

7. ORNITHOLOGY

7.1 Introduction

The Electricity Supply Board (ESB) limited are proposing to extend the operational life of the existing windfarm located at Carnsore Point, County Wexford by fifteen years. As outlined in Chapter 4 (Project Description) of this Environmental Impact Assessment Report (EIAR), the extension to the operational life of the existing windfarm will not involve any alterations or extensions to the existing operational windfarm. All elements of the project are pre-existing, and it is not proposed to make any alterations to the current site layout, wind turbines or associated infrastructure. All elements of the existing wind farm were constructed in accordance with Hibernian Wind Power's specifications and requirements. Carnsore windfarm was constructed in 2002 and consists of 14 operational turbines. A full description of the existing windfarm is provided in Chapter 4.

7.2 Objectives

The key objectives of this assessment are:

- Undertaking a desktop assessment of the current baseline ecological characteristics of the operational windfarm in relation to ornithology;
- An evaluation of the ecological significance of the Lifetime extension proposals in the context of ornithology; and
- An assessment of the direct, indirect and cumulative impacts of the Lifetime extension proposals in the context of ornithology.

7.3 Legislation and Ecological Guidance

This report has been prepared having regard to legislation aimed at the protection of wild flora and fauna and referenced throughout the Environmental Impact Statement:

- The Habitats Directive 92/43/EEC
- The Birds Directive 79/409/EEC
- EIA Directive 2011/92/EU and Directive 2014/52/EU
- EU Water Framework Directive (2000/60/EC)
- The European Communities (Birds and Natural Habitats) Regulations 2011 (transposes EU Birds Directive 2009/147/EC and EU Habitats Directive 2009/147/EC, 92/43/EC)
- Irish Wildlife Act 1976 to 2018

The following ecological guidance documents were consulted during the preparation of this EIAR:

- Repowering onshore wind farms: bird survey requirements (SNH 2014)
- Scottish Natural Heritage (SNH) guidance Assessing the impact of repowered wind farms in nature (Consultation draft) (SNH 2018)
- Draft Guidelines on the information to be contained in Environmental Impact Assessment Reports (EPA 2017)
- Guidelines for Ecological Impact Assessment in the UK and Ireland. Terrestrial, Freshwater Coastal and Marine version 1.1. (CIEEM, 2018).
- Advice Notes on Current Practice (in preparation of Environmental Impact Statements) (Environmental Protection Agency (EPA), 2003).
- Guidelines on the information to be contained in Environmental Impact Statements (EPA, 2002).

7.4 Statement of Authority

Ecological baseline surveys were conducted by suitably qualified ecologists from Scott Cawley Ltd. on behalf of RSK Ireland. This EIAR chapter has been prepared by Mark Lang, BSc (Hons) Biology of RSK Biocensus. Mark is an experienced ornithologist with over 25 years ecological consultancy experience; he is a full member of the Chartered Institute of Ecology and Environmental Management (MCIEEM) a Chartered Ecologist (CEcol) and a Chartered Environmentalist (CEnv). This chapter has been reviewed by Nick Henson, MEnvSci, MCIEEM, CEnv.

7.5 Methodology and Limitations

The current ornithology baseline of the site was assessed by means of a desktop study, previous ornithology monitoring of the operational windfarm and recent field surveys (breeding bird, wintering bird and vantage point (VP) surveys) undertaken in 2019 and 2020. Further details regarding the methodology of this assessment are provided below.

7.6 Desktop Review

The desktop study undertaken for this assessment included a detailed review of the following survey reports:

- Ornithology study carried out at Carnsore Point by Birdwatch Ireland (Birdwatch Ireland, 1998 and 1999).
- Ornithological Monitoring Reports carried out at Carnsore windfarm from 2003 to 2005 (Adamson, J. 2003, Daly.D 2004 and 2005).

Online data available on European sites and protected habitats/species as held by the National Parks and Wildlife Service (NPWS) (www.npws.ie), including conservation objectives documents, were reviewed to identify designated sites of ornithological importance within 15km of Carnsore windfarm.

7.7 Scoping and Consultation

A planning meeting was held by Wexford County Council (July 2020) to discuss the proposed repowering of the existing windfarm. The minutes of this meeting stated that:

- The current windfarm has been a success and well accepted by the local community.
- An extended lifetime in its current form would be acceptable to the Planning Authority.
- A Natura Impact Statement (NIS) would be required.
- An Environmental Impact Assessment (EIA) would also be required.
- Bird surveys are required, given the location along a bird migration route.
- Existing habitats and bird colonies should be respected.

7.8 Field surveys

A comprehensive suite of ornithology surveys has been undertaken during the wintering and breeding seasons to inform the current ornithology baseline. The full survey methodologies are detailed in RSK/Scott Cawley (2020) and have been summarised below.

Wintering bird surveys were carried out between November 2019 until March 2020 and included vantage point (VP) surveys from two locations covering the whole of the operational windfarm area. In total, 15 hours of VP (three hours per month) were undertaken at each VP location.

Breeding season surveys were carried out between April and September 2020 using the same methodologies as outlined above. VP observations totalled 18 hours (3 hours per month) at each location.

In addition to the above, bird and bat casualty searches were undertaken around the base of each turbine and within a radius of 30m. These searches were undertaken monthly between July and October 2020.

7.9 Methodology for Assessment of Effects

The assessment of likely significant environmental effects resulting from the proposed repowering has considered the following:

- Duration of effect;
- Receptor sensitivity; and
- Magnitude of change.

These characteristics are described further below.

7.9.1 Duration of Effect

The duration of the effect has been assessed as either ‘short-term’, ‘medium-term’ or ‘long-term’. Short-term is considered to be up to 1 year, medium-term is considered to be between 1 - 10 years and long-term is considered to be greater than 10 years.

7.9.2 Determining Sensitivity of Receptor

The sensitivity of affected receptors has been considered on a scale of high, medium, low or negligible.

7.9.3 Determining the Magnitude of Change

The magnitude of change has assessed the change that is likely to be experienced from the baseline conditions of the receptor and has been considered on a scale of large, medium, small or negligible.

7.9.4 Determining the Level of Effect

The importance of the ecological features identified within the study area was determined with reference to a defined geographical context. This was undertaken following a methodology that is set out in Chapter 3 of the ‘Guidelines for Assessment of Ecological Impacts of National Roads Schemes’ (NRA, 2009). These guidelines and the CIEEM (2018) guidelines set out the context for the determination of value on a geographic basis. These guidelines provide a basis for determination of whether any particular receptor is of importance at the following scales:

- International
- National (i.e. Ireland)
- County (i.e. Co.Wexford)
- Local Importance (Higher or lower)

Where the value is considered less than this, it is considered ‘negligible’.

7.9.5 Determining the Significance of Effects

Following the classification of an effect, a clear statement is made as to whether the effect is “significant” or “not significant”. Under the CIEEM 2018 guidelines the significance of effect on the ecological features has been determined based on the analysis of the factors that characterise the impact. A significant effect is defined as “an effect that either supports or undermines biodiversity conservation objectives for the ecological feature or for biodiversity in general”. The assessment considers whether an effect has the potential to affect the integrity of a habitat or the conservation status of a species. Integrity of a habitat or site is defined as “the coherence of its ecological structure and function, across its whole area, that enables it to sustain the habitat, complex of habitats and/or the levels of populations of the species for which it was classified”. The conservation status of a species is, “the sum of the influences acting on it which may affect its long-term distribution and abundance, within the geographical area of interest”. Conservation status is considered to be favourable under the following circumstances:

- Population dynamics indicate that the species is maintaining itself on a long-term basis as a viable component of its habitats;
- The natural range of the species is not being reduced, nor is it likely to be reduced for the foreseeable future; and
- There is (and probably will continue to be) a sufficiently large habitat to maintain its population on a long-term basis.

To allow a consistent approach across all disciplines, the standard levels of significance defined in the 2018 CIEEM guidelines are set out in Table 7-1 Summary alongside the equivalent definitions of effect used elsewhere in this EIAR. For example, a significant effect at the international level under the CIEEM guidance would equate to a Major significant effect using the standard EIA assessment methodology. As a deviation from the standard EIA methodology, minor effects identified within this chapter have been classified as negligible to ensure that (as per the CIEEM guidelines) a clear statement is made as to whether the effect is “significant” or “not significant”.

The EPA draft guidelines on information to be included in Environmental Impact Statements (EPA, 2017) and the *Guidelines for assessment of Ecological Impacts of National Road Schemes*, (NRA, 2009) were also considered when determining significance and the assessment is in accordance with those guidelines.

Table 7-1 Summary and comparison between CIEEM and EPA guidelines for determining significance of ecological effects

Significance following CIEEM guidelines	Significance following EPA guidelines	Definition
Significant at international level	Profound effect	An effect which obliterates sensitive characteristics. Total/near total loss of a bird population due to mortality or displacement. Total/near total loss of productivity in a bird population due to disturbance. Guide: >80% of population lost through additive mortality.
Significant at national level	Very Significant	An effect which, by its character, magnitude, duration or intensity significantly alters most of a sensitive aspect of the environment.

Significance following CIEEM guidelines	Significance following EPA guidelines	Definition
		Major reduction in the status or productivity of a bird population due to mortality, displacement or disturbance. Guide: 21-80% of population lost through additive mortality.
Significant at county level	Moderate effect	An effect that alters the character of the environment that is consistent with existing and emerging trends. Partial reduction in the status or productivity of a bird population due to mortality, displacement or disturbance. Guide: 6-20% of population lost through additive mortality.
Significant at local level	Slight effect	An effect which causes noticeable changes in the character of the environment without affecting its sensitivities. Small but discernible reduction in the status or productivity of a bird population due to mortality, displacement or disturbance. Guide: 1-5% of population lost through additive mortality.
Not significant	Not Significant	An effect which causes noticeable changes in the character of the environment but without significant consequences. Very slight reduction in the status or productivity of a bird population due to mortality, displacement or disturbance. Reduction barely discernible, approximating to the “no change” situation. Guide: <1% population lost through additive mortality.

7.9.6 Limitations

The information provided in this EIAR chapter accurately and comprehensively describes the baseline ecological environment and provides an accurate prediction of the likely ecological effects of the development. The specialist studies, analysis and reporting have been undertaken in accordance with the appropriate guidelines. No significant limitations in the scope, scale or context of the assessment have been identified.

7.10 Baseline Conditions and Receptor Valuation

Carnsore wind farm comprises fourteen turbines located on improved agricultural grassland with a sand dune system to the south and to the west bounding habitats and Lady’s Island beyond. To the east of the site is the Irish Sea and to the south is the Atlantic Ocean. The results of the desk-based assessment and the historic surveys and monitoring and field surveys undertaken during 2019 and 2020 are summarised below (full survey reports are presented in Appendix 1).

Ecological receptors (including identified sites of ornithological importance) are valued with regard to the ecological valuation examples set out in Guidelines for Assessment of Ecological Impacts of National Roads Schemes: Revision 2 (NRA 2009) and the guidance provided in Guidelines for Ecological Impact Assessment in the UK and Ireland (CIEEM 2018).

7.10.1

Identification of Designated Sites within the Likely Zone of Influence of the Development

The desktop study identified five Special Protection Areas (SPAs) within 15km of Carnsore windfarm, as shown on Figure 7-1. SPAs are protected areas for birds designated under the EU Birds Directive (2009/147/EC)/European Communities (Birds and natural Habitats) Regulations 2011 (S.I. No. 477/2011). Table 7-2 provides summary details of each of the SPAs.

Figure 7-1 European designated sites with avian interest within 15km of Carnsore windfarm

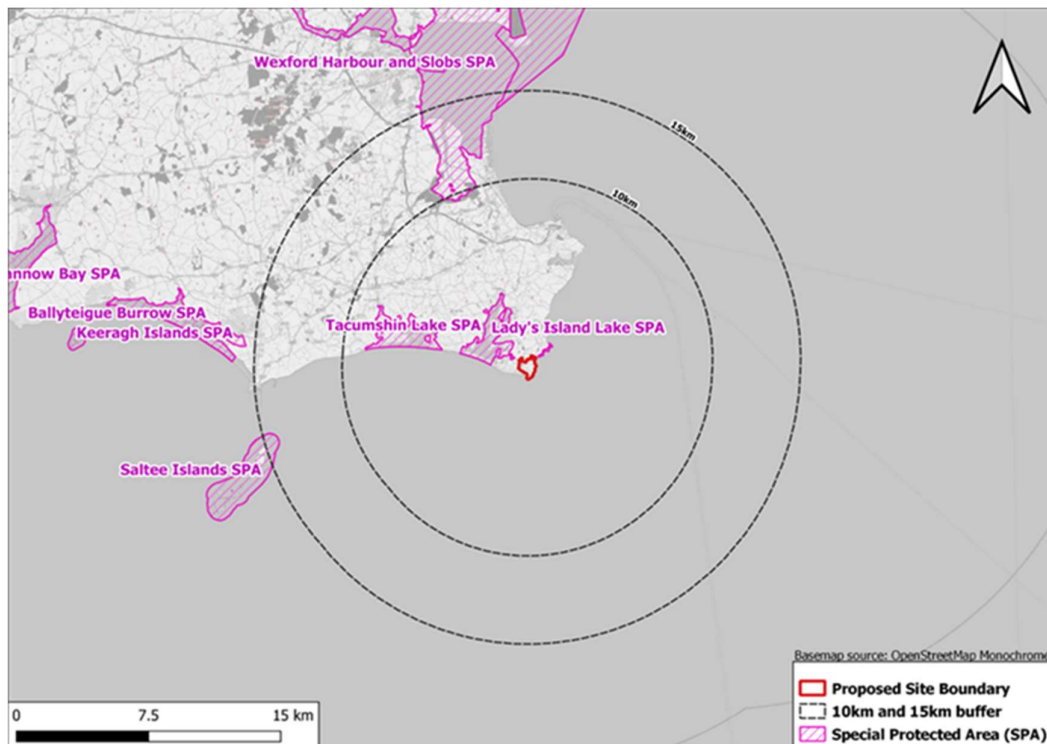


Table 7-2 Designated sites within 15km of Carnsore windfarm

European Site	Special Conservation Interests for which the European Site has been designated	Approximate distance (km) from the site
Lady's Island Lake SPA [004009]	Lady's Island Lake SPA is situated on the east coast in Co. Wexford and comprises a shallow, brackish coastal lagoon separated from the sea by a sand and shingle barrier. It is designated as being of international importance for its populations of breeding and non-breeding waterbirds including several species of terns, black-headed gull (<i>Chroicocephalus ridibundus</i>), and wildfowl.	0.3

European Site	Special Conservation Interests for which the European Site has been designated	Approximate distance (km) from the site
Tacumshin Lake SPA [004092]	Tacumshin Lake SPA is a shallow coastal lagoon situated on the south Co. Wexford coast. The lagoon was formerly a shallow sea bay that has become separated from the sea by a gravel/sand spit. It is designated as being of international importance for its populations of wildfowl and waders.	4.4
Wexford Harbour and Slobbs SPA [004076]	Wexford Harbour is the lowermost part of the estuary of the River Slaney, which drains much of the south-east region of Ireland. The site is of international importance for several species of wintering waterbirds but also because it regularly supports well in excess of 20,000 waterbirds.	9.7
The Raven SPA [004019]	The Raven SPA extends from north of Rosslare Point to Blackwater Harbour on the coast of Co. Wexford. It is of international importance for ornithology and forms the principal night roost for the internationally important Wexford Harbour population of Greenland White-fronted Goose (9,111 – five year mean peak for the period 1994/95 to 1998/99). Various other waterfowl species are also supported by the site during winter.	14.1
Saltee Islands SPA [004002]	The Saltee Islands SPA is situated approximately 4-5 km off the coast of south Co. Wexford and comprises two islands, Great Saltee and Little Saltee, and the surrounding seas, both between the islands and to a distance of 500 m from them. The site is internationally important for holding an assemblage of over 20,000 breeding seabirds, as well as internationally important populations of individual seabird species including lesser black-backed gull (<i>Larus fuscus</i>) and herring gull (<i>Larus argentatus</i>).	14.5

Natural Heritage Areas (NHAs) are designated under the Wildlife (Amendment) Act 2000 and their management and protection is provided for by this legislation and planning policy. Proposed Natural Heritage Areas (pNHAs) were designated on a non-statutory basis in 1995 but have not since been statutorily proposed or designated. A review of The National Parks and Wildlife Service website indicates that there is one ecological pNHA located within 15km of Carnsore windfarm. St. Helen’s Burrow pNHA is located approximately 6km from the Proposed Development; given this distance it has not been considered further in the assessment as no potential impact pathways between it and the Proposed Development have been identified.

7.10.2 Historic Ornithology Baseline

This section summarises previous ornithological information collected for the project pre-construction.

Surveys by Bird Watch Ireland (BWI) in 1998 (BWI, 1998) were undertaken to study the movements of terns and other seabirds in the vicinity of Carnsore Point and Lady's Island. The aim was to clarify the tern flight lines and identify destinations of the terns, both feeding areas and points where they regularly cross overland. It was concluded that tern passage across the Proposed Development site was relatively infrequent and rarely involved the two species of greatest conservation concern (roseate tern (*Sterna dougallii*) and sandwich tern (*Thalasseus sandvicensis*)), but that conditions of thick fog or storms could potentially increase the risk of these birds flying through the windfarm area.

In 1999, BWI were commissioned to carry out further, more focussed observations of bird movements (BWI, 1999). The findings were largely consistent with those of the 1998 report (BWI, 1998) and reaffirmed the conclusions that a wind farm constructed at the Carnsore Point site was unlikely to adversely affect breeding terns, especially sandwich and roseate terns.

The 1999 study found very similar results for previous surveys of terrestrial breeding birds. From a national perspective, the site was deemed relatively rich in farmland and scrub species, including Grasshopper warbler (*Locustella naevia*), Linnets (*Carduelis cannabina*), Whitethroat (*Sylvia communis*) and reed bunting (*Emberiza schoeniclus*).

The Carnsore Point Wind Farm Environmental Impact Statement (EIS) produced in 2000 (Carnsore Point Windfarm Environmental Impact Statement (1999/2000) examined the likely environmental impacts associated with the wind farm. Bird surveys carried out found the breeding bird assemblage to be consistent to what would be expected in an Irish coastal site. Most species recorded were common in Ireland but of note was the presence of tree sparrow (*Passer montanus*) and corn bunting (*Emberiza calandra*), which are scarce in Ireland, mainly confined to coastal areas. The report found the rate of seabird passage and the species composition to be unremarkable. Much of the movement reflected flights of local breeding seabirds, including sandwich tern, roseate tern, common tern (*Sterna hirundo*) and Arctic terns (*Sterna paradisaea*) but flight numbers and details were not provided. It was noted that much greater numbers of passage birds were found in several other coastal areas. Overall, the conclusion of the impact assessment was that there were unlikely to be significant effects on bird species, but that monitoring would occur to provide evidence to confirm this conclusion.

7.10.2.1 Post-construction monitoring

The wind farm was constructed in 2002 and was followed by three years of post-construction monitoring. Monitoring was carried out at VPs around Carnsore Point and closer to the tern breeding colony at Lady's Island Lake.

Results from the first monitoring surveys in 2003 (Adamson, 2003) showed that tern movement across Carnsore Point was greatest between May and July, spanning the incubation and chick-rearing periods of common and Arctic terns. A total of 921 tern flights were recorded during the monitoring period were recorded, the majority of which were common and Arctic tern, with relatively few sandwich or roseate terns recorded. Black-headed gull was the most frequently recorded species in the vicinity of the wind farm site, the three tern species and black-headed-gull are avian interest features of the adjacent Lady's Island SPA, but no collision-related mortality of birds that form SCIs of the nearby SPAs (refer to Table 7-1 Summary) was observed, and the construction and presence of the wind farm did not have any discernible negative effects on passing seabirds, including breeding terns. One dead meadow pipit (*Anthus pratensis*) was found, which was the only observation of a likely collision-related mortality incident.

Monitoring in 2004 (Daly, 2004) showed results broadly similar to 2003. A total of 994 tern flights were recorded during the monitoring period were recorded at Carnsore Point, with the majority being common and Arctic terns and with lower numbers of sandwich terns and roseate terns. Tern movements across Carnsore Point was greatest spanning the incubation and chick-rearing periods of common/Arctic terns. Although no collision-mortality was observed, the remains of a juvenile common tern were found near the base of a turbine (thought likely to be a result of collision with the

turbine). Birds were also observed altering flight paths as they approached the turbines, the most notable being cormorant, black-headed gulls and black-backed gulls. Fog conditions were noted in the report as posing a hazard for terns passing through the wind farm. Abundance of terrestrial birds using the site was 20% lower than the 2003 surveys, however the diversity of birds recorded in 2004 was higher, with eight additional species being recorded.

Monitoring undertaken in 2005 (Daly, 2005) was broadly similar for the previous two years and although no collision-mortality was observed directly, the corpse of an adult Arctic tern was found near the base of a turbine (and thought likely to be a result of collision with the turbine). Abundance of terrestrial birds using the site was 8% higher than the previous surveys, and the species diversity of birds recorded in 2005 was 20% higher than in 2004.

With the recording of only two dead terns (assumed due to colliding with a turbine) the post construction monitoring concluded¹ that there was apparently little direct effect of the wind farm on seabird movements through the Carnsore area, particularly those breeding at Lady's Island Lake. There was some evidence that species such as cormorant and black-headed gulls had begun to alter flight behaviour and avoid the immediate airspace around the turbines, but that the moving rotors of the turbines did not appear to have any major notable effect on flight patterns of terns and gulls moving between the breeding colony and the sea.

7.10.3 Current Ornithology Baseline

A complete year of bird surveys carried out between 2019 and 2020 (RSK/Scott Cawley, 2020) covering the breeding and non-breeding seasons have informed the current baseline and a summary is presented below. Full details of the surveys can be found in the summer bird report (Gill,2020) and the winter bird report (Gill, 2020) included in Appendix 1.

7.10.3.1 Summer (breeding) Season

The summer surveys focused on two areas:

- Surveys of the breeding bird assemblage on the land around the turbines
- Vantage point surveys of birds flying across the airspace of the windfarm focusing on a list of target and secondary species.

During the VP surveys, the focus was on the following target and secondary species:

- Annex I of the Directive 2009/147/EEC referred to as the Birds Directive
- Special Conservation Interests (SCI) of Special Protection Areas (SPA) within the vicinity of the site
- Species protected under the fourth schedule of the Wildlife Acts 1976-2019 which are all raptors that occur in Ireland with the exception of buzzards,
- Red and amber listed Birds of Conservation Concern in Ireland (BoCCI²) species with the exception of passerines.

Secondary species included:

- Red and Amber listed BoCCI passerine species.
- Raven.

¹ Note these are the conclusions reached by the post construction monitoring.

² Red list are bird species that are the highest conservation priority having undergone severe declines, with Amber list being the next most critical group. This is explained fully in: Gilbert G, Stanbury A and Lewis L (2021) Birds of Conservation Concern in Ireland 2020 – 2026 Irish Birds (: 523-544)

- Green listed raptor species which were not listed on Annex I (i.e. buzzard *Buteo buteo*)
- Gull species.

Breeding bird surveys recorded a total of 37 species, of which 28 are of conservation concern (Annex I, BoCCI Red and Amber list species). Generally, passerine species including linnet (*Linaria cannabina*), meadow pipit, stonechat (*Saxicola rubicola*) and starling (*Sturnus vulgaris*), were recorded in hedgerows, scrub and agricultural fields. The Annex 1 species identified (Arctic tern, dunlin (*Calidris alpina*), Little egret (*Egretta garzetta*) and sandwich tern) were not considered to be breeding on the habitats within the immediate environs of the windfarm

The breeding bird assemblage using the land in the vicinity of the windfarm was valued at **County Value** due to the diversity of species and presence of a number of BoCCI Red and Amber listed species.

During the VP surveys, several BoCCI Red and Amber -listed species and Annex 1³ were recorded and these birds were observed to avoid, navigate or continue to use the air space not occupied by the existing turbines and turning blades to forage, hunt and commute. Notably sandwich tern and common tern were recorded regularly commuting through the operating wind farm, travelling between offshore feeding sites and breeding colonies at Lady’s Island Lake SPA. While other tern species, Arctic tern and roseate tern, appeared to avoid flying through the operating wind farm area.

Avoidance of flights through the operating wind farm area was noted by cormorant, and by grey heron (*Ardea cinerea*), little egret, curlew (*Numenius arquata*), barnacle goose (*Branta leucopsis*) and grey plover (*Pluvialis squatarola*).

Kestrel (*Falco tinnunculus*) continued to hunt within lands occupied by the operational wind farm and did not show signs of avoidance. A single osprey (*Pandion haliaetus*) flight was recorded through the operational wind farm on an assumed migration route heading south.

Non-breeding species included buzzard (*Buteo buteo*) recorded on the western side of the site over grassland habitat, and gulls and terns recorded flying over the site on route between feeding and breeding grounds. Wader species, including oystercatcher (*Haematopus ostralegus*), turnstone (*Arenaria interpres*), dunlin (*Calidris alpina*) and curlew, were recorded using the wet grassland and scrub habitats in the west of the site and along the eastern coastal side of the site.

Flights of 17 target species and 8 secondary species were recorded during VP surveys as outlined Table 7-3 and Table 7-4 respectively.

Table 7-3 Monthly peak counts of target species recorded (those in Bold reflect SCIs of adjacent lady island and Tacumshin Lake SPAs) during 2020 surveys

Species	Conservation Status	Apr	May	Jun	Jul	Aug	Sep
Sandwich Tern	BoCCI Amber Listed, Annex I	0	2	3	1	0	0
Common Tern	BoCCI Amber Listed, Annex I	0	0	4	0	0	0
Arctic Tern	BoCCI Amber Listed, Annex I	0	1	0	0	0	0
Roseate Tern	BoCCI Amber Listed, Annex I	0	0	1	0	0	0

³ Annex 1 = birds listed on Annex 1 of the European birds Directive.

Species	Conservation Status	Apr	May	Jun	Jul	Aug	Sep
Unidentified Tern species	BoCCI Amber Listed, Annex I	0	0	4	1	0	0
Black-headed Gull	BoCCI Red Listed	9	13	1	20	35	4
Cormorant	BoCCI Amber Listed	1	1	1	1	0	1
Shag	BoCCI Amber Listed	0	1	0	0	1	0
Kestrel	BoCCI Amber Listed	0	0	0	1	1	1
Osprey	Annex I	0	0	0	0	1	0
Barnacle Goose	BoCCI Amber Listed	9	0	0	0	0	0
Curlew	BoCCI Red Listed, Annex II	30	0	0	1	20	0
Grey Heron	BoCCI Green Listed	0	1	0	0	0	0
Grey Plover	BoCCI Amber Listed	0	0	0	0	3	0
Little Egret	BoCCI Green Listed, Annex I	1	0	0	0	0	0
House Martin	BoCCI Amber Listed	0	0	0	3	0	4
Sand Martin	BoCCI Amber Listed	0	0	3	0	0	0
Swallow	BoCCI Amber Listed	0	0	0	1	0	0
Swift	BoCCI Amber Listed	0	0	10	1	0	0

Table 7-4 Monthly peak counts of secondary species recorded

Species	Conservation Status	Apr	May	Jun	Jul	Aug	Sep
Gannet (BoCCI Amber Listed	3	0	2	40	6	2
Buzzard	BoCCI Green Listed	1	1	2	0	1	4
Common Gull	BoCCI Amber Listed	1	0	0	0	0	0
Lesser Black-backed Gull	BoCCI Amber Listed	0	1	2	1	0	0
Herring Gull	BoCCI Red Listed	10	3	3	30	2	3
Great Black-backed Gull	BoCCI Amber Listed	3	2	2	1	3	1
Starling	BoCCI Amber Listed	0	0	0	0	0	100

In addition to the above, visual carcass searches for bats and birds were undertaken within a 30m radius of each turbine base monthly between July and October 2020. No bat or bird carcasses were found.

Collectively birds in flight that form SCIs of the adjacent Lady Island and Tacumshin Lake SPAs are valued as being of the International Importance in the context of forming part of the assemblage of breeding species associated with the designated sites. Other bird species in flight are collectively considered to be of **County Importance** due to the diversity of species recorded and the fact that quite a few were BoCCI Red and Amber listed.

7.10.3.2 Winter (non-breeding) Season

A total of 16 species were recorded during the winter walkover surveys, of which 14 are of conservation concern (Annex I, Red and Amber listed species). Generally, passerine species including linnet, meadow pipit, stonechat and starling, were recorded in hedgerows, scrub and agricultural fields. Raptors, including buzzard and kestrel, were recorded on the western side of the site over grassland habitat. Seabirds, mainly gull species and one great northern diver (*Gavia immer*), were recorded mainly to the west of the site along the coast or flying over western fields. Wader species, including oystercatcher, redshank (*Tringa totanus*) and snipe (*Gallinago gallinago*) were recorded in wet grassland and scrub habitats in the east of the site and along the western coastal side of the site.

Table 7-5 summarises the species of conservation concern recorded during the winter walkover surveys.

Table 7-5 Monthly peak counts of species recorded during winter walkover surveys November 2019 to March 2020 (those in Bold interest features of adjacent lady island and Tacumshin Lake SPAs)

Species	Conservation Status	Nov	Dec	Feb	Mar
Black-headed Gull	BoCCI Red Listed	0	0	2	0
Great Northern Diver	BoCCI Amber Listed	0	0	1	0
Cormorant	BoCCI Amber Listed	0	0	1	0
Buzzard (BoCCI Green Listed	0	0	0	1
Kestrel	BoCCI Amber Listed	0	1	1	0
Oystercatcher	BoCCI Amber Listed	6	0	3	0
Snipe	BoCCI Amber Listed	1	1	1	5
Redshank	BoCCI Red Listed	0	3	2	0
Herring Gull	BoCCI Red Listed	0	0	3	0
Great Black-backed Gull	BoCCI Amber Listed	0	1	5	0
Lesser Black-backed Gull	BoCCI Amber Listed	0	1	0	0
Meadow Pipit	BoCCI Red Listed	3	1	6	3

Species	Conservation Status	Nov	Dec	Feb	Mar
Stonechat	BoCCI Amber Listed	1	0	0	3
Linnet	BoCCI Amber Listed	15	0	0	0
Starling	BoCCI Amber Listed	40	20	0	40

Birds using the habitat in the vicinity of the windfarm during the winter months have been valued at **Local (Lower) Value** as only low numbers have been recorded and bird species are much more mobile during the winter months being less restricted to individual areas.

During the VP surveys eight target species and ten secondary species were recorded as outlined Table 7-6 and 7-7 respectively. The majority of flight lines were below or above the Rotor Swept Height (RSH) of the turbines.

Table 7-6 Monthly peak counts of target species recorded during winter VP surveys November 2019 to March 2020

Species	Conservation Status	Nov	Dec	Feb	Mar
Cormorant	BoCCI Amber Listed	1	2	1	2
Grey Heron	BoCCI Green Listed	2	1	0	1
Whooper Swan	BoCCI Amber Listed and Annex I species	0	5	0	0
Kestrel	BoCCI Amber Listed	1	1	1	1
Snipe	BoCCI Amber Listed	1	0	0	0
Curlew	BoCCI Red Listed	9	3	0	0
Redshank	BoCCI Amber Listed	10	0	0	0

Table 7-7 Monthly peak counts of secondary species recorded during winter VP surveys November 2019 to March 2020 (those in Bold reflect SCLs of adjacent lady island and Tacumshin Lake SPAs)

Species	Conservation Status	Nov	Dec	Feb	Mar
Black-headed Gull	BoCCI Red Listed	10	15	2	2
Gannet	BoCCI Amber Listed	13	4	1	0
Buzzard	BoCCI Green Listed	2	1	2	1
Common Gull	BoCCI Amber Listed	0	0	0	0
Lesser Black-backed Gull	BoCCI Amber Listed	3	7	1	5
Herring Gull	BoCCI Red Listed	16	2	2	20
Great Black-backed Gull	BoCCI Amber Listed	7	4	13	15

Species	Conservation Status	Nov	Dec	Feb	Mar
Mixed flock of gulls (Great Black-backed / Herring Gull)	BoCCI Amber/ Red Listed	-	-	-	50
Little Egret	BoCCI Green Listed	1	0	0	0
Starling	BoCCI Amber Listed	60	0	0	0

Collectively birds in flight during the winter months that form interest features of the adjacent Lady Island and Tacumshin Lake SPAs are valued at being of **International value** in the context of forming part of the assemblage of species associated with the designated sites. Other bird species in flight during the winter months are collectively considered to be of **Local (Higher) Value** as low numbers have been recorded and bird species are much more mobile during the winter months being less restricted to individual areas.

7.10.4 Future baseline

The future ornithological baseline is the baseline that is likely to exist during the proposed extension to operational lifetime. The current baseline informed by surveys undertaken in 2019 and 2020 has been used as both the current and the future baseline against which any potential impacts have been assessed.

7.11 Scoping

7.11.1 Construction Phase

As detailed within Chapter 4: Description of this EIAR, all elements of the project are pre-existing and it is not proposed to make any alterations to the current site layout, wind turbines or associated infrastructure. As such, there will be no construction associated with the planning permission and therefore the construction phase has been scoped out and is not considered further in this assessment.

7.11.2 Operational Phase

Potential impacts associated with extending the operational phase have been scoped into this assessment. Potential operational phase impacts relevant to Ornithology are outlined below.

7.11.3 Decommissioning Phase

In relation to decommissioning: Condition 9 of the original Planning Application (ABP Ref. PL26.116487) states the following:

'On full or partial decommissioning of the wind farm or if the wind farm ceases operation for a period of more than one year the masts and turbines concerned (including foundations) shall be dismantled and removed from the site. The site shall be reinstated (including all access roads) and all decommissioned structures shall be removed within three months of decommissioning.'

The impacts associated with the decommissioning phase activities (described in Condition 9) were fully assessed in the EIS [Carnsore Point Windfarm Environmental Impact Statement (ESB 2000)]. As

detailed in Chapter 4: Project Description of this EIAR, the current plan for decommissioning would include leaving the turbine foundations and cabling in place underground and the site roadways remaining in situ. The potential impacts associated with the revised plan, if taken forward at the time of decommissioning, would be less than those assessed in the EIS (Carnsore Point Windfarm Environmental Impact Statement (ESB 2000). This would be subject to a separate planning application (including agreeing a decommissioning plan with the local authorities) and therefore the decommissioning phase has been scoped out and is not considered further in this assessment.

7.11.4 Identification of Key Ecological Receptors

In accordance with Guidelines for Assessment of Ecological Impacts of National Roads Schemes: Revision 2 and the guidance provided in Guidelines for Ecological Impact Assessment in the UK and Ireland (CIEEM 2018), ‘Key Ecological Receptors’ (KERs) are important ecological features within what is referred to as the Zone of Influence (Zoi) of the proposed development which are “both of sufficient value to be material in decision making and likely to be affected significantly”. For this assessment KERs have been identified as ecological receptors with a value of local importance (higher value) or greater, which may be subject to significant effects from the Proposed Development, either directly or indirectly.

Since the RSK 2020 baseline ornithology reports were written, the project description has been updated and the identification of KERs has been updated accordingly. Table 7-8 provides a summary of KERs identified.

Table 7-8 Potential impacts on birds scoped in for further assessment

Receptor	Value	Potential impacts	Defined as KER?
Designated sites	International	Collision risk causing incidental mortality due to flying over the airspace above the operational windfarm. Noise and disturbance from the operational windfarm causing displacement from land adjacent to the windfarm	Yes
Birds not forming part of the interest features of designated sites flying over airspace above windfarm in the breeding season.	Local Value (Higher)	Collision risk causing incidental mortality due to flying over the airspace above the operational windfarm. Noise and disturbance from the operational windfarm causing displacement from land adjacent to the windfarm	Yes
Birds not forming part of the interest features of designated sites flying over airspace above windfarm in the breeding season.	County Value	Collision risk causing incidental mortality due to flying over the airspace above the operational windfarm. Noise and disturbance from the operational windfarm causing displacement from land adjacent to the windfarm	Yes

Receptor	Value	Potential impacts	Defined as KER?
Bird assemblage using land in immediate vicinity of windfarm during breeding season.	County Value	Collision risk causing incidental mortality due to flying over the airspace above the operational windfarm. Noise and disturbance from the operational windfarm causing displacement from land adjacent to the windfarm	Yes
Bird assemblage using land in immediate vicinity of windfarm during winter season.	Local Value (Lower)	Noise and disturbance from the operational windfarm causing displacement from land adjacent to the windfarm	Yes

7.12 Assessment of Effects

7.12.1 Environmental Design Measures

Carnsore windfarm was originally designed to avoid habitat features of interest and was located on agriculturally improved farmland not considered to have been of significant value to bird species. No additional environment design measures were considered necessary.

7.12.2 Likely and Significant Impacts

This section assesses the potential significant impacts associated with the development on avian receptors within and surrounding the development site. The impact assessment describes the direct, indirect and cumulative impacts associated with the Proposed Development on avian interest features within the development site.

Direct impacts include the physical loss of a habitat or disturbance/degradation of a species (i.e. habitat loss, etc.). Indirect impacts include those impacts which are caused by the interaction of effects i.e. disturbance, displacement, etc.

As indicated above under scoping construction phase effects have been scoped out.

7.12.3 Do-Nothing Scenario

It is considered that under the do-nothing scenario the existing turbines would be decommissioned with no significant effects identified (see above under scoping).

7.12.4 Operational Phase

The following section describes the potential impacts resulting from the proposal to extend the operational life of the wind farm.

7.12.4.1 Impacts on Designated Sites

This section assesses the potential impacts to bird species cited as SCIs of designated sites.

As identified in Table 7-2 there are several designated sites within 15km of Carnsore windfarm, the closest being Lady's Island SPA and Tacumshin Lake SPA. Due to the distance of the other SPAs from Carnsore windfarm and noting the lack of an obvious source-pathway-receptor model it is considered direct effects are unlikely, so the focus has been on Lady's Island and Tacumshin Lake. For ease of assessment, impacts affecting all bird species cited as SCIs of designated sites are considered together rather than assessing each individual species in turn.

A Screening for AA and Natura Impact Statement has been completed and the overall conclusion is that there will no likely adverse effects on the integrity of any designated sites.

7.12.4.1.1 Collision risk with turbines

There is always an inherent risk of bird species colliding with turbines, particularly during periods of poor visibility. Collision with a turbine is likely to result in the death of the individual bird concerned. The duration of effect of collision would be exist for the operational life of the windfarm. The sensitivity of bird species cited as SCIs of SPAs would be regarded as high. The magnitude of change would depend upon the number of individuals and of what species that suffer mortality, and whether this led to any effect on the integrity of the SPA concerned. For example, a decline in breeding success and productivity due to mortality of a significant number of adults in the breeding season. The level of effect is considered to be at the International level.

During the operational monitoring (Adamson 2003; Daly 2004; Daly 2005) carried out 2004 and 2005, single corpses of a young juvenile common tern (2004) and an adult Arctic tern (2005), were found beneath a turbine and it was surmised that mortality of these birds was likely to have been the result of collision with a turbine. However, despite this the overall conclusion was that the operational wind farm was not having any significant effect on seabird passage or the flight patterns of gulls and terns moving between the breeding colonies and foraging areas. In addition, no direct collision of birds with turbines were observed.

No collisions of birds with turbines were observed during the 2020 survey work

During the 2020 summer VP surveys, some flight avoidance of the operational wind farm area was noted for Arctic and roseate terns and, to a lesser degree, for other species including cormorant, grey heron, little egret, grey plover, curlew, and barnacle goose. Overall, the results of the surveys seem to suggest some level of avoidance of the wind farm, with no collisions with turbines observed during the 2020/21 survey work (refer to Appendix 1).

During the 2020 summer VP surveys, both sandwich tern (110 recorded flight lines) and common tern (78 flight lines), as well as other bird species, were seen regularly flying across the air space within the wind farm area, with a proportion of flights being at rotor swept height.

During the current operational phase of the windfarm (2002 to 2021) monitoring within Lady's Island Lake SPA show that there has been no significant decrease in breeding populations of sandwich tern populations since 2002 (Daly *et al.* 2011; Daly *et al.* 2012; Daly *et al.* 2016). In addition, there has been an increase in both roseate terns (Varty & Tanner 2009) and black-headed gulls since 2002 (Daly *et al.* 2011; Daly *et al.* 2012; Daly *et al.* 2016). There has also been an increase in Arctic terns and common terns since 2002 (Daly *et al.* 2011; Daly *et al.* 2012; Daly *et al.* 2016) although the data on these two species have been grouped and so individual species population trends cannot be analysed. If incidental mortality due to collision with turbines was removing large numbers of individual birds, we would expect to see a corresponding decrease in breeding populations. Therefore, it is considered

that during the current operational phase (2002 to 2021) magnitude of change resulting from collision risk is **low** and is **not significant** for terns or black headed gulls.

It is also considered that as the operational parameters of the windfarm are not changing then the magnitude of change resulting from collision risk by extending the operational phase is **low** and is **not significant** for terns or black headed gulls.

In addition to the above, a review of wetland bird survey data⁴ held by Birdwatch Ireland from 2008 to 2018 (within the current operation life of the wind farm) shows no significant declines for waterfowl species associated with either Lady's Island SPA or Tacumshin Lake SPA. Therefore, it is considered that during the current operational phase (2002 to 2021) magnitude of change resulting from collision risk is **low** and is **not significant** for waterfowl species.

It is also considered that as the operational parameters of the windfarm are not changing then the magnitude of change resulting from collision risk by extending the operational phase is **low** and is **not significant** for waterfowl species.

7.12.4.1.2 **Disturbance and displacement of bird species caused by noise from existing turbines**

Noise and visual disturbance caused by the operational wind farm could potentially result in the displacement and abandonment by bird species of nearby designated sites. The duration of effect of noise disturbance would exist for the operational life of the windfarm. The sensitivity of bird species cited as interest features of SPAs would be regarded as high. The magnitude of change would depend upon the number of individuals and whether displacement has led to any effect on the integrity of the SPA concerned, for example a decline in breeding success and productivity for example. The level of effect is considered to be at the International level.

The wind farm has been operational since 2002 allowing sufficient time for breeding and wintering birds especially those identified as SCIs of adjacent sites to become habituated to existing noise levels. As outlined above, a review of wetland bird survey data and population data for tern and gull species shows no significant declines for any species at either Lady's Island SPA or Tacumshin Lake SPA. In addition, the monitoring work underpinning the historical and current ornithological baseline shows no empirical evidence to suggest the disturbance or displacement of bird species from nearby designated sites is occurring because of the operational wind farm.

Therefore, it is considered that during the current operational phase (2002 to 2021) the magnitude of change resulting from noise and visual disturbance causing displacement of birds from adjacent designated sites is **low** and is **not significant**.

It is also considered that as the operational parameters of the windfarm are not changing then the magnitude of change resulting from noise and visual disturbance causing displacement of birds by extending the operational phase is **low** and is **not significant**.

7.12.4.2 **Birds (not forming SCIs of SPAs) flying over windfarm airspace**

During the 2020 breeding season the (RSK/Scott Cawley 2020) the diversity of bird recorded flying over the airspace above the windfarm has been identified as being of County value due to the diversity of the species recorded and likely to reflect a relatively diverse breeding assemblage of birds

⁴ Each winter over 400 skilled volunteers, NPWS Rangers and BirdWatch Ireland staff monitor wintering waterbird populations at their wetland sites across the Republic of Ireland. <https://birdwatchireland.ie/our-work/surveys-research/research-surveys/irish-wetland-bird-survey/>

in the local area. Collision with a turbine is likely to result in the death of the individual bird concerned. The duration of effect of collision would be exist for the operational life of the windfarm. The sensitivity of bird species would be regarded as medium. The magnitude of change would depend upon the number of individuals and of what species that suffer mortality and whether this led to a decline in breeding success and productivity due to mortality of a significant number of adults in the breeding season, for example. The level of effect is at the County level.

The sensitivity of effects due to collision of birds during the winter season would be low and the level of effect would be at the Local level due to the low diversity and number of flights of birds recorded and that during the winter months birds are more mobile and less restricted to a single location.

During 2020 (RSK/Scott Cawley, 2020) avoidance of flights through the operating wind farm area was noted by cormorant, and by grey heron (*Ardea cinerea*), little egret, curlew (*Numenius arquata*), barnacle goose (*Branta leucopsis*) and grey plover (*Pluvialis squatarola*). This would suggest that bird species have become habituated to the presence of the turbines and are avoiding them. In addition, during 2020 (RSK, 2020) recorded an assemblage of breeding bird species with a suite of species similar to that recorded during the post construction monitoring. The persistence of a diverse breeding bird assemblage including several red and amber listed bird species would suggest that a significant effect on the breeding bird assemblage caused by the collision with turbines windfarm has not occurred

It considered that the magnitude of change resulting from collision risk causing mortality of birds (those species not cited as SCIs of designated sites) by extending the operational phase is **low** and is **not significant**.

7.12.4.3 Breeding and wintering birds using habitat in immediate vicinity of windfarm

Noise and visual disturbance caused by the operational wind farm could potentially result in the displacement and abandonment by bird species from habitat in the immediate vicinity of the windfarm. The duration of noise and visual disturbance would exist for the operational life of the windfarm. The sensitivity of bird species during the breeding season would be medium. The magnitude of change would depend upon the number of individuals and whether displacement led to any effect, for example a decline in breeding success and productivity for example. The level of effect is considered to be at the County level during the breeding season due to the diversity of breeding species identified.

The sensitivity of effects due to displacement of birds during the winter season would be low and the level of effect would be at the Local level due to the low diversity of birds recorded and that during the winter months birds are more mobile and less restricted to a single location.

During 2020 (RSK/Scott Cawley 2020) recorded an assemblage of breeding bird species with a suite of species similar to that recorded during the post construction monitoring. The persistence of a diverse breeding bird assemblage including several red and amber listed bird species would suggest that a displacement effect caused by the windfarm has not occurred. Therefore, it is considered that during the current operational phase (2002 to 2021) the magnitude of change resulting from noise and visual disturbance causing displacement of birds from habitats adjacent is **low** and is **not significant**.

It is also considered that as the operational parameters of the windfarm are not changing then the magnitude of change resulting from noise and visual disturbance causing displacement of birds by extending the operational phase is **low** and is **not significant**.

7.12.5 Monitoring and Mitigation

In the EIS previously produced Carnsore Point Windfarm Environmental Impact Statement (ESB International2000).]. it was stated that three years of post-construction monitoring of birds would occur during the operational phase, and if significant effects were identified then additional secondary mitigation measures would be considered, for example shutting down turbine operation at key times of the year, but these secondary mitigation measures were not defined in detail. The monitoring concluded that the operation of the windfarm had not caused any significant effects on bird species and therefore no mitigation was required.

The detailed assessment above has also concluded that the extended operation of the windfarm is unlikely to cause a significant effect on bird species. For this reason, for the purposes of the lifetime extension no additional bird monitoring or secondary mitigation is considered to be required.

7.12.6 Decommissioning Phase

Condition 9 of the original Planning Application (ABP Ref. PL26.116487) states the following:

‘On full or partial decommissioning of the wind farm or if the wind farm ceases operation for a period of more than one year the masts and turbines concerned (including foundations) shall be dismantled and removed from the site. The site shall be reinstated (including all access roads) and all decommissioned structures shall be removed within three months of decommissioning.’

The impacts associated with the decommissioning phase activities (described in Condition 9) were fully assessed in the EIS [ESB International 2000).]. As detailed in Chapter 4: Project Description of this EIAR, the current plan for decommissioning would include leaving the turbine foundations and cabling in place underground and the site roadways remaining in situ. The potential impacts associated with the revised plan, if taken forward at the time of decommissioning, would be less than those assessed in the EIS [ESB International 2000).]. This would be subject to a separate planning application (including agreeing a decommissioning plan with the local authorities) and therefore the decommissioning phase has been scoped out and is not considered further in this assessment.

7.13 Cumulative Effects

The potential for Carnsore windfarm works to contribute to a cumulative impact in relation to other plans and projects was considered, as outlined in the following sections below.

Given the coastal and predominantly agricultural nature of the surrounding landscape, there is very little potential for cumulative projects.

The potential for the Proposed Development to contribute to in-combination effects in relation to other plans and projects within 15km was assessed. Table 7-8 and 7-9 sets out the developments that were considered, along with other small residential developments, which are not listed below.

Table 7-8 Development proposals included in the in-combination assessment

Development	Distance from Proposed Development
WCC caravan park at Castlepalister; Wexford County Council Planning Ref: 20210655.	1.7km
Granted development at Rosslare Harbour; Wexford County Council planning ref: 20200725.	7.8km

Development	Distance from Proposed Development
Granted solar PV energy developments at Ballycarran; Wexford County Council planning ref: 20160008; and, 20160009.	8km
Granted solar PV energy development at Ballykereen; Wexford County Council planning ref: 20160644.	8.3km
Proposed solar PV energy development at Ballycarran; Wexford County Council planning ref: 20210793.	8.6km
Granted solar PV energy development at Gardmaus Great, Mayglass; Wexford County Council planning ref: 20181768.	14.1km
Granted development for a new wastewater treatment plant in Kilmore Quay to be constructed in two phases; Wexford County Council planning ref: 20191633.	15.5km

From a review of available information for these proposed developments, it is considered that there would be no potential impact pathways associated with the solar farm developments which could give rise to likely significant in combination effects with the Proposed Development. The re-development at Rosslare Harbour includes demolition of existing port sheds and construction of new buildings as well as associated new access roads and infrastructure. The proposed new wastewater treatment works at Kilmore Quay includes new below ground pumping stations with above ground kiosks and new connecting pipelines. None of the activities associated with either of these new developments would give rise to likely significant in combination effects. Therefore, in combination effects can be scoped out of further assessment.

Table 7-9 Development proposals included in the in-combination assessment

Plans	Information considered in the in-combination assessment
Wexford County Development Plan 2013-2019	<p>The Wexford County Development Plan 2013-2019 sets out Wexford County Council's intentions for the future development of land, including measures for the improvement of the natural and physical environment and the provision of infrastructure. The County Council have a number of policies and objectives relating to the protection, conservation and restoration natural heritage sites including specific objectives as described below:</p> <p>Objective WQ01: To protect existing and potential water resources for the county, in accordance with the EU Water Framework Directive (2000/60/EC), Bathing Water Directive (2006/7/ EC) the South-East River</p> <p>Basin Management Plan 2009-2015 and any updated version, the Pollution Reduction Programmes for designated shellfish waters, the provisions of Groundwater Protection Scheme for the county any other protection plans for water supply sources, with an aim to improving all water quality.</p> <p>Objective WQ04: To ensure that developments permitted comply with the requirements of the EU Water Framework Directive, the relevant River Basin Management Plans and the Habitats Directive.</p> <p>Objective WQ05: To ensure that development permitted would not have an unacceptable impact on water quality and quantity, including surface water,</p>

Plans	Information considered in the in-combination assessment
	<p>ground water, designated source protection areas, river corridors and associated wetlands, estuarine waters, coastal and transitional waters.</p> <p>Objective AQ01: To have regard to the Air Quality Standards Regulation 2011 (S.I. No. 180 of 2011) when assessing planning applications for development which may have effects on air quality.</p> <p>Objective EN01: To facilitate the achievement of a secure and efficient energy supply and storage for County Wexford.</p> <p>Objective EN02: To promote County Wexford as a low carbon county by 2019 as a means of attracting inward investment and to facilitate the development of energy sources which will achieve low carbon outputs.</p> <p>Objective EN11: To promote and facilitate wind energy development in accordance with Guidelines for Planning Authorities on Wind Energy Development (Department of Environment, Heritage and Local Government, 2006) and the Wind Energy Strategy which forms part of this Plan, subject to compliance with normal planning and environmental criteria and the development management standards contained in Chapter 18.</p> <p>Objective NH01: To conserve and protect the integrity of sites designated for their habitat/wildlife or geological/geomorphological importance and prohibit development which would damage or threaten the integrity of these sites, including SACs, cSACs.</p>
<p>County Wexford Biodiversity Action Plan 2013-2018</p>	<p>The overall aim for this Biodiversity Action Plan for County Wexford is;</p> <p>To protect County Wexford’s Biodiversity through actions and raising awareness.</p> <p>Relevant key 5 objectives of the Wexford Biodiversity Action Plan include:</p> <p>Objective 1 - To identify Biodiversity information and fill data gaps for the County, to prioritise habitats and species for protection and to inform conservation action and decision making.</p>

In relation to the plans and policies set out in Table 7-9, there are no policies within the Wexford County Development Plan or the Wexford Biodiversity Action Plan which would give rise to adverse in combination effects with the Proposed Development.

7.14 Summary

In summary survey and monitoring work has established that the Carnsore Windfarm still supports a diverse breeding bird assemblage and there have been no significant declines in breeding populations of birds associated with the two designated sites in proximity. As the windfarm has been operational since 2002 bird species are likely to have become habituated to the presence of the turbines and during monitoring undertaken in 2020 some bird species showed some avoidance of flying over the airspace immediately above the turbines suggesting habituation has occurred. For these reasons, it is considered that extending the operational phase of the windfarm is unlikely to give rise to significant effects, and no additional monitoring or mitigation measures are believed to be required.