potential for LSE in relation to this effect.</p>
			Intertidal cable route landfall	In	In	In	<p>On the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, and great crested grebe were regularly observed within the intertidal habitats of South Dublin Bay during baseline surveys, there is potential for non-negligible numbers of individuals which use these SPAs to be present within intertidal areas in which disturbance and displacement impacts may occur. As such, a pathway to impact</p>

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential Effect	Project component	Screened in/out			Reasoning
				C	O&M	D	
							on this receptor is identified and the potential for LSE cannot be ruled out.
			Onshore infrastructure	Out	Out	Out	Use of terrestrial habitats by this marine SCI is minimal and, as such, there is no pathway to impact from disturbance and displacement effects. Therefore, it is considered that there is no potential for LSE in relation to this effect.
		Collision	Array site		Out		As great crested grebe were not recorded within the array site during baseline surveys, levels of passage through the array site by this receptor are considered negligible. As such, there is no pathway to impact from collision impacts. Therefore, it is considered that there is no potential for LSE in relation to this effect.
		Changes in prey availability	Array site OECC	Out	Out	Out	As great crested grebe were not recorded within the array site or surrounding areas during baseline ornithological surveys and as this species was also not recorded within the wider OECC area during breeding or non-breeding seasons in ObSERVE surveys undertaken down the Irish east coast in 2016 (Jessopp et al., 2018), it is concluded that the use of habitats within the array site, OECC or surrounding areas, by this receptor is negligible. As such, no pathway to impact from changes in prey availability impacts are identified and it is

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential Effect	Project component	Screened in/out			Reasoning
				C	O&M	D	
							considered that there is no potential for LSE in relation to this effect.
			Intertidal cable route landfall	In	In	In	On the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, and great crested grebe were regularly observed within the intertidal habitats of South Dublin Bay during baseline surveys, there is potential for non-negligible numbers of individuals which use these SPAs to be present within intertidal areas in which changes to prey availability impacts may occur. As such, a pathway to impact to this receptor is identified and the potential for LSE cannot be ruled out.
			Onshore infrastructure	Out	Out	Out	As this SCI exclusively utilises offshore marine environments for foraging, there is considered to be no pathway for activities in these areas to result in changes in the availability of prey for this SCI. Therefore, it is considered that there is no potential for LSE in relation to this effect.
		Introduction or spread of invasive species	Array site OECC	In	In	In	As mitigation measures to prevent the introduction or spread on INNS are not a requirement of underlying legislation and may be construed as being implemented specifically to address risks in relation

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential Effect	Project component	Screened in/out			Reasoning
				C	O&M	D	
			Intertidal cable route landfall Onshore infrastructure				to the Habitats Regulations, these measures cannot be applied at the screening phase. In the absence of mitigation measures, introduction or spread of invasive species may occur due to the CWP Project and, therefore, a pathway to impact to this receptor is identified. Furthermore, on the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, there is potential for individuals which use these SPAs to be present within areas in which introduction or spread of invasive species impacts may occur. As such, the potential for LSE cannot be ruled out.
Lesser black-backed gull	Wexford Harbour and Slob (IE0004076) [74.82; 79.7; 96.48], straight line [82.01; 89.77; 117.75], by sea	Direct effects on habitat	Array site	In	In	In	On the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, there is potential for individuals which use these SPAs to be present within areas in which direct effects on habitat may occur and a pathway to impact to this receptor is identified. Therefore, the potential for LSE cannot be ruled out.
	Morecambe Bay and Duddon		OECC	Out	Out	Out	As direct effects on habitat to non-breeding seabird SCIs in offshore areas relate to the occupancy of

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential Effect	Project component	Screened in/out			Reasoning
				C	O&M	D	
	Estuary (England) (UK9020326) [190.7; 197.67; 202.67], straight line [190.74; 197.72; 202.94], by sea						areas of sea surface by project infrastructure and there will be no above sea infrastructure beyond transient construction vessel traffic within the offshore extent of the OECC, there is assessed to be no source of impact. Therefore, it is considered that there is no potential for LSE in relation to this effect.
			Intertidal cable route landfall	In	In	In	On the assumption that individuals from SPAs within the ZoI of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, and lesser black-backed gull were regularly observed within the intertidal habitats of South Dublin Bay during baseline surveys, there is potential for non-negligible numbers of individuals which use these SPAs to be present within intertidal areas in which direct effects to habitat may occur. As such, a pathway to impact to this receptor is identified and the potential for LSE cannot be ruled out.
			Onshore infrastructure	Out	Out	Out	Direct effects on habitat from the footprint of onshore infrastructure within the industrialised Pigeon Park area, south of the Liffey channel, do not coincide with any areas of important terrestrial habitat used by this SCI. As such, no pathway to

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential Effect	Project component	Screened in/out			Reasoning
				C	O&M	D	
							impact is identified and it is considered that there is no potential for LSE in relation to this effect.
		Disturbance and displacement	Array site OECC	Out	Out	Out	Although individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods and there is potential for individuals which use these SPAs to be present within areas in which disturbance and displacement impacts may occur, lesser black-backed gull are considered to be insensitive to disturbance and displacement effects from either vessel activity or from OWF infrastructure (Table A-2 and Table A-4, Annex A). As such, there is no pathway to impact from disturbance and displacement effects. Therefore, it is considered that there is no potential for LSE in relation to this effect.
			Intertidal cable route landfall	In	In	In	On the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, and lesser black-backed gull were regularly observed within the intertidal habitats of South Dublin Bay during baseline surveys, there is potential for non-negligible numbers of individuals which use these SPAs to be present within intertidal areas in which disturbance and displacement

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential Effect	Project component	Screened in/out			Reasoning
				C	O&M	D	
							impacts may occur. As such, a pathway to impact to this receptor is identified and the potential for LSE cannot be ruled out.
			Onshore infrastructure	Out	Out	Out	Direct effects on habitat from the footprint of onshore infrastructure within the industrialised Pigeon Park area, south of the Liffey channel, do not coincide with any areas of important terrestrial habitat used by this SCI. As such, no pathway to impact is identified and it is considered that there is no potential for LSE in relation to this effect.
		Collision	Array site		In		On the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, there is potential for individuals which use these SPAs to pass through the operational array site and thereby experience risk of collision with turbines. Furthermore, lesser black-backed gull fly within the rotor swept altitude range of the development and therefore may be vulnerable to collisions within the array site (Table A-6, Annex A). As such, a pathway to impact is identified and the potential for LSE cannot be ruled out.
			Array site	In	In	In	On the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential Effect	Project component	Screened in/out			Reasoning
				C	O&M	D	
		Changes in prey availability	OECC				utilise different areas within this zone across non-breeding periods, there is potential for individuals which use these SPAs to be present within areas in which changes in prey availability impacts may occur and a pathway to impact to this receptor is identified. Therefore, the potential for LSE cannot be ruled out.
			Intertidal cable route landfall	In	In	In	On the assumption that individuals from SPAs within the ZoI of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, and lesser black-backed gull were regularly observed within the intertidal habitats of South Dublin Bay during baseline surveys, there is potential for non-negligible numbers of individuals which use these SPAs to be present within intertidal areas in which changes to prey availability impacts may occur. As such, a pathway to impact to this receptor is identified and the potential for LSE cannot be ruled out.
			Onshore infrastructure	Out	Out	Out	Direct effects on habitat from the footprint of onshore infrastructure within the industrialised Pigeon Park area, south of the Liffey channel, do not coincide with any areas of important terrestrial habitat used by this SCI. As such, no pathway to

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential Effect	Project component	Screened in/out			Reasoning
				C	O&M	D	
							impact is identified and it is considered that there is no potential for LSE in relation to this effect.
		Introduction or spread of invasive species	Array site OECC Intertidal cable route landfall Onshore infrastructure	In	In	In	<p>As mitigation measures to prevent the introduction or spread on INNS are not a requirement of underlying legislation and may be construed as being implemented specifically to address risks in relation to the Habitats Regulations, these measures cannot be applied at the screening phase.</p> <p>In the absence of mitigation measures, introduction or spread of invasive species may occur due to the CWP Project and, therefore, a pathway to impact on this receptor is identified. Furthermore, on the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, there is potential for individuals which use these SPAs to be present within areas in which introduction or spread of invasive species impacts may occur. As such, the potential for LSE cannot be ruled out.</p>
Little gull	Liverpool Bay (England) (UK9020294)	Direct effects on habitat	Array site	In	In	In	On the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, there is potential for individuals which use these SPAs to be present within areas in

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential Effect	Project component	Screened in/out			Reasoning
				C	O&M	D	
	<p>[100.93; 108.96; 125.48], straight line [102.73; 110.45; 125.82], by sea</p> <p>Liverpool Bay / Bae Lerpwl (Wales) (UK9020294) [100.93; 108.96; 125.48], straight line [102.73; 110.45; 125.82], by sea</p> <p>Mersey Narrows & North Wirral Foreshore (England) [169.46; 177.73; 196.29], straight line [173.6; 181.32; 196.69], by sea</p>						which direct effects on habitat may occur and a pathway to impact to this receptor is identified. Therefore, the potential for LSE cannot be ruled out.
			OECC	Out	Out	Out	As direct effects on habitat to non-breeding seabird SCIs in offshore areas relate to the occupancy of areas of sea surface by project infrastructure and there will be no above sea infrastructure beyond transient construction vessel traffic within the offshore extent of the OECC, there is assessed to be no source of impact. Therefore, it is considered that there is no potential for LSE in relation to this effect.
			Intertidal cable route landfall	Out	Out	Out	As little gull were recorded extremely infrequently within the intertidal habitats of South Dublin Bay during baseline surveys (2 records, totalling 4 individuals, during 81 surveys), any use of habitats within the cable route landfall area by this receptor is considered negligible. As such, no pathway to impact from direct effects on habitat is identified and it is considered that there is no potential for LSE in relation to this effect.
			Onshore infrastructure	Out	Out	Out	Use of terrestrial habitats by this marine SCI is minimal and, as such, there is no pathway to impact from disturbance and displacement effects.

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential Effect	Project component	Screened in/out			Reasoning
				C	O&M	D	
							Therefore, it is considered that there is no potential for LSE in relation to this effect.
		Disturbance and displacement	Array site	In	In	In	<p>Individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods and there is potential for individuals which use these SPAs to be present within areas in which disturbance and displacement impacts may occur. Little gull are considered to be insensitive to disturbance by vessel traffic, but sensitive to displacement from OWF infrastructure (Table A-2 and Table A-4, Annex A).</p> <p>Although there is no pathway to impact from disturbance and displacement effects in relation to vessel activity, and consequently no potential for LSE in relation to such activities, a pathway to disturbance and displacement effects in relation to the presence of OWF infrastructure is identified (in the form of indirect habitat loss and barrier effects as turbines are erected during the construction phase and are present throughout the operational phase until they are removed during the decommissioning phase). Therefore, the potential for LSE cannot be ruled out.</p>

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential Effect	Project component	Screened in/out			Reasoning
				C	O&M	D	
			OECC	Out	Out	Out	Although individuals from SPAs within the ZOI of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods and there is potential for individuals which use these SPAs to be present within areas in which disturbance and displacement impacts may occur, little gull are considered to be insensitive to disturbance and displacement effects from vessel activity (Table A-2, Annex A). As such, there is no pathway to impact from disturbance and displacement effects. Therefore, it is considered that there is no potential for LSE in relation to this effect.
			Intertidal cable route landfall	Out	Out	Out	As little gull were recorded extremely infrequently within the intertidal habitats of South Dublin Bay during baseline surveys (2 records, totalling 4 individuals, during 81 surveys), any use of habitats within the cable route landfall area by this receptor is considered negligible. As such, no pathway to impact from disturbance and displacement impacts is identified and it is considered that there is no potential for LSE in relation to this effect.

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential Effect	Project component	Screened in/out			Reasoning
				C	O&M	D	
			Onshore infrastructure	Out	Out	Out	Use of terrestrial habitats by this marine SCI is minimal and, as such, there is no pathway to impact from disturbance and displacement effects. Therefore, it is considered that there is no potential for LSE in relation to this effect.
		Collision	Array site		In		On the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, there is potential for individuals which use these SPAs to pass through the operational array site and thereby experience risk of collision with turbines. Furthermore, little gull fly within the rotor swept altitude range of the development and therefore may be vulnerable to collisions within the array site (Table A-6, Annex A). As such, a pathway to impact is identified and the potential for LSE cannot be ruled out.
		Changes in prey availability	Array site OECC	In	In	In	On the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, there is potential for individuals which use these SPAs to be present within areas in which changes in prey availability impacts may occur and a pathway to impact to this receptor is

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential Effect	Project component	Screened in/out			Reasoning
				C	O&M	D	
							identified. Therefore, the potential for LSE cannot be ruled out.
			Intertidal cable route landfall	Out	Out	Out	As little gull were recorded extremely infrequently within the intertidal habitats of South Dublin Bay during baseline surveys (2 records, totalling 4 individuals, during 81 surveys), any use of habitats within the cable route landfall area by this receptor is considered negligible. As such, no pathway to impact from changes in prey availability is identified and it is considered that there is no potential for LSE in relation to this effect.
			Onshore infrastructure	Out	Out	Out	Use of terrestrial habitats by this marine SCI is minimal and, as such, there is no pathway to impact from disturbance and displacement effects. Therefore, it is considered that there is no potential for LSE in relation to this effect.
		Introduction or spread of invasive species	Array site OECC Intertidal cable route landfall Onshore infrastructure	In	In	In	As mitigation measures to prevent the introduction or spread on INNS are not a requirement of underlying legislation and may be construed as being implemented specifically to address risks in relation to the Habitats Regulations, these measures cannot be applied at the screening phase. In the absence of mitigation measures, introduction or spread of invasive species may occur due to the CWP Project and, therefore, a pathway to impact to

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential Effect	Project component	Screened in/out			Reasoning
				C	O&M	D	
							this receptor is identified. Furthermore, on the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, there is potential for individuals which use these SPAs to be present within areas in which introduction or spread of invasive species impacts may occur. As such, the potential for LSE cannot be ruled out.
Mediterranean gull	Morecambe Bay and Duddon Estuary (England) (UK9020326) [190.7; 197.67; 202.67], straight line [190.74; 197.72; 202.94], by sea	Direct effects on habitat	Array site	In	In	In	On the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, there is potential for individuals which use these SPAs to be present within areas in which direct effects on habitat may occur and a pathway to impact to this receptor is identified. Therefore the potential for LSE cannot be ruled out.
			OECC	Out	Out	Out	As direct effects on habitat to non-breeding seabird SCIs in offshore areas relate to the occupancy of areas of sea surface by project infrastructure and there will be no above sea infrastructure beyond transient construction vessel traffic within the offshore extent of the OECC, there is assessed to be no source of impact. Therefore, it is considered

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential Effect	Project component	Screened in/out			Reasoning
				C	O&M	D	
							that there is no potential for LSE in relation to this effect.
			Intertidal cable route landfall	In	In	In	On the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, and Mediterranean gull were regularly observed within the intertidal habitats of South Dublin Bay during baseline surveys, there is potential for non-negligible numbers of individuals which use these SPAs to be present within intertidal areas in which direct effects to habitat may occur. As such, a pathway to impact to this receptor is identified and the potential for LSE cannot be ruled out.
			Onshore infrastructure	Out	Out	Out	Direct effects on habitat from the footprint of onshore infrastructure within the industrialised Pigeon Park area, south of the Liffey channel, do not coincide with any areas of important terrestrial habitat used by this SCI. As such, no pathway to impact is identified and it is considered that there is no potential for LSE in relation to this effect.
		Disturbance and displacement	Array site OECC	Out	Out	Out	Although individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods and there is potential for individuals which use this SPA

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential Effect	Project component	Screened in/out			Reasoning
				C	O&M	D	
							to be present within areas in which disturbance and displacement impacts may occur, using black-headed gull as a proxy, Mediterranean gull are considered to be insensitive to disturbance and displacement effects from either vessel activity or from OWF infrastructure (Table A-2 and Table A-4, Annex A). In the absence of information relating specifically to Mediterranean gull, other gull species, namely black-headed gull and common gull, are considered as proxies). As such, there is no pathway to impact from disturbance and displacement effects. Therefore, it is considered that there is no potential for LSE in relation to this effect.
			Intertidal cable route landfall	In	In	In	On the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, and Mediterranean gull were regularly observed within the intertidal habitats of South Dublin Bay during baseline surveys, there is potential for non-negligible numbers of individuals which use these SPAs to be present within intertidal areas in which disturbance and displacement impacts may occur. As such, a pathway to impact to this receptor is identified and the potential for LSE cannot be ruled out.

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential Effect	Project component	Screened in/out			Reasoning
				C	O&M	D	
			Onshore infrastructure	Out	Out	Out	Direct effects on habitat from the footprint of onshore infrastructure within the industrialised Pigeon Park area, south of the Liffey channel, do not coincide with any areas of important terrestrial habitat used by this SCI. As such, no pathway to impact is identified and it is considered that there is no potential for LSE in relation to this effect.
		Collision	Array site		In		On the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, there is potential for individuals which use these SPAs to pass through the operational array site and thereby experience risk of collision with turbines. Furthermore, Mediterranean gull fly within the rotor swept altitude range of the development and therefore may be vulnerable to collisions within the array site (Table A-6, Annex A). As such, a pathway to impact is identified and the potential for LSE cannot be ruled out.
		Changes in prey availability	Array site OECC	In	In	In	On the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, there is potential for individuals which use these SPAs to be present within areas in which changes in prey availability impacts may

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential Effect	Project component	Screened in/out			Reasoning
				C	O&M	D	
							occur and a pathway to impact to this receptor is identified. Therefore, the potential for LSE cannot be ruled out.
			Intertidal cable route landfall	In	In	In	On the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, and Mediterranean gull were regularly observed within the intertidal habitats of South Dublin Bay during baseline surveys, there is potential for non-negligible numbers of individuals which use these SPAs to be present within intertidal areas in which changes to prey availability impacts may occur. As such, a pathway to impact to this receptor is identified and the potential for LSE cannot be ruled out.
			Onshore infrastructure	Out	Out	Out	Direct effects on habitat from the footprint of onshore infrastructure within the industrialised Pigeon Park area, south of the Liffey channel, do not coincide with any areas of important terrestrial habitat used by this SCI. As such, no pathway to impact is identified and it is considered that there is no potential for LSE in relation to this effect.
		Introduction or spread of	Array site OECC	In	In	In	As mitigation measures to prevent the introduction or spread on INNS are not a requirement of underlying legislation and may be construed as being

SCI	Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Potential Effect	Project component	Screened in/out			Reasoning
				C	O&M	D	
		invasive species	Intertidal cable route landfall Onshore infrastructure				<p>implemented specifically to address risks in relation to the Habitats Regulations, these measures cannot be applied at the screening phase.</p> <p>In the absence of mitigation measures, introduction or spread of invasive species may occur due to the CWP Project and, therefore, a pathway to impact to this receptor is identified. Furthermore, on the assumption that individuals from SPAs within the ZoI of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, there is potential for individuals which use these SPAs to be present within areas in which introduction or spread of invasive species impacts may occur. As such, the potential for LSE cannot be ruled out.</p>

3.3.3 Sites designated for migratory wildfowl and wader SCIs

70. SPAs designated in relation to migratory wildfowl and wader SCIs along the Irish east and south coasts (see **Section 2.3**) are considered to have potential connectivity to proposed works.
71. CWP Project landfall cable comes through South Dublin Bay and River Tolka Estuary SPA, a key Irish east coast designated site for wintering waders and wildfowl, as such this and North Bull Island SPA (for which conservation objectives are to be considered in conjunction with those of South Dublin Bay and River Tolka Estuary SPA – NPWS, 2015) are considered in **Table 3-6**, separately from all other Irish east and south coast SPAs (**Table 3-7**).

Table 3-6 Project alone screening of migratory wildfowl and wader SCIs of South Dublin Bay and River Tolka Estuary SPA and North Bull Island SPA

Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Relevant SCIs	Potential Impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
South Dublin Bay and River Tolka Estuary SPA [26.2; 0.0; 0.0], straight line	Light-bellied brent goose Oystercatcher Ringed plover Grey plover Knot Sanderling Dunlin	Direct effects on habitat	Array site OECC	Out	Out	Out	Use of offshore marine habitats by these SCIs is minimal, and interaction with these project areas is confined to passage during migration; as such, there is no pathway to impact from direct effects on habitat. Therefore, it is considered that there is no potential for LSE in relation to this effect.
			Intertidal cable route landfall	In	In	In	Cable laying and landfall installation activities, their maintenance during the operational period and removal during decommissioning will have temporary direct effects on intertidal habitats which support the SPA's wildfowl and wader SCIs. As such, a pathway to impact

Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Relevant SCIs	Potential Impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
	Bar-tailed godwit Redshank						on these receptors is identified and the potential for LSE cannot be ruled out. The Wetland and Waterbird SCI is also screened in for this impact for this project component, but screened out for all other impacts and project components due to their being no route to impact on the conservation objective of maintaining habitat area.
			Onshore infrastructure	Out	Out	Out	Use of terrestrial habitats by these SCIs within areas in which onshore infrastructure will occur is minimal and interaction with these project areas is not anticipated; as such, there is no pathway to impact from direct effects on habitat. Therefore, it is considered that there is no potential for LSE in relation to this effect.
		Disturbance and displacement	Array site	In	In	In	On the assumption that individuals from SPAs within the ZoI of this impact (see Section 2.3) may pass through the array site during migratory periods, there is potential for individuals which use this SPA to be present within areas in which disturbance and displacement impacts may occur. Use of offshore marine habitats by these non-seabird SCIs is minimal and interaction with the array site is confined to over-flying passage during migration. As such, no pathway to impact is identified in association

Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Relevant SCIs	Potential Impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
							with indirect habitat loss in response to vessel activity or the presence of OWF infrastructure. However, should over-flying migrating wildfowl or wader SCIs avoid passage through the array site during migration, a pathway to impact for disturbance and displacement impacts (in the form of barrier effects) is identified. Consequently, the potential for LSE cannot be ruled out.
			OECC	Out	Out	Out	On the assumption that individuals from SPAs within the ZoI of this impact (see Section 2.3) may pass through the OECC during migratory periods, there is potential for individuals which use this SPA to be present within areas in which disturbance and displacement impacts associated with vessel activity may occur. Use of offshore marine habitats by these non-seabird SCIs is, however, minimal and interaction with the OECC is confined to over-flying passage during migration. As such, there is no pathway to impact identified in association with disturbance and displacement impacts through indirect habitat loss in response to vessel activity. Therefore, it is considered that there is no potential for LSE in relation to this effect.

Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Relevant SCIs	Potential Impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
			Intertidal cable route landfall	In	In	In	<p>Although wildfowl and wader species vary in their disturbance responses to anthropogenic activity within intertidal habitats, all show some level of disturbance response to visual or acoustic stimuli (Table A-3, Annex A).</p> <p>Wildfowl and wader SCIs utilise intertidal habitats within South Dublin Bay for foraging, roosting or other behaviours and, as such, may experience disturbance in relation to construction, maintenance and decommissioning activities within this area.</p> <p>A pathway to impact is therefore identified and the potential for LSE cannot be ruled out.</p>
			Onshore infrastructure	In*	Out*	Out*	<p>Use of terrestrial habitats by these SCIs (*excluding light-bellied brent goose, see below) within areas in which onshore infrastructure will occur is minimal and interaction with these project areas is not anticipated.</p> <p>Despite this, temporary disturbance and displacement impacts to non-breeding wildfowl and waders SCIs within intertidal habitats of South Dublin Bay may result from acoustic stimuli associated with construction phase activities within onshore areas on the Poolbeg peninsula, specifically tunnelling and drilling works to connect the export cable landfall with the onshore substation. There is the potential for non-negligible</p>

Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Relevant SCIs	Potential Impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
							<p>numbers of individuals from these SPAs to be present within the ZoI of this impact (see Section 2.3). Wildfowl and wader SCIs are considered (to varying degrees) sensitive to disturbance and displacement and a pathway to impact to these receptors is identified. Therefore, the potential for LSE cannot be ruled out (for construction phase only).</p> <p>During the operation and maintenance and decommissioning phases, no such tunnelling and drilling works are anticipated to occur and no route to impact is identified. Therefore, it is considered that there is no potential for LSE in relation to this effect (for operation and maintenance and decommissioning phases).</p>
				*Light-bellied brent goose screened in			<p>*Light-bellied brent goose is an exception to this screening rationale. This SCI utilises terrestrial habitats within Irishtown Park and is known to forage within the docks around the Liffey channel. As such, a pathway to impact for disturbance and displacement from onshore infrastructure is identified and the potential for LSE cannot be ruled out (during construction, operation and maintenance and decommissioning for this SCI only).</p>

Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Relevant SCIs	Potential Impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
		Collision	Array site		In		On the assumption that individuals from SPAs within the ZoI of this impact (see Section 2.3) may pass through the array site during migratory periods, there is potential for individuals which use this SPA to be present within areas in which collision impacts may occur. Migratory wildfowl and wader species may fly within the rotor swept altitude range of the CWP Project. Consequently, they may be vulnerable to collisions within the array site during migratory movements to and from this SPA. As such, a pathway to impact is identified and the potential for LSE cannot be ruled out.
		Changes in prey availability	Array site OECC	Out	Out	Out	Use of offshore marine habitats by these SCIs is minimal and interaction with these project areas is confined to passage during migration, as such, there is no pathway to impact from changes in prey availability. Therefore, it is considered that there is no potential for LSE in relation to this effect.
			Intertidal cable route landfall	In	In	In	Cable laying and landfall installation activities, their maintenance during the operational period and removal during decommissioning may have temporary effects on intertidal habitats which support the prey species of the SPA's wildfowl and wader SCIs. As such, a pathway to

Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Relevant SCIs	Potential Impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
							impact to these receptors is identified and the potential for LSE cannot be ruled out.
			Onshore infrastructure	Out	Out	Out	Use of terrestrial habitats by these SCIs within areas in which onshore infrastructure will occur is minimal and interaction with these project areas is not anticipated; as such, there is no pathway to impact from changes in prey availability. Therefore, it is considered that there is no potential for LSE in relation to this effect.
		Introduction or spread of invasive species	Array site OECC	Out	Out	Out	Use of offshore marine habitats by these SCIs is minimal and interaction with these project areas is confined to passage during migration; as such, there is no pathway to impact from introduction or spread of invasive species. Therefore, it is considered that there is no potential for LSE in relation to this effect.
			Intertidal cable route landfall Onshore infrastructure	In	In	In	As mitigation measures to prevent the introduction or spread on INNS are not a requirement of underlying legislation and may be construed as being implemented specifically to address risks in relation to the Habitats Regulations, these measures cannot be applied at the screening phase. In the absence of mitigation measures, introduction or spread of invasive species may occur due to the CWP Project and therefore a pathway to impact to these

Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Relevant SCIs	Potential Impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
							receptors is identified. As such, the potential for LSE cannot be ruled out.
	Wetland and Waterbirds	Direct effects on habitat	Intertidal cable route landfall	In	In	In	As there is overlap between the footprint of works or infrastructure within this area and this SPA there is a pathway for there to be direct effects on habitats within the SPA. As such, the potential for LSE cannot be ruled out.
			Array site OECC Onshore infrastructure	Out	Out	Out	As there is no overlap between the footprint of works or infrastructure within these areas and this SPA there is no pathway for there to be direct effects on habitats within the SPA. No pathway to impact. Therefore, it is considered that there is no potential for LSE in relation to this effect.
		Disturbance and displacement	Array site OECC	Out	Out	Out	Impacts not considered relevant in relation to habitat SCI. No pathway to impact. Therefore, it is considered that there is no potential for LSE in relation to this effect.

Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Relevant SCIs	Potential Impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
		Changes in prey availability Collision	Intertidal cable route landfall Onshore infrastructure				
		Introduction or spread of invasive species	Array site OECC	Out	Out	Out	As there is no overlap between the array site and OECC and intertidal habitats within this SPA which support wildfowl and wader SCIs, there is no pathway to impact from introduction or spread of invasive species. Therefore, it is considered that there is no potential for LSE in relation to this effect.
			Intertidal cable route landfall Onshore infrastructure	In	In	In	As mitigation measures to prevent the introduction or spread on INNS are not a requirement of underlying legislation and may be construed as being implemented specifically to address risks in relation to the Habitats Regulations, these measures cannot be applied at the screening phase. In the absence of mitigation measures, introduction or spread of invasive species may occur due to the CWP Project and therefore a pathway to impact to this receptor is identified. As such, the potential for LSE cannot be ruled out.
			Array site	Out	Out	Out	Use of offshore marine habitats by these SCIs is minimal and interaction with these project areas is

Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Relevant SCIs	Potential Impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
North Bull Island (IE0004006) [28.72; 1.27; 1.46], straight line	Light-bellied brent goose Shelduck Teal Pintail Shoveler Oystercatcher Golden plover Grey plover Knot Sanderling Dunlin Black-tailed godwit Bar-tailed godwit Curlew Redshank Turnstone	Direct effects on habitat	OECC				confined to passage during migration, as such, there is no pathway to impact from direct effects on habitat. Therefore, it is considered that there is no potential for LSE in relation to this effect.
			Intertidal cable route landfall	In	In	In	North Bull Island SPA adjoins South Dublin Bay and River Tolka Estuary SPA and, for the purpose of this assessment, SCIs from North Bull Island SPA are considered to utilise habitats within South Dublin Bay and River Tolka Estuary SPA. Cable laying and landfall installation activities, their maintenance during the operational period and removal during decommissioning within South Dublin Bay will have temporary direct effects on intertidal habitats which support the SPA's wildfowl and wader SCIs. As such, a pathway to impact to these receptors is identified and the potential for LSE cannot be ruled out.
			Onshore infrastructure	Out	Out	Out	Use of terrestrial habitats by these SCIs within areas in which onshore infrastructure will occur is minimal and interaction with these project areas is not anticipated; as such, there is no pathway to impact from direct effects on habitat. Therefore, it is considered that there is no potential for LSE in relation to this effect.

Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Relevant SCIs	Potential Impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
		Disturbance and displacement	Array site	In	In	In	<p>On the assumption that individuals from SPAs within the ZoI of this impact (see Section 2.3) may pass through the array site during migratory periods, there is potential for individuals which use this SPA to be present within areas in which disturbance and displacement impacts may occur.</p> <p>Use of offshore marine habitats by these non-seabird SCIs is minimal and interaction with the array site is confined to over-flying passage during migration. As such, there is no pathway to impact identified in association with indirect habitat loss in response to vessel activity or the presence of OWF infrastructure. However, should over-flying migrating wildfowl or wader SCIs avoid passage through the array site during migration, a pathway to impact for disturbance and displacement impacts (in the form of barrier effects) is identified. Consequently, the potential for LSE cannot be ruled out.</p>
			OECC	Out	Out	Out	<p>On the assumption that individuals from SPAs within the ZoI of this impact (see Section 2.3) may pass through the OECC during migratory periods, there is potential for individuals which use this SPA to be present within areas in which disturbance and displacement impacts associated with vessel activity may occur.</p>

Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Relevant SCIs	Potential Impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
							Use of offshore marine habitats by these non-seabird SCIs is, however, minimal and interaction with the OECC is confined to over-flying passage during migration. As such, there is no pathway to impact identified in association with disturbance and displacement impacts through indirect habitat loss in response to vessel activity. Therefore, it is considered that there is no potential for LSE in relation to this effect.
			Intertidal cable route landfall	In	In	In	<p>North Bull Island SPA adjoins South Dublin Bay and River Tolka Estuary SPA and, for the purpose of this assessment, SCIs from North Bull Island SPA are considered to utilise South Dublin Bay and River Tolka Estuary SPA.</p> <p>Although wildfowl and wader species vary in their disturbance responses to anthropogenic activity within intertidal habitats, all show some level of disturbance response to visual or acoustic stimuli (Table A-3, Annex A).</p> <p>Wildfowl and wader SCIs utilise intertidal habitats within South Dublin Bay for foraging, roosting or other behaviours and, as such, may experience disturbance in relation to construction, maintenance and decommissioning activities within this area.</p>

Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Relevant SCIs	Potential Impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
							A pathway to impact is therefore identified and the potential for LSE cannot be ruled out.
			Onshore infrastructure	In*	Out*	Out*	<p>Use of terrestrial habitats by these SCIs (*excluding light-bellied brent goose and turnstone, see below) within areas in which onshore infrastructure will occur is minimal and interaction with these project areas is not anticipated.</p> <p>Despite this, temporary disturbance and displacement impacts to non-breeding wildfowl and waders SCIs within intertidal habitats of South Dublin Bay (here considered as functional connectivity with North Bull Island SPA) may result from acoustic stimuli associated with construction phase activities within onshore areas on the Poolbeg peninsula, specifically tunnelling and drilling works to connect the export cable landfall with the onshore substation. There is the potential for non-negligible numbers of individuals from these SPAs to be present within the Zol of this impact (see Section 2.3). Wildfowl and wader SCIs are considered (to varying degrees) sensitive to disturbance and displacement and a pathway to impact to these receptors is identified.</p>

Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Relevant SCIs	Potential Impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
							Therefore, the potential for LSE cannot be ruled out (for construction phase only).
							During the operation and maintenance and decommissioning phases, no such tunnelling and drilling works are anticipated to occur and no route to impact is identified. Therefore, it is considered that there is no potential for LSE in relation to this effect (for operation and maintenance and decommissioning phases).
				*Turnstone screened in			*Turnstone is an exception to this screening rationale. This SCI, although not observed within the Pigeon Park area in which the onshore substation is to be constructed, is known to forage within the docks around the Liffey channel. As such, a pathway to impact for disturbance and displacement from onshore infrastructure is identified and the potential for LSE cannot be ruled out for this SCI only.
				*Light-bellied brent goose screened in			*Light-bellied brent goose is an exception to this screening rationale. This SCI utilises terrestrial habitats within Irishtown Park and, although not observed within the Pigeon Park area in which the onshore substation is to be constructed, is known to forage within the docks around the Liffey channel. As such, a pathway to impact

Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Relevant SCIs	Potential Impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
							for disturbance and displacement from onshore infrastructure is identified and the potential for LSE cannot be ruled out for this SCI only.
		Collision	Array site		In		On the assumption that individuals from SPAs within the ZoI of this impact (see Section 2.3) may pass through the array site during migratory periods, there is potential for individuals which use this SPA to be present within areas in which collision impacts may occur. Migratory wildfowl and wader species may fly within the rotor swept altitude range of the CWP Project. Consequently, they may be vulnerable to collisions within the array site during migratory movements to and from this SPA. As such, a pathway to impact is identified and the potential for LSE cannot be ruled out .
		Changes in prey availability	Array site OECC	Out	Out	Out	Use of offshore marine habitats by these SCIs is minimal and interaction with these project areas is confined to passage during migration, as such, there is no pathway to impact from changes in prey availability. Therefore, it is considered that there is no potential for LSE in relation to this effect .

Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Relevant SCIs	Potential Impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
			Intertidal cable route landfall	In	In	In	<p>North Bull Island SPA adjoins South Dublin Bay and River Tolka Estuary SPA and, for the purpose of this assessment, SCIs from North Bull Island SPA are considered to utilise South Dublin Bay and River Tolka Estuary SPA.</p> <p>Cable laying and landfall installation activities, their maintenance during the operational period and removal during decommissioning may have temporary effects on intertidal habitats which support the prey species of the SPA's wildfowl and wader SCIs. As such, a pathway to impact to these receptors is identified and the potential for LSE cannot be ruled out.</p>
			Onshore infrastructure	Out	Out	Out	<p>Use of terrestrial habitats by these SCIs within areas in which onshore infrastructure will occur is minimal and interaction with these project areas is not anticipated, as such, there is no pathway to impact from changes in prey availability. Therefore, it is considered that there is no potential for LSE in relation to this effect.</p>
		Introduction or spread of invasive species	Array site OECC	Out	Out	Out	<p>Use of offshore marine habitats by these SCIs is minimal and interaction with these project areas is confined to passage during migration, as such, there is no pathway to impact from introduction or spread of invasive species. Therefore, it is considered that</p>

Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Relevant SCIs	Potential Impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
							there is no potential for LSE in relation to this effect.
			Intertidal cable route landfall Onshore infrastructure	In	In	In	As mitigation measures to prevent the introduction or spread on INNS are not a requirement of underlying legislation and may be construed as being implemented specifically to address risks in relation to the Habitats Regulations, these measures cannot be applied at the screening phase. In the absence of mitigation measures, introduction or spread of invasive species may occur due to the CWP Project and, therefore, a pathway to impact to these receptors is identified. As such, the potential for LSE cannot be ruled out.

Table 3-7 Project alone screening of Natura 2000 sites designated for migratory wildfowl and wader SCIs (excluding South Dublin Bay and River Tolka Estuary SPA and North Bull Island SPA)

Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal Landfall]	Relevant SCIs	Potential effect	Project component	Screened in / out			Reasoning
				C	O&M	D	
Dundalk Bay (IE004026) [83.99; 58.14; 58.14], straight line Boyne Estuary SPA (IE004080) [69.3; 42.56; 42.56], straight line River Nanny Estuary and Shore (IE004158) [61.67; 34.69; 34.69], straight line Skerries Islands (IE004122) [49.82; 26.12; 26.12], straight line Rockabill (IE0004014)	Whooper swan Bewick's swan Pale-bellied brent goose Greenland white-fronted goose Greylag goose Shelduck Teal Mallard Pintail Shoveler Wigeon Gadwall Tufted duck Little grebe Coot Grey heron Oystercatcher	Direct effects on habitat	Array site OECC	Out	Out	Out	Use of offshore marine habitats by these SCIs is minimal and interaction with these project areas is confined to passage during migration, as such, there is no pathway to impact from direct effects on habitat. Therefore, it is considered that there is no potential for LSE in relation to this effect.
			Intertidal cable route landfall	In	In	In	On the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may pass through South Dublin Bay during migratory periods or between site movements during non-breeding periods, there is potential for individuals which use these SPAs to be present within areas in which direct effects on habitat may occur and a pathway to impact to this receptor is identified. Therefore the potential for LSE cannot be ruled out.
			Onshore infrastructure	Out	Out	Out	Use of terrestrial habitats by these SCIs within areas in which onshore infrastructure

Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal Landfall]	Relevant SCIs	Potential effect	Project component	Screened in / out			Reasoning
				C	O&M	D	
[[47.36; 26.39; 26.39], straight line Rogerstown Estuary (IE004015) [41.92; 17.49; 17.49], straight line Baldoyle Bay (IE004016) [32.86; 6.96; 7.02], straight line Malahide Estuary (IE004025) [37.92; 11.83; 11.83], straight line The Murrough (IE0004186) [7.5; 0.0; 22.87], straight line Cahore Marshes (IE004143)	Ringed plover Golden plover Grey plover Lapwing Knot Dunlin Black-tailed godwit Bar-tailed godwit Curlew Redshank Sanderling Turnstone Purple sandpiper						will occur is minimal and interaction with these project areas is not anticipated, as such, there is no pathway to impact from direct effects on habitat. Therefore, it is considered that there is no potential for LSE in relation to this effect.
		Disturbance and displacement	Array site	In	In	In	On the assumption that individuals from SPAs within the ZOI of this impact (see Section 2.3) may pass through the array site during migratory periods, there is potential for individuals which use these SPAs to be present within areas in which disturbance and displacement impacts may occur. Use of offshore marine habitats by these non-seabird SCIs is minimal and interaction with the array site is confined to over-flying passage during migration. As such, no pathway to impact is identified in association with indirect habitat loss in response to vessel activity or the presence of OWF infrastructure. However, should over-flying migrating wildfowl or wader SCIs avoid passage through the array site during migration, a pathway to impact for disturbance and displacement impacts (in

Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal Landfall]	Relevant SCIs	Potential effect	Project component	Screened in / out			Reasoning
				C	O&M	D	
[54.78; 62.4; 85.37], straight line							the form of barrier effects) is identified. Consequently, the potential for LSE cannot be ruled out.
The Raven (IE0004019) [70.52; 78.09; 100.19], straight line			OECC	Out	Out	Out	On the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may pass though the OECC during migratory periods or between site movements during non-breeding periods, there is potential for individuals which use these SPAs to be present within areas in which disturbance and displacement impacts associated with vessel activity may occur.
Wexford Harbour and Slobs (IE0004076) [74.82; 79.7; 96.48], straight line							Use of offshore marine habitats by these non-seabird SCIs is, however, minimal and interaction with the OECC is confined to over-flying passage during migration. As such, no pathway to impact is identified in association with disturbance and displacement impacts through indirect habitat loss in response to vessel activity. Therefore, it is considered that there is no potential for LSE in relation to this effect.
Lady's Island Lake (IE0004009) [94.51; 102.39; 124.22], straight line							
Tacumshin Lake (IE004092) [97.56; 105.02; 125.72], straight line							

Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal Landfall]	Relevant SCIs	Potential effect	Project component	Screened in / out			Reasoning
				C	O&M	D	
<p>Ballyteige Burrow (IE004020) [102.36; 108.6; 126.86], straight line</p> <p>Bannow Bay (IE004033) [102.44; 107.79; 124.21], straight line</p> <p>Tramore Back Strand (IE004027) [124.2; 128.51; 141.84], straight line</p> <p>Dungarvan Harbour (IE004032)</p>			Intertidal cable route landfall	In	In	In	<p>On the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may pass through the intertidal cable route landfall area during migratory periods or between site movements during non-breeding periods, there is potential for individuals which use these SPAs to be present within areas in which disturbance and displacement impacts associated project activities within and around intertidal areas may occur.</p> <p>Although wildfowl and wader species vary in their disturbance responses to anthropogenic activity within intertidal habitats, all show some level of disturbance to visual or acoustic stimuli (Table A-3, Annex A).</p> <p>As such, a pathway to impact to these receptors is identified and potential for LSE cannot be ruled out.</p>

Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal Landfall]	Relevant SCIs	Potential effect	Project component	Screened in / out			Reasoning
				C	O&M	D	
<p>[154.27; 156.87; 165.08], straight line</p> <p>Blackwater Estuary (IE004028) [174.98; 177.23; 184.04], straight line</p> <p>Strangford Lough (Northern Ireland) (UK9020111) [129.68; 114.59; 114.59], straight line</p> <p>Outer Ards (Northern Ireland) (UK9020271) [134.19; 119.71; 119.71], straight line</p> <p>Carlingford Lough (Northern Ireland) (IE004078) [96.68; 73.63; 73.63], straight line</p>			Onshore infrastructure	Out	Out	Out	Use of terrestrial habitats by these SCIs within areas in which onshore infrastructure will occur is minimal. The potential for individuals from these SPAs to occur within any limited areas of intertidal habitat within South Dublin Bay while it is affected by construction phase noise from onshore activities on the Poolbeg peninsula is considered negligible. Interaction with these project areas is, therefore, not anticipated and, as such, there is no pathway to impact from disturbance and displacement. Therefore, it is considered that there is no potential for LSE in relation to this effect.
		Collision	Array site		In		On the assumption that individuals from SPAs within the ZOI of this impact (see Section 2.3) may pass through the array site during migratory periods, there is potential for individuals which use these SPAs to be present within areas in which collision impacts may occur. Migratory wildfowl and wader species may fly within the rotor swept altitude range of the CWP Project. Consequently, they may be vulnerable to collisions within the array

Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal Landfall]	Relevant SCIs	Potential effect	Project component	Screened in / out			Reasoning
				C	O&M	D	
Killough Bay (Northern Ireland) (UK9020221) [123.48; 107.49; 107.49], straight line							site during migratory movements to and from this SPA. As such, a pathway to impact is identified and the potential for LSE cannot be ruled out.
Larne Lough (Northern Ireland) (UK9020042) [181.11; 162.03; 162.03], straight line		Changes in prey availability	Array site OECC	Out	Out	Out	Use of offshore marine habitats by these SCIs is minimal and interaction with these project areas is confined to passage during migration, as such, there is no pathway to impact from changes in prey availability. Therefore, it is considered that there is no potential for LSE in relation to this effect.
Lough Neagh and Lough Beg (Northern Ireland) (UK9020091) [153.33; 128.28; 128.28], straight line			Intertidal cable route landfall	In	In	In	On the assumption that individuals from SPAs within the ZoI of this impact (see Section 2.3) may pass through South Dublin Bay during migratory periods or between site movements during non-breeding periods, there is potential for individuals which use these SPAs to be present within areas in which changes in prey availability may occur and a pathway to impact to this receptor is identified. Therefore the potential for LSE cannot be ruled out.
Ballymacoda Bay (IE004023) [182.66; 185.36; 193.20], straight line							

Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal Landfall]	Relevant SCIs	Potential effect	Project component	Screened in / out			Reasoning
				C	O&M	D	
Ballycotton Bay (IE004022) [193.86; 196.48; 203.93], straight line			Onshore infrastructure	Out	Out	Out	Use of terrestrial habitats by these SCIs within areas in which onshore infrastructure will occur is minimal and interaction with these project areas is not anticipated, as such, there is no pathway to impact from changes in prey availability. Therefore, it is considered that there is no potential for LSE in relation to this effect.
Cork Harbour (IE004030) [199.67; 201.55; 206.95], straight line							
Courtmacsherry Bay (IE004219) [243.64; 245.45; 250.08], straight line		Introduction or spread of invasive species	Array site OECC	Out	Out	Out	Use of offshore marine habitats by these SCIs is minimal and interaction with these project areas is confined to passage during migration, as such, there is no pathway to impact from introduction or spread of invasive species. Therefore, it is considered that there is no potential for LSE in relation to this effect.
Clonakilty Bay (IE004081) [256.8; 258.45; 262.5], straight line							
Poulaphouca Reservoir (IE004063) [42.48; 24.89; 24.89], straight line							
Lambay Island (IE004069)			Intertidal cable route landfall Onshore infrastructure	In	In	In	As mitigation measures to prevent the introduction or spread on INNS are not a requirement of underlying legislation and may be construed as being implemented specifically to address risks in relation to the Habitats Regulations, these measures cannot be applied at the screening phase. In the absence of mitigation measures, introduction or spread of invasive species

Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal Landfall]	Relevant SCIs	Potential effect	Project component	Screened in / out			Reasoning
				C	O&M	D	
<p>[38.83; 18.27; 18.49], straight line</p> <p>Upper Lough Erne (Northern Ireland) [144.93; 112.73; 112.73], straight line</p> <p>Lough Foyle (Northern Ireland) (IE004087) [232.87; 204.03; 204.03], straight line</p>							may occur due to the CWP Project and, therefore, a pathway to impact to these receptors is identified. As such, the potential for LSE cannot be ruled out.

3.3.4 Sites designated for other migratory non-seabird SCIs

72. All Irish SPAs designated in relation to wintering or breeding populations of the following terrestrial (i.e., non seabird and non-wader or wildfowl species) migratory SCIs are considered in
73. **Table 3-8** on the basis that these SCIs may pass through the CWP array site during migration:
- Hen harrier
 - Merlin
 - Corncrake

Table 3-8 Project alone screening of Natura 2000 sites designated for migratory non-seabird SCIs (excluding wildfowl and wader SCIs)

Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Relevant SCIs	Potential impact	Project component	Screened in/out			Reasoning
				C	O&M	D	
<p>Connemara Bog Complex (IE004181) [232.5; 206.97; 206.97], straight line</p> <p>Derryveagh and Glendowan Mountains (IE004039) [242.76; 210.92; 210.92], straight line</p> <p>Falcarragh to Meenlaragh (IE004149) [266.88; 235.67; 235.67], straight line</p> <p>Fanad Head (IE004148) [261.03; 231.32; 231.32] straight line</p>	<p>Hen harrier</p> <p>Merlin</p> <p>Corncrake</p>	Direct effects on habitat	<p>Array site</p> <p>OECC</p> <p>Intertidal cable route landfall</p> <p>Onshore infrastructure</p>	Out	Out	Out	<p>There is considered to be no route to impact for CWP Project activities within the array site, the OECC area, the intertidal cable route landfall area within South Dublin Bay or onshore infrastructure to directly affect habitats within these relevant SPAs.</p> <p>As such, it is considered that there is no potential for LSE in relation to this effect.</p>
		Disturbance and displacement	Array site	In	In	In	<p>On the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may pass through the array site during migratory periods, there is potential for individuals which use these SPAs to be present within areas in which disturbance and displacement impacts may occur.</p> <p>Use of offshore marine habitats by these non-seabird SCIs is minimal and interaction with the array site is confined to over-flying passage during migration. As such, no pathway to impact is identified in association with indirect habitat loss in response to vessel activity or the presence of OWF infrastructure. However, should over-flying</p>

Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Relevant SCIs	Potential impact	Project component	Screened in/out			Reasoning
				C	O&M	D	
<p>Inishbofin, Inishdooney and Inishbeg (IE004083) [271.52; 240.26; 240.26], straight line</p> <p>Inishbofin, Omev Island and Turbot Island (IE004231) [289.05; 261.76; 261.76], straight line</p> <p>Killarney National Park (IE004038) [269.7; 264.4; 264.43], straight line</p> <p>Lough Nillan Bog (IE004110) [235.88; 203.79; 203.79], straight line</p>							migrating SCIs avoid passage through the array site during migration, a pathway to impact for disturbance and displacement impacts (in the form of barrier effects) is identified. Consequently, the potential for LSE cannot be ruled out.
			OECC Intertidal cable route landfall Onshore infrastructure	Out	Out	Out	There is considered to be no route to impact for CWP Project activities within the OECC area, the intertidal cable route landfall area within South Dublin Bay or onshore infrastructure to directly affect habitats within these relevant SPAs. As such, it is considered that there is no potential for LSE in relation to this effect.
		Collision	Array site		In		On the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may pass through the array site during migratory periods, there is potential for individuals which use these SPAs to be present within areas in which collision impacts may occur. Migratory SCIs may fly within the rotor swept altitude range of the CWP Project. Consequently, they may be vulnerable to collisions within the array site during migratory movements to and from these SPAs. As such, a pathway to impact is

Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Relevant SCIs	Potential impact	Project component	Screened in/out			Reasoning
				C	O&M	D	
Malin Head (IE004146) [264.05; 235.56; 235.56], straight line							identified and the potential for LSE cannot be ruled out.
Middle Shannon Callows (IE004096) [139.26; 112.19; 112.19], straight line		Changes in prey availability	Array site OECC Intertidal cable route landfall Onshore infrastructure	Out	Out	Out	There is considered to be no route to impact for CWP Project activities within the array site, the OECC area, the intertidal cable route landfall area within South Dublin Bay or onshore infrastructure to result in changes in prey availability to the SCIs of these relevant SPAs. As such, it is considered that there is no potential for LSE in relation to this effect.
Mullaghanish to Musheramore Mountains (IE004162) [239.3 ; 238.15], straight line		Introduction or spread of invasive species	Array site OECC Intertidal cable route landfall Onshore infrastructure	Out	Out	Out	Use of on- and offshore habitats in which project activities may result in the potential introduction or spread of invasive species by these SCIs is minimal and interaction with these project areas is confined to passage during migration, as such, there is no pathway to impact from introduction or spread of invasive species. Therefore, it is considered that there is no potential for LSE in relation to this effect.
Mullet Peninsula (IE004227) [300.81; 269.75; 269.75], straight line							
Owenduff / Nephin Complex (IE004098) [263.33; 232.92; 232.92], straight line							

Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Relevant SCIs	Potential impact	Project component	Screened in/out			Reasoning
				C	O&M	D	
Slieve Aughty Mountains (IE004168) [167.21; 145.01; 145.01], straight line							
Slieve Beagh (IE004167) [154.07; 123.26; 123.26, straight line							
Slieve Bloom Mountains (IE004160) [105.18; 83.46; 83.46], straight line							
Slievefelim to Silvermines Mountains (IE004165) [153.78; 141.78; 141.78], straight line							
Stack's to Mullaghareirk Mountains, West Limerick Hills and							

Relevant SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Relevant SCIs	Potential impact	Project component	Screened in/out			Reasoning
				C	O&M	D	
Mount Eagle (IE004161) [225.29; 213.19; 213.19], straight line							
Tory Island (IE004073) [280.39; 249.27; 249.27], straight line							
West Donegal Islands (IE004230) [270.63; 238.84; 238.84], straight line							
Wexford Harbour and Slob (IE0004076) [74.82; 79.7; 96.48], straight line							
Wicklow Mountains (IE004040) [24.17; 11.99; 11.99], straight line							

3.3.5 Sites designated in relation to important marine areas

74. All SPAs within the Irish Sea covering marine areas designated in relation to their importance for seabird SCIs are considered in **Table 3-9** on the basis that these SCIs may pass through areas impacted by works or infrastructure of the CWP project during breeding and / or non-breeding periods.

Table 3-9 Project alone screening of Natura 2000 sites designated in relation to important marine areas for ornithological receptors

Marine Area SPAs and nearest distance to each project component (km) [Array;OECC; Intertidal landfall]	Relevant SCIs (BTO Codes* ¹) ⁷	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
North West Irish Sea SPA [21.35; 1.27; 1.55], straight line [21.36; 1.29; 1.60], by sea	F., MX, CA, LB, HG, KI, CN, GU, RA, PU	Direct effects on habitat	Array site	In	In	In	For these SCIs this marine SPA is designated in relation to habitats used by individuals from named breeding colony SPAs (Lambay Island SPA, Ireland's Eye SPA, Skerries Islands SPA, Howth Head Coast SPA, Rockabill SPA, South Dublin Bay and River Tolka Estuary SPA and Boyne Estuary SPA). For these SCIs the distance between one or more named SPA colonies and the array site is less than the mean maximum (+ 1 SD) breeding season foraging range stated in Woodward et al., 2019. As such, there is considered to be the potential for non-negligible numbers of individuals from these SPAs to be present within the Zol of this impact (see Section 2.3) and a pathway to impact is identified. Therefore, the potential for LSE cannot be ruled out.
	RS, SA, AE, AF			Out	Out	Out	For these SCIs, this marine SPA is designated in relation to habitats used by individuals from named breeding colony SPAs (Lambay Island SPA, Ireland's Eye SPA, Skerries Islands SPA, Howth Head Coast SPA, Rockabill SPA, South Dublin Bay and River Tolka Estuary SPA and Boyne Estuary SPA). For these SCIs, the distance between all named SPA colonies and the array site is greater than the mean maximum (+ 1 SD) breeding season foraging range stated in Woodward et al., 2019. As such, there is considered not to be connectivity between the SPA and array site and no potential for non-negligible numbers of individuals from these SPAs to be present within the Zol of this impact (see Section 2.3). Therefore, no pathway to impact is identified and it is considered that there is no potential for LSE in relation to this effect.
	RH, ND, CX, BH, CM, GB, LU			In	In	In	For these SCIs, this marine SPA is designated in relation to non-breeding season populations. On the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, there is potential for individuals which use these SPAs to be present within areas in which direct effects on habitat may occur and a pathway to impact to this receptor is identified. Therefore, the potential for LSE cannot be ruled out.
	KI, F., CA, HG, LB, GU, RA, PU, MX, CN, AE, RS, SA, ND, AF, RH, CX, BH, GB		OECC	Out	Out	Out	As direct effects on habitat to breeding seabird SCIs in offshore areas relate to the occupancy of areas of sea surface by project infrastructure and there will be no above sea infrastructure beyond transient construction vessel traffic within the offshore extent of the OECC, there is assessed to be no source of impact. Therefore, it is considered that there is no potential for LSE in relation to this effect.
	CN, AE, LB, HG, CA		OECC intertidal landfall	In	In	In	For these SCIs, this marine SPA is designated in relation to habitats used by individuals from named breeding colony SPAs (Lambay Island SPA, Ireland's Eye SPA, Skerries Islands SPA, Howth Head Coast SPA, Rockabill SPA, South Dublin Bay and River Tolka Estuary SPA and Boyne Estuary SPA). For these SCIs, the distance between one or more named SPA colonies and the OECC intertidal landfall is less than the mean maximum (+ 1 SD) breeding season foraging range stated in Woodward et al., 2019. Furthermore, these SCIs were regularly recorded within the OECC intertidal landfall area during baseline surveys. As such, there is considered to be the potential for non-negligible numbers of individuals from these SPAs to be present within the Zol of this impact (see Section 2.3) and a pathway to impact is identified. Therefore, the potential for LSE cannot be ruled out.

⁷ BTO codes: AE – Arctic tern, AF – Little tern, BH – Black-headed gull, CA – Cormorant, CM – Common gull, CN – Common tern, CX – Common scoter, F. – Fulmar, GB – Great black-backed gull, GU – Guillemot, GX – Gannet, HG – Herring gull, K. – Kittiwake, LB – Lesser black-backed gull, MU – Mediterranean gull, MX – Manx shearwater, ND – Great northern diver, PU – Puffin, RA – Razorbill, RH – Red-throated diver, RS – Roseate tern, SA – Shag, TE – Sandwich tern

Marine Area SPAs and nearest distance to each project component (km) [Array;OECC; Intertidal landfall]	Relevant SCIs (BTO Codes*1) ⁷	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
	AF, RS, SA			Out	Out	Out	For these SCIs, this marine SPA is designated in relation to habitats used by individuals from named breeding colony SPAs (Lambay Island SPA, Ireland's Eye SPA, Skerries Islands SPA, Howth Head Coast SPA, Rockabill SPA, South Dublin Bay and River Tolka Estuary SPA and Boyne Estuary SPA). For these SCIs, the distance between all named SPA colonies and the OECC intertidal landfall is greater than the mean maximum (+ 1 SD) breeding season foraging range stated in Woodward et al., 2019. As such, there is considered not to be connectivity between the SPA and OECC intertidal landfall and no potential for non-negligible numbers of individuals from these SPAs to be present within the Zol of this impact (see Section 2.3). Therefore, no pathway to impact is identified and it is considered that there is no potential for LSE in relation to this effect .
	BH, CM, GB			In	In	In	For these SCIs, this marine SPA is designated in relation to non-breeding season populations. On the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, there is potential for individuals which use these SPAs to be present within intertidal areas in which direct effects on habitat may occur and a pathway to impact to this receptor is identified. Therefore, the potential for LSE cannot be ruled out .
	RH, ND, CX, F., MX, KI, GU, RA, PU, SA, LU			Out	Out	Out	Use of onshore intertidal habitats by these marine SCIs is minimal and, as such, there is no pathway to impact from direct effects on habitat. Therefore, it is considered that there is no potential for LSE in relation to this effect .
	F., MX, KI, GU, RA, PU, AF, CN, AE, RS, SA, RH, ND, CX, LU		Onshore infrastructure	Out	Out	Out	Use of terrestrial habitats by these marine SCIs is minimal and, as such, there is no pathway to impact from direct effects on habitat. Therefore, it is considered that there is no potential for LSE in relation to this effect .
	LB, HG, CA, GB, BH, CM			Out	Out	Out	Direct effects on habitat from the footprint of onshore infrastructure within the industrialised Pigeon Park area, south of the Liffey channel, do not coincide with any areas of important terrestrial habitat used by these SCIs. As such, no pathway to impact is identified and it is considered that there is no potential for LSE in relation to this effect .
	MX, CA, GU, RA, PU	Disturbance and displacement	Array site	In	In	In	For these SCIs, this marine SPA is designated in relation to habitats used by individuals from named breeding colony SPAs (Lambay Island SPA, Ireland's Eye SPA, Skerries Islands SPA, Howth Head Coast SPA, Rockabill SPA, South Dublin Bay and River Tolka Estuary SPA and Boyne Estuary SPA). For these SCIs, the distance between one or more named SPA colonies and the array site is less than the mean maximum (+ 1 SD) breeding season foraging range stated in Woodward et al., 2019. As such, there is considered to be the potential for non-negligible numbers of individuals from these SPAs to be present within the Zol of this impact (see Section 2.3). Furthermore, these SCIs are considered to be sensitive to disturbance and displacement impacts in relation to vessel activity and/or the presence of OWF infrastructure (Table A-2, Table A-4 and Table A-5, Annex A). As such, a pathway to impact is identified and the potential for LSE cannot be ruled out .
	F., LB, HG, KI, CN			Out	Out	Out	For these SCIs, this marine SPA is designated in relation to habitats used by individuals from named breeding colony SPAs (Lambay Island SPA, Ireland's Eye SPA, Skerries Islands SPA, Howth Head Coast SPA, Rockabill SPA, South Dublin Bay and River Tolka Estuary SPA and Boyne Estuary SPA). Although for these SCIs the distance between one or more named SPA colonies and the array site is less than the mean maximum (+ 1 SD) breeding season foraging range stated in Woodward et al., 2019, and there may be the potential for non-negligible numbers of individuals from these SPAs to be present within the Zol of this impact (see Section 2.3), these SCIs are not considered to be sensitive to disturbance and displacement impacts in relation to vessel activity or the presence of OWF infrastructure (Table A-2, Table A-4 and Table A-5, Annex A). As such, no pathway to impact is identified and it is considered that there is no potential for LSE in relation to this effect .

Marine Area SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Relevant SCIs (BTO Codes*1) ⁷	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
	RS, SA, AE, AF			Out	Out	Out	For these SCIs, this marine SPA is designated in relation to habitats used by individuals from named breeding colony SPAs (Lambay Island SPA, Ireland's Eye SPA, Skerries Islands SPA, Howth Head Coast SPA, Rockabill SPA, South Dublin Bay and River Tolka Estuary SPA and Boyne Estuary SPA). For these SCIs, the distance between all named SPA colonies and the array site is greater than the mean maximum (+ 1 SD) breeding season foraging range stated in Woodward et al., 2019. As such, there is considered not to be connectivity between the SPA and array site and no potential for non-negligible numbers of individuals from these SPAs to be present within the Zol of this impact (see Section 2.3). Therefore, no pathway to impact is identified and it is considered that there is no potential for LSE in relation to this effect .
	RH, ND, CX, LU			In	In	In	For these SCIs, this marine SPA is designated in relation to non-breeding season populations. On the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, there is potential for individuals which use these SPAs to be present within areas in which disturbance and displacement impacts may occur. Furthermore, these SCIs are considered to be sensitive to disturbance and displacement impacts in relation to vessel activity and/or the presence of OWF infrastructure (Table A-2 and Table A-4, Annex A). As such, a pathway to impact is identified and the potential for LSE cannot be ruled out .
	BH, CM, GB			Out	Out	Out	For these SCIs, this marine SPA is designated in relation to non-breeding season populations. On the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, there is potential for individuals which use these SPAs to be present within areas in which disturbance and displacement impacts may occur. Despite this, these SCIs are considered not to be sensitive to disturbance and displacement impacts in relation to vessel activity and/or the presence of OWF infrastructure (Table A-2, Table A-4 and Table A-5, Annex A). As such, no pathway to impact is identified and it is considered that there is no potential for LSE in relation to this effect .
	CA, GU, RA, PU		OECC	In	In	In	For these SCIs, this marine SPA is designated in relation to habitats used by individuals from named breeding colony SPAs (Lambay Island SPA, Ireland's Eye SPA, Skerries Islands SPA, Howth Head Coast SPA, Rockabill SPA, South Dublin Bay and River Tolka Estuary SPA and Boyne Estuary SPA). For these SCIs, the distance between one or more named SPA colonies and the OECC is less than the mean maximum (+ 1 SD) breeding season foraging range stated in Woodward et al., 2019. As such, there is considered to be the potential for non-negligible numbers of individuals from these SPAs to be present within the Zol of this impact (see Section 2.3). Furthermore, these SCIs are considered to be sensitive to disturbance and displacement impacts in relation to vessel activity (Table A-2, Annex A). As such, a pathway to impact is identified and the potential for LSE cannot be ruled out .
	F., LB, HG, KI, CN, MX, AE			Out	Out	Out	For these SCIs, this marine SPA is designated in relation to habitats used by individuals from named breeding colony SPAs (Lambay Island SPA, Ireland's Eye SPA, Skerries Islands SPA, Howth Head Coast SPA, Rockabill SPA, South Dublin Bay and River Tolka Estuary SPA and Boyne Estuary SPA). Although for these SCIs the distance between one or more named SPA colonies and the OECC is less than the mean maximum (+ 1 SD) breeding season foraging range stated in Woodward et al., 2019, and there may be the potential for non-negligible numbers of individuals from these SPAs to be present within the Zol of this impact (see Section 2.3), these SCIs are not considered to be sensitive to disturbance and displacement impacts in relation to vessel activity (Table A-2, Annex A). As such, no pathway to impact is identified and it is considered that there is no potential for LSE in relation to this effect .

Marine Area SPAs and nearest distance to each project component (km) [Array;OECC; Intertidal landfall]	Relevant SCIs (BTO Codes*1) ⁷	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
	RS, SA, AF			Out	Out	Out	For these SCIs, this marine SPA is designated in relation to habitats used by individuals from named breeding colony SPAs (Lambay Island SPA, Ireland's Eye SPA, Skerries Islands SPA, Howth Head Coast SPA, Rockabill SPA, South Dublin Bay and River Tolka Estuary SPA and Boyne Estuary SPA). For these SCIs, the distance between all named SPA colonies and the OECC is greater than the mean maximum (+ 1 SD) breeding season foraging range stated in Woodward et al., 2019. As such, there is considered not to be connectivity between the SPA and array site and no potential for non-negligible numbers of individuals from these SPAs to be present within the Zol of this impact (see Section 2.3). Therefore, no pathway to impact is identified and it is considered that there is no potential for LSE in relation to this effect.
	RH, ND, CX, LU			In	In	In	For these SCIs, this marine SPA is designated in relation to non-breeding season populations. On the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, there is potential for individuals which use these SPAs to be present within areas in which disturbance and displacement impacts may occur. Furthermore, these SCIs are considered to be sensitive to disturbance and displacement impacts in relation to vessel activity (Table A-2, Annex A). As such, a pathway to impact is identified and the potential for LSE cannot be ruled out.
	BH, CM, GB			Out	Out	Out	For these SCIs, this marine SPA is designated in relation to non-breeding season populations. On the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, there is potential for individuals which use these SPAs to be present within areas in which disturbance and displacement impacts may occur. Despite this, these SCIs are considered not to be sensitive to disturbance and displacement impacts in relation to vessel activity (Table A-2, Annex A). As such, no pathway to impact is identified and it is considered that there is no potential for LSE in relation to this effect.
	CN, AE, LB, HG, CA,		OECC intertidal landfall	In	In	In	For these SCIs, this marine SPA is designated in relation to habitats used by individuals from named breeding colony SPAs (Lambay Island SPA, Ireland's Eye SPA, Skerries Islands SPA, Howth Head Coast SPA, Rockabill SPA, South Dublin Bay and River Tolka Estuary SPA and Boyne Estuary SPA). For these SCIs, the distance between one or more named SPA colonies and the OECC intertidal landfall is less than the mean maximum (+ 1 SD) breeding season foraging range stated in Woodward et al., 2019. Furthermore, these SCIs were regularly recorded within the OECC intertidal landfall area during baseline surveys. As such, there is considered to be the potential for non-negligible numbers of individuals from these SPAs to be present within the Zol of this impact (see Section 2.3) and a pathway to impact is identified. Therefore, the potential for LSE cannot be ruled out.
	AF, RS, SA			Out	Out	Out	For these SCIs, this marine SPA is designated in relation to habitats used by individuals from named breeding colony SPAs (Lambay Island SPA, Ireland's Eye SPA, Skerries Islands SPA, Howth Head Coast SPA, Rockabill SPA, South Dublin Bay and River Tolka Estuary SPA and Boyne Estuary SPA). For these SCIs, the distance between all named SPA colonies and the OECC intertidal landfall is greater than the mean maximum (+ 1 SD) breeding season foraging range stated in Woodward et al., 2019. As such, there is considered not to be connectivity between the SPA and OECC intertidal landfall and no potential for non-negligible numbers of individuals from these SPAs to be present within the Zol of this impact (see Section 2.3). Therefore, no pathway to impact is identified and it is considered that there is no potential for LSE in relation to this effect.
	RH, ND, CX, BH, CM, GB			In	In	In	For these SCIs, this marine SPA is designated in relation to non-breeding season populations. On the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, there is potential for individuals which use these SPAs to be present within intertidal areas in which disturbance and displacement impacts may occur and a pathway to impact to this receptor is identified. Therefore, the potential for LSE cannot be ruled out.

Marine Area SPAs and nearest distance to each project component (km) [Array;OECC; Intertidal landfall]	Relevant SCIs (BTO Codes*1) ⁷	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
	F., MX, KI, GU, RA, PU, SA, LU			Out	Out	Out	Use of intertidal habitats by these marine SCIs is minimal and, as such, there is no pathway to impact from disturbance and displacement effects. Therefore, it is considered that there is no potential for LSE in relation to this effect.
	CN		Onshore infrastructure	In	In	In	For this SCI, this marine SPA is designated in relation to habitats used by individuals from named breeding colony SPAs, including South Dublin Bay and River Tolka Estuary SPA. As the distance between the common tern breeding colony within South Dublin Bay and River Tolka Estuary SPA is less than the mean maximum (+ 1 SD) breeding season foraging range of this species stated in Woodward et al., 2019 (onshore infrastructure will be located close to SPA breeding colonies [300 m southwest] and associated colonies [60 m south] within the River Liffey channel) and as this SCI is sensitive to anthropogenic disturbance at breeding colonies, there is considered to be the potential for non-negligible numbers of individuals which use this marine area SPA to be present within the ZoI of this impact (see Section 2.3) and a pathway to impact is identified. Therefore, the potential for LSE cannot be ruled out.
	F., MX, KI, GU, RA, PU, AF, AE, RS, SA, RH, ND, CX, LU			Out	Out	Out	Use of terrestrial habitats by these marine SCIs is minimal and, as such, there is no pathway to impact from disturbance and displacement from activities within or around areas in which onshore infrastructure will be located. Therefore, it is considered that there is no potential for LSE in relation to this effect.
	LB, HG, CA, GB, BH, CM			Out	Out	Out	The potential for individuals from these SPAs to occur within any limited areas of intertidal habitat within South Dublin Bay while it is affected by construction phase noise from onshore activities on the Poolbeg peninsula or to occur within affected onshore areas on the Poolbeg peninsula is considered negligible. Interaction with these project areas is, therefore, not anticipated and, as such, there is no pathway to impact from disturbance and displacement. Therefore, it is considered that there is no potential for LSE in relation to this effect.
	CA, LB, HG, KI, CN	Collision	Array site		In		For these SCIs, this marine SPA is designated in relation to habitats used by individuals from named breeding colony SPAs (Lambay Island SPA, Ireland's Eye SPA, Skerries Islands SPA, Howth Head Coast SPA, Rockabill SPA, South Dublin Bay and River Tolka Estuary SPA and Boyne Estuary SPA). For these SCIs, the distance between one or more named SPA colonies and the array site is less than the mean maximum (+ 1 SD) breeding season foraging range stated in Woodward et al., 2019. As such, there is considered to be the potential for non-negligible numbers of individuals from these SPAs to be present within the ZoI of this impact (see Section 2.3). These SCIs are considered to be potentially vulnerable to collisions with operational WTGs (Table A-6, Annex A) and, therefore, a pathway to impact is identified. Consequently, the potential for LSE cannot be ruled out.
	MX, GU, RA, PU, F.				Out		For these SCIs, this marine SPA is designated in relation to habitats used by individuals from named breeding colony SPAs (Lambay Island SPA, Ireland's Eye SPA, Skerries Islands SPA, Howth Head Coast SPA, Rockabill SPA, South Dublin Bay and River Tolka Estuary SPA and Boyne Estuary SPA). For these SCIs, the distance between one or more named SPA colonies and the array site is less than the mean maximum (+ 1 SD) breeding season foraging range stated in Woodward et al., 2019. As such, there is considered to be the potential for non-negligible numbers of individuals from these SPAs to be present within the ZoI of this impact (see Section 2.3). However, these SCIs are not considered to be vulnerable to collisions with operational WTGs (Table A-6, Annex A) and, therefore, no pathway to impact is identified. Consequently, it is considered that there is no potential for LSE in relation to this effect.
	RS, SA, AE, AF				Out		For these SCIs, this marine SPA is designated in relation to habitats used by individuals from named breeding colony SPAs (Lambay Island SPA, Ireland's Eye SPA, Skerries Islands SPA, Howth Head Coast SPA, Rockabill SPA, South Dublin Bay and River Tolka Estuary SPA and Boyne Estuary SPA). For these SCIs, the distance between all named SPA colonies and the array site is greater than the mean maximum (+ 1 SD) breeding season foraging range stated in Woodward et al., 2019. As such, there is not considered to be the potential for non-negligible numbers of individuals from these SPAs to be present within the ZoI of this impact (see Section 2.3). Therefore, no pathway to impact is identified and it is considered that there is no potential for LSE in relation to this effect.

Marine Area SPAs and nearest distance to each project component (km) [Array;OECC; Intertidal landfall]	Relevant SCIs (BTO Codes*1) ⁷	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
	RH, ND, CX, LU, BH, CM, GB				In		For these SCIs, this marine SPA is designated in relation to non-breeding season populations. On the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, there is potential for individuals which use these SPAs to pass through the operational array site and thereby experience risk of collision with turbines. Furthermore, these SCIs fly within the rotor swept altitude range of the development and therefore may be vulnerable to collisions within the array site (Table A-6, Annex A). As such, a pathway to impact is identified and the potential for LSE cannot be ruled out.
	F., MX, CA, LB, HG, KI, CN, GU, RA, PU	Changes in prey availability	Array site	In	In	In	For these SCIs, this marine SPA is designated in relation to habitats used by individuals from named breeding colony SPAs (Lambay Island SPA, Ireland's Eye SPA, Skerries Islands SPA, Howth Head Coast SPA, Rockabill SPA, South Dublin Bay and River Tolka Estuary SPA and Boyne Estuary SPA). For these SCIs, the distance between one or more named SPA colonies and the array site is less than the mean maximum (+ 1 SD) breeding season foraging range stated in Woodward et al., 2019. As such, there is considered to be the potential for non-negligible numbers of individuals from these SPAs to be present within the Zol of this impact (see Section 2.3) and a pathway to impact is identified. Therefore, the potential for LSE cannot be ruled out.
	RS, SA, AE, AF			Out	Out	Out	For these SCIs, this marine SPA is designated in relation to habitats used by individuals from named breeding colony SPAs (Lambay Island SPA, Ireland's Eye SPA, Skerries Islands SPA, Howth Head Coast SPA, Rockabill SPA, South Dublin Bay and River Tolka Estuary SPA and Boyne Estuary SPA). For these SCIs, the distance between all named SPA colonies and the array site is greater than the mean maximum (+ 1 SD) breeding season foraging range stated in Woodward et al., 2019. As such, there is considered not to be connectivity between the SPA and array site and no potential for non-negligible numbers of individuals from these SPAs to be present within the Zol of this impact (see Section 2.3). Therefore, no pathway to impact is identified and it is considered that there is no potential for LSE in relation to this effect.
	RH, ND, CX, BH, CM, GB, LU			In	In	In	For these SCIs, this marine SPA is designated in relation to non-breeding season populations. On the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, there is potential for individuals which use these SPAs to be present within areas in which changes in prey availability may occur and a pathway to impact to this receptor is identified. Therefore, the potential for LSE cannot be ruled out.
	KI, F., CA, HG, LB, GU, RA, PU, MX, CN, AE		OECC	In	In	In	For these SCIs, this marine SPA is designated in relation to habitats used by individuals from named breeding colony SPAs (Lambay Island SPA, Ireland's Eye SPA, Skerries Islands SPA, Howth Head Coast SPA, Rockabill SPA, South Dublin Bay and River Tolka Estuary SPA and Boyne Estuary SPA). For these SCIs, the distance between one or more named SPA colonies and the OECC is less than the mean maximum (+ 1 SD) breeding season foraging range stated in Woodward et al., 2019. As such, there is considered to be the potential for non-negligible numbers of individuals from these SPAs to be present within the Zol of this impact (see Section 2.3) and a pathway to impact is identified. Therefore, the potential for LSE cannot be ruled out.
	RS, SA, AF			Out	Out	Out	For these SCIs, this marine SPA is designated in relation to habitats used by individuals from named breeding colony SPAs (Lambay Island SPA, Ireland's Eye SPA, Skerries Islands SPA, Howth Head Coast SPA, Rockabill SPA, South Dublin Bay and River Tolka Estuary SPA and Boyne Estuary SPA). For these SCIs, the distance between all named SPA colonies and the OECC is greater than the mean maximum (+ 1 SD) breeding season foraging range stated in Woodward et al., 2019. As such, there is considered not to be connectivity between the SPA and array site and no potential for non-negligible numbers of individuals from these SPAs to be present within the Zol of this impact (see Section 2.3). Therefore, no pathway to impact is identified and it is considered that there is no potential for LSE in relation to this effect.

Marine Area SPAs and nearest distance to each project component (km) [Array;OECC; Intertidal landfall]	Relevant SCIs (BTO Codes*1) ⁷	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
	ND, RH, CX, BH, GB			In	In	In	For these SCIs, this marine SPA is designated in relation to non-breeding season populations. On the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, there is potential for individuals which use these SPAs to be present within areas in which changes in prey availability may occur and a pathway to impact to this receptor is identified. Therefore, the potential for LSE cannot be ruled out.
	CN, AE, LB, HG, CA,		OECC intertidal landfall	In	In	In	For these SCIs, this marine SPA is designated in relation to habitats used by individuals from named breeding colony SPAs (Lambay Island SPA, Ireland's Eye SPA, Skerries Islands SPA, Howth Head Coast SPA, Rockabill SPA, South Dublin Bay and River Tolka Estuary SPA and Boyne Estuary SPA). For these SCIs, the distance between one or more named SPA colonies and the OECC intertidal landfall is less than the mean maximum (+ 1 SD) breeding season foraging range stated in Woodward et al., 2019. Furthermore, these SCIs were regularly recorded within the OECC intertidal landfall area during baseline surveys. As such, there is considered to be the potential for non-negligible numbers of individuals from these SPAs to be present within the Zol of this impact (see Section 2.3) and a pathway to impact is identified. Therefore, the potential for LSE cannot be ruled out.
	AF, RS, SA			Out	Out	Out	For these SCIs, this marine SPA is designated in relation to habitats used by individuals from named breeding colony SPAs (Lambay Island SPA, Ireland's Eye SPA, Skerries Islands SPA, Howth Head Coast SPA, Rockabill SPA, South Dublin Bay and River Tolka Estuary SPA and Boyne Estuary SPA). For these SCIs, the distance between all named SPA colonies and the OECC intertidal landfall is greater than the mean maximum (+ 1 SD) breeding season foraging range stated in Woodward et al., 2019. As such, there is considered not to be connectivity between the SPA and OECC intertidal landfall and no potential for non-negligible numbers of individuals from these SPAs to be present within the Zol of this impact (see Section 2.3). Therefore, no pathway to impact is identified and it is considered that there is no potential for LSE in relation to this effect.
	RH, ND, CX, BH, CM, GB			In	In	In	For these SCIs, this marine SPA is designated in relation to non-breeding season populations. On the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, there is potential for individuals which use these SPAs to be present within intertidal areas in which temporary changes in prey availability may occur and a pathway to impact to this receptor is identified. Therefore, the potential for LSE cannot be ruled out.
	F., MX, KI, GU, RA, PU, SA, LU			Out	Out	Out	Use of intertidal habitats by these marine SCIs is minimal and, as such, there is no pathway to impact from changes in prey availability. Therefore, it is considered that there is no potential for LSE in relation to this effect.
	F., MX, KI, GU, RA, PU, AF, CN, AE, RS, SA, RH, ND, CX, LU		Onshore infrastructure	Out	Out	Out	Use of terrestrial habitats by these marine SCIs is minimal and, as such, there is no pathway to impact from changes in prey availability. Therefore, it is considered that there is no potential for LSE in relation to this effect.
	LB, HG, CA, GB, BH, CM			Out	Out	Out	Direct effects on habitat from the footprint of onshore infrastructure within the industrialised Pigeon Park area, south of the Liffey channel, do not coincide with any areas of important terrestrial habitat used by these SCIs. As such, no pathway to impact is identified and it is considered that there is no potential for LSE in relation to this effect.
	KI, F., CA, HG, LB, GU, RA, PU, MX, CN	Introduction or spread of invasive species	Array site	In	In	In	For these SCIs, this marine SPA is designated in relation to habitats used by individuals from named breeding colony SPAs (Lambay Island SPA, Ireland's Eye SPA, Skerries Islands SPA, Howth Head Coast SPA, Rockabill SPA, South Dublin Bay and River Tolka Estuary SPA and Boyne Estuary SPA). For these SCIs, the distance between all named SPA colonies and the array site is less than the mean maximum (+ 1 SD) breeding season foraging range stated in Woodward et al., 2019. As such, there is considered to be the potential for non-negligible numbers of individuals from these SPAs to be present within the Zol of this impact (see Section 2.3). As mitigation measures to prevent the introduction or spread on INNS are not a requirement of underlying legislation and may be construed as being implemented specifically to address risks in relation to the Habitats

Marine Area SPAs and nearest distance to each project component (km) [Array;OECC; Intertidal landfall]	Relevant SCIs (BTO Codes*1) ⁷	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
							Regulations, these measures cannot be applied at the screening phase. In the absence of mitigation measures, introduction or spread of invasive species may occur due to the CWP Project and a pathway to impact to these receptors is identified. As such, the potential for LSE cannot be ruled out.
	ND, RH, CX, BH, GB, CM			In	In	In	For these SCIs, this marine SPA is designated in relation to non-breeding season populations. On the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, there is potential for individuals which use these SPAs to be present within areas in which introduction or spread of invasive species impacts may occur and a pathway to impact to this receptor is identified. As such, the potential for LSE cannot be ruled out.
	RS, AE, AF, SA			Out	Out	Out	For these SCIs, this marine SPA is designated in relation to habitats used by individuals from named breeding colony SPAs (Lambay Island SPA, Ireland's Eye SPA, Skerries Islands SPA, Howth Head Coast SPA, Rockabill SPA, South Dublin Bay and River Tolka Estuary SPA and Boyne Estuary SPA). For these SCIs, the distance between all named SPA colonies and the array site is greater than the mean maximum (+ 1 SD) breeding season foraging range stated in Woodward et al., 2019. As such there is considered not to be connectivity between the SPA and array site and no potential for non-negligible numbers of individuals from these SPAs to be present within the Zol of this impact (see Section 2.3). Therefore, no pathway to impact is identified and it is considered that there is no potential for LSE in relation to this effect.
	KI, F., CA, HG, LB, GU, RA, PU, MX, CN, AE		OECC	In	In	In	For these SCIs, this marine SPA is designated in relation to habitats used by individuals from named breeding colony SPAs (Lambay Island SPA, Ireland's Eye SPA, Skerries Islands SPA, Howth Head Coast SPA, Rockabill SPA, South Dublin Bay and River Tolka Estuary SPA and Boyne Estuary SPA). For these SCIs, the distance between all named SPA colonies and the OECC is less than the mean maximum (+ 1 SD) breeding season foraging range stated in Woodward et al., 2019. As such, there is considered to be the potential for non-negligible numbers of individuals from these SPAs to be present within the Zol of this impact (see Section 2.3). As mitigation measures to prevent the introduction or spread on INNS are not a requirement of underlying legislation and may be construed as being implemented specifically to address risks in relation to the Habitats Regulations, these measures cannot be applied at the screening phase. In the absence of mitigation measures, introduction or spread of invasive species may occur due to the CWP Project and a pathway to impact to these receptors is identified. As such, the potential for LSE cannot be ruled out.
	ND, RH, CX, BH, GB, CM			In	In	In	For these SCIs, this marine SPA is designated in relation to non-breeding season populations. On the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, there is potential for individuals which use these SPAs to be present within areas in which introduction or spread of invasive species impacts may occur and a pathway to impact to this receptor is identified. As such, the potential for LSE cannot be ruled out.
	RS, AF, SA			Out	Out	Out	For these SCIs, this marine SPA is designated in relation to habitats used by individuals from named breeding colony SPAs (Lambay Island SPA, Ireland's Eye SPA, Skerries Islands SPA, Howth Head Coast SPA, Rockabill SPA, South Dublin Bay and River Tolka Estuary SPA and Boyne Estuary SPA). For these SCIs, the distance between all named SPA colonies and the OECC is greater than the mean maximum (+ 1 SD) breeding season foraging range stated in Woodward et al., 2019. As such, there is considered not to be connectivity between the SPA and array site and no potential for non-negligible numbers of individuals from these SPAs to be present within the Zol of this impact (see Section 2.3). Therefore, no pathway to impact is identified and it is considered that there is no potential for LSE in relation to this effect.

Marine Area SPAs and nearest distance to each project component (km) [Array;OECC; Intertidal landfall]	Relevant SCIs (BTO Codes*1) ⁷	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
	CN, AE, LB, HG, CA		OECC intertidal landfall	In	In	In	For these SCIs, this marine SPA is designated in relation to habitats used by individuals from named breeding colony SPAs (Lambay Island SPA, Ireland's Eye SPA, Skerries Islands SPA, Howth Head Coast SPA, Rockabill SPA, South Dublin Bay and River Tolka Estuary SPA and Boyne Estuary SPA). For these SCIs, the distance between one or more named SPA colonies and the OECC intertidal landfall is less than the mean maximum (+ 1 SD) breeding season foraging range stated in Woodward et al., 2019. Furthermore, these SCIs were regularly recorded within the OECC intertidal landfall area during baseline surveys. As such, there is considered to be the potential for non-negligible numbers of individuals from these SPAs to be present within areas in which introduction or spread of invasive species impacts may occur and a pathway to impact is identified. Therefore, the potential for LSE cannot be ruled out.
	AF, RS, SA			Out	Out	Out	For these SCIs, this marine SPA is designated in relation to habitats used by individuals from named breeding colony SPAs (Lambay Island SPA, Ireland's Eye SPA, Skerries Islands SPA, Howth Head Coast SPA, Rockabill SPA, South Dublin Bay and River Tolka Estuary SPA and Boyne Estuary SPA). For these SCIs, the distance between all named SPA colonies and the OECC intertidal landfall is greater than the mean maximum (+ 1 SD) breeding season foraging range stated in Woodward et al., 2019. As such, there is considered not to be connectivity between the SPA and OECC intertidal landfall and no potential for non-negligible numbers of individuals from these SPAs to be present within areas in which introduction or spread of invasive species impacts may occur. Therefore, no pathway to impact is identified and it is considered that there is no potential for LSE in relation to this effect.
	RH, ND, CX, BH, CM, GB			In	In	In	For these SCIs, this marine SPA is designated in relation to non-breeding season populations. On the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, there is potential for individuals which use these SPAs to be present within intertidal areas in which introduction or spread of invasive species impacts may occur and a pathway to impact to this receptor is identified. Therefore, the potential for LSE cannot be ruled out.
	F., MX, KI, GU, RA, PU, SA, LU			Out	Out	Out	Use of intertidal habitats by these marine SCIs is minimal and, as such, there is no pathway to impact from introduction or spread of invasive species. Therefore, it is considered that there is no potential for LSE in relation to this effect.
	F., MX, KI, GU, RA, PU, AF, CN, AE, RS, SA, RH, ND, CX, LU		Onshore infrastructure	Out	Out	Out	Use of terrestrial habitats by these marine SCIs is minimal and, as such, there is no pathway to impact from introduction or spread of invasive species. Therefore, it is considered that there is no potential for LSE in relation to this effect.
	LB, HG, CA, GB, BH, CM			Out	Out	Out	Areas in which introduction or spread of invasive species may occur around the footprint of onshore infrastructure within the industrialised Pigeon Park area, south of the Liffey channel, does not coincide with any areas of important terrestrial habitat used by these SCIs. As such, no pathway to impact is identified and it is considered that there is no potential for LSE in relation to this effect.
Seas off Wexford SPA [21.35; 1.27; 1.55], straight line [21.36; 1.29; 1.60], by sea	KI, GU, RA, PU, F., MX, GX, LB	Direct effects on habitat	Array site	In	In	In	For these SCIs, this marine SPA is designated in relation to habitats used by individuals from named breeding colony SPAs (Saltee Islands SPA, Keeragh Islands SPA, Lady's Island Lake SPA and Wexford Harbour and Slobs SPA). For these SCIs, the distance between one or more named SPA colonies and the array site is less than the mean maximum (+ 1 SD) breeding season foraging range stated in Woodward et al., 2019. As such there is considered to be the potential for non-negligible numbers of individuals from these SPAs to be present within the Zol of this impact (see Section 2.3) and a pathway to impact is identified. Therefore, the potential for LSE cannot be ruled out.

Marine Area SPAs and nearest distance to each project component (km) [Array;OECC; Intertidal landfall]	Relevant SCIs (BTO Codes*1) ⁷	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
	TE, RS, CN, AE, AF, CA, SA, MU*2, BH, HG			Out	Out	Out	For these SCIs, this marine SPA is designated in relation to habitats used by individuals from named breeding colony SPAs (Saltee Islands SPA, Keeragh Islands SPA, Lady's Island Lake SPA and Wexford Harbour and Slobs SPA). For these SCIs, the distance between one or more named SPA colonies and the array site is greater than the mean maximum (+ 1 SD) breeding season foraging range stated in Woodward et al., 2019. As such there is considered not to be connectivity between the SPA and array site and no potential for non-negligible numbers of individuals from these SPAs to be present within the Zol of this impact (see Section 2.3). Therefore, no pathway to impact is identified and it is considered that there is no potential for LSE in relation to this effect.
	RH, CX			In	In	In	For these SCIs, this marine SPA is designated in relation to non-breeding season populations. On the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, there is potential for individuals which use these SPAs to be present within areas in which direct effects on habitat may occur and a pathway to impact to this receptor is identified. Therefore, the potential for LSE cannot be ruled out.
	KI, GU, RA, PU, F., MX, GX, HG, LB, TE, RS, CN, AE, AF, CA, SA, MU*2, BH, RH, CX		OECC	Out	Out	Out	As direct effects on habitat to breeding seabird SCIs in offshore areas relate to the occupancy of areas of sea surface by project infrastructure and there will be no above sea infrastructure beyond transient construction vessel traffic within the offshore extent of the OECC, there is assessed to be no source of impact. Therefore, it is considered that there is no potential for LSE in relation to this effect.
	LB		OECC intertidal landfall	In	In	In	For these SCIs, this marine SPA is designated in relation to habitats used by individuals from named breeding colony SPAs (Saltee Islands SPA, Keeragh Islands SPA, Lady's Island Lake SPA and Wexford Harbour and Slobs SPA). For these SCIs, the distance between one or more named SPA colonies and the OECC intertidal landfall is less than the mean maximum (+ 1 SD) breeding season foraging range stated in Woodward et al., 2019. Furthermore, these SCIs were regularly recorded within the OECC intertidal landfall area during baseline surveys. As such, there is considered to be the potential for non-negligible numbers of individuals from these SPAs to be present within the Zol of this impact (see Section 2.3) and a pathway to impact is identified. Therefore, the potential for LSE cannot be ruled out.
	TE, RS, CN, AE, AF, CA, SA, MU*2, BH, HG			Out	Out	Out	For these SCIs, this marine SPA is designated in relation to habitats used by individuals from named breeding colony SPAs (Saltee Islands SPA, Keeragh Islands SPA, Lady's Island Lake SPA and Wexford Harbour and Slobs SPA). For these SCIs, the distance between all named SPA colonies and the OECC intertidal landfall is greater than the mean maximum (+ 1 SD) breeding season foraging range stated in Woodward et al., 2019. As such, there is considered not to be connectivity between the SPA and array site and no potential for non-negligible numbers of individuals from these SPAs to be present within the Zol of this impact (see Section 2.3). Therefore, no pathway to impact is identified and it is considered that there is no potential for LSE in relation to this effect.
	RH, CX			In	In	In	For these SCIs, this marine SPA is designated in relation to non-breeding season populations. On the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, there is potential for individuals which use these SPAs to be present within areas in which direct effects on habitat may occur and a pathway to impact to this receptor is identified. Therefore, the potential for LSE cannot be ruled out.
	F., MX, KI, GU, RA, PU, GX			Out	Out	Out	Use of intertidal habitats by these marine SCIs is minimal and, as such, there is no pathway to impact from direct effects on habitat. Therefore, it is considered that there is no potential for LSE in relation to this effect.
	F., MX, KI, GU, RA, PU, AF, CN,			Out	Out	Out	Use of terrestrial habitats by these marine SCIs is minimal and, as such, there is no pathway to impact from direct effects on habitat. Therefore, it is considered that there is no potential for LSE in relation to this effect.
			Onshore infrastructure	Out	Out	Out	

Marine Area SPAs and nearest distance to each project component (km) [Array;OECC; Intertidal landfall]	Relevant SCIs (BTO Codes*1) ⁷	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
	AE, RS, SA, RH, CX, GX, TE						
	HG, LB, CA, MU*2, BH			Out	Out	Out	Direct effects on habitat from the footprint of onshore infrastructure within the industrialised Pigeon Park area, south of the Liffey channel, do not coincide with any areas of important terrestrial habitat used by these SCIs. As such, no pathway to impact is identified and it is considered that there is no potential for LSE in relation to this effect.
	MX, GU, RA, PU, GX	Disturbance and displacement	Array site	In	In	In	For these SCIs, this marine SPA is designated in relation to habitats used by individuals from named breeding colony SPAs (Saltee Islands SPA, Keeragh Islands SPA, Lady's Island Lake SPA and Wexford Harbour and Slobs SPA). For these SCIs, the distance between one or more named SPA colonies and the array site is less than the mean maximum (+ 1 SD) breeding season foraging range stated in Woodward et al., 2019. As such there is considered to be the potential for non-negligible numbers of individuals from these SPAs to be present within the Zol of this impact (see Section 2.3). Furthermore, these SCIs are considered to be sensitive to disturbance and displacement impacts in relation to vessel activity and/or the presence of OWF infrastructure (Table A-2, Table A-4 and Table A-5, Annex A). As such, a pathway to impact is identified and the potential for LSE cannot be ruled out.
	F., LB, KI			Out	Out	Out	For these SCIs, this marine SPA is designated in relation to habitats used by individuals from named breeding colony SPAs (Saltee Islands SPA, Keeragh Islands SPA, Lady's Island Lake SPA and Wexford Harbour and Slobs SPA). Although for these SCIs the distance between one or more named SPA colonies and the array site is less than the mean maximum (+ 1 SD) breeding season foraging range stated in Woodward et al., 2019, and there may be the potential for non-negligible numbers of individuals from these SPAs to be present within the Zol of this impact (see Section 2.3), these SCIs are not considered to be sensitive to disturbance and displacement impacts in relation to vessel activity or the presence of OWF infrastructure (Table A-2, Table A-4 and Table A-5, Annex A). As such, no pathway to impact is identified and it is considered that there is no potential for LSE in relation to this effect.
	RS, SA, AE, AF, CA, TE, MU*2, BH, CN, HG			Out	Out	Out	For these SCIs, this marine SPA is designated in relation to habitats used by individuals from named breeding colony SPAs (Saltee Islands SPA, Keeragh Islands SPA, Lady's Island Lake SPA and Wexford Harbour and Slobs SPA). For these SCIs, the distance between all named SPA colonies and the array site is greater than the mean maximum (+ 1 SD) breeding season foraging range stated in Woodward et al., 2019. As such, there is considered not to be connectivity between the SPA and array site and no potential for non-negligible numbers of individuals from these SPAs to be present within the Zol of this impact (see Section 2.3). Therefore, no pathway to impact is identified and it is considered that there is no potential for LSE in relation to this effect.
	RH, CX			In	In	In	For these SCIs, this marine SPA is designated in relation to non-breeding season populations. On the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, there is potential for individuals which use these SPAs to be present within areas in which disturbance and displacement impacts may occur. Furthermore, these SCIs are considered to be sensitive to disturbance and displacement impacts in relation to vessel activity and/or the presence of OWF infrastructure (Table A-2 and Table A-4, Annex A). As such, a pathway to impact is identified and the potential for LSE cannot be ruled out.
	GU, RA, PU		OECC	In	In	In	For these SCIs, this marine SPA is designated in relation to habitats used by individuals from named breeding colony SPAs (Saltee Islands SPA, Keeragh Islands SPA, Lady's Island Lake SPA and Wexford Harbour and Slobs SPA). For these SCIs, the distance between one or more named SPA colonies and the OECC is less than the mean maximum (+ 1 SD) breeding season foraging range stated in Woodward et al., 2019. As such there is considered to be the potential for non-negligible numbers of individuals from these SPAs to be present within the Zol of this impact (see Section 2.3). Furthermore, these SCIs are considered to be sensitive to disturbance and displacement impacts in relation to vessel activity (Table A-2, Annex A). As such, a pathway to impact is identified and the potential for LSE cannot be ruled out.

Marine Area SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Relevant SCIs (BTO Codes*1) ⁷	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
	F., LB, KI, MX, GX			Out	Out	Out	For these SCIs, this marine SPA is designated in relation to habitats used by individuals from named breeding colony SPAs (Saltee Islands SPA, Keeragh Islands SPA, Lady's Island Lake SPA and Wexford Harbour and Slobbs SPA). Although for these SCIs the distance between one or more named SPA colonies and the OECC is less than the mean maximum (+ 1 SD) breeding season foraging range stated in Woodward et al., 2019, and there may be the potential for non-negligible numbers of individuals from these SPAs to be present within the Zol of this impact (see Section 2.3), these SCIs are not considered to be sensitive to disturbance and displacement impacts in relation to vessel activity (Table A-2, Annex A). As such, no pathway to impact is identified and it is considered that there is no potential for LSE in relation to this effect .
	RS, SA, AF, CA, CN, AE, TE, MU*2, BH, HG			Out	Out	Out	For these SCIs, this marine SPA is designated in relation to habitats used by individuals from named breeding colony SPAs (Saltee Islands SPA, Keeragh Islands SPA, Lady's Island Lake SPA and Wexford Harbour and Slobbs SPA). For these SCIs, the distance between all named SPA colonies and the OECC is greater than the mean maximum (+ 1 SD) breeding season foraging range stated in Woodward et al., 2019. As such there is considered not to be connectivity between the SPA and array site and no potential for non-negligible numbers of individuals from these SPAs to be present within the Zol of this impact (see Section 2.3). Therefore, no pathway to impact is identified and it is considered that there is no potential for LSE in relation to this effect .
	RH, CX			In	In	In	For these SCIs, this marine SPA is designated in relation to non-breeding season populations. On the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, there is potential for individuals which use these SPAs to be present within areas in which disturbance and displacement impacts may occur. Furthermore, these SCIs are considered to be sensitive to disturbance and displacement impacts in relation to vessel activity (Table A-2, Annex A). As such, a pathway to impact is identified and the potential for LSE cannot be ruled out .
	LB		OECC intertidal landfall	In	In	In	For these SCIs, this marine SPA is designated in relation to habitats used by individuals from named breeding colony SPAs (Saltee Islands SPA, Keeragh Islands SPA, Lady's Island Lake SPA and Wexford Harbour and Slobbs SPA). For these SCIs, the distance between one or more named SPA colonies and the OECC intertidal landfall is less than the mean maximum (+ 1 SD) breeding season foraging range stated in Woodward et al., 2019. Furthermore, these SCIs were regularly recorded within the OECC intertidal landfall area during baseline surveys. As such, there is considered to be the potential for non-negligible numbers of individuals from these SPAs to be present within the Zol of this impact (see Section 2.3) and a pathway to impact is identified. Therefore, the potential for LSE cannot be ruled out .
	TE, RS, CN, AE, AF, CA, SA, MU*2, BH, HG			Out	Out	Out	For these SCIs, this marine SPA is designated in relation to habitats used by individuals from named breeding colony SPAs (Saltee Islands SPA, Keeragh Islands SPA, Lady's Island Lake SPA and Wexford Harbour and Slobbs SPA). For these SCIs, the distance between all named SPA colonies and the OECC intertidal landfall is greater than the mean maximum (+ 1 SD) breeding season foraging range stated in Woodward et al., 2019. As such, there is considered not to be connectivity between the SPA and OECC intertidal landfall and no potential for non-negligible numbers of individuals from these SPAs to be present within the Zol of this impact (see Section 2.3). Therefore, no pathway to impact is identified and it is considered that there is no potential for LSE in relation to this effect .
	RH, CX			In	In	In	For these SCIs, this marine SPA is designated in relation to non-breeding season populations. On the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, there is potential for individuals which use these SPAs to be present within intertidal areas in which disturbance and displacement impacts may occur and a pathway to impact to this receptor is identified. Therefore, the potential for LSE cannot be ruled out .

Marine Area SPAs and nearest distance to each project component (km) [Array;OECC; Intertidal landfall]	Relevant SCIs (BTO Codes*1) ⁷	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
	F., MX, KI, GU, RA, PU, GX			Out	Out	Out	Use of intertidal habitats by these marine SCIs is minimal and, as such, there is no pathway to impact from disturbance and displacement effects. Therefore, it is considered that there is no potential for LSE in relation to this effect.
	F., MX, KI, GU, RA, PU, AF, CN, AE, RS, SA, RH, CX, GX, TE		Onshore infrastructure	Out	Out	Out	Use of terrestrial habitats by these marine SCIs is minimal and, as such, there is no pathway to impact from disturbance and displacement from activities within or around areas in which onshore infrastructure will be located. Therefore, it is considered that there is no potential for LSE in relation to this effect.
	HG, LB, CA, MU*2, BH			Out	Out	Out	The potential for individuals from these SPAs to occur within any limited areas of intertidal habitat within South Dublin Bay while it is affected by construction phase noise from onshore activities on the Poolbeg peninsula or to occur within affected onshore areas on the Poolbeg peninsula is considered negligible. Interaction with these project areas is therefore not anticipated and, as such, there is no pathway to impact from disturbance and displacement. Therefore, it is considered that there is no potential for LSE in relation to this effect.
	LB, KI, GX	Collision	Array site		In		For these SCIs, this marine SPA is designated in relation to habitats used by individuals from named breeding colony SPAs (Saltee Islands SPA, Keeragh Islands SPA, Lady's Island Lake SPA and Wexford Harbour and Slobs SPA). For these SCIs, the distance between one or more named SPA colonies and the array site is less than the mean maximum (+ 1 SD) breeding season foraging range stated in Woodward et al., 2019. As such, there is considered to be the potential for non-negligible numbers of individuals from these SPAs to be present within the Zol of this impact (see Section 2.3). These SCIs are considered to be potentially vulnerable to collisions with operational WTGs (Table A-6, Annex A) and therefore a pathway to impact is identified. Consequently, the potential for LSE cannot be ruled out.
	MX, GU, RA, PU, F.				Out		For these SCIs, this marine SPA is designated in relation to habitats used by individuals from named breeding colony SPAs (Saltee Islands SPA, Keeragh Islands SPA, Lady's Island Lake SPA and Wexford Harbour and Slobs SPA). For these SCIs, the distance between one or more named SPA colonies and the array site is less than the mean maximum (+ 1 SD) breeding season foraging range stated in Woodward et al., 2019. As such there is considered to be the potential for non-negligible numbers of individuals from these SPAs to be present within the Zol of this impact (see Section 2.3). However, these SCIs are not considered to be vulnerable to collisions with operational WTGs (Table A-6, Annex A) and, therefore, no pathway to impact is identified. Consequently, it is considered that there is no potential for LSE in relation to this effect.
	RS, SA, AE, AF, CN, CA, TE, MU*2, BH, HG				Out		For these SCIs, this marine SPA is designated in relation to habitats used by individuals from named breeding colony SPAs (Saltee Islands SPA, Keeragh Islands SPA, Lady's Island Lake SPA and Wexford Harbour and Slobs SPA). For these SCIs, the distance between all named SPA colonies and the array site is greater than the mean maximum (+ 1 SD) breeding season foraging range stated in Woodward et al., 2019. As such, there is not considered to be the potential for non-negligible numbers of individuals from these SPAs to be present within the Zol of this impact (see Section 2.3). Therefore, no pathway to impact is identified and it is considered that there is no potential for LSE in relation to this effect.
	RH, CX				In		For these SCIs, this marine SPA is designated in relation to non-breeding season populations. On the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, there is potential for individuals which use these SPAs to pass through the operational array site and thereby experience risk of collision with turbines. Furthermore, these SCIs fly within the rotor swept altitude range of the development and therefore may be vulnerable to collisions within the array site (Table A-6, Annex A). As such, a pathway to impact is identified and the potential for LSE cannot be ruled out.

Marine Area SPAs and nearest distance to each project component (km) [Array;OECC; Intertidal landfall]	Relevant SCIs (BTO Codes*1) ⁷	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
	KI, GU, RA, PU, F., MX, GX, LB	Changes in prey availability	Array site	In	In	In	For these SCIs, this marine SPA is designated in relation to habitats used by individuals from named breeding colony SPAs (Saltee Islands SPA, Keeragh Islands SPA, Lady's Island Lake SPA and Wexford Harbour and Slobs SPA). For these SCIs, the distance between one or more named SPA colonies and the array site is less than the mean maximum (+ 1 SD) breeding season foraging range stated in Woodward et al., 2019. As such there is considered to be the potential for non-negligible numbers of individuals from these SPAs to be present within the Zol of this impact (see Section 2.3) and a pathway to impact is identified. Therefore, the potential for LSE cannot be ruled out.
	TE, RS, CN, AE, AF, CA, SA, MU* ² , BH, HG			Out	Out	Out	For these SCIs, this marine SPA is designated in relation to habitats used by individuals from named breeding colony SPAs (Saltee Islands SPA, Keeragh Islands SPA, Lady's Island Lake SPA and Wexford Harbour and Slobs SPA). For these SCIs, the distance between all named SPA colonies and the array site is greater than the mean maximum (+ 1 SD) breeding season foraging range stated in Woodward et al., 2019. As such there is considered not to be connectivity between the SPA and array site and no potential for non-negligible numbers of individuals from these SPAs to be present within the Zol of this impact (see Section 2.3). Therefore, no pathway to impact is identified and it is considered that there is no potential for LSE in relation to this effect.
	RH, CX			In	In	In	For these SCIs, this marine SPA is designated in relation to non-breeding season populations. On the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, there is potential for individuals which use these SPAs to be present within areas in which changes in prey availability may occur and a pathway to impact to this receptor is identified. Therefore, the potential for LSE cannot be ruled out.
	KI, GU, RA, PU, F., MX, GX, LB		OECC	In	In	In	For these SCIs, this marine SPA is designated in relation to habitats used by individuals from named breeding colony SPAs (Saltee Islands SPA, Keeragh Islands SPA, Lady's Island Lake SPA and Wexford Harbour and Slobs SPA). For these SCIs, the distance between one or more named SPA colonies and the OECC is less than the mean maximum (+ 1 SD) breeding season foraging range stated in Woodward et al., 2019. As such there is considered to be the potential for non-negligible numbers of individuals from these SPAs to be present within the Zol of this impact (see Section 2.3) and a pathway to impact is identified. Therefore, the potential for LSE cannot be ruled out.
	TE, RS, CN, AE, AF, CA, SA, MU* ² , BH, HG			Out	Out	Out	For these SCIs, this marine SPA is designated in relation to habitats used by individuals from named breeding colony SPAs (Saltee Islands SPA, Keeragh Islands SPA, Lady's Island Lake SPA and Wexford Harbour and Slobs SPA). For these SCIs, the distance between all named SPA colonies and the OECC is greater than the mean maximum (+ 1 SD) breeding season foraging range stated in Woodward et al., 2019. As such there is considered not to be connectivity between the SPA and array site and no potential for non-negligible numbers of individuals from these SPAs to be present within the Zol of this impact (see Section 2.3). Therefore, no pathway to impact is identified and it is considered that there is no potential for LSE in relation to this effect.
	RH, CX			In	In	In	For these SCIs, this marine SPA is designated in relation to non-breeding season populations. On the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, there is potential for individuals which use these SPAs to be present within areas in which changes in prey availability may occur and a pathway to impact to this receptor is identified. Therefore, the potential for LSE cannot be ruled out.

Marine Area SPAs and nearest distance to each project component (km) [Array;OECC; Intertidal landfall]	Relevant SCIs (BTO Codes*1) ⁷	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
	LB		OECC intertidal landfall	In	In	In	For these SCIs, this marine SPA is designated in relation to habitats used by individuals from named breeding colony SPAs (Saltee Islands SPA, Keeragh Islands SPA, Lady's Island Lake SPA and Wexford Harbour and Slobs SPA). For these SCIs, the distance between one or more named SPA colonies and the OECC intertidal landfall is less than the mean maximum (+ 1 SD) breeding season foraging range stated in Woodward et al., 2019. Furthermore, these SCIs were regularly recorded within the OECC intertidal landfall area during baseline surveys. As such, there is considered to be the potential for non-negligible numbers of individuals from these SPAs to be present within the ZoI of this impact (see Section 2.3) and a pathway to impact is identified. Therefore, the potential for LSE cannot be ruled out.
	TE, RS, CN, AE, AF, CA, SA, MU*2, BH, HG			Out	Out	Out	For these SCIs, this marine SPA is designated in relation to habitats used by individuals from named breeding colony SPAs (Saltee Islands SPA, Keeragh Islands SPA, Lady's Island Lake SPA and Wexford Harbour and Slobs SPA). For these SCIs, the distance between all named SPA colonies and the OECC intertidal landfall is greater than the mean maximum (+ 1 SD) breeding season foraging range stated in Woodward et al., 2019. As such, there is considered not to be connectivity between the SPA and OECC intertidal landfall and no potential for non-negligible numbers of individuals from these SPAs to be present within the ZoI of this impact (see Section 2.3). Therefore, no pathway to impact is identified and it is considered that there is no potential for LSE in relation to this effect.
	RH, CX			In	In	In	For these SCIs, this marine SPA is designated in relation to non-breeding season populations. On the assumption that individuals from SPAs within the ZoI of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, there is potential for individuals which use these SPAs to be present within intertidal areas in which temporary changes in prey availability may occur and a pathway to impact to this receptor is identified. Therefore, the potential for LSE cannot be ruled out.
	F., MX, KI, GU, RA, PU, GX			Out	Out	Out	Use of intertidal habitats by these marine SCIs is minimal and, as such, there is no pathway to impact from changes in prey availability. Therefore, it is considered that there is no potential for LSE in relation to this effect.
	F., MX, KI, GU, RA, PU, AF, CN, AE, RS, SA, RH, CX, GX, TE		Onshore infrastructure	Out	Out	Out	Use of terrestrial habitats by these marine SCIs is minimal and, as such, there is no pathway to impact from changes in prey availability. Therefore, it is considered that there is no potential for LSE in relation to this effect.
	HG, LB, CA, MU*2, BH			Out	Out	Out	Direct effects on habitat from the footprint of onshore infrastructure within the industrialised Pigeon Park area, south of the Liffey channel, does not coincide with any areas of important terrestrial habitat used by these SCIs. As such, no pathway to impact is identified and it is considered that there is no potential for LSE in relation to this effect.
	KI, GU, RA, PU, F., MX, GX, LB	Introduction or spread of invasive species	Array site	In	In	In	For these SCIs, this marine SPA is designated in relation to habitats used by individuals from named breeding colony SPAs (Saltee Islands SPA, Keeragh Islands SPA, Lady's Island Lake SPA and Wexford Harbour and Slobs SPA). For these SCIs, the distance between all named SPA colonies and the array site is less than the mean maximum (+ 1 SD) breeding season foraging range stated in Woodward et al., 2019. As such, there is considered to be the potential for non-negligible numbers of individuals from these SPAs to be present within the ZoI of this impact (see Section 2.3). As mitigation measures to prevent the introduction or spread on INNS are not a requirement of underlying legislation and may be construed as being implemented specifically to address risks in relation to the Habitats Regulations, these measures cannot be applied at the screening phase. In the absence of mitigation measures, introduction or spread of invasive species may occur due to the CWP Project and a pathway to impact to these receptors is identified. As such, the potential for LSE cannot be ruled out.

Marine Area SPAs and nearest distance to each project component (km) [Array;OECC; Intertidal landfall]	Relevant SCIs (BTO Codes*1) ⁷	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
	RH, CX			In	In	In	For these SCIs, this marine SPA is designated in relation to non-breeding season populations. On the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, there is potential for individuals which use these SPAs to be present within areas in which introduction or spread of invasive species impacts may occur and a pathway to impact to this receptor is identified. As such, the potential for LSE cannot be ruled out.
	TE, RS, CN, AE, AF, CA, SA, MU* ² , BH, HG			Out	Out	Out	For these SCIs, this marine SPA is designated in relation to habitats used by individuals from named breeding colony SPAs (Saltee Islands SPA, Keeragh Islands SPA, Lady's Island Lake SPA and Wexford Harbour and Slobbs SPA). For these SCIs, the distance between all named SPA colonies and the array site is greater than the mean maximum (+ 1 SD) breeding season foraging range stated in Woodward et al., 2019. As such there is considered not to be connectivity between the SPA and array site and no potential for non-negligible numbers of individuals from these SPAs to be present within the Zol of this impact (see Section 2.3). Therefore, no pathway to impact is identified and it is considered that there is no potential for LSE in relation to this effect.
	KI, GU, RA, PU, F., MX, GX, LB		OECC	In	In	In	For these SCIs, this marine SPA is designated in relation to habitats used by individuals from named breeding colony SPAs (Saltee Islands SPA, Keeragh Islands SPA, Lady's Island Lake SPA and Wexford Harbour and Slobbs SPA). For these SCIs, the distance between all named SPA colonies and the OECC is less than the mean maximum (+ 1 SD) breeding season foraging range stated in Woodward et al., 2019. As such there is considered to be the potential for non-negligible numbers of individuals from these SPAs to be present within the Zol of this impact (see Section 2.3). As mitigation measures to prevent the introduction or spread on INNS are not a requirement of underlying legislation and may be construed as being implemented specifically to address risks in relation to the Habitats Regulations, these measures cannot be applied at the screening phase. In the absence of mitigation measures, introduction or spread of invasive species may occur due to the CWP Project and a pathway to impact to these receptors is identified. As such, the potential for LSE cannot be ruled out.
	RH, CX			In	In	In	For these SCIs, this marine SPA is designated in relation to non-breeding season populations. On the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, there is potential for individuals which use these SPAs to be present within areas in which introduction or spread of invasive species impacts may occur and a pathway to impact to this receptor is identified. As such, the potential for LSE cannot be ruled out.
	TE, RS, CN, AE, AF, CA, SA, MU* ² , BH, HG			Out	Out	Out	For these SCIs, this marine SPA is designated in relation to habitats used by individuals from named breeding colony SPAs (Saltee Islands SPA, Keeragh Islands SPA, Lady's Island Lake SPA and Wexford Harbour and Slobbs SPA). For these SCIs, the distance between all named SPA colonies and the OECC is greater than the mean maximum (+ 1 SD) breeding season foraging range stated in Woodward et al., 2019. As such there is considered not to be connectivity between the SPA and array site and no potential for non-negligible numbers of individuals from these SPAs to be present within the Zol of this impact (see Section 2.3). Therefore, no pathway to impact is identified and it is considered that there is no potential for LSE in relation to this effect.
	LB		OECC intertidal landfall	In	In	In	For these SCIs, this marine SPA is designated in relation to habitats used by individuals from named breeding colony SPAs (Saltee Islands SPA, Keeragh Islands SPA, Lady's Island Lake SPA and Wexford Harbour and Slobbs SPA). For these SCIs, the distance between one or more named SPA colonies and the OECC intertidal landfall is less than the mean maximum (+ 1 SD) breeding season foraging range stated in Woodward et al., 2019. Furthermore, these SCIs were regularly recorded within the OECC intertidal landfall area during baseline surveys. As such, there is considered to be the potential for non-negligible numbers of individuals from these SPAs to be present within areas in which introduction or spread of invasive species impacts may occur and a pathway to impact is identified. Therefore, the potential for LSE cannot be ruled out.

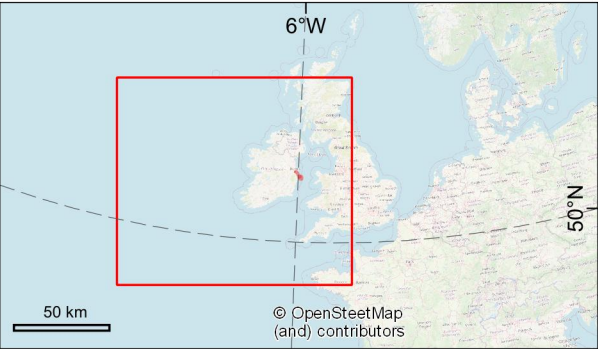
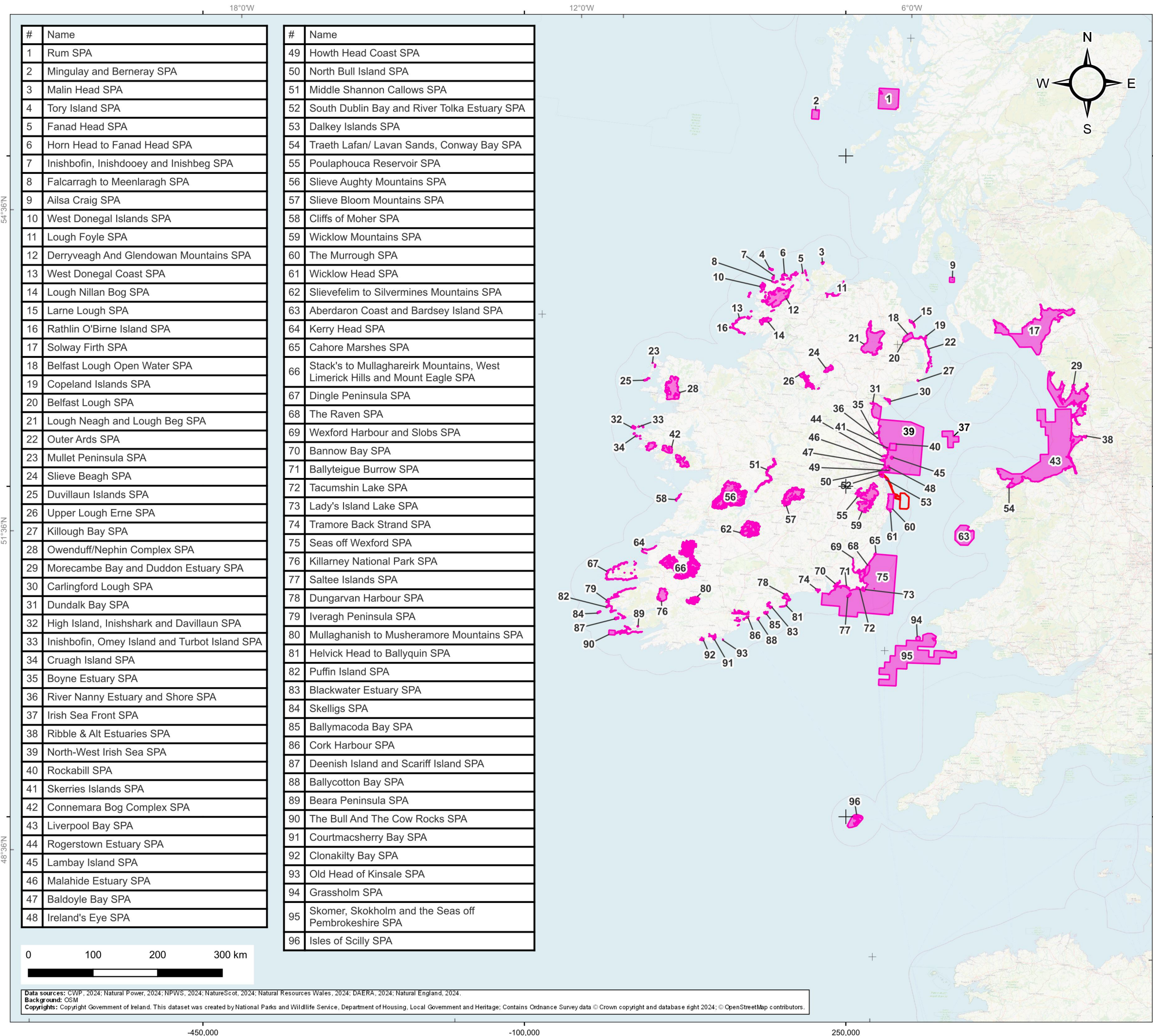
Marine Area SPAs and nearest distance to each project component (km) [Array;OECC; Intertidal landfall]	Relevant SCIs (BTO Codes*1) ⁷	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
	TE, RS, CN, AE, AF, CA, SA, MU* ² , BH, HG			Out	Out	Out	For these SCIs, this marine SPA is designated in relation to habitats used by individuals from named breeding colony SPAs (Saltee Islands SPA, Keeragh Islands SPA, Lady's Island Lake SPA and Wexford Harbour and Slobbs SPA). For these SCIs, the distance between all named SPA colonies and the OECC intertidal landfall is greater than the mean maximum (+ 1 SD) breeding season foraging range stated in Woodward et al., 2019. As such, there is considered not to be connectivity between the SPA and OECC intertidal landfall and no potential for non-negligible numbers of individuals from these SPAs to be present within areas in which introduction or spread of invasive species impacts may occur. Therefore, no pathway to impact is identified and it is considered that there is no potential for LSE in relation to this effect.
	RH, CX			In	In	In	For these SCIs, this marine SPA is designated in relation to non-breeding season populations. On the assumption that individuals from SPAs within the Zol of this impact (see Section 2.3) may utilise different areas within this zone across non-breeding periods, there is potential for individuals which use these SPAs to be present within intertidal areas in which introduction or spread of invasive species impacts may occur and a pathway to impact to this receptor is identified. Therefore, the potential for LSE cannot be ruled out.
	F., MX, KI, GU, RA, PU, GX			Out	Out	Out	Use of intertidal habitats by these marine SCIs is minimal and, as such, there is no pathway to impact from introduction or spread of invasive species. Therefore, it is considered that there is no potential for LSE in relation to this effect.
	F., MX, KI, GU, RA, PU, AF, CN, AE, RS, SA, RH, CX, GX, TE		Onshore infrastructure	Out	Out	Out	Use of terrestrial habitats by these marine SCIs is minimal and, as such, there is no pathway to impact from introduction or spread of invasive species. Therefore, it is considered that there is no potential for LSE in relation to this effect.
	HG, LB, CA, MU* ² , BH			Out	Out	Out	Areas in which introduction or spread of invasive species may occur around the footprint of onshore infrastructure within the industrialised Pigeon Park area, south of the Liffey channel, do not coincide with any areas of important terrestrial habitat used by these SCIs. As such, no pathway to impact is identified and it is considered that there is no potential for LSE in relation to this effect.
Irish Sea Front [68.96; 73.52; 76.83], straight line [68.96; 73.55; 77.28], by sea	MX	Direct effects on habitat	Array site	In	In	In	For this SCI, this marine SPA is designated in relation to habitats used by individuals from at least six different colonies around the Irish and Celtic Seas (Copeland, Rum, Bardsey, Skomer, Skokholm and Lundy). For this SCI, the distance between one or more named colonies and the array site is less than the mean maximum (+ 1 SD) breeding season foraging range stated in Woodward et al., 2019. As such, there is considered to be the potential for non-negligible numbers of individuals from these colonies to be present within the Zol of this impact (see Section 2.3) and a pathway to impact is identified. Therefore, the potential for LSE cannot be ruled out.
	MX		OECC	Out	Out	Out	As direct effects on habitat to breeding seabird SCIs in offshore areas relate to the occupancy of areas of sea surface by project infrastructure and there will be no above sea infrastructure beyond transient construction vessel traffic within the offshore extent of the OECC, there is assessed to be no source of impact. Therefore, it is considered that there is no potential for LSE in relation to this effect.
	MX		OECC intertidal landfall	Out	Out	Out	Use of intertidal habitats by this marine SCI is minimal and, as such, there is no pathway to impact from direct effects on habitat. Therefore, it is considered that there is no potential for LSE in relation to this effect.
	MX		Onshore infrastructure	Out	Out	Out	Use of terrestrial habitats by this marine SCI is minimal and, as such, there is no pathway to impact from direct effects on habitat. Therefore, it is considered that there is no potential for LSE in relation to this effect.

Marine Area SPAs and nearest distance to each project component (km) [Array;OECC; Intertidal landfall]	Relevant SCIs (BTO Codes*1) ⁷	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
	MX	Disturbance and displacement	Array site	In	In	In	For this SCI, this marine SPA is designated in relation to habitats used by individuals from at least six different colonies around the Irish and Celtic Seas (Copeland, Rum, Bardsey, Skomer, Skokholm and Lundy). For this SCI, the distance between one or more named colonies and the array site is less than the mean maximum (+ 1 SD) breeding season foraging range stated in Woodward et al., 2019. As such, there is considered to be the potential for non-negligible numbers of individuals from these colonies to be present within the Zol of this impact (see Section 2.3). Furthermore, although Manx shearwater is not considered to be sensitive to disturbance and displacement effects in relation to vessel activity (Table A-2, Annex A), this SCI is considered to be sensitive to disturbance and displacement impacts in relation to the presence of OWF infrastructure (Table A-4, Annex A). As such, a pathway to impact is identified and the potential for LSE cannot be ruled out.
	MX		OECC	Out	Out	Out	For this SCI, this marine SPA is designated in relation to habitats used by individuals from at least six different colonies around the Irish and Celtic Seas (Copeland, Rum, Bardsey, Skomer, Skokholm and Lundy). Although for this SCI the distance between these named colonies and the OECC is less than the mean maximum (+ 1 SD) breeding season foraging range stated in Woodward et al., 2019, and there may be the potential for non-negligible numbers of individuals from these colonies to be present within the Zol of this impact (see Section 2.3), Manx shearwater is not considered to be sensitive to disturbance and displacement impacts in relation to vessel activity (Table A-2, Annex A). As such, no pathway to impact is identified and it is considered that there is no potential for LSE in relation to this effect.
	MX		OECC intertidal landfall	Out	Out	Out	Use of intertidal habitats by this marine SCI is minimal and, as such, there is no pathway to impact from disturbance and displacement effects within this area. Therefore, it is considered that there is no potential for LSE in relation to this effect.
	MX		Onshore infrastructure	Out	Out	Out	Use of terrestrial habitats by this marine SCI is minimal and, as such, there is no pathway to impact from disturbance and displacement effects within this area. Therefore, it is considered that there is no potential for LSE in relation to this effect.
	MX	Collision	Array site		Out		For this SCI, this marine SPA is designated in relation to habitats used by individuals from at least six different colonies around the Irish and Celtic Seas (Copeland, Rum, Bardsey, Skomer, Skokholm and Lundy). Although for this SCI the distance between these named colonies and the array site is less than the mean maximum (+ 1 SD) breeding season foraging range stated in Woodward et al., 2019, and there may be the potential for non-negligible numbers of individuals from these colonies to be present within the Zol of this impact (see Section 2.3), Manx shearwater are not considered to be vulnerable to collisions with operational WTGs (Table A-6, Annex A) and, therefore, no pathway to impact is identified. Consequently, it is considered that there is no potential for LSE in relation to this effect.
	MX	Changes in prey availability	Array site	In	In	In	For this SCI, this marine SPA is designated in relation to habitats used by individuals from at least six different colonies around the Irish and Celtic Seas (Copeland, Rum, Bardsey, Skomer, Skokholm and Lundy). For this SCI, the distance between one or more named colonies and the array site is less than the mean maximum (+ 1 SD) breeding season foraging range stated in Woodward et al., 2019. As such, there is considered to be the potential for non-negligible numbers of individuals from these colonies to be present within the Zol of this impact (see Section 2.3). A pathway to impact is therefore identified and the potential for LSE cannot be ruled out.
	MX		OECC	In	In	In	For this SCI, this marine SPA is designated in relation to habitats used by individuals from at least six different colonies around the Irish and Celtic Seas (Copeland, Rum, Bardsey, Skomer, Skokholm and Lundy). For this SCI, the distance between one or more named colonies and the OECC is less than the mean maximum (+ 1 SD) breeding season foraging range stated in Woodward et al., 2019. As such there is considered to be the potential for non-negligible numbers of individuals from these colonies to be present within the Zol of this impact (see Section 2.3). A pathway to impact is therefore identified and the potential for LSE cannot be ruled out.

Marine Area SPAs and nearest distance to each project component (km) [Array; OECC; Intertidal landfall]	Relevant SCIs (BTO Codes ^{*1}) ⁷	Potential impact	Project component	Screened in / out			Reasoning
				C	O&M	D	
	MX		OECC intertidal landfall	Out	Out	Out	Use of intertidal habitats by this marine SCI is minimal and, as such, there is no pathway to impact from changes in prey availability. Therefore, it is considered that there is no potential for LSE in relation to this effect.
	MX		Onshore infrastructure	Out	Out	Out	Use of terrestrial habitats by this marine SCI is minimal and, as such, there is no pathway to impact from changes in prey availability. Therefore, it is considered that there is no potential for LSE in relation to this effect.
	MX	Introduction or spread of invasive species	Array site OECC	In	In	In	For this SCI, this marine SPA is designated in relation to habitats used by individuals from at least six different colonies around the Irish and Celtic Seas (Copeland, Rum, Bardsey, Skomer, Skokholm and Lundy). For this SCI, the distance between one or more named colonies and the OECC is less than the mean maximum (+ 1 SD) breeding season foraging range stated in Woodward et al., 2019. As such there is considered to be the potential for non-negligible numbers of individuals from these colonies to be present within the Zol of this impact (see Section 2.3). As mitigation measures to prevent the introduction or spread on INNS are not a requirement of underlying legislation and may be construed as being implemented specifically to address risks in relation to the Habitats Regulations, these measures cannot be applied at the screening phase. In the absence of mitigation measures, introduction or spread of invasive species may occur due to the CWP Project and a pathway to impact to this receptor is identified. As such, the potential for LSE cannot be ruled out.
			OECC intertidal landfall Onshore infrastructure	Out	Out	Out	Use of intertidal and terrestrial habitats by this marine SCI is minimal and, as such, there is considered to be no pathway to impact from introduction or spread of invasive species within these areas. Therefore, it is considered that there is no potential for LSE in relation to this effect.

^{*1} BTO codes: AE – Arctic tern, AF – Little tern, BH – Black-headed gull, CA – Cormorant, CM – Common gull, CN – Common tern, CX – Common scoter, F. – Fulmar, GB – Great black-backed gull, GU – Guillemot, GX – Gannet, HG – Herring gull, K. – Kittiwake, LB – Lesser black-backed gull, MU – Mediterranean gull, MX – Manx shearwater, ND – Great northern diver, PU – Puffin, RA – Razorbill, RH – Red-throated diver, RS – Roseate tern, SA – Shag, TE – Sandwich tern


^{*2} Mediterranean gull has been proposed to be listed as a SCI for Lady's Island Lake SPA



Legend

Planning Application Boundary (PAB)

Special Protection Area (SPA)



Project:
Codling Wind Park


Contractor:

www.naturalpower.com

Figure 3.2
Ornithology designated sites

CWP doc. number: CWP-NPC-ENG-08-01-MAP-1525

Internal descriptive code:
IRE - PAB - SPAs ORNTH - (NIS, Vol.03, Sec.03, FIG.02)

Size: A3
Scale: 1:4,000,000

CRS:
EPSG 25830

Rev.	Updates	Date	By	Chk'd	App'd
00	Final for issue	2024/08/15	AC	DL/EA	SM

Data sources: CWP, 2024; Natural Power, 2024; NPWS, 2024; NatureScot, 2024; Natural Resources Wales, 2024; DAERA, 2024; Natural England, 2024.
Background: OSM
Copyrights: Copyright Government of Ireland. This dataset was created by National Parks and Wildlife Service, Department of Housing, Local Government and Heritage; Contains Ordnance Survey data © Crown copyright and database right 2024; © OpenStreetMap contributors.

3.4 Annex II Migratory fish

75. No SACs with Annex II diadromous fish QIs directly overlap with the array site, the OECC or Landfall.
76. **Section Annex II Migratory Fish2.4** considers the potential for LSE on Annex II diadromous fish QIs of those sites with which there is potential connectivity (based on potential impacts and effects identified in **Section Annex II Migratory Fish2.4**). **Figure 3-3** displays those sites.
77. SACs are proposed to be screened in where LSE cannot be ruled out for one or more QI, for one or more routes to impact, and screened out where LSE can be ruled out for all routes to impact to all QI's. A rationale is given for each SAC for each QI and route to impact to explain the screening decision.

Table 3-8 Project alone screening of Natura 2000 sites designated for Annex II diadromous fish QIs

QI	Relevant SAC (distance from Project in km)	Potential Impact	Screened in /out			Reasoning
			C	O&M	D	
Twaite shad [1103]	Slaney River Valley SAC [IE0000781] (80.24km)	Direct impacts on habitats	In	In	In	There is potential for connectivity with CWP Project activities and a potential route to impact on this Annex II diadromous fish species. Therefore, the potential for LSE cannot be ruled out.
	Pembrokeshire Marine/ Sir Benfro Forol [UK0013116] (117.98km)	Temporary increase in SSC and contaminated sediments	In	In	In	
	River Barrow and River Nore SAC [IE0002162] (146.83km)	Increase in underwater noise and vibration	In	In	In	
	Lower River Suir SAC [IE0002137] (163.97km)	Presence of EMF and heat		In		
	Blackwater River (Cork/Waterford) SAC [IE0002170] (204.87km)	Presence of structures and associated predator aggregation		In		
	Carmarthen Bay and Estuaries/ Bae Caerfyrddin ac Aberoedd					

QI	Relevant SAC (distance from Project in km)	Potential Impact	Screened in /out			Reasoning
			C	O&M	D	
	[UK0020020] (191.93km) Afon Tywi/ River Tywi [UK0013010] (242.98km) Severn Estuary/ Môr Hafren [UK0013030] (301.19km) River Usk/ Afon Wysg [UK0013007] (327.66km) River Wye/ Afon Gwy [UK0012642] (349.18km) Rade de Brest, estuaire de l'Aulne [FR5300046] (557.89km) Côte de Granit rose-Sept-Iles [FR5300009] (510.18) Rivire Leguer, forts de Beffou, Coat an Noz et Coat an Hay [FR5300008] (531.79km) Tregor Golo [FR5300010] (533.21km) Valle de l'Aulne [FR5300041] (589.60km) Rivire Scorff, Fort de Pont Calleck, Rivire Sarre [FR5300026] (683.76) Baie de Saint-Brieuc - Est [FR5300066] (601.79km) Estuaire de la Rance [FR5300061] (640.27km)					

QI	Relevant SAC (distance from Project in km)	Potential Impact	Screened in /out			Reasoning
			C	O&M	D	
	Golfe du Morbihan, côte ouest de Rhuys [FR5300029] (718.73km) Estuaire de la Vilaine [FR5300034] (746.01km) Baie de Seine occidentale [FR2502020] (668.74km) Estuaire de la Loire Nord [FR5202011] (756.84km) Baie du Mont Saint-Michel [FR2500077] (649.60km) Estuaire de la Loire Sud - Baie de Bourgneuf [FR5202012] (770.29km) Pertuis Charentais [FR5400469] (826.58km) Marais de Vilaine [FR5300002] (769.21km) Estuaire de la Loire [FR5200621] (787.93km) Baie de Seine orientale (FR2502021)					
Allis shad [1102]	Pembrokeshire Marine/ Sir Benfro Forol [UK0013116] (117.98km)	Direct impacts on habitats	In	In	In	There is potential for connectivity with CWP Project activities and a potential route to impact on this Annex II diadromous fish species.
		Temporary increase in SSC and contaminated sediments	In	In	In	
		Increase in underwater noise and vibration	In	In	In	

QI	Relevant SAC (distance from Project in km)	Potential Impact	Screened in /out			Reasoning
			C	O&M	D	
	Carmarthen Bay and Estuaries/ Bae Caerfyrddin ac Aberoedd [UK0020020] (191.93km)	Presence of EMF and heat		In		Therefore, the potential for LSE cannot be ruled out.
	Afon Tywi/ River Tywi [UK0013010] (121.41km)	Presence of structures and associated predator aggregation		In		
	River Usk/ Afon Wysg [UK0013007] (327.66km)					
	River Wye/ Afon Gwy [UK0012642] (349.18km)					
	Rade de Brest, estuaire de l'Aulne [FR5300046] (557.89km)					
	Rivire Elorn [FR5300024] (565.18km)					
	Côte de Granit rose-Sept-Iles [FR5300009] (510.28km)					
	Rivire Leguer, forts de Beffou, Coat an Noz et Coat an Hay [FR5300008] (539.71km)					
	Tregor Golo [FR5300010] (533.21km)					
	Valle de l'Aulne [FR5300041] (589.60km)					
	Rivire Scorff, Fort de Pont Calleck, Rivire Sarre [FR5300026] (683.76km)					
	Baie de Saint-Brieuc - Est [FR5300066] (601.79km)					

QI	Relevant SAC (distance from Project in km)	Potential Impact	Screened in /out			Reasoning
			C	O&M	D	
	Rivire Lata, Pointe du Talud, tangs du Loc'h et de Lannenec [FR5300059] (666.78km) Rivire Elle [FR5300006] (680.92km) Estuaire de la Rance [FR5300061] (640.27km) Golfe du Morbihan, cte ouest de Rhuys [FR5300029] (718.73km) Littoral Ouest du Cotentin de Brhal Pirou [FR2500080] (648.16km) Estuaire de la Vilaine [FR5300034] (746.01km) Baie de Seine occidentale [FR2502020] (668.74km) Estuaire de la Loire Nord [FR5202011] (756.84km) Baie du Mont Saint-Michel [FR2500077] (645.98km) Estuaire de la Loire Sud - Baie de Bourgneuf [FR5202012] (770.29km) Marais du Cotentin et du Bessin - Baie des Veys [FR2500088] (634.08km)					

QI	Relevant SAC (distance from Project in km)	Potential Impact	Screened in /out			Reasoning
			C	O&M	D	
	Pertuis Charentais [FR5400469] (826.58) Marais de Vilaine [FR5300002] (769.21km) Estuaire de la Loire [FR5200621] (787.93km) Baie de Seine orientale [FR2502021] (728.85km)					
Atlantic salmon [1106]	River Boyne and River Blackwater SAC [IE0002299] (56.09km) Slaney River Valley SAC [IE0000781] (80.24km) River Barrow and River Nore SAC [IE0002162] (146.83km) Lower River Suir SAC [IE0002137] (163.97km) Blackwater River (Cork/Waterford) SAC [IE0002170] (204.84km)	Direct impacts on habitats	In	In	In	There is potential for connectivity with CWP Project activities and a potential route to impact on this Annex II diadromous fish species. Therefore, the potential for LSE cannot be ruled out.
		Temporary increase in SSC and contaminated sediments	In	In	In	
		Increase in underwater noise and vibration	In	In	In	
		Presence of EMF and heat		In		
		Presence of structures and associated predator aggregation	In	In	In	
	Owenkillew River SAC [UK0030233] (358.52km) Lough Melvin SAC [UK0030047] (510.87km) River Faughan and Tributaries SAC [UK0030361] (323.71km)	Direct impacts on habitats	Out	Out	Out	SACs on the west / north coast of Ireland, Northern Ireland and the west coast of the UK have been screened out for Atlantic salmon due to a lack of connectivity. Recent published studies found that populations migrate offshore towards oceanographic fronts for
		Temporary increase in SSC and contaminated sediments	Out	Out	Out	
		Increase in underwater noise and vibration	Out	Out	Out	
		Presence of EMF and heat		Out		

QI	Relevant SAC (distance from Project in km)	Potential Impact	Screened in /out			Reasoning
			C	O&M	D	
	River Foyle and Tributaries SAC [UK0030320] (502.87) River Roe and Tributaries SAC [UK0030360] (309.62km) River Finn SAC [IE0002301] (335.84km) Leannan River SAC [IE0002176] (383.43km) Blackwater River (Kerry) SAC [IE0002173] (435.85km) West of Ardara/Maas Road SAC [IE0000197] (433.73km) Lough Melvin SAC [IE0000428] (510.87km) Unshin River SAC [IE0001898] (523.11km) Lough Eske and Ardnamona Wood SAC [IE0000163] (511.25km) Glenamoy Bog Complex SAC [IE0000500] (511.47km) Connemara Bog Complex SAC [IE0002034] (603.01) The Twelve Bens/Garraun Complex SAC [IE0002031] (626.50km) Killarney National Park, Macgillycuddy's Reeks and	Presence of structures and associated predator aggregation		Out		<p>feeding, including a westward migration of salmon from Irish southeast coast rivers towards Greenland (Rikardsen et al., 2021). Barry et al. (2020) also found individuals from northeast Irish rivers migrating further north into deeper offshore waters, out of the Irish Sea, through the north channel. Atlantic salmon from Welsh SACs are also considered to follow prevailing currents north (Cefas, 2021) and are unlikely to pass directly through Irish coastal waters. As such, only those rivers on the east and south coasts of Ireland are considered to have connectivity with the Proposed Activities.</p> <p>Therefore, for these SACs located on the west / north coast of Ireland, Northern Ireland and the west coast of the UK the potential for LSE can be ruled out.</p>

QI	Relevant SAC (distance from Project in km)	Potential Impact	Screened in /out			Reasoning
			C	O&M	D	
	Caragh River Catchment SAC [IE0000365] (413.78km) Owenduff/Nephin Complex SAC [IE0000534] (591.34km) Mweelrea/Sheeffry/Erriff Complex SAC [IE0001932] (619.63km) Newport River SAC [IE0002144] (636.89km) Maumturk Mountains SAC [IE0002008] (635.06km) Lough Gill SAC [IE0001976] (528.77km) River Moy SAC [IE0002298] (524.62km) Castlemaine Harbour SAC [IE0000343] (474.20km) Lower River Shannon SAC [IE0002165] (506.57km) Lough Corrib SAC [IE0000297] (623.34km)					
Sea lamprey [1095]	Slaney River Valley SAC [IE0000781] (80.24km) Cardigan Bay/ Bae Ceredigion [UK0012712] (99.62km)	Direct impacts on habitats	In	In	In	There is potential for connectivity with CWP Project activities and a potential route to impact on this Annex II diadromous fish species.
		Temporary increase in SSC and contaminated sediments	In	In	In	
		Increase in underwater noise and vibration	In	In	In	

QI	Relevant SAC (distance from Project in km)	Potential Impact	Screened in /out			Reasoning
			C	O&M	D	
	Pembrokeshire Marine/ Sir Benfro Forol [UK0013116] (117.98km)	Presence of EMF and heat		In		Therefore, the potential for LSE cannot be ruled out.
	Afon Teifi/ River Teifi [UK0012670] (121.41)	Presence of structures and associated predator aggregation		In		
	River Barrow and River Nore SAC [IE0002162] (146.83km)					
	Lower River Suir SAC [IE0002137] (163.97km)					
	Dee Estuary/ Aber Dyfrdwy [UK0030131] (162.43km)					
	Afonydd Cleddau/ Cleddau Rivers [UK0030074] (125.55km)					
	River Dee and Bala Lake/ Afon Dyfrdwy a Llyn Tegid [UK0030252] (202.23km)					
	Blackwater River (Cork/Waterford) SAC [IE0002170] (204.84km)					
	Cardmarthen Bay and Estuaries/ Bae Caerfyrddin ac Aberoedd [UK0020020] (191.93km)					
	River Derwent and Bassenthwaite Lake [UK0030032] (222.55km)					
	Afon Tywi/ River Tywi [UK0013010] (242.98km)					

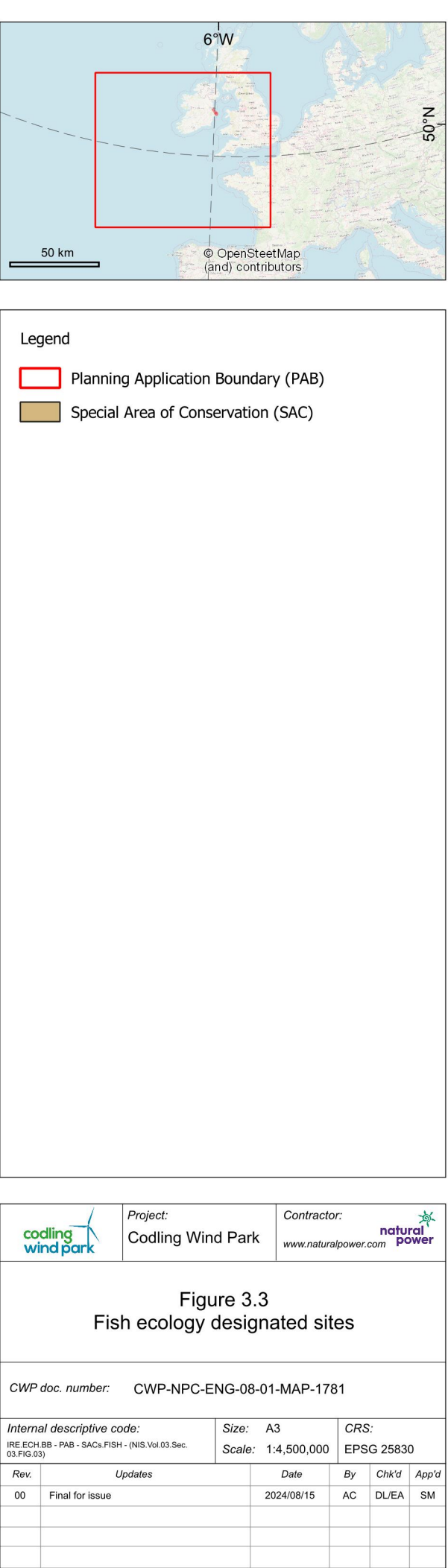
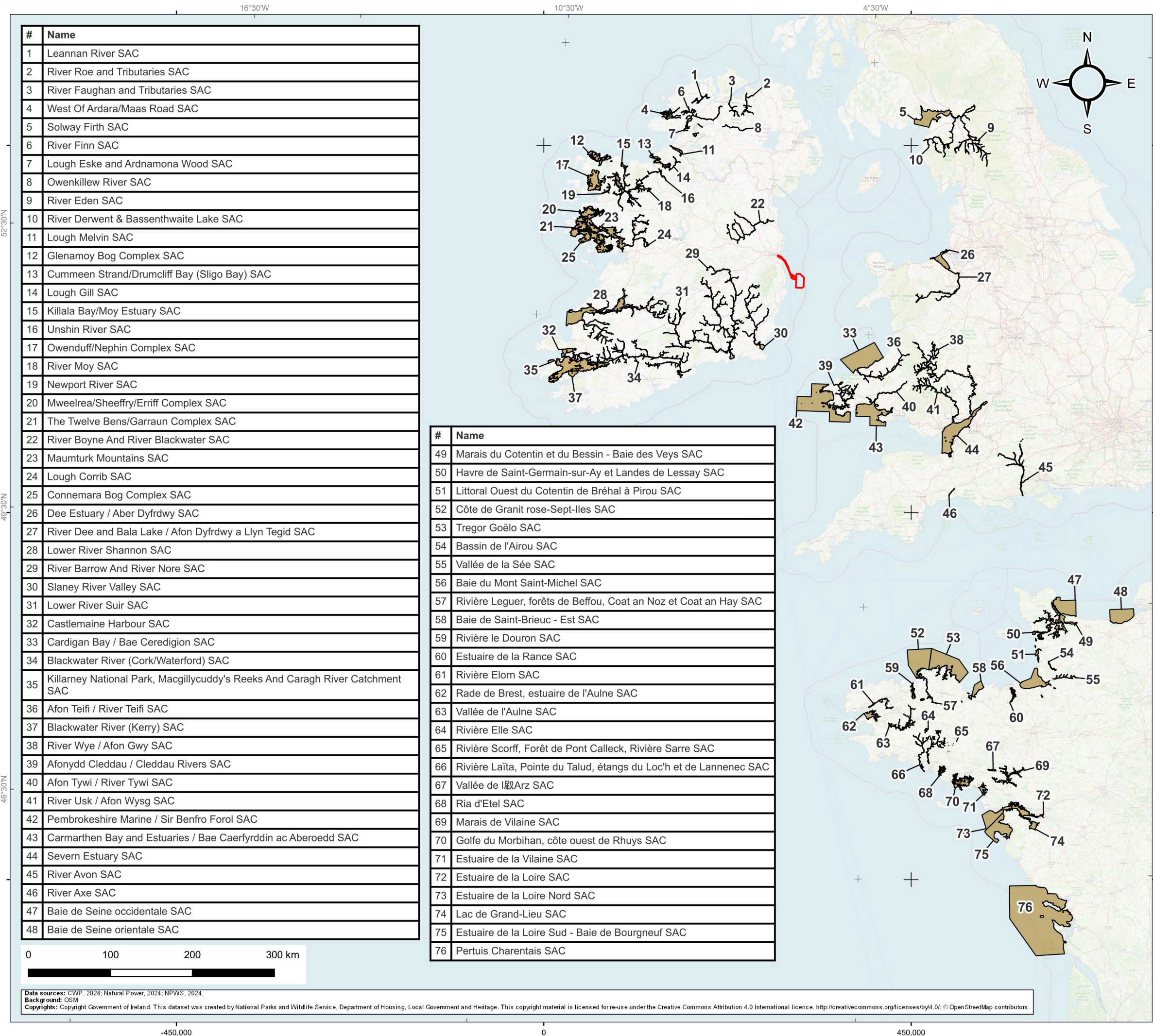
QI	Relevant SAC (distance from Project in km)	Potential Impact	Screened in /out			Reasoning
			C	O&M	D	
	Solway Firth [UK0013025] (231.28km) River Eden [UK0012643] (280.54km) Severn Estuary/ Môr Hafren [UK0013030] (301.19km) River Usk/ Afon Wysg [UK0013007] (327.66km) River Wye/ Afon Gwy [UK0012642] (349.18km) River Axe [UK0030248] (568.90km) Rade de Brest, estuaire de l'Aulne [FR5300046] (557.89km) Rivire Elorn [FR5300024] (565.18km) Côte de Granit rose-Sept-Iles [FR5300009] (510.28km) Rivire Leguer, forts de Beffou, Coat an Noz et Coat an Hay [FR5300008] (539.71km) Rivire le Douron [FR5300004] (543.46km) Tregor Golo [FR5300010] (533.21km) Valle de l'Aulne [FR5300041] (589.60km)					

QI	Relevant SAC (distance from Project in km)	Potential Impact	Screened in /out			Reasoning
			C	O&M	D	
	Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC [IE0000627] (501.12km) Killarney National Park, Macgillicuddy's Reeks and Caragh River Catchment SAC [IE0000365] (413.78km) Killala Bay/Moy Estuary SAC [IE0000458] (508.24km) River Avon [UK0013016] (643.25km) Rivire Scorff, Fort de Pont Calleck, Rivire Sarre [FR5300026] (683.76km) Lough Gill SAC [IE0001976] (528.77km) River Moy SAC [IE0002298] (524.62km) Castlemaine Harbour SAC [IE0000343] (474.20km) Lower River Shannon SAC [IE0002165] (506.57km) Rivire Lata, Pointe du Talud, tangs du Loc'h et de Lannec [FR5300059] (666.78) Rivire Elle [FR5300006] (680.92km)					

QI	Relevant SAC (distance from Project in km)	Potential Impact	Screened in /out			Reasoning
			C	O&M	D	
	Ria d'Etel [FR5300028] (691.54km) Havre de Saint-Germain-sur-Ay et Landes de Lessay [FR2500081] (636.92km) Littoral Ouest du Cotentin de Brhal Pirou [FR2500080] (648.16km) Bassin de l'Airou [FR2500113] (666.93km) Lough Corrib SAC [IE0000297] (623.34km) Estuaire de la Vilaine [FR5300034] (746.01km) Valle de la Seille [FR2500110] (1228.69) Baie de Seine occidentale [FR2502020] (668.74km) Estuaire de la Loire Nord [FR5202011] (756.84km) Baie du Mont Saint-Michel [FR2500077] (645.98km) Estuaire de la Loire Sud - Baie de Bourgneuf [FR5202012] (770.29km) Marais du Cotentin et du Bessin - Baie des Veys [FR2500088] (634.08km)					

QI	Relevant SAC (distance from Project in km)	Potential Impact	Screened in /out			Reasoning
			C	O&M	D	
	Pertuis Charentais [FR5400469] (826.58km) Marais de Vilaine [FR5300002] (769.21km) Estuaire de la Loire [FR5200621] (787.93km) Valle de l'Arz [FR5300058] (775.28km) Baie de Seine orientale [FR2502021] (728.85km) Lac de Grand-Lieu [FR5200625] (820.00km)					
River lamprey [1099]	River Boyne and River Blackwater SAC [IE0002299] (56.09km)	Direct impacts on habitats	In	In	In	There is potential for connectivity with CWP Project activities and a potential route to impact on this Annex II diadromous fish species. Therefore, the potential for LSE cannot be ruled out.
	Slaney River Valley SAC [IE0000781] (80.24km)	Temporary increase in SSC and contaminated sediments	In	In	In	
	River Barrow and River Nore SAC [IE0002162] (146.83km)	Increase in underwater noise and vibration	In	In	In	
	Lower River Suir SAC [IE0002137] (163.97km)	Presence of EMF and heat		In		
	Blackwater River (Cork/Waterford) SAC [IE0002170] (204.84km) Cummeen Strand / Drumcliff Bay (Sligo Bay) SAC [IE0000627] (501.12km)	Presence of structures and associated predator aggregation		In		

QI	Relevant SAC (distance from Project in km)	Potential Impact	Screened in /out			Reasoning
			C	O&M	D	
	Killarney National Park, Macgillicuddy's Reeks and Caragh River Catchment SAC [IE0000365] (413.78km) Lough Gill SAC [IE0001976] (528.77km) Castlemaine Harbour SAC [IE0000343] (474.20km) Lower River Shannon SAC [IE0002165] (506.57km)					



Data sources: CWP, 2024; Natural Power, 2024; NPWS, 2024.
Background: OSM
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3.5 Onshore Terrestrial Habitats and Flora

Table 3-9 Project alone screening of Natura 2000 sites designated for onshore ecology

Relevant SAC (distance from Project in km)	Distance to SAC	QI / SCI	Potential Impact	Screened in / out			Reasoning
				C	O&M	D	
South Dublin Bay [IE0000210] (0.00km)	<10m	[1210] Annual vegetation of drift lines	Habitat loss and fragmentation (within the onshore development area above the HWM) (C, D)	In	Out	In	The onshore development area overlaps with the SAC at the proposed landfall location. Although no Annex I QI habitats were recorded within the works area (EIAR Appendix 21.3), the loss of habitat within the SAC boundary could result in indirect effects on the SAC.
		[2110] Embryonic shifting dunes	Presence of EMF and / or temperature changes resulting from presence of electrical infrastructure	Out	Out	Out	Considering the cable will be installed to a depth of 3 m below ground level within the onshore development area, above the HWM and the absence of terrestrial QI habitats within the onshore development area, there is no potential for the presence of EMF or temperature changes to negatively impact terrestrial QI habitats. There is therefore no potential for LSE.
			Spread of terrestrial INNSI (C, O&M, D)	In	In	In	The proposed construction works associated with the OTI have the potential to result in the disturbance of INNS within the onshore development area, The introduction or spread of the INNS into the SAC site boundary, particularly within the terrestrial QI habitats could negatively impact the SAC. Therefore, the potential for LSE cannot be ruled out.

Relevant SAC (distance from Project in km)	Distance to SAC	QI / SCI	Potential Impact	Screened in / out			Reasoning
				C	O&M	D	
			Air Quality (C, D)	Out	Out	Out	The proposed construction works associated with the OTI have the potential to result in the generation of dust. However considering the nature and structure of the coastal Annex I QI habitats, there is no potential for dust to negatively affect these habitats. There is therefore no potential for LSE.

3.6 Onshore Terrestrial Mammals

78. There are no European sites within the Zol of the onshore development area designated for Annex II terrestrial mammals. The closest European site designated for any Annex II terrestrial mammal is the Wicklow Mountains SAC (002122), which is protected for otters. The Wicklow Mountains SAC is located approximately 25 km upstream of the onshore development area. Otters' territory ranges in Ireland have been recorded to range between 6–15 km along rivers (Reid et al., 2013 and Bailey & Rochford, 2006). Given the significant upstream distance (c. 25 km) and lack of suitable habitat within the onshore development area, the proposed onshore works area or the surrounding intertidal area is not considered to be an ex situ site for the population of otters designated within the Wicklow Mountains SAC.

3.7 Onshore Ornithology

3.7.1 Breeding Birds

Table 3-10 Project alone screening of Natura 2000 sites designated for breeding seabird SCIs

SCI	Relevant SPAs (distance from Project in km)	Potential Impact	Project component	Screened in/out			Reasoning
				C	O&M	D	
Arctic Tern [A194]	South Dublin Bay and River Tolka Estuary SPA [IE004024] (0.00 km)	Direct effects on habitat (within the onshore development area above the HWM) (C, D)	Landfall (works above the high water mark), onshore export cable, onshore substation, ESNB network cable	Out	Out	Out	Direct effects on habitat during the operational phase of the Proposed Development are not expected to have effects on SPA breeding Arctic tern populations due to the very large foraging range of this species and the extent of other habitats available for other functions (e.g., roosting). Direct effects on habitat during the construction and decommissioning periods are temporary and relatively short term. Therefore, it is considered that there is no potential for LSE in relation to this effect pathway for this SCI for this SPA.

SCI	Relevant SPAs (distance from Project in km)	Potential Impact	Project component	Screened in/out			Reasoning
				C	O&M	D	
		Disturbance and displacement		Out	Out	Out	Arctic tern is considered relatively sensitive to close human activity. The onshore substation will be located 25 m south a known breeding colony. However, this colony is not associated with any SPA and Arctic tern is only destined within the South Dublin Bay and River Tolka Estuary SPA for a post-breeding roost, located in the intertidal area to the south of the onshore area. Disturbance and displacement on the post breeding Arctic tern of the SPA have been addressed in Section 2.3 and there is no potential for disturbance and displacement effects as a result of the OTI. Therefore, the potential for LSE can be ruled out.
		Spread of terrestrial INNS (C, O&M, D)		Out	Out	Out	Suitable habitat for this SCI species is largely marine habitat. This habitat is not considered to be suitable habitat for the establishment, growth, or spread of terrestrial INNS. Therefore, the potential for LSE can be ruled out.

SCI	Relevant SPAs (distance from Project in km)	Potential Impact	Project component	Screened in/out			Reasoning
				C	O&M	D	
		Presence of onshore buildings / infrastructure	Onshore substation	Out	Out	Out	Arctic tern is considered relatively sensitive to potential effects from perceived or actual threat of predators and / or shadows from the presences of buildings / infrastructure. The onshore substation will be located 25 m south a known breeding colony. However, this colony is not associated with any SPA and Arctic tern is only destined within the South Dublin Bay and River Tolka Estuary SPA for a post breeding roost, located in the intertidal area to the south of the onshore area. There is no potential for effects on the post breeding Arctic tern of the SPA as a result of the OTI. Therefore, the potential for LSE can be ruled out.
Common Tern [A193]	South Dublin Bay and River Tolka Estuary SPA [IE004024] (0.00km)	Direct effects on habitat within the onshore development area above the HWM) (C, D)	Landfall (works above the high water mark), onshore export cable, onshore substation, ESNB network cable	Out	Out	Out	Direct effects on habitat during the operational phase of the Proposed Development are not expected to have effects on SPA breeding common tern populations due to the very large foraging range of this species and the extent of other habitats available for other functions (e.g. roosting). Direct effects on habitat during the construction and decommissioning periods are temporary and relatively short-term. Therefore, it is considered that there is no potential for LSE in relation to this effect pathway for this SCI for this SPA.

SCI	Relevant SPAs (distance from Project in km)	Potential Impact	Project component	Screened in/out			Reasoning
				C	O&M	D	
		Disturbance and displacement		In	In	In	Common tern is considered relatively sensitive to close human activity. The proposed substation will be located 250 m southwest of a known breeding colony. Disturbance from machinery, personal, lighting and noise have the potential to cause disturbance to breeding common terns, during all phases of the proposed development. Therefore, potential LSEs cannot be ruled at this stage.
		Spread of terrestrial INNS (C, O&M, D)		Out	Out	Out	Suitable habitat for this SCI species is largely marine habitat. This habitat is not considered to be suitable habitat for the establishment, growth, or spread of Japanese Knotweed or other terrestrial INNS. Therefore, the potential for LSE can be ruled out.
		Presence of onshore buildings / infrastructure	Onshore substation	Out	In	Out	Common tern is considered relatively sensitive to potential effects from perceived or actual threat of predators and / or shadows from the presences of buildings / infrastructure. The onshore substation will be located 250 m southeast of a known breeding colony. This colony is associated with and part of the South Dublin Bay and River Tolka Estuary SPA. Therefore, potential LSEs cannot be ruled at this stage.

SCI	Relevant SPAs (distance from Project in km)	Potential Impact	Project component	Screened in/out			Reasoning
				C	O&M	D	
Peregrine Falcon [A103]	Wicklow Mountains SPA [IE004040] (13.61 km)	Direct effects on habitat within the onshore development area above the HWM) (C, D)	Landfall (works above the high-water mark), onshore export cable, onshore substation, ESNB network cable	Out	Out	Out	The CWP Project is located 13 km from this SPA. Therefore, this SPA is located beyond the Zol for habitat loss / fragmentation impacts associated with the proposed onshore works. Therefore, the potential for LSE can be ruled out.
		Disturbance and displacement		Out	Out	Out	Due to the spatial distance between the proposed development and this SPA (13 km), the proposed onshore works during the construction, operation and decommissioning phases are beyond the Zol. Therefore, there is no potential for disturbance or displacement effects on peregrine falcons at this SPA.
		Spread of terrestrial INNS (C, O&M, D)		Out	Out	Out	The CWP Project is located 13 km and downstream from this SPA. Therefore, this SPA is located beyond the Zol for invasive species effects associated with the proposed onshore works. Therefore, the potential for LSE can be ruled out.
		Presence of onshore buildings / infrastructure	Onshore substation	Out	Out	Out	The CWP Project is located 13 km and downstream from this SPA. Therefore, this SPA is located beyond the Zol for effects associated with the presence of onshore buildings / infrastructure. Therefore, the potential for LSE can be ruled out.

SCI	Relevant SPAs (distance from Project in km)	Potential Impact	Project component	Screened in/out			Reasoning
				C	O&M	D	
	Poulaphouca Reservoir SPA [IE004063] (29.97 km)	Direct effects on habitat within the onshore development area above the HWM) (C, D)	Landfall (works above the high-water mark), onshore export cable, onshore substation, ESBN network cable	Out	Out	Out	The CWP Project is located 25 km from this SPA. Therefore, this SPA is located beyond the Zol for habitat loss / fragmentation impacts associated with the proposed onshore works. Therefore, the potential for LSE can be ruled out.
		Disturbance and displacement		Out	Out	Out	Due to the spatial distance between the proposed development and this SPA (25 km), the proposed onshore works during the construction, operation and decommissioning phases are beyond the Zol. Therefore, there is no potential for disturbance or displacement effects on lesser black-backed gull at this SPA.
		Spread of terrestrial INNS (C, O&M, D)		Out	Out	Out	The CWP Project is located 25 km from this SPA. Therefore, this SPA is located beyond the Zol for invasive species effects associated with the proposed onshore works. Therefore, the potential for LSE can be ruled out.
		Presence of onshore buildings / infrastructure	Onshore substation	Out	Out	Out	The CWP Project is located 25 km and downstream from this SPA. Therefore, this SPA is located beyond the Zol for effects associated with the presence of onshore buildings / infrastructure. Therefore, the potential for LSE can be ruled out.

3.7.2 Non-breeding birds

Table 3-11 Project alone screening of Natura 2000 sites designated for non-breeding seabird SCIs

SCI	Relevant SPAs (distance from Project in km)	Potential Impact	Project component	Screened in/out			Reasoning
				C	O&M	D	
Black-headed gull [A179]	South Dublin Bay and River Tolka Estuary SPA [IE004024] (0.00 km)	Direct effects on habitat within the onshore development area above the HWM) (C, D)	Landfall (works above the high water mark), onshore export cable, onshore substation, ESBN network cable	Out	Out	Out	Direct effects on habitat during the operational phase of the proposed development are not expected to have effects on SPA black-headed gull populations due to the very large foraging range of this species and the extent of other habitats available for other functions (e.g. roosting). Direct effects on habitat during the construction and decommissioning periods are temporary and relatively short-term. Therefore, it is considered that there is no potential for LSE in relation to this effect pathway for this SCI for this SPA.
		Disturbance and displacement		Out	Out	Out	Black-headed gull is considered to be relatively insensitive to disturbance and displacement effects from onshore developments or infrastructure. The relatively large foraging range of this species and wide range of foraging habitats used also means that any effects of disturbance within, or displacement from, the proposed development area are likely to have an insignificant effect on the population. Therefore, it is considered that there is no

SCI	Relevant SPAs (distance from Project in km)	Potential Impact	Project component	Screened in/out			Reasoning
				C	O&M	D	
							potential for LSE in relation to this effect pathway for this SPA.
		Spread of terrestrial INNS (C, O&M, D)		Out	Out	Out	Suitable habitat for this SCI species is largely marine habitat. This habitat is not considered to be suitable habitat for the establishment, growth, or spread of Japanese Knotweed or other terrestrial INNS. Therefore, the potential for LSE can be ruled out.
		Presence of onshore buildings / infrastructure	Onshore substation	Out	Out	Out	Black-headed gull is considered to be relatively insensitive to effects from onshore developments or infrastructure. The relatively large foraging range of this species and wide range of foraging habitats used also means that any effects of disturbance within, or displacement from, the proposed development area are likely to have an insignificant effect on the population. Therefore, it is considered that there is no potential for LSE in relation to this effect pathway for this SPA.
Peregrine Falcon [A103]	Wicklow Mountains SPA [IE004040] (13.61 km)	Direct habitat loss within the onshore development area above the HWM (C, D)	Landfall (works above the high water mark), onshore export cable,	Out	Out	Out	The CWP Project is located 13 km from this SPA. Therefore, this SPA is located beyond the ZOI for habitat loss / fragmentation impacts associated with the proposed onshore works. Therefore, the potential for LSE can be ruled out.

SCI	Relevant SPAs (distance from Project in km)	Potential Impact	Project component	Screened in/out			Reasoning
				C	O&M	D	
		Disturbance and displacement	onshore substation, ESNB network cable	Out	Out	Out	Due to the spatial distance between the proposed development and this SPA (13 km), the proposed onshore works during the construction, operation and decommissioning phases are beyond the Zol. Therefore, there is no potential for disturbance or displacement effects on peregrine falcon at this SPA.
		Spread of terrestrial INNS (C, O&M, D)		Out	Out	Out	The CWP Project is located 13 km and downstream from this SPA. Therefore, this SPA is located beyond the Zol for invasive species effects associated with the proposed onshore works. Therefore, the potential for LSE can be ruled out.
		Presence of onshore buildings / infrastructure	Onshore substation	Out	Out	Out	The CWP Project is located 13 km and downstream from this SPA. Therefore, this SPA is located beyond the Zol for effects associated with the presence of onshore buildings / infrastructure. Therefore, the potential for LSE can be ruled out.
Light-bellied Brent Goose [A046]	South Dublin Bay and River Tolka Estuary SPA [IE004024] (0.00 km)	Direct effects on habitat within the onshore development area above the HWM (C, D)	Landfall (works above the high water mark), onshore export cable, onshore substation,	Out	Out	Out	Direct effects on habitat during the operational phase of the proposed development are not expected to have effects on SPA light-bellied brent goose populations due to the extent of other habitats available for other functions (e.g., feeding). Direct effects on habitat during the construction and decommissioning periods

SCI	Relevant SPAs (distance from Project in km)	Potential Impact	Project component	Screened in/out			Reasoning
				C	O&M	D	
			ESBN network cable				are temporary and relatively short-term. Therefore, it is considered that there is no potential for LSE in relation to this effect pathway for this SCI for this SPA.
		Disturbance and displacement		In	Out	In	Brent geese are considered relatively sensitive to close human activity. During the construction and decommissioning phases, the potential for disturbance impacts as a result of machinery, personnel, lights and noise cannot be ruled out on foraging flocks of brent geese within the SPA. Therefore, it is considered that there is potential for LSE in relation to this effect pathway for this SCI for this SPA.
		Spread of terrestrial INNS (C, O&M, D)		In	Out	In	The South Dublin Bay and River Tolka Estuary SPA occurs in close proximity the proposed development at the landfall area (above the high water mark). The terrestrial grassland of the SPA is currently being managed for brent geese and has been historically used by the species. Non-native invasive plant species have been recorded within the onshore study area and also within the CWP Project itself. Therefore, construction and decommissioning works have the potential to accidentally cause their introduction / spread to habitat areas within this European site. Therefore, it is considered that there is potential for LSE in

SCI	Relevant SPAs (distance from Project in km)	Potential Impact	Project component	Screened in/out			Reasoning
				C	O&M	D	
							relation to this effect pathway for this SCI for this SPA.
		Presence of onshore buildings / infrastructure	Onshore substation	Out	Out	Out	Light-bellied brent goose is considered to be relatively insensitive to the effects from onshore buildings or infrastructure. The species was not recorded near the proposed onshore substation and so there is no potential of effects on the species population. Therefore, it is considered that there is no potential for LSE in relation to this effect pathway for this SPA.

4 THE SCREENING PROCESS FOR THE PROJECT IN-COMBINATION

79. Considering the highly precautionary approach to Screening for the Project alone, it is considered that in all cases where there is connectivity with Project activities (or impacts arising from such) and a route to impact on a given QI or SCI of a European site exists, the European site has been screened in for inclusion in the next stage of the assessment (i.e., NIS / Stage 2 Appropriate Assessment). Where no LSE on a QI or SCI of a European site has been concluded for the Project alone, it is considered that there is no connectivity with Project activities or no route to impact from the Project on that QI or SCI.
80. Therefore, in all cases where no LSE has been concluded for the Project alone, there can be no potential for in-combination effects with any other plan or project to result in an adverse effect on the integrity of that European site.
81. As such, it can be concluded that no further sites require Screening into the next stage of the AA process as a result of in-combination effects for marine and intertidal receptors.

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6 ANNEX A - SUPPLEMENTARY ORNITHOLOGICAL INFORMATION

Table A-1 Mean-maximum foraging range + 1 SD for breeding seabird species from Woodward et al., 2019

Species	Mean-max foraging range (km)	SD (km)	Mean-max foraging range + 1 SD (km)
Kittiwake	156.1	144.5	300.6
Herring gull	58.8	26.8	85.6
Lesser black-backed gull	127	109	236
Little tern	5	-	5
Roseate tern	12.6	10.6	23.2
Common tern	18.0	8.9	26.9
Arctic tern	25.7	14.8	40.5
Guillemot	73.2	80.5	153.7
Razorbill	88.7	75.9	164.6
Puffin	137.1	128.3	265.4
European storm petrel	336	-	336
Fulmar	542.3	657.9	1200.2
Manx shearwater	1,346.8	1,018.7	2365.5
Gannet	315.2	194.2	509.4
Cormorant	25.6	8.3	33.9
Black-headed gull	18.5	-	18.5
Common gull	50	-	50
Mediterranean gull	20	-	20
Shag	13.2	10.5	23.7
Sandwich tern	34.3	23.3	57.6

Table A-2 Behavioural sensitivity to vessel disturbance (From Fließbach et al., 2019 unless stated)

Species	Behavioural sensitivity (1-25)	Species	Behavioural sensitivity (1-25)
Red-throated diver	High - 23.3	Fulmar	Low - 2.7
Red-breasted merganser	High - 21.7	Black-headed gull	Low - 2.7
Common scoter	High - 21.7	Herring gull	Low - 2.3
Razorbill	Mod / high - 16.0	Common gull	Low - 2.3
Great crested grebe	Mod - 10.8	Lesser black-backed gull	Low - 2.0
Cormorant	Low / mod - 9.2	Sandwich tern	Low - 2.0
Guillemot	Low / mod - 6.5	Common tern	Low - 1.7
Gannet	Low - 4.7	Arctic tern	Low - 1.7
Little gull	Low - 4.0	Manx shearwater	Low*
Kittiwake	Low - 3.5	Storm petrel	Low**

* from Cook and Burton, 2010

** 'No response' from Furness et al., 2012

Table A-3 Behavioural sensitivity to anthropogenic activity in estuarine habitats (From Cutts et al., 2013)

Species	Overall disturbance sensitivity	Sensitivity to...	
		Visual stimuli	Noise stimuli
Brent goose	High	Extremely sensitive to moderate- and high-level visual disturbance	Very sensitive to noise stimuli
Shelduck	High	Extremely sensitive to moderate- and high-level visual disturbance	Sensitive to noise stimuli
Mallard	Moderate	Relatively tolerant of moderate- and high-level visual disturbance	Not considered particularly sensitive to noise stimuli
Oystercatcher	Moderate	Relatively tolerant of moderate- and high-level visual disturbance	Not considered particularly sensitive to noise stimuli (low confidence)
Ringed plover	Low (with habituation)	Very tolerant of moderate- and high-level visual disturbance	Not considered particularly sensitive to noise stimuli and to habituate rapidly
Golden plover	Moderate	Relatively tolerant of moderate- and high-level visual disturbance	Moderately sensitive to noise stimuli (low confidence)
Grey plover	Moderate	Tolerant of moderate- and high-level visual disturbance	Moderately sensitive to noise stimuli
Lapwing	Moderate	Relatively tolerant of moderate-level visual disturbance	Moderately sensitive to noise stimuli (low confidence)
Knot	High	Tolerant of moderate- and high-level visual disturbance	Sensitive to noise stimuli
Sanderling	Low (with habituation)	Tolerant of moderate- and high-level visual disturbance	Not considered particularly sensitive to noise stimuli and to habituate rapidly
Dunlin	Low	Tolerant of moderate- and high-level visual disturbance	Not considered particularly sensitive to noise stimuli
Black-tailed godwit	Moderate	Tolerant of moderate-level visual disturbance (low confidence)	Moderately sensitive to noise stimuli
Bar-tailed godwit	Moderate	Tolerant of moderate- and high-level visual disturbance	Moderately sensitive to noise stimuli
Curlew	Moderate	Sensitive to moderate- and high-level visual disturbance	Moderately sensitive to noise stimuli
Redshank	High	Very tolerant of moderate- and high-level visual disturbance	Very sensitive to noise stimuli
Turnstone	Low (with habituation)	Very tolerant of moderate- and high-level visual disturbance	Not considered particularly sensitive to noise stimuli and to habituate rapidly

Table A-4 Behavioural response to operational offshore wind farms (from Dierschke et al., 2016 unless stated)

Species	Behavioural response (strong avoidance to strong attraction)	Species	Behavioural response (strong avoidance to strong attraction)
Red-throated diver	Strong avoidance	Kittiwake	Neither
Great-crested grebe	Strong avoidance	Common tern	Neither
Gannet	Strong avoidance	Arctic tern	Neither
Common scoter	Avoidance	Storm petrel	Neither? ^{*2}
Manx shearwater	Avoidance	Black-headed gull	Attraction
Guillemot	Avoidance	Common gull	Attraction
Razorbill	Avoidance	Herring gull	Attraction
Little gull	Avoidance	Lesser black-backed gull	Attraction
Sandwich tern	Avoidance	Cormorant	Strong attraction
Fulmar	Neither? ^{*1}	Shag	Strong attraction

^{*1} While Dierschke et al., 2016 assessed fulmar to demonstrate weak avoidance of OWF infrastructure, subsequent guidance (UK SNCBs, 2022) advises interpretation of its low disturbance susceptibility scores from Bradbury et al., 2014, as that this species 'may not be displaced or hardly displaced'. Furthermore, due to the extremely large foraging range of this species and its wide dietary range, the potential for a demographic consequence of potential limited displacement (i.e., impacts on survival rates or productivity) is considered very small.

^{*2} No information available relating specifically to behavioural response to offshore wind farms. Non-avoidance noted in relation to other offshore structures. Attributed low sensitivity to disturbance by offshore structures in Furness et al., 2012.

Table A-5 Quantified avoidance rates of offshore wind farms from operational monitoring (from Hornsea 4 Environmental Impact Assessment Report (EIAR))

Species	Avoidance rate based on...	
	OWEZ (Krigsveld et al., 2011; Leopold et al., 2011)	Robin Rigg (Walls et al., 2013) and Thanet (Royal Haskoning DHV, 2013)
Fulmar	28%	<50%
Gannet	64%	50%
Kittiwake	18%	0%
Great-black backed gull	18%	0%
Herring gull	18%	0%
Lesser black-backed gull	18%	0%
Guillemot	68%	50%
Razorbill	68%	50%
Puffin	40–68%	NA

Table A-6 Vulnerability to collision risk (from Bradbury et al., 2014)

Species	Relevant collision risk sensitivity factors				Overall collision risk score
	Proportion of flight activity at collision risk height (% at 20–150 m asl)	Flight manoeuvrability (1–5)	Proportion of time spent flying (1–5)	Nocturnal activity level (1–5)	
Great black-backed gull	35	2	2	3	245
Herring gull	35	2	2	3	245
Lesser black-backed gull	30	1	2	3	180
Common gull	25	1	2	3	150
Mediterranean gull	25	1	2	3	150
Kittiwake	15	1	3	3	105
Gannet	12	3	3	2	96
Little gull	15	1	3	2	90
Black-headed gull	20	1	1	2	80
Sandwich tern	10	1	5	1	70
Little tern	10	1	5	1	70
Common tern	10	1	5	1	70
Roseate tern	8	1	5	1	56
Cormorant	8	4	2	1	56
Shag	8	3	2	1	48
Red-throated diver	5	5	2	1	40
Goldeneye	5	3	2	3	40
Red-breasted merganser	5	4	2	2	40
Arctic tern	5	1	5	1	35
Scaup	3	4	2	5	33
Common scoter	3	3	2	3	24
Great crested grebe	2	4	3	2	18
Storm petrel	2	1	3	4	16
Fulmar	1	3	2	4	9
Guillemot	1	4	1	2	7
Razorbill	0.5	4	1	1	3
Puffin	0.5	3	1	1	2.5
Manx shearwater	0	3	3	3	0