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Cumulative Effects Assessment (CEA) Report

Part 3

Onshore and Project-wide Topics (Chapters 19 to 32 of the EIAR)


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Abbreviations

Abbreviation	Term in Full
CEA	Cumulative Effects Assessment
CDWMP	Construction and Demolition Waste Management Plan
CNL	Construction Noise Level
CNT	Construction Noise Threshold
CWP	Codling Wind Park
EDF R	Électricité de France Renewables
EIA	Environmental Impact Assessment
EIAR	Environmental Impact Assessment Report
ESBN	Electricity Supply Board Networks
DPC	Dublin Port Company
GHG	Greenhouse Gas
IAQM	Institute of Air Quality Management
IFI	Inland Fisheries Ireland
INNS	Invasive non-native species
NSIP	Nationally Significant Infrastructure Project
NSL	Noise Sensitive Location
OTI	Onshore Transmission Works
OWF	Offshore wind farm
O&M	Operations and maintenance
PINS	Planning Inspectorate
SPAR	Southern Port Access Route
TII	Transport Infrastructure Ireland
TJB	Transition joint bay
TMO	Traffic Management Officer
TRSA	Tourism Recreational Study Area
TTA	Traffic Transport Assessment
ZAP	Zone Archaeological Potential
WEI	Wind Energy Ireland
WTG	Wind turbine generator
WWTP	Waste Water Treatment Plant

INTRODUCTION

1. This document forms **Part 3** of the **Cumulative Effects Assessment (CEA) Report**. The document responds to Item 5 of the Commission's FIR by providing a revised, standalone CEA for the CWP Project. The purpose of the **CEA Report** is to present the applied CEA methodology for the CWP Project EIA (**CEA Report (Part 1**) and the findings of the updated CEAs for each EIA topic (**CEA Report Part 2** and **Part 3**) whereby project alone effects are assessed alongside the effects of other existing, approved or planned development

2. The **CEA Report** is laid out as follows:

- Part 1:
    - Section 1: The introduction to the CEA with details on relevant legislation and guidance
    - Section 2: CEA methodology and approach
- Part 2 presents the CEA for the following EIA topics:
    - Introduction
    - Section 3 Marine Geology, Sediments and Coastal Processes
    - Section 4 Marine Water Quality
    - Section 5 Subtidal and Intertidal Ecology
    - Section 6 Fish, Shellfish and Turtle Ecology
    - Section 7 Offshore Ornithology
    - Section 8 Estuarine/Liffey and Onshore Ornithology
    - Section 9 Marine Mammals
    - Section 10 Commercial Fisheries
    - Section 11 Offshore Bats
    - Section 12 Marine Archaeology and Cultural Heritage
    - Section 13 Seascape, Landscape and Visual Impact
    - Section 14 Shipping and Navigation
    - Section 15 Aviation, Military and Radar
    - Section 16 Material Assets – Marine Infrastructure
- Part 3 (**this document**) presents the CEA assessments for the following topics:
    - Introduction
    - Section 17 Land, Soils and Geology
    - Section 18 Hydrology and Hydrogeology
    - Section 19 Onshore Biodiversity
    - Section 20 Onshore Archaeological, Architectural and Cultural Heritage
    - Section 21 Landscape and Visual Impact Assessment
    - Section 22 Noise and Vibration
    - Section 23 Air Quality
    - Section 24 Material Assets Built Services
    - Section 25 Traffic and Transport
    - Section 26 Climate
    - Section 27 Population
    - Section 28 Human Health
    - Section 29 Waste and Resource Management
    - Section 30 Risk of Major Accidents and Disasters

3. The **CEA Report** presents cumulative assessments for each of the EIA topics and it has been developed in accordance with the guidance on Nationally Significant Infrastructure Projects (NSIP): Advice on Cumulative Effects Assessment (Planning Inspectorate (PINS), 2024), hereafter referred to as the 'PINS CEA Guidance (2024).

4. Section 17 to Section 30 of this document each review the project shortlists from **Appendix 1** of **Part 1** of the **CEA Report** to establish a final list of other developments for detailed topic assessment. Each section then presents an assessment of the project alone residual effects alongside the effects of the other developments, confirmed in the final lists. Proposed mitigation measures needed to address significant cumulative effects are also identified, if deemed necessary.

17 LAND SOILS AND GEOLOGY

17.1 Introduction

5. This section of the **CEA Report** presents the findings of the CEA for land, soils and geology, which considers the residual effects presented in EIAR **Volume 3, Chapter 19 Land, Soils and Geology** alongside the potential effects of other proposed and reasonably foreseeable development. Cumulative effects are considered in this document across the construction and operation and maintenance (O&M) phases of the CWP Project.

6. The detail and scope of the decommissioning works for the CWP Project will be determined by the relevant legislation and guidance at the time of decommissioning. Project alone effects during the decommissioning phase of the CWP Project are assessed in EIAR **Volume 3, Chapter 19 Land, Soils and Geology**. It is anticipated that the effects will be no greater than those identified for the construction phase, and therefore no separate assessment of cumulative effects during the decommissioning phase is presented within this CEA.

7. This updated CEA incorporates information from the project alone assessment presented in EIAR **Volume 3, Chapter 19 Land, Soils and Geology** and has been updated in response to the requests made in item 5 of the FIR.

17.2 Consultation

8. Stakeholder and regulator feedback received during the consultation process that is relevant to the Land, Soils and Geology assessment is provided in EIAR **Volume 3, Chapter 19 Land, Soils and Geology**.

9. No feedback specific to the CEA for land, soils and geology has been received.

17.3 CEA impact screening

10. The first step in the CEA for land, soils and geology is the identification of which residual effects assessed for the CWP Project alone have the potential for a cumulative impact with other development (described as 'impact screening'). This screening exercise is set out in **Table 17-1.**

11. Only potential effects assessed in EIAR **Volume 3, Chapter 19 Land, Soils and Geology** as 'not significant' or above are included in the CEA (i.e. those assessed as 'imperceptible' are not taken forward as there is no potential for them to contribute to a cumulative effect).

Table 17-1 Impacts and potential for cumulative effect

Impact	CWP Project alone residual effect	Potential for significant cumulative effect – screened into the CEA (Yes / No)
Construction		
Impact 1: Excavation of contaminated land	Yes	Yes – If construction works for other developments were to take place at the same time and/or in proximate locations to the onshore development area, cumulative effects may rise in terms of disturbance of contaminated land, within the peninsula.
Impact 2: Potential for release of ground gas	Yes	Yes- If construction works for other developments were to take place at the same time and/or in proximate locations to the onshore development area, cumulative effects may rise in terms of the potential for release of ground gas.
Impact 3: Soil settlement	No	No. The residual effect was assessed as 'Imperceptible' and therefore not taken forward, as there is no potential to contribute to a cumulative effect
Impact 4: Risk of leaks or spills impacting on land and soils	No	No. The residual effect was assessed as 'Imperceptible' and therefore not taken forward, as there is no potential to contribute to a cumulative effect
Operation and Maintenance		
N/A	N/A	N/A
Decommissioning		
Impact 1: Excavation of contaminated land	No	No. The detail and scope of the decommissioning works for the CWP Project will be determined by the relevant legislation and guidance at the time of decommissioning. It is anticipated that the effects will be no greater than those identified for the construction phase, and therefore no separate assessment of cumulative effects during the decommissioning phase is presented within this CEA.
Impact 2: Potential for release of ground gas	No	
Impact 3: Soil settlement	No	
Impact 4: Risk of leaks or spills during decommissioning works impacting surrounding land and soils	No	

17.4 Stage 3 Information gathering and other development' screening

12. Stage 2 of the CEA is presented in **Appendix 1** of **Part 1** of the **CEA Report**. This exercise established a shortlist of the development for EIAR **Volume 3, Chapter 19 Land, Soils and Geology**, using set screening criteria.

13. The shortlist of other developments screened into the CEA for **Volume 3, Chapter 19 Land, Soils and Geology**, are listed below.

14. A 2 km study area was used for the initial development of the CEA long list and this was further refined in the initial assessment.

15. The potential for significant effects on land, soils and geology is mainly associated with proximity. The Poolbeg peninsula constrains the potential for significant effects as connectivity is limited due to the presence of transitional/marine waters to the north and south of the peninsula. On this basis, developments to the north of the River Liffey were excluded as there is no potential for cumulative effects.

16. Therefore, only other developments located on the peninsula were deemed relevant to the cumulative effects assessment and screened from the project long list for further consideration as part of Table 2.

- Ecocem Ireland Limited – Construction of Silos, compressor room and associated facilities. (ONS_059);
- Electricity Supply Board (ESB) – Dublin Bay Power Station: Open Cycle Gas Turbine (OCGT), Battery Energy Storage System (BESS) and Flexible Thermal Generation (ONS_026, ONS_027, ONS_028);
- ESB – Poolbeg Generating Station: BESS, Flexible Thermal Generation, OCGT (ONS_022, ONS_023, ONS_024);
- EirGrid: Poolbeg 220kV substation (ONS_021);
- Pembroke Beach DAC / Becbay Ltd & Fabrizia Developments Ltd – Redevelopment of former Irish Glass Bottle Site (ONS_011, ONS_012, ONS_013, ONS_014, ONS_015 ONS_070 – ONS_079);
- Dublin Port Company – MP2 Project (ONS_035, ONS_036);
- E D & F Man Liquid Products Ireland Limited – New Storage tank (ONS_031 and ONS_066);
- Uisce Éireann - Ringsend Wastewater Treatment Plant (WWTP) Upgrade Project (ONS_009);
- Uisce Éireann - Ringsend WWTP Upgrade Works (ONS_087);
- Kilsaran Concrete (ONS_054 and ONS_069);
- Dublin Port Company – construction of a bridge (ONS_056);
- Codema - Dublin's Energy Agency – Dublin District Heating System Project (DDHS) (ONS_053);
- EirGrid : Powering Up Dublin, Programme of Works (ONS_016);
- Dublin Port Company – 3FM Project (ONS_059);
- Gas Networks Ireland (GNI) – CCTV pole, gas analyser and associated works (ONS_062, ONS_063, ONS_064);
- Marine Terminals Ltd – Gantry Replacement works – (ONS_065);
- ESB – GIS substation construction and 220Kv underground cable installation – (ONS_067, ONS_068); and
- National Transport Authority (NTA) – Ringsend to City Centre Bus Connects – (ONS_086).

17. Information gathering (Stage 3 of the CEA) has enabled a further review of the other development shortlist for Land, Soils and Geology, including a more detailed consideration of the location, nature and scale of the development, the timing of construction and operation activities, the information available to inform a CEA and the likelihood of a significant effect.

18. This information has been used to screen the Stage 2 shortlist to establish a final list of other development for detailed assessment at Stage 4 of the CEA. The results of the exercise are presented in **Table 17-2**.

19. Offshore developments were assessed in Offshore **EIAR Chapter 6 Marine Geology, Sediments and Coastal Processes**.

Table 17-2 Summary of other development screened into the CEA for Land, Soils and Geology

Development	Distance from the onshore development area (km)	Tier	Included in the CEA (Yes/No)	Rationale
Ecocem Ireland Limited Construction of Silos, compressor room and associated facilities. (ONS_059) Planning Ref: 3041/24	0	1	No	Construction of silos, compressor room, cooling room, pump room, retaining walls, new fencing, new gates, revision of car park layout and also includes for retention for silos, lab and offices at existing Ecocem facility within the Poolbeg Peninsula. This development is in receipt of a grant of planning. The construction phase is likely to be less than 4 months and completed before 2030. It has been assumed that this development will be operational and therefore no potential for cumulative impacts. This development was not considered further.
ESB Dublin Bay Power Station: OCGT, BESS and Flexible Thermal Generation (ONS_026, ONS_027, and ONS_028)	0	1	No	These developments will be operational before the CWP Project commences construction activities. There will be no spatial overlap in working areas and therefore no potential for cumulative effects.

Development	Distance from the onshore development area (km)	Tier	Included in the CEA (Yes/No)	Rationale
Planning Ref: 3074/23, 3646/20 and 3647/20				
ESB - Poolbeg Generating Station / BESS, Flexible Thermal Generation, OCGT (ONS_024, ONS_023, & ONS_022) Planning Ref: 3074/23, 3646/20 and 3647/20	0	1	No	Construction related to these developments is proposed to commence in Q4 of 2024: • ONS_022 – Assumed in construction by 2026; It has been assumed that this development will be operational by 2030 and therefore no potential for cumulative impacts .
EirGrid - Poolbeg 220kV Substation (ONS_021) Planning Ref: 4057/23	0 km	1	No	Construction will commence in early 2026 and will take approximately 36 months. This is the Poolbeg 220kV substation that the CWP Project will connect into. It has been assumed that this development will be operational. There will be no spatial overlap in working areas and therefore no potential for cumulative impacts. This development was not considered further.

Development	Distance from the onshore development area (km)	Tier	Included in the CEA (Yes/No)	Rationale
Pembroke Beach DAC / Becbay Ltd & Fabrizia Developments Ltd Redevelopment of former Irish Glass Bottle Site (ONS_011, ONS_012, ONS_013, ONS_014 & ONS_015, ONS_070 to ONS_79) Planning Refs: PWSZD3270/19; 1571/25; 2596/24; 3945/24; 3798/24; 3700/24; 2247/24; 2249/24; 2252/24, 3461/24; 3468/24	1	1	No	A number of planning applications were submitted to redevelop the site and work commenced in 2023. Amendments were made to the original planning permission including ONS_014. Based on a review of the Pembroke DAC, the boundaries do not overlap, and Pembroke DAC propose to primarily construct above existing ground levels. Previous buildings and waste on the site were removed following the closure of the Glass Bottle site. The EIAR prepared for the project concluded that the project (construction and operational phases) will not result in likely significant effect on European sites (Doherty Environmental, 2018). Considering there is no spatial overlap, and the lack of operational phase effects, there is no potential for cumulative effects with the CWP project.
Dublin Port Company MP2 Project (ONS_035, ONS_036)	0	1	No	The MP2 Project is primarily proposed on the northern side the River Liffey. The EIAR produced for the project states that there are no

Development	Distance from the onshore development area (km)	Tier	Included in the CEA (Yes/No)	Rationale
Planning/Foreshore Ref: FS006893 and ABP-304888-19				significant residual effects predicted on Land, Soils and Geology as a result of the construction and operation of the MPS Project (RPS, 2018b). There is no spatial overlap with the Onshore Tramsmission Works (OTI) and, there is no significant residual effects predicted as a result of the MP2 Project. There is no potential for cumulative effects with the CWP Project.
E D & F Man Liquid Products Ireland Limited (ONS_031 and ONS_066) Planning Ref: 2804/19 and 3908/23	0	1	No	No EIAR or Environmental Report has been produced for these projects. Regardless, considering the localised and small scale nature of the developments there is no potential for cumulative effects in relation to Land, Soils and Geology. It is also likely that the project timelines will not coincide, with the E D & F developments being completed in advance of the CWP Project construction commencing. Therefore the projects were screened out from further assessment.
Irish Water – Ringsend Wastewater Treatment Plant Upgrade Project	0.25	1	No	Proposed development consists of 2 no. units comprising a Combined Heat and Power Engine and Steam

Development	Distance from the onshore development area (km)	Tier	Included in the CEA (Yes/No)	Rationale
(ONS_009) Planning Ref: 5319/22				Generator unit with roof top plant areas. Considering the localised and small-scale nature of the project, there is no potential for cumulative effects with the CWP Project.
Uisce Éireann – Ringsend WWTP upgrade works (ONS_087) Planning Ref: 301798	0	1	No	These upgrades (the 2.4 million PPE works) were undertaken within the confines of the existing WWTP site boundary, with the construction activities completed in 2025. The upgraded WWTP is currently operational. There is no overlap in construction phases. All upgrade works are within an existing and developed site boundary. With mitigation measures in place, residual effects were predicted on to be neutral or positive on land, soils and geology. (Ringsend WWTP EIAR, 2018, TJ O'Connor et al). It was considered that there is no potential for significant cumulative effects, together with the CWP Project. This development was not considered further.

Development	Distance from the onshore development area (km)	Tier	Included in the CEA (Yes/No)	Rationale
Kilsaran Concrete - Continuation of concrete batching plant (ONS_054, ONS_069) Planning Ref: PWSDZ3469/22, 3890/24	0.3	1	No	The application is for the continuation of use of the concrete batching plant. As the plant is already in operation and will not change, the plant would have therefore been considered within the baseline assessment. There is therefore no potential for cumulative effects with the CWP Project.
Dublin Port Company: Bridge over existing cooling water channel (superseded by CWP project proposals) (ONS_056) Planning Ref: 3711/18	0	1	No	This project refers to construction of a bridge over existing cooling water channel. Permission expired in September 2024. The installation of a bridge over the cooling water channel into the onshore substation is included as part of the OTI. The location mirrors that of this proposed bridge development. In the event that the CWP Project proceeds, this proposed bridge development would be superseded by the Project. On this basis, the proposed bridge development was not considered further in this assessment.
Codema – Dublin's Energy Agency -	0	3	No	The Dublin District Heating System (DDHS) will be a thermal energy network that uses energy from waste heat and distributes it as hot water

Development	Distance from the onshore development area (km)	Tier	Included in the CEA (Yes/No)	Rationale
Dublin District Heating System Project (DDHS) (ONS_053) Planning Ref: N/A				through insulated dual (supply and return) pipe lines to homes and business for space heating, hot water and industrial purposes. It is understood that this project will be located on a site within the Poolbeg peninsula, potentially in proximity to Construction Compound A. However, this project is not yet submitted for planning consent. No significant effects were noted in relation to Land, Soils and Geology in the previous engineering report for the DDHS (Ramboll, 2019). There are insufficient details available about this project to undertake a meaningful cumulative effects assessment at this stage. Therefore the project was screened out from further assessment.
Dublin Port Company - 3FM Project (ONS_059) Planning Ref: 3041/24	0	1	Yes	The 3FM Project is the masterplan project needed to complete the development of Dublin Port and bring it to its ultimate and final capacity by 2040. The project is intended to provide the additional infrastructure for freight required in the unitised modes (Ro-Ro and Lo-Lo). Part of the masterplan includes work on the Poolbeg peninsula including the

Development	Distance from the onshore development area (km)	Tier	Included in the CEA (Yes/No)	Rationale
				Southern port access road (SPAR) and the incorporation of a turning circle to the north of the substation. The works required for the turning circle were incorporated into the CWP project. No significant contamination was encountered on the substation site. There is potential for a temporal and spatial overlap between the construction phase of this project and that of the CWP Project. If construction does overlap, concurrent construction activities within could result in cumulative effects.
EirGrid - Powering Up Dublin Programme of Works (ONS_016) Planning Ref: N/A	0 km	3	No	Works are required to upgrade Dublin City's electricity infrastructure. This includes the installation of 50 km of cables across the city. This will include underground cable routes, some of which will link to the Poolbeg ESB Poolbeg Generating Station. Final route technologies have not yet been confirmed and the project has not yet been submitted for planning consent. There are insufficient details available about this project to undertake a

Development	Distance from the onshore development area (km)	Tier	Included in the CEA (Yes/No)	Rationale
				meaningful cumulative effects assessment. Therefore, the project was screened out from further assessment.
Gas Networks Ireland (GNI) – CCTV pole, gas analyser and associated works (ONS_062, ONS_063, ONS_064) Planning Ref: 2703/24,1928/25, 2574/25	0 km	1	No	The EIA Screening Report completed by MWP, dated May 2025 indicates, a mandatory EIA would not be required and that the proposed development would not give rise to effects of a significant or adverse nature such as to have a significant effect on the environment. The works areas also do not overlap therefore, the project was screened out from further assessment..
Marine Terminals Ltd – Demolition and removal of existing temporary reefer gantry & installation of a new steel frame reefer gantry (ONS_065) Planning Ref: 1840/25	0.04 km	1	No	No Environmental Report has been produced for the project. However, the application is for minor development activities within an existing operational site. As the site is already in operation and proposed works are considered localised within an existing site boundary, it was concluded that there is no potential for cumulative effects with the CWP Project.
ESB – GIS substation construction and 220Kv	0 km	1	No	These developments will consist of

Development	Distance from the onshore development area (km)	Tier	Included in the CEA (Yes/No)	Rationale
underground cable installation (ONS_067, ONS_068). Planning Ref: 3791/24,1558/24				• A 220kV underground cable measuring approximately 4.0m in length, from the Ringsend Open Cycle Gas Turbine (OCGT) plant to the existing Irishtown 220kV substation; and • Replacement of an AIS substation with a GIS substation The site boundaries do not overlap. The works will be localised and undertaken within an already developed site. It is assumed on this basis, that there is no potential for cumulative effects.
National Transport Authority – Ringsend to City Centre Bus Connects (ONS_086). Planning Ref: HA29N.317679	0.4 km	1	No	The NTA BusConnect Schemes are proposed to be operational by 2030. There will be no overlap in construction activities for the Ringsend to City Centre Bus Connects with the CWP Project construction phase. On this basis, there is no potential for cumulative effects.

17.5 Assessment of cumulative effects

17.5.1 Construction phase

Cumulative Impacts 1 and 2: Excavation of contaminated land and potential for release of ground gas

20. Construction works for the Onshore Transmission Infrastructure (OTI) are estimated to commence in 2030 and continue over a 4 year period. The CWP Project will result in the localised disturbance of historical waste within the onshore development area, which in turn could potentially result in the release of ground gas and which will also require the management of contaminated soil materials. However, the disturbance of the area is generally limited i.e. localised, in an industrial area, with some deep excavations at the landfall site/ Compound A for the Transition Joint Bays (TJBs), open cut trench from the TJBs to the tunnel shaft and the tunnel shaft itself (located in temporary tunnel compound 1).

21. The CWP Project will implement appropriate mitigation measures which will avoid or reduce the potential for impacts. These measures relate to requirements for the management of excavated material, removal of waste and the Project has developed a **Construction and Demolition Waste Management Plan (CDWMP)** and **Construction Environmental Management Plan (CEMP)** for the construction phase. The assessment determined that the residual effects associated with contaminated land and ground gas would be **Not Significant - Slight**, which are not significant in EIA terms.

22. Therefore, allowing for the temporary nature of the construction phases and the implementation of the outlined mitigation for each of the developments, it is considered the significance of residual effects would remain at **Not Significant - Slight,** which are not significant in EIA terms and no additional mitigation measures would be required.

23. Dublin Port Company have brought forward the 3FM project (ONS_058) for planning consent, the third and final strategic infrastructure development (SID) project needed to deliver the capacity objectives of the Dublin Port Masterplan 2040, and to provide additional infrastructure within the port. A waterside turning circle is proposed as part of the 3FM Project, in the mouth of the River Liffey, immediately adjacent to the onshore substation site. The 3FM project is concentrated on lands on the Poolbeg Peninsula with a construction programme that will span over a decade and that will coincide that of the CWP Project. Key potential construction phase interfaces with the CWP Project would be on the Shellybanks Road, the Pigeon House Road and at the onshore substation site.

24. The DPC 3FM project will be controlled by the assessment of its planning application and its EIAR details construction phase mitigation measures relating to the management of asbestos, ground gas also monitoring recommendations. Therefore it is not considered that the CWP Project together with the DPC 3FM project would result in significant cumulative effects on land, soils and geology.

25. It is noted that the CWP Project is currently engaging with DPC, and it is expected that this would continue during the construction phase.

17.6 CEA summary

26. This CEA, which supports EIAR **Volume 3, Chapter 19 Land, Soils and Geology** has assessed the potential cumulative effects on Land, Soils and Geology from the construction phases of the CWP Project alongside other developments.

27. **Table 17-3** has been adopted from the PINS CEA Guidance (2024) as a means of summarising the potential adverse or beneficial cumulative effects of the CWP Project with other development. It summarises the outcomes of the detailed assessment provided above and sets out the proposed mitigation measures needed to address cumulative effects, if deemed necessary.

28. In summary, the CEA for land, soils and geology does not identify any significant cumulative effects resulting from the CWP Project alongside other developments.

Table 17-3 – Summary of cumulative effects assessment

ID	Tier	Significance of cumulative effect	Proposed mitigation measure(s) to address cumulative effect	Residual cumulative effect
Construction phase				
Cumulative Impact 1: Excavation of contaminated land				
DPC 3FM project (ONS_058)	1	No significant cumulative effects	No additional mitigation required	No significant cumulative effects
Cumulative Impact 2: Potential for release of ground gas				
DPC 3FM project (ONS_058)	1	No significant cumulative effects	No additional mitigation required	No significant cumulative effects
Operation and maintenance phase				
No O&M impacts taken forward.				
Decommissioning phase				
No decommissioning impacts taken forward.				

17.7 References

29. Doherty Environmental (2018). Hammond Lane, Pigeon House Road Upgrade Works, Habitat Directives Assessment Screening Statement in Support of Appropriate Assessment. (Unpublished Report).

30. Ramboll (2019) Dublin District Heating – Engineering Report.

31. RPS (2018a). Dublin Port Company. Berth 47A Access Bridge & Storage Area. Environmental Report. (Unpublished Report).

32. RPS (2018b). MP2 Project, Environmental Impact Assessment Report Main Document (Part 1). IBE1429/EIAR. (Unpublished Report).

33. TPA (2022) Former Irish Glass Bottle (IGB) & Fabrizia Sites, Poolbeg West, Sean Moore Road, South Bank Road, Dublin 4.

18 HYDROLOGY AND HYDROGEOLOGY

18.1 Introduction

34. This section of the **CEA Report** presents the findings of the CEA for hydrology and hydrogeology, which considers the residual effects presented in EIAR **Volume 3**, **Chapter 20 Hydrology and Hydrogeology** alongside the potential effects of other proposed and reasonably foreseeable development. Cumulative effects are considered in this document across the construction and operation and maintenance phases of the CWP Project.

35. The CEA for hydrology and hydrogeology has been updated in response to the requests made in item 5 of the Commission's FIR. It supersedes the planning application CEA for hydrology and hydrogeology presented in **Volume 4**, **Appendix 20.1** of the EIAR.

18.2 Consultation

36. Stakeholder feedback received during the consultation process that is relevant to the hydrology and hydrogeology impact assessment is provided in **Volume 3**, **Chapter 20 Hydrology and Hydrogeology** of the EIAR. No feedback specific to the CEA for hydrology and hydrogeology has been received.

18.3 CEA impact screening

37. The first step in the CEA for hydrology and hydrogeology, is the identification of which residual effects assessed for the CWP Project alone have the potential for a significant cumulative effect with other development (described as 'impact screening'). This screening exercise is set out in **Table 18-1** below.

38. Only potential impacts assessed in EIAR **Volume 3, Chapter 20 Hydrology and Hydrogeology** as 'not significant' or above are included in the CEA (i.e. those assessed as 'imperceptible' are not taken forward as there is no potential for them to contribute to a significant cumulative effect).

39. In summary, **Table 18-1** shows that with the adoption of the mitigation measures outlined within EIAR **Volume 3, Chapter 20 Hydrology and Hydrogeology**, it is predicted that the significance of the residual effects for all phases will be '**Imperceptible**', which is not significant in EIA terms.

40. Consequently, there are no potential effects on hydrology and hydrogeology that require further consideration in the CEA.

Table 18-1 Impacts and potential for cumulative effect

Impact	CWP Project alone residual effect	Potential for significant cumulative effect – screened into the CEA (Yes / No)
Construction		
Impact 1: Risk of leaks or spills impacting on groundwater quality.	Imperceptible	No

Impact 2: Mobilisation of historical contamination, resulting in impacts to groundwater quality	Imperceptible	No
Impact 3: Discharge of water generated during the construction phase, resulting in impacts to groundwater quality	Imperceptible	No
Operation and Maintenance		
Impact 1: Alteration of groundwater flow regime as a result of the presence of installed structures	Imperceptible	No
Decommissioning		
Impact 1: Accidental spillage or release of hydrocarbons or chemicals resulting in impacts to groundwater quality.		The detail and scope of the decommissioning works for the CWP Project will be determined by the relevant legislation and guidance at the time of decommissioning. Project alone impacts during the decommissioning phase of the CWP Project are assessed in EIAR **Volume 3, Chapter 20 Hydrology and Hydrogeology**. It is anticipated that the impacts will be no greater than those identified for the construction phase, and therefore no separate assessment of cumulative impacts during the decommissioning phase is presented within this CEA.
Impact 2: Mobilisation of historical contamination, resulting in impacts to groundwater quality.		

18.4 CEA summary

41. EIAR **Volume 3, Chapter 20 Hydrology and Hydrogeology** has assessed the potential for significant effects on the groundwater environment from the CWP Project.

42. With the adoption of the mitigation measures outlined within EIAR **Volume 3, Chapter 20 Hydrology and Hydrogeology**, it is predicted that the significance of the residual effects for all phases will be '**Imperceptible**', which is not significant in EIA terms.

43. It can therefore be concluded without further assessment that there will be no significant cumulative effects on hydrology and hydrogeology from the CWP Project alongside other developments.

19 ONSHORE BIODIVERSITY

19.1 Introduction

44. This section of the **CEA Report** presents the findings of the CEA for onshore biodiversity, which considers the residual effects presented in EIAR **Volume 3**, **Chapter 21 Onshore Biodiversity** alongside the potential effects of other proposed and reasonably foreseeable development. Cumulative effects are considered in this document across the construction and O&M phases of the CWP Project.

45. The detail and scope of the decommissioning works for the CWP Project will be determined by the relevant legislation and guidance at the time of decommissioning. Project-alone impacts during the decommissioning phase of the CWP Project are assessed in EIAR **Volume 3**, **Chapter 21 Onshore Biodiversity**. It is anticipated that the impacts will be no greater than those identified for the construction phase, and therefore no separate assessment of cumulative impacts during the decommissioning phase is presented within this CEA.

46. Updates to the project alone assessment for Biodiversity as a consequence of ACPs FIR are presented in **Section 21 of the EIAR Addendum**. This updated CEA incorporates relevant updates from the project alone assessment and has been updated in response to the requests made in item 5 of the FIR.

19.1.1 Consultation

47. Stakeholder and regulator feedback received during the consultation process that is relevant to the onshore biodiversity assessment is provided in EIAR **Volume 3**, **Chapter 21 Onshore Biodiversity**. Table 19-1 provides a summary of stakeholder and regulator feedback received during the consultation process that is relevant to the CEA for biodiversity.

Table 19-1Consultation responses relevant to the CEA for Biodiversity

Consultee	Comment	How issues have been addressed
Scoping responses		
Inland Fisheries Ireland (IFI) 14 and 18 June 2021	Cumulative impacts should take cognisance of the Dublin Port Maintenance Dredging Programme and strategic infrastructure projects planned.	The Dublin Port Company (DPC) Masterplan was considered within the cumulative assessment.
Dublin City Council (Biodiversity and Parks) 31 January and 1 June 2023	Cumulative impacts should take cognisance of the DPC. Masterplan and future project for consent.	The DPC Masterplan was considered within the cumulative assessment.

19.2 CEA impact screening

48. The first step in the CEA for onshore biodiversity is the identification of which residual impacts assessed for the CWP Project alone have the potential for a cumulative impact with other development (described as 'impact screening'). This screening exercise is set out in **Table 19-2** below.

49. Only potential impacts assessed in EIAR **Volume 3**, **Chapter 21 Onshore Biodiversity** as 'not significant' or above are included in the CEA (i.e., those assessed as 'imperceptible' are not taken forward as there is no potential for them to contribute to a cumulative effect).

Table 19-2 Impacts and potential for cumulative effect

Impact	CWP Project alone residual effect	Potential for cumulative effect – screened into the CEA (Yes / No)	Rationale
Construction			
Impact 1 – Permanent and temporary loss of habitat.	Not significant	Yes	The development of the OTI will result in the permanent loss of habitat. The cumulative effect of habitat loss from other projects could increase the magnitude of the effect within the receiving environment.
Impact 2 – Habitat degradation as a result of the introduction / spread of non-native invasive plant species (INNS).	Not significant	No	An **Onshore Invasive Species Management Plan (ISMP**) has been prepared and will ensure all INNS within the onshore development area are removed. There is therefore no potential for cumulative effects with other projects.
Impact 3 – Habitat degradation as a result of air quality impacts (dust).	Not significant	No	Adequate dust mitigation measures will be implemented during the duration of the construction phase which will ensure there is no potential for dust impacts. These will be implemented as part of the **Construction Environmental Management Plan (CEMP)**. There is therefore no potential for cumulative effects with other projects.
Impact 4 – Permanent/temporary loss of breeding / resting places or commuting and / or foraging habitat for protected terrestrial species.	Not significant	Yes	The CWP Project will result in the temporary loss of foraging / commuting habitat for protected species. The cumulative effect of the loss of foraging / commuting corridors from other projects could increase the magnitude of the effect within the receiving environment.

Impact	CWP Project alone residual effect	Potential for cumulative effect – screened into the CEA (Yes / No)	Rationale
Impact 5 Disturbance/displacement (noise, vibration and lighting) to protected terrestrial species during construction phase activities.	Not significant	Yes	The construction of the OTI will result in a short-term increase in disturbance/displacement (noise and lighting). The cumulative effect of disturbance and displacement from other projects could increase the magnitude of the effect within the receiving environment, particularly in the event of a temporal overlap in future construction phases.
Operation			
Impact 1 – Disturbance / displacement (noise, vibration, human presence and / or lighting) to protected terrestrial species during O&M activities.	Not significant	Yes	During the O&M phase the onshore substation will result in a slight increase in noise levels and artificial lighting. Due to the close proximity of other projects, there is potential for cumulative effects on protected species.
Decommissioning			
Impact 1 – Permanent and temporary loss of habitat.	No The detail and scope of the decommissioning works for the CWP Project will be determined by the relevant legislation and guidance at the time of decommissioning. Project alone impacts during the decommissioning phase of the CWP Project are assessed in **Chapter 21 Onshore Biodiversity**. It is anticipated that the impacts will be no greater than those identified for the construction phase, and therefore no separate assessment of cumulative impacts during the decommissioning phase is presented within this CEA.		
Impact 2 – Habitat degradation as a result of the introduction / spread of non-native invasive plant species.			
Impact 3 – Habitat degradation as a result of air quality impacts (dust).			
Impact 4 – Permanent / temporary loss of breeding / resting places or commuting and / or foraging habitat for protected terrestrial species.			
Impact 5 Disturbance/displacement (noise, vibration and lighting) to protected terrestrial species during construction phase activities.			

19.3 Stage 3: Information gathering and 'other development' screening

50. Stage 2 of the CEA is presented in **Appendix 1** of **Part 1** of the **CEA Report**. This exercise established a shortlist of other development for onshore biodiversity using set screening criteria.

51. The shortlist of other development screened into the CEA for onshore biodiversity at Stage 2 are listed below.

- Dublin Port Company – MP2 Project (ONS_035 and ONS_036);
- Electricity Supply Board (ESB) – Dublin Bay Power Station / Open Cycle Gas Turbine (OCGT), BESS and Flexible Thermal Generation (ONS_026, ONS_027 and ONS_028);
- ESB – Poolbeg Generating Station / Battery Energy Storage System (BESS), Flexible Thermal Generation, OCGT and Substation (ONS_022, ONS_023 and ONS_024);
- Hammond Lane Metal Company Ltd – construction of two-storey building and non-ferrous metals recovery facility (ONS_055);
- Pembroke Beach DAC / Becbay Ltd and Fabrizia Developments Ltd – redevelopment of former Irish Glass Bottle Site (ONS_011 to ONS_015 and ONS_070 to ONS_79);
- ED & F Man Liquid Products Ireland Ltd – new storage tanks and pipelines (ONS_031 and ONS_066);
- Uisce Éireann– Ringsend Wastewater Treatment Plant (WWTP) Upgrade Project (ONS_009);
- Uisce Éireann – Ringsend WWTP Upgrade Works – (ONS_087).
- Kilsaran Concrete – continuation of use of an existing concrete batching plant (ONS_054 and 069)
- Dublin Port Company – bridge over existing cooling water channel (superseded by CWP project proposals) (ONS_056);
- Ecocem Ireland Limited – permission for the development consisting of the construction of silos, compressor rooms, cooling room, retaining walls, new fencing, new gate, revision of car park layout (ONS_059);
- EirGrid – Powering Up Dublin Programme of Works (ONS_016);
- EirGrid - Permission for development of a new GIS substation (ONS_021);
- Codema – Dublin's Energy Agency – Dublin District Heating System Project (DDHS) (ONS_053);
- 3FM Dublin Port Development (ONS_058);
- ESB – GIS substation construction and 220Kv underground cable installation – (ONS_067, ONS_068);
- Marine Terminals Ltd - Demolition and removal of existing temporary reefer gantry & installation of a new steel frame reefer gantry (ONS_065) ; and

52. Information gathering (Stage 3 of the CEA) has enabled a further review of the other development shortlisted for onshore biodiversity, including a more detailed consideration of the location, nature and scale of the development, the timing of construction and operation activities, the information available to inform a CEA and the likelihood of a significant effect.

53. This information has been used to screen the Stage 2 shortlist to establish a final list of other development for detailed assessment at Stage 4 of the CEA. The results of the exercise are presented in Table **19-3** below.

Table 19-3 Summary of other development screened into the CEA for onshore biodiversity

Development	Distance from onshore development area (km)	Tier	Included in the CEA (Yes / No)	Rationale
Dublin Port Company MP2 Project (ONS_035 and ONS_036) Planning & Foreshore Ref: FS 006893, PA29N.304888	0	1	No	The MP2 Project is proposed on the northern side of Poolbeg, north of the River Liffey. The EIAR produced for the MP2 project states that there are no significant residual impacts predicted on terrestrial flora and habitats and protected species as a result of the construction and operation of the project (RPS, 2018). As the MP2 Project is proposed to the north of the River Liffey, there will be no spatial overlap and a low risk of shared receptors with the CWP Project. On this basis there is no potential for significant cumulative effects with the CWP Project.
ESB Dublin Bay Power Station / OCGT, Battery Energy Storage System and Flexible Thermal Generation (ONS_026, ONS_027 and ONS_028)	0	1	No	• ONS_026 – assumed construction completed by 2028: • ONS_028 – assumed construction completed by 2026; • ONS_027 –data reviewed indicates commitment for the development to be in place by October 2024.

Development	Distance from onshore development area (km)	Tier	Included in the CEA (Yes / No)	Rationale
Planning Refs: 3074/23 3646/20 3647/20				There is no potential for a temporal overlap between the construction phase of the above projects and that of the CWP Project. Considering the lack of potential overlap of the construction phases, and the lack of impacts arising from the operational phase of these developments, the potential for significant cumulative impacts has been ruled out.
Pembroke Beach DAC / Becbay Ltd & Fabrizia Developments Ltd Redevelopment of former Irish Glass Bottle site (ONS_011 to ONS_015 and ONS_070 to ONS_79) Planning Refs: PWSZD3270/19; 1571/25; 2596/24; 3945/24; 3798/24; 3700/24; 2247/24; 2249/24; 2252/24, 3461/24; 3468/24)	0	1	No	Development of residential, office and mixed-use scheme at the former Irish Glass Bottle and Fabrizia sites at Poolbeg West. There is potential for a temporal overlap between the projects. However, a review of the available information has shown that there will be no spatial overlap in the project construction working areas, and a low risk of shared receptors. Additionally, there will be a lack of impacts arising from the operational phase of this this development, therefore this development was not considered further.

Development	Distance from onshore development area (km)	Tier	Included in the CEA (Yes / No)	Rationale
ESB Poolbeg Generating Station / BESS, Flexible Thermal Generation and OCGT (ONS_024, ONS_023, ONS_022) Planning Ref: 3137/23, 3625/20, 3624/20)	0	1	No	• ONS_024 – assumed construction completed by 2026; • ONS_023 – assumed construction completed by 2026, data reviewed indicates commitment for the development to be in place by October 2024; • ONS_022 – assumed in construction by 2026; There is no potential for a temporal overlap between the construction phase of the above projects and that of the CWP Project which could result in negative cumulative effects on ecological receptors. Considering the lack of potential overlap of the construction phases and the lack of impacts arising from the operational phases of these developments, the potential for significant cumulative impacts can be ruled out.
EirGrid - Poolbeg 220kV Substation (ONS_021) Planning Ref: 4057/23	0	1	No	Construction will commence in early 2026 and will take approximately 36 months. This is the Poolbeg 220kV substation that the CWP Project will connect into.

Development	Distance from onshore development area (km)	Tier	Included in the CEA (Yes / No)	Rationale
				There is no potential for a temporal overlap between the construction phase of the above projects and that of the CWP Project which could result in negative cumulative effects on ecological receptors. Considering the lack of potential overlap of the construction phases and the lack of impacts arising from the operational phase of this development, the potential for significant cumulative impacts can be ruled out.
ESB – GIS substation construction and 220Kv underground cable installation – (ONS_067, ONS_068). Planning Ref: 3791/24,1558/24	0 km	1	No	These developments will consist of • A 220kV underground cable measuring approximately 4.0m in length, from the Ringsend Open Cycle Gas Turbine (OCGT) plant to the existing Irishtown 220kV substation; and. • Replacement of an AIS substation with a GIS substation The site boundaries do not overlap. The works will be localised and undertaken within an already developed site. It is assumed on this basis, that there is no potential for significant cumulative effects.

Development	Distance from onshore development area (km)	Tier	Included in the CEA (Yes / No)	Rationale
Hammond Lane Metal Company Ltd Construction of two-storey building and non-ferrous metals recovery facility (ONS_055)	0	1	No	The proposed development was granted planning in 2018 and is likely to already be constructed. The Appropriate Assessment Screening report prepared for the project concluded that the project (construction and operational phases) will not result in likely significant effect on European sites (Doherty Environmental, 2018). There is no potential for a temporal overlap in the construction phase of this development and the CWP Project. Additionally, given the lack of operational phase impacts and the small scale (40 m x 10 m) nature of the development, there is no potential for significant cumulative effects with the CWP Project.
E D & F Man Liquid Products Ireland Limited New Storage Tank (ONS_031 and ONS_066) Planning Ref: 2804/19 and 3908/23	0	1	No	No EIA or Environmental Report has been produced for these developments. Regardless, considering the localised and small scale nature of the developments there is no potential for significant cumulative impacts with the CWP Project. It is also likely that the project timelines will not coincide, with the E

Development	Distance from onshore development area (km)	Tier	Included in the CEA (Yes / No)	Rationale
				D & F developments being completed in advance of the CWP Project construction commencing.
Uisce Éireann - Ringsend Wastewater Treatment Plant Upgrade Project (ONS_009) Planning Ref: 5319/22	0.25	1	No	No EIA or Environmental Report has been produced for this development. However, considering the small-scale nature of the project (ca. 30 m^2), there is no potential for significant cumulative impacts with the CWP Project.
Uisce Éireann – Ringsend WWTP upgrade works (ONS_087) Planning Ref: 301798	0	1	No	These upgrades (the 2.4 million PPE works) were undertaken within the confines of the existing WWTP site boundary, with the construction activities completed in 2025. The upgraded WWTP is currently operational. There is no overlap in construction phases. All upgrade works are within an existing and developed site boundary. With mitigation measures in place, no negative residual effects were predicted on terrestrial biodiversity. (Ringsend WWTP EIAR, 2018, TJ O'Connor et al). It was considered that there is no potential for significant cumulative effects, together with the CWP Project.

Development	Distance from onshore development area (km)	Tier	Included in the CEA (Yes / No)	Rationale
				This development was not considered further.
Kilsaran Concrete Continuation of use of an existing concrete batching plant (ONS_054 and 069)	0.3	1	No	No EIA or Environmental Report has been produced for the project. The application is for the continuation of use of an existing concrete batching plant. As the plant is already in operation and will not change, the plant would therefore have been considered within the baseline assessment. There is therefore no potential for significant cumulative impacts with the CWP Project.
Dublin Port Company Bridge over existing cooling water channel (superseded by CWP project proposals) (ONS_056) Planning Ref: 3711/18	0	1	No	The installation of a bridge over the cooling water channel into the onshore substation is included as part of the OTI. The location mirrors that of this proposed bridge development. In the event that the CWP Project proceeds, this proposed bridge development would be superseded by the Project. On this basis, the proposed bridge development was not considered further in this assessment.

Development	Distance from onshore development area (km)	Tier	Included in the CEA (Yes / No)	Rationale
Ecocem Ireland Limited (ONS_059) Permission for the development consisting of the construction of silos, compressor rooms, cooling room, retaining walls, new fencing, new gate, revision of car park layout Planning Ref: 3041/24	0	1	No	The application is for minor developments within an existing operational site. As the plant is already in operation and proposed works are considered localised within an existing site boundary, it was concluded that there is no potential for significant cumulative impacts with the CWP Project.
Dublin Port Company 3FM (ONS_058) Planning Ref.: PA29N.320250	0	1	Yes	The planning application for this development was submitted in July 2024. The 3FM Project is the third and final Strategic Infrastructure Development (SID) Project needed to deliver the capacity objectives of the Dublin Port Masterplan 2040. This development involves a Southern Port Access Route and road network improvements; construction of a Lo-Lo container terminal, Ro-Ro freight terminal and Maritime Village; and improvements to existing and provision of new public open space. This project includes for redevelopment works within the Poolbeg Peninsula There is potential for a temporal overlap between the construction

Development	Distance from onshore development area (km)	Tier	Included in the CEA (Yes / No)	Rationale
				phase of this project and that of the CWP Project. Construction activities are likely to occur within or close to the onshore development area which could result in cumulative effects.
Marine Terminals Ltd - Demolition and removal of existing temporary reefer gantry & installation of a new steel frame reefer gantry (ONS_065) Planning Ref.: 1840/25	0.04	1	No	No Environmental Report has been produced for the project. The application is for minor development activities within an existing operational site. As the site is already in operation and proposed works are considered localised within an existing site boundary, it was concluded that there is no potential for significant cumulative impacts with the CWP Project.
Codema – Dublin's Energy Agency - Dublin District Heating System Project (DDHS) (ONS_053) Planning Ref.: N/A	0	3	No	The DDHS will be a thermal energy network that uses energy from waste heat and distributes it as hot water through insulated dual (supply and return) pipelines to homes and business for space heating, hot water and industrial purposes. It is understood that this project will be located on a site within the Poolbeg peninsula, potentially in proximity to Construction Compound

Development	Distance from onshore development area (km)	Tier	Included in the CEA (Yes / No)	Rationale
				A. The DDHS has not yet submitted for planning consent. There is insufficient detail available at this stage to undertake a meaningful cumulative effects assessment. Therefore, the project is screened out from further assessment.
EirGrid – Powering Up Dublin Programme of Works (ONS_016) Planning Ref.: N/A	0 km	3	No	Works are required to upgrade Dublin City's electricity infrastructure. This includes the installation of 50 km of cables across the city. This will include underground cable routes, some of which will link to the Poolbeg ESB Poolbeg Generating Station. Final route technologies have not yet been confirmed and this project has not yet been submitted for planning consent. There is insufficient detail available about this project to undertake a meaningful cumulative effects assessment. Therefore, the project is screened out from further assessment.

19.4 Stage 4: Assessment of cumulative effects

19.4.1 Construction phase

Cumulative Impact 1: Permanent and temporary loss of habitat and Impact 4 – permanent / temporary loss of breeding / resting places or commuting and / or foraging habitat for protected terrestrial species

54. The CWP Project will result in the permanent loss of habitat within the onshore development area boundary which, in turn, will potentially result in the loss of breeding / resting and commuting / foraging habitat for protected terrestrial species. Approximately 13,742.50 m^2 of habitat and 110 m of treeline will be permanently lost to facilitate the OTI. It should be noted that the habitats which will be lost are of local importance only, there will be no loss of habitats of county, national or international importance.

55. Considering the limited availability of similar habitats within the wider surrounding area, it was determined that the areas of permanent habitat loss would result in likely significant effects on the conservation status, at a local geographical scale.

56. The CWP Project is proposing ecological enhancement measures within the onshore development boundary. The enhancement measures include the replanting of vegetation (ca 7,856 m^2) at the proposed landfall site, following the completion of the construction works. The replanting of approximately 7,856 m^2 of new higher value vegetation at the landfall site and along Shelly Banks Road and Pigeon House Road will compensate some of the permanent habitat loss, however there will be a net loss of habitat to facilitate the OTI. The replanting will, however, result in an increase of native species diversity with the area, which will benefit local biodiversity. Following the adoption of the additional mitigation, the significance of residual effect for the loss of habitat is predicted to be **Not Significant at a local geographical scale**.

57. The cumulative effect of habitat losses associated with DPC 3FM project (ONS_058) could however increase the magnitude of the impact. The DPC 3FM project was submitted for planning in July 2024 and it is noted that this development is proposing new parkland and amenity areas, additional land to the Irishtown Nature Park and the creation of new wildflower meadows adjacent to a Port Park area.

58. Considering the replanting which will be implemented within the onshore development area as part of the CWP Project, which will result in an increase of higher value habitats and the implementation of site-specific mitigation measures / proposals by the DPC 3FM project, it is considered that the significance of residual effect would remain at **Not Significant at a local geographical** scale**,** which is not significant in EIA terms and no additional mitigation measures would be required.

Cumulative Impact 5: Disturbance / displacement (noise, vibration and lighting) to protected terrestrial species during construction phase activities.

59. Given the proximity of the CWP Project to the DPC 3FM project (ONS_058) (listed in **Table 19-3** above) and the potential for the overlap of construction phase timelines there is potential for a cumulative increase in disturbance levels to protected terrestrial species.

60. Measures to avoid or otherwise minimise disturbance to ecological receptors are included in the CEMP for the CWP Project. The CEMP outlines a series of noise abatement measures that will be adopted by the appointed contractors in accordance with British Standard BS 5228 1:2009 to reduce the level of noise during the construction phase. The CEMP also details a series of measures relating to pre-construction survey requirements and the installation of construction lighting.

61. The DPC 3FM project (ONS_058) will be controlled by the assessment of its planning application. Specifically, mitigation measures in ONS_58 EIAR, detail requirements for aspects such as lighting, ecological exclusion zones during construction works and the implementation of a CEMP. These good site practices during the construction phase will reduce noise and disturbance. Therefore, it is not considered that the disturbance contribution in addition to the CWP Project would result in significant cumulative negative effects on biodiversity.

62. It is considered the significance of residual effect would remain at **Not Significant**, which is not significant in EIA terms and no additional mitigation measures would be required

19.4.2 Operation and maintenance

Impact 1 – Disturbance / displacement (noise, vibration, human presence and / or lighting) to protected terrestrial species during operation and maintenance activities

63. There is a minimal contribution in noise and artificial lighting levels from the onshore substation during the O&M phase. This was considered **Not Significant** at any geographical scale. However, there is potential for a cumulative increase in noise and artificial light levels with during the operational phase, together with the DPC 3FM project (ONS_058).

64. Following a review of the DPC 3FM project (ONS_058) which was screened through from **Table 19-3**, it was found that no identified residual effects on ecological receptors from noise and lighting impacts during the operational phase will occur.

65. A detailed environmental noise model determined that the CWP Project will operate in compliance with identified noise criteria. The onshore substation will generally be unmanned and lighting will only be required for the likes of security, access points and car parking. No significant residual effects were identified from the DPC 3FM project (ONS_058) and the EIAR also details lighting mitigation around the new Port Park (footpaths and sports pitch).

66. It is concluded the significance of residual effect would remain at **Not Significant at any geographical scale**, which is not significant in EIA terms and no additional mitigation measures would be required.

19.5 CEA summary

67. This CEA, which supports EIAR **Volume 3**, **Chapter 21 Onshore Biodiversity** has assessed the potential cumulative effects on onshore biodiversity from the construction and O&M phases of the CWP Project alongside other development.

68. Table **19-4** below has been adopted from the PINS CEA Guidance (2024) as a means of summarising the potential adverse or beneficial cumulative effects of the CWP Project with other development. It summarises the outcomes of the detailed assessment provided above and sets out the proposed mitigation measures needed to address cumulative effects, if deemed necessary.

69. In summary, the CEA for onshore biodiversity does not identify any significant cumulative effects resulting from the CWP Project alongside other development. It is not considered necessary that additional mitigation measures would be required.

Table 19-4 Summary of cumulative effects assessment.

ID	Tier	Significance of cumulative effect	Proposed mitigation measure(s) to address cumulative effect	Residual cumulative effect
Construction phase				
Cumulative Impact 1: Permanent and temporary loss of habitat				
Dublin Port Company - 3FM Project ONS_058	1	Not Significant (not significant in EIA terms)	No additional mitigation required	Not Significant (not significant in EIA terms)
Cumulative Impact 4: Permanent/temporary loss of breeding / resting places or commuting and / or foraging habitat for protected terrestrial species.				
Dublin Port Company - 3FM Project ONS_058	1	Not Significant (not significant in EIA terms)	No additional mitigation required	Not Significant (not significant in EIA terms)
Cumulative Impact 5: Disturbance/displacement (noise, vibration and lighting) to protected terrestrial species during construction phase activities.				
Dublin Port Company - 3FM Project ONS_058	1	Not Significant (not significant in EIA terms)	No additional mitigation required	Not Significant (not significant in EIA terms)
Operation and maintenance phase				
Cumulative Impact 1: Disturbance / displacement (noise, vibration, human presence and / or lighting) to protected terrestrial species during operation and maintenance activities				
Dublin Port Company - 3FM Project ONS_058	1	Not Significant (not significant in EIA terms)	No additional mitigation required	Not Significant (not significant in EIA terms)

19.6 References

70. Doherty Environmental (2018). Hammond Lane, Pigeon House Road Upgrade Works, Habitat Directives Assessment Screening Statement in Support of Appropriate Assessment. (Unpublished Report).

71. RPS (2018). MP2 Project, Environmental Impact Assessment Report Main Document (Part 1). IBE1429/EIAR. (Unpublished Report).

20 ONSHORE ARCHAEOLOGICAL, ARCHITECTURAL AND CULTURAL HERITAGE

20.1 Introduction

72. This section of the **CEA Report** presents the findings of the CEA for archaeological, architectural and cultural heritage, which considers the residual effects presented in EIAR **Volume 3**, **Chapter 22 archaeological, architectural and cultural heritage** alongside the potential effects of other proposed and reasonably foreseeable development. Cumulative effects are considered in this document across the construction and O&M phases of the CWP Project.

73. The detail and scope of the decommissioning works for the CWP Project will be determined by the relevant legislation and guidance at the time of decommissioning. Project alone impacts during the decommissioning phase of the CWP Project are assessed in EIAR **Volume 3, Chapter 22 archaeological, architectural and cultural heritage**. It is anticipated that the impacts will be no greater than those identified for the construction phase, and therefore no separate assessment of cumulative impacts during the decommissioning phase is presented within this CEA.

74. This updated CEA incorporates information from the project alone assessment presented in EIAR **Volume 3**, **Chapter 22 archaeological, architectural and cultural heritage** and has been updated in response to the requests made in item 5 of the FIRCEA methodology

20.1.1 Consultation

75. Stakeholder and regulator feedback received during the consultation process that is relevant to the archaeological, architectural and cultural heritage assessment is provided in Chapter 22 Onshore Archaeological, Architectural and Cultural Heritage. No feedback specific to the CEA for archaeological, architectural and cultural heritage has been received.

20.2 CEA impact screening

76. The first step in the CEA for archaeological, architectural and cultural heritage is the identification of which residual impacts assessed for the CWP Project alone have the potential for a cumulative impact with other development (described as 'impact screening'). This screening exercise is set out

77.

78.

79. Table 20-1 below.

80. Only potential impacts assessed in EIAR **Volume 3**, **Chapter 22 Archaeological, Architectural and Cultural Heritage** as slight or above are included in the CEA (i.e. those assessed as Not Significant are not taken forward as there is no potential for them to contribute to a cumulative effect).

Table 20-1 Impacts and potential for cumulative effects

Impact	Potential for cumulative effect	Rationale
Construction		
Part A: Impact 1: Permanent loss or disturbance of archaeological features or deposits located within the onshore development area and within the zone of archaeological potential for block house and fort (RMP DU019-027, RPS 6794).	Yes	If archaeological remains are identified during ground works, they will be preserved in situ or by record, as per the mitigation. If preserved by record, a slight residual impact remains due to the fact that the remains will be excavated rather than preserved in-situ. Cumulative impacts may occur where this approach is undertaken as part of other developments in the surrounding landscape.
Part A: Impact 2: Permanent loss or disturbance of archaeological features or deposits located within the onshore development area and within the zone of archaeological potential for the Ballast Wall, including the Pigeon House harbour wall (RMP DU018-066/DU019-029, RPS 6797).	Yes	If archaeological remains are identified during ground works, they will be preserved by in situ or by record, as per the mitigation. If preserved by record. a slight residual impact remains, due to the fact that the remains will be excavated rather than preserved in-situ. Cumulative impacts may occur where this approach is undertaken as part of other developments in the surrounding landscape.
Part A: Impact 3: Permanent loss or disturbance of archaeological features or deposits that may survive beneath the current ground level within the onshore development area and outside of the designated zones of archaeological potential.	Yes	If archaeological remains are identified during ground works, they will be preserved in situ or by record, as per the mitigation. If preserved by record, a slight residual impact remains due to the fact that the remains will be excavated rather than preserved in-situ. Cumulative impacts may occur where this approach is undertaken as part of other developments in the surrounding landscape.
Part A: Impact 4: Temporary disturbance to the setting of recorded archaeological and built heritage sites, the Pigeon House Harbour	Yes	Due to the nature of the construction process, which is a visually intrusive operation, it is not possible to mitigate indirect impacts on the setting of sensitive receptors, although the duration of the

Impact	Potential for cumulative effect	Rationale
Conservation Area and the DCIHR outfall works, during the construction phase.		impact will be temporary and as such the residual impact is slight.
Part A: Impact 5: Temporary disturbance to the setting of the Dublin Port cultural heritage landscape, during the construction phase.	Yes	Due to the nature of the construction process, which is a visually intrusive operation, it is not possible to mitigate indirect impacts on the setting of sensitive receptors, although the duration of the impact will be temporary and as such the residual impact is slight.
Operation		
Part A: Impact 1: Long-term change to the setting of recorded archaeological and built heritage sites, the Pigeon House Harbour Conservation Area and the DCIHR outfall works, due to the presence of the onshore substation.	Yes	The residual impact in terms of setting is moderate and cumulative impacts may occur due to the development of other large-scale developments in the environment.
Part A: Impact 2: Long-term change to the setting of the Dublin Port cultural heritage landscape due to the presence of the onshore substation.	Yes	The residual impact is slight and cumulative impacts may occur due to the construction of other large-scale developments in the landscape.
Part B: Impact 1 Long-term change to the setting of archaeological, architectural and cultural heritage sites directly linked to the coast, within the ZTV from offshore infrastructure (Options A and B).	Yes	The residual impacts vary from imperceptible to moderate and cumulative impacts may occur due to the construction of other offshore infrastructure.
Decommissioning		
Impact 1: Impacts on the receiving environment due to the removal of the OTI.	No	Activities associated with decommissioning would result in the restoration of the receiving environment to current form (assuming no other developments have taken place). This would remove potential negative impacts on the settings of onshore archaeological, built heritage and cultural heritage sites.

20.3 Stage 3: Information gathering and 'other development' screening

81. Stage 2 of the CEA is presented in **Appendix 1** of **Part 1** of the **CEA Report**. This exercise established a shortlist of other development for Material Assets: Built Services using set screening criteria.

82. The shortlist of other development screened into the CEA for archaeological, architectural and cultural heritage at Stage 2 are listed below.

- Pembroke Beach DAC / Becbay Ltd & Fabrizia Developments Ltd - Former Irish Glass Bottle and Fabrizia Lands (ONS-011 - ONS-015, ONS_070 – ONS_074);
- ESB – Dublin Bay Power Station Open Cycle Gas Turbine (OCGT), gas fired turbine & BESS (ONS_026, ONS_027 and ONS_028);
- ESB – Poolbeg Generating Station: OCGT, gas fired turbine & BESS (ONS_022, ONS_023 and ONS_024);
- EirGrid - Poolbeg 220kV Substation (ONS_021);
- Dublin Port Company – MP2 Project (ONS_035 / ONS_036);
- E D & F Man Liquid Products Ireland Limited: New Storage Tank (ONS_031 and ONS_066);
- Onshore Energy Generation Infrastructure: new 110kV substation and works (ONS_067);
- Onshore Energy Generation Infrastructure: 220kV underground cable 4m in length (ONS_068);
- Dublin Port Company Bridge over existing cooling water channel (superseded by CWP project proposals) (ONS_0056);
- Hammond Lane Metal Company Ltd.: Construction of 2-storey building and non-ferrous metals recovery facility (ONS_055);
- St. Patricks Community Youth Football Club & Crusaders Athletics Club: Two-storey extension of the Irishtown Stadium (ONS_029)
- Dublin Port Company 3FM Project (ONS_058)
- Minister for Public Expenditure and Reform Brexit Infrastructure at Dublin Port (ONS_019)
- Dublin Port Company: Port terminal redevelopment (cruise terminal) (ONS_033)
- Kilsaran Concrete: Continuation of use of an existing concrete batching plant (ONS_054 & 069)
- Codema - Dublin's Energy Agency: Dublin District Heating System Project (DDHS) (ONS_053)
- EirGrid: Powering Up Dublin (ONS_016)
- National Transport Authority – Ringsend to City Centre, Bus Connects (ONS_086)
- Ecocem Ireland Limited Construction of plant (ONS_059)
- Sure Partners Limited / SSE Renewables: Arklow Bank OWF Phase 2 (OWF_01)
- RWE : Dublin Array OWF (OWF_02)
- Statkraft Ireland: North Irish Sea Array (OWF_04)

83. Information gathering (Stage 3 of the CEA) has enabled a further review of the other development shortlist for archaeological, architectural and cultural heritage, including a more detailed consideration of the location, nature and scale of the development, the timing of construction and operation activities, the information available to inform a CEA and the likelihood of a significant effect.

84. This information has been used to screen the Stage 2 shortlist to establish a final list of other development for detailed assessment at Stage 4 of the CEA. The results of the exercise are presented in **Table 20-2** below.

Table 20-2 Summary of other development screened into the CEA for archaeology, architecture and cultural heritage

Development	Distance from the onshore development area	Tier	Included in the CEA (Yes/No)	Rationale
Pembroke Beach DAC / Becbay Ltd & Fabrizia Developments Ltd Redevelopment of the former Irish Glass Bottle Site (ONS-011 - ONS-015, ONS_070 – ONS_074) Planning Ref.: PWSDZ3406/22; PWSDZ4121/21; PWSZD3270/19; 1571/25; 2596/24; 3945/24; 3798/24; 3700/24; 2247/24; 2249/24; 2252/24 3461/24; 3468/24	0km	1	Yes	Included as the projects have the potential to impact on previously unrecorded archaeological remains (Impact 3).
ESB Dublin Bay Power Station: OCGT, gas fired turbine & BESS (ONS_026, ONS_027 and ONS_028)	0km	1	No	This project will be constructed and operational prior to the construction of the proposed project. As such it has been screened out of assessment for cumulative effects.

Development	Distance from the onshore development area	Tier	Included in the CEA (Yes/No)	Rationale
Planning Ref.: 3074/23, 3646/20 and 3647/20				
ESB Poolbeg Generating Station: OCGT, gas fired turbine & BESS (ONS_022, ONS_023 and ONS_024) Planning Ref: 3625/20,3624/20, 3137/23 and 4057/23.	0km	1	No	This project will be constructed and operational prior to the construction of the proposed project. As such it has been screened out of assessment for cumulative effects.
EirGrid - Poolbeg 220kV Substation (ONS_021) Planning Ref: 4057/23	0km	1	No	This project will be constructed and operational prior to the construction of the proposed project. As such it has been screened out of assessment for cumulative effects.
Dublin Port Company MP2 Project (ONS_035 / ONS_036) Planning Ref.: FS006893 and ABP-304888-19	0km	1	Yes	Included as the projects have the potential to impact on previously unrecorded archaeological remains (Impact 3).
E D & F Man Liquid Products Ireland	0.05km	1	No	No cultural heritage impacts have been identified as part of

Development	Distance from the onshore development area	Tier	Included in the CEA (Yes/No)	Rationale
Limited New Storage Tank (ONS_031 and ONS_066) Planning Ref: 2804/19, 3908/23				this project and no mitigation will take place during construction. As such it is screened out from cumulative assessment.
Dublin Port Company Bridge over existing cooling water channel (superseded by CWP project proposals) (ONS_0056) Planning Ref.: 3711/18	0km	1	No	The installation of a bridge over the cooling water channel into the onshore substation is included as part of the OTI. The location mirrors that of this proposed bridge development. In the event that the CWP Project proceeds, this proposed bridge development would be superseded by the CWP Project proposals. Therefore the project is screened out from further assessment.
Hammond Lane Metal Company Ltd. Construction of 2-storey building and non-ferrous metals recovery facility. (ONS_055)	0km	1	No	No cultural heritage impacts have been identified as part of this project and no mitigation will take place during construction. As such it is screened out from cumulative assessment.

Development	Distance from the onshore development area	Tier	Included in the CEA (Yes/No)	Rationale
Planning Ref: 2130/18				
Dublin Port Company 3FM Project (ONS_058) Planning Ref.: PA29N.320250	0km	1	Yes	Included as the projects have the potential to impact on previously unrecorded archaeological remains and any remains associated with recorded Sea Wall (RMP DU018-066/019-029) and the zone of archaeological potential for Pigeon House Fort (RMP DU019-027, RPS 6794). There will also be temporary construction impacts on the Pigeon House Harbour CA and the surrounding Port landscape (Impacts 1-5) At operation, this project has the potential to change the setting of Pigeon House Harbour and Conservation Area (Impact 1)
Minister for Public Expenditure and Reform Brexit Infrastructure at Dublin Port	1.8km	1	No	No cultural heritage impacts have been identified as part of this project and no mitigation will take place during construction. As such it is

Development	Distance from the onshore development area	Tier	Included in the CEA (Yes/No)	Rationale
(ONS_019) Planning Ref.: ABP-307352-20				screened out from cumulative assessment.
St. Patricks Community Youth Football Club & Crusaders Athletics Club: Two-storey extension of the Irishtown Stadium (ONS_029) Planning Ref: 2858/18	0.6km	1	No	Construction work has been completed on this project and as such, it has been screened out of cumulative assessment.
Dublin Port Company Port terminal redevelopment (ONS_033) Planning Refs: 4507/18 and 4508/18	0.6km	1	No	No cultural heritage impacts have been identified as part of these projects and no mitigation will take place during construction. As such it is screened out from cumulative assessment.
Kilsaran Concrete Continuation of use of an existing concrete batching plant (ONS_054 & 069)	0km	1	No	No EIA or Environmental Report has been produced for the development. The application is for the continuation of use of an existing concrete batching plant. The plant is already in

Development	Distance from the onshore development area	Tier	Included in the CEA (Yes/No)	Rationale
Planning Ref: 3469/22, 3890/24				operation and will not change. There is therefore no potential for significant cumulative impacts with the CWP Project.
Codema - Dublin's Energy Agency Dublin District Heating System Project (DDHS) (ONS_053) Planning Ref: N/A	0km	3	Yes	It is understood that this project will be located on a site within the Poolbeg peninsula, potentially in proximity to Construction Compound A. However, no plans have been submitted for this project, but it remains possible that ground disturbances associated with the scheme may impact previously unrecorded archaeological remains and as such the project has been screened in for cumulative impacts (Impact 3).
EirGrid: Powering Up Dublin (ONS_016) Planning ref: N/A	0km	3	Yes	Works are required to upgrade Dublin City's electricity infrastructure. This includes the installation of 50 km of cables across the city. This will include underground cable routes, some of which will link to the Poolbeg ESB Poolbeg Generating Station.

Development	Distance from the onshore development area	Tier	Included in the CEA (Yes/No)	Rationale
				Final route technologies have not yet been confirmed and the project has not yet been submitted for planning consent It remains possible that ground disturbances associated with the scheme may impact previously unrecorded archaeological remains and as such the project has been screened in for cumulative impacts (Impact 3).
Ecocem Ireland Limited Construction of plant (ONS_059) Planning Ref.: 3041/24	0 km	1	Yes	Construction of silos, compressor room, cooling room, pump room, retaining walls, new fencing, new gates, revision of car park layout and also includes for retention for silos, lab and offices at existing Ecocem facility within the Poolbeg Peninsula. Included as the project has the potential to impact on previously unrecorded archaeological remains (Impact 3).
Onshore Energy Generation Infrastructure: new	0.3km	1	Yes	Included as the projects have the potential to impact on previously unrecorded

Development	Distance from the onshore development area	Tier	Included in the CEA (Yes/No)	Rationale
110kV substation and works (ONS_067) Planning Ref.: PWSDZ3791/24				archaeological remains (Impact 3).
Onshore Energy Generation Infrastructure: 220kV underground cable 4km in length (ONS_068) Planning Ref.: 1558/24	0.3km	1	Yes	Included as the projects have the potential to impact on previously unrecorded archaeological remains and any remains associated with recorded Sea Wall (RMP DU018-066/019-029) Impacts 2 and 3.
National Transport Authority – Ringsend to City Centre, Bus Connects (ONS_086) Planning Ref.: HA29N.317679	0.4km	1	Yes	Included as the projects have the potential to impact on previously unrecorded archaeological remains (Impact 3).
Sure Partners Limited / SSE Renewables Arklow Bank OWF Phase 2	Distance to the proposed development array area: 9.8km	1	Yes	The WTG array for this development is located c. 9.78km south of the CWP WTG and as such there is the

Development	Distance from the onshore development area	Tier	Included in the CEA (Yes/No)	Rationale
(OWF_01) Planning ref: 319864				potential for cumulative impacts from offshore infrastructure on onshore cultural heritage assets.
RWE Dublin Array OWF (OWF_02) Planning ref: 321992	Distance to the proposed development array area: 2.8km	1	Yes	The WTG array for this development is located directly to the north of the CWP WTG layout and as such there is the potential for cumulative impacts from offshore infrastructure on onshore cultural heritage assets.
Statkraft Ireland North Irish Sea Array OWF (OWF_04) Planning ref: 319866	Distance to the proposed development array area: 51km	1	Yes	The WTG array for this development is located c. 40.7km north of the CWP WTG and as such there is the potential for cumulative impacts from offshore infrastructure on onshore cultural heritage assets.

20.4 Stage 4 Assessment of cumulative effects

20.4.1 Construction phase

Cumulative Impact 1: Permanent loss or disturbance of archaeological features or deposits located within the onshore development area and within the zone of archaeological potential for block house and fort (RMP DU019-027, RPS 6794)

85. The Dublin Port Company 3FM Project (ONS_058) will result in impacts on the zone of archaeological potential (ZAP) associated with the Pigeon House Fort (RMP DU019-027), due to ground disturbances required within the ZAP. Archaeological mitigation for this development includes monitoring of ground works and as such any archaeological remains that are identified will be preserved by record. No further mitigation is required as the cumulative impact of the Dublin Port Company 3FM Project development is no greater than the residual impact of the CWP Project (**slight negative**).

Cumulative Impact 2: Permanent loss or disturbance of archaeological features or deposits located within the onshore development area and within the zone of archaeological potential for the Ballast Wall, including the Pigeon House harbour wall (RMP DU018-066/DU019-029, RPS 6797)

86. The Dublin Port Company 3FM Project (ONS_058) and Onshore Energy Generation Infrastructure: 220kV underground cable 4m in length (ONS_068) will result in impacts on the ZAP associated with the recorded sea wall (RMP DU018-066/019-029), due to ground disturbances required within the ZAP. Archaeological mitigation for these developments includes monitoring of ground works and as such any archaeological remains that are identified will be preserved by record. No further mitigation is required as the cumulative impact of the Dublin Port Company 3FM Project and underground cable development is no greater than the residual impact of the CWP Project (**slight negative**).

Cumulative Impact 3: Permanent loss or disturbance of archaeological features or deposits that may survive beneath the current ground level within the onshore development area and outside of the designated zones of archaeological potential

87. Pembroke Beach DAC / Becbay Ltd & Fabrizia Developments Ltd. - Redevelopment of former glass bottle site (ONS-011 - ONS-013, ONS_070 – ONS_074)). Archaeological mitigation for these projects includes monitoring of ground works and as such any archaeological remains that are identified will be preserved by record. No further mitigation is required as the cumulative impact is no greater than the residual impact of the CWP Project (**slight negative**).

88. Dublin Port Company 3FM Project (ONS_058). This is the final strategic infrastructure development (SID) project needed to deliver the capacity objectives of the Dublin Port Masterplan 2040, and to provide additional infrastructure within the port. A waterside turning circle and Lift on-Lift Off terminal are among the development proposed and these would be located adjacent to the onshore substation site. The 3FM project is concentrated on Dublin Port lands across the Poolbeg Peninsula with a construction programme that will span over a decade and that will coincide that of the CWP Project.

89. The project has the potential to impact on previously unrecorded archaeological remains and as such mitigation includes monitoring of ground works. Any archaeological remains that are identified will be preserved by record. No further mitigation is required as the cumulative impact is no greater than the residual impact of the proposed CWP development (**slight negative**).

90. For the Dublin District Heating System Project (DDHS) (ONS_053) and EirGrid Powering Up (ONS_016) projects, it is considered likely that there will be archaeological mitigation for these projects, including monitoring of ground works and as such any archaeological remains that are identified will be preserved by record. No further mitigation is required as the cumulative impact is no greater than the residual impact of the proposed CWP Project (**slight negative**).

91. Dublin Port Company MP2 Project (ONS_035 / ONS_036). Archaeological mitigation for this project includes monitoring of ground works and as such any archaeological remains that are identified will be preserved by record. No further mitigation is required as the cumulative impact is no greater than the residual impact of the CWP Project (**slight negative**).

92. Ecocem Ireland Limited (ONS_059) plant development. Planning permission has been granted for this development which includes a planning condition stating that ' *If, during the course of site works any archaeological material is discovered, the City Archaeologist should be notified immediately…'.* The Dublin City Council Archaeology Section Report for the development also noted that the given the small scale of the works, the potential for archaeological impact was considered to be low. No further mitigation is required as the cumulative impact is no greater than the residual impact of the proposed CWP Project (**slight negative**).

93. Onshore Energy Generation Infrastructure: new 110kV substation (ONS_067) and 220kV underground cable 4m in length (ONS_068) has the potential to result in direct impact on previously unrecorded archaeological remains. Archaeological mitigation for these projects includes monitoring of ground works and as such if any archaeological remains that are identified these will be preserved by record. No further mitigation is required as the cumulative impact is no greater than the residual impact of the proposed CWP development (**slight negative**).

94. National Transport Authority – Ringsend to City Centre, Bus Connects (ONS_086) has the potential to result in direct impact on previously unrecorded archaeological remains. Archaeological mitigation for this project includes monitoring of ground works and as such if any archaeological remains that are identified these will be preserved by record. No further mitigation is required as the cumulative impact is no greater than the residual impact of the proposed CWP development (**slight negative**).

Cumulative Impact 4: Temporary disturbance to the setting of recorded archaeological and built heritage sites, the Pigeon House Harbour Conservation Area and the DCIHR outfall works, during the construction phase

95. Dublin Port Company 3FM Project (ONS_058) (description detailed above). This development will result in temporary impacts during construction on the setting of Pigeon House Harbour Conservation Area (CA) and associated built heritage and archaeological heritage sites. It is not possible to mitigate impacts on setting but the effects are temporary. No further mitigation is required as the cumulative impact is no greater than the residual impact of the proposed CWP development (**moderate negative**).

Cumulative Impact 5: Temporary disturbance to the setting of the Dublin Port cultural heritage landscape during the construction phase

96. Dublin Port Company 3FM Project (ONS_058) (description detailed above). This development will result in temporary impacts during construction on the setting of Dublin Port landscape. It is not possible to mitigate impacts on setting but the effects are temporary. No further mitigation is required as the cumulative impact is no greater than the residual impact of the proposed CWP development **(slight negative**).

20.4.2 Operation and maintenance

Cumulative Impact 1: Long-term change to the setting of recorded archaeological and built heritage sites, the Pigeon House Harbour Conservation Area and the DCIHR outfall works, due to the presence of the onshore substation

97. Dublin Port Company 3FM Project (ONS_058) (description detailed above). This development will result in permanent impacts during operation on the setting of Pigeon House Harbour CA and associated built heritage and archaeological heritage sites. It is not possible to mitigate impacts on setting but no further mitigation is required as the cumulative impact is assumed to be no greater than the residual impact of the proposed CWP development (**moderate negative**).

Cumulative Impact 2: Long-term change to the setting of the Dublin Port cultural heritage landscape due to the presence of the onshore substation

98. Dublin Port Company 3FM Project (ONS_058) (description detailed above). This development will result in permanent impacts during operation on the setting of Dublin Port. It is not possible to mitigate impacts on setting but no further mitigation is required as the cumulative impact is assumed to be no greater than the residual impact of the proposed CWP development **(slight negative**).

Cumulative Impact 3: Long-term change to the setting of archaeological, architectural and cultural heritage sites directly linked to the coast, within the ZTV from offshore infrastructure (WTG Options A and B)

99. OWF_01 Arklow Bank Phase 2. Cumulative photomontages have been presented within **Chapter 15 Seascape, Landscape and Visual Impact Assessment**. These have been examined in relation to the proposed CWP development and the proposed Arklow Bank Phase 2 development. No cumulative impacts have been identified in relation to coastal cultural heritage receptors, where slight or moderate effects are predicted. Those sites where impacts are predicted to be not significant or less have been screened out of the cumulative assessment.

100. OWF_02 Dublin Array OWF. Cumulative photomontages have been presented within **Chapter 15 Seascape, Landscape and Visual Impact Assessment**. These have been examined in relation to the proposed CWP development and the proposed Dublin Array OWF. No cumulative impacts have been identified in relation to coastal cultural heritage receptors, where slight or moderate effects are predicted. Those sites where impacts are predicted to be not significant or less have been screened out of the cumulative assessment. The Dublin Array will be closer to a number of cultural heritage receptors (CHVP 4, 5, 19, 20, 28) and in these instances, it is expected that the presence of the CWP Project would be slightly reduced on these receptors overall.

101. OWF_04 North Irish Sea Array OWF. Cumulative photomontages have been presented within **Chapter 15 Seascape, Landscape and Visual Impact Assessment**. These have been examined in relation to the proposed CWP development and the proposed North Irish Sea Array OWF development. No cumulative impacts have been identified in relation to coastal cultural heritage receptors, where slight or moderate effects are predicted. Those sites where impacts are predicted to be not significant or less have been screened out of the cumulative assessment.

20.5 CEA summary

102. This CEA, which supports **Chapter 22 Archaeology, Architecture and Cultural Heritage** has assessed the potential cumulative effects on the archaeological, architectural and cultural heritage resource, from the construction and O&M phases of the CWP Project alongside other development.

103. **Table 20-3** below has been adopted from the PINS CEA Guidance (2024) as a means of summarising the potential adverse or beneficial cumulative effects of the CWP Project with other development. It summarises the outcomes of the detailed assessment provided above and sets out the proposed mitigation measures needed to address cumulative effects, if deemed necessary.

104. In summary, the CEA for archaeological, architectural and cultural heritage resource does not identify any significant cumulative effects resulting from the CWP Project alongside other developments. It is not considered necessary that additional mitigation measures would be required.

Table 20-3 Summary of cumulative effects assessment

ID	Tier	Significance of cumulative effect	Proposed mitigation measure(s) to address cumulative effect	Residual cumulative effect
Construction phase				
Cumulative Impact 1: Permanent loss or disturbance of archaeological features or deposits located within the onshore development area and within the zone of archaeological potential for block house and fort (RMP DU019-027, RPS 6794)				
Dublin Port Company 3FM Project (ONS_058)	1	**Slight negative** (not significant in EIA terms)	No additional mitigation required	**Slight negative** (not significant in EIA terms)
Cumulative Impact 2: Permanent loss or disturbance of archaeological features or deposits located within the onshore development area and within the zone of archaeological potential for the Ballast Wall, including the Pigeon House harbour wall (RMP DU018-066/DU019-029, RPS 6797)				
Dublin Port Company 3FM Project (ONS_058) Onshore Energy Generation Infrastructure: 220kV underground cable 4km in length (ONS_068)	1	**Slight negative** (not significant in EIA terms)	No additional mitigation required	**Slight negative** (not significant in EIA terms)
Cumulative Impact 3: Permanent loss or disturbance of archaeological features or deposits that may survive beneath the current ground level within the onshore development area and outside of the designated zones of archaeological potential				
Pembroke Beach DAC / Becbay Ltd & Fabrizia Developments Ltd. -	1,3	**Slight negative** (not significant in EIA terms)	No additional mitigation required	**Slight negative** (not significant in EIA terms)

ID	Tier	Significance of cumulative effect	Proposed mitigation measure(s) to address cumulative effect	Residual cumulative effect
Redevelopment of former glass bottle site (ONS-011 - ONS-013, ONS_070 – ONS_074) Dublin Port Company 3FM Project (ONS_058) Dublin District Heating System Project (DDHS) (ONS_053) and EirGrid Powering Up (ONS_016) Dublin Port Company MP2 Project (ONS_035 / ONS_036) Ecocem Ireland Limited (ONS_059) Onshore Energy Generation Infrastructure (ONS_067 and ONS_068) National Transport Authority – Ringsend to City Centre, Bus Connects (ONS_086)				

ID	Tier	Significance of cumulative effect	Proposed mitigation measure(s) to address cumulative effect	Residual cumulative effect
Cumulative Impact 4: Temporary disturbance to the setting of recorded archaeological and built heritage sites, the Pigeon House Harbour Conservation Area and the DCIHR outfall works, during the construction phase				
Dublin Port Company 3FM Project (ONS_058)	1	Moderate negative (not significant in EIA terms)	No additional mitigation required	Moderate negative (not significant in EIA terms)
Cumulative Impact 5: Temporary disturbance to the setting of the Dublin Port cultural heritage landscape during the construction phase				
Dublin Port Company 3FM Project (ONS_058)	1	**Slight negative** (not significant in EIA terms)	No additional mitigation required	**Slight negative** (not significant in EIA terms)
Operation and maintenance phase				
Cumulative Impact 1: Cumulative Impact 1: Long-term change to the setting of recorded archaeological and built heritage sites, the Pigeon House Harbour Conservation Area and the DCIHR outfall works, due to the presence of the onshore substation				
Dublin Port Company 3FM Project (ONS_058)	1	Moderate negative (not significant in EIA terms)	No additional mitigation required	Moderate negative (not significant in EIA terms)
Cumulative Impact 2: Long-term change to the setting of the Dublin Port cultural heritage landscape due to the presence of the onshore substation				
Dublin Port Company 3FM Project (ONS_058)	1	**Slight negative** (not significant in EIA terms)	No additional mitigation required	**Slight negative** (not significant in EIA terms)
Cumulative Impact 3: Long-term change to the setting of archaeological, architectural and cultural heritage sites directly linked to the coast, within the ZTV from offshore infrastructure (WTG Options A and B)				
Arklow Bank Phase 2 (OWF_01) Dublin Array (OWF_02) North Irish Sea Array (OWF_04)	1	Slight - Moderate (Not significant in EIA terms)	No additional mitigation required	Slight - Moderate (Not significant in EIA terms)

21 LANDSCAPE AND VISUAL IMPACTS

21.1 Introduction

105. This section of the **CEA Report** presents the findings of the CEA for the landscape and visual impact assessment (LVIA), which considers the residual effects presented in **Volume 3, Chapter 23 LVIA** alongside the potential effects of other proposed and reasonably foreseeable development. Cumulative effects are considered in this document across the construction and O&M phases of the CWP Project.

106. The detail and scope of the decommissioning works for the CWP Project will be determined by the relevant legislation and guidance at the time of decommissioning. Project-alone impacts during the decommissioning phase of the CWP Project are assessed in EIAR **Volume 3, Chapter 23 LVIA**. It is anticipated that the impacts will be no greater than those identified for the construction phase, and therefore no separate assessment of cumulative impacts during the decommissioning phase is presented in this CEA.

107. Updates to the project alone assessment for LVIA as a consequence of ACPs FIR are presented in **Section 23** of the **EIAR Addendum**. This updated CEA incorporates relevant updates from the project alone assessment and has been updated in response to the requests made in item 5 of the FIR.

21.2 Consultation

108. Stakeholder and regulator feedback received during the consultation process that is relevant to the LVIA is provided in **Chapter 23 LVIA**. No feedback specific to the CEA for LVIA has been received, although general feedback is summarised in **Table 21-1.**

Table 21-1 Consultation responses relevant to the CEA for LVIA

Consultee	Comment	How issues have been addressed
Dublin City Council	Noted in meetings regarding CEA that the District Heating, EirGrid Powering Up Dublin and Dublin Port Company 3FM projects should be considered.	These projects have been included in the cumulative long list of other development.

21.3 CEA impact screening

109. The first step in the CEA for LVIA is the identification of which residual impacts assessed for the CWP Project alone have the potential for a cumulative impact with other development (described as 'impact screening'). This screening exercise is set out in **Table 21-2**Table 21-2 below.

110. Only potential impacts assessed in **Volume 3, Chapter 23 LVIA** as 'not significant' or above are included in the CEA (i.e. those assessed as 'imperceptible' are not taken forward as there is no potential for them to contribute to a cumulative effect).

Table 21-2 Impacts and potential for cumulative effects

Impact	CWP Project alone residual effect	Potential for significant cumulative effect – screened into the CEA (Yes / No)
Construction		
Impact 1: Impacts on landscape features **Impact 2**: Impacts on landscape / townscape character **Impact 3**: Impacts on visual amenity	Minor adverse (not significant) on naturally regenerated scrub Minor adverse (not significant) on townscape character within Poolbeg Peninsula TCA Moderate adverse (not significant) on landscape character within Mudflats LCA Moderate-minor adverse (not significant) on receptors at Viewpoint 1: Bull Wall Minor adverse (not significant) on receptors at Viewpoint 2: Great South Wall Minor adverse (not significant) on receptors at Viewpoint 3: Pigeon House Road Moderate adverse (not significant) on receptors at Viewpoint 4: Sandymount Promenade Moderate adverse (significant) on receptors at Viewpoint 5: Sandymount Strand Moderate-minor adverse (not significant) on receptors at Viewpoint 6: Clontarf Promenade Moderate-minor adverse (not significant) on receptors at Viewpoint 7: Strand Road Moderate adverse (not significant) on receptors at Viewpoint 8: Dublin Port Ferry Terminal Moderate adverse (significant) on receptors travelling on the footpath between Sandymount and the Great South Wall Moderate-minor adverse (not significant) on receptors on Pigeon House Road	No. Construction-phase cumulative effects are scoped out of detailed assessment. This is due to the temporary nature of these effects, and the existing presence of construction activity in the surrounding area. The OTI will likely contribute to an intensification of construction activity, which will be experienced by landscape / townscape and visual receptors within the study area. However, construction-type activity in the form of materials stockpiles, cranes, heavy plant, truck movements, hoarding etc. is already present on the Poolbeg Peninsula, is experienced by visual receptors, and forms an existing characteristic of the surrounding townscape. Construction of the OTI will create an intensification of traffic movements, transport of materials, and built development. However, this type of activity is already present in the baseline, and the construction of cumulative developments is considered likely to further contribute to this existing activity, rather than introducing new impacts. Therefore, the construction-phase effects of the OTI in the context of the cumulative developments will represent an intensification of existing and cumulative townscape characteristics and features of views, and construction of the OTI is not considered likely to give rise to significant cumulative effects.

Impact	CWP Project alone residual effect	Potential for significant cumulative effect – screened into the CEA (Yes / No)
Operation		
Impact 1: Impacts on landscape features	Negligible adverse (not significant) on naturally regenerated scrub	No. Cumulative effects on landscape features within the onshore development area are scoped out of detailed assessment. Cumulative developments are considered to have a limited influence on landscape features throughout the study area, due to the position of these developments within primarily industrial areas with limited landscape features. There may be some limited loss of proposed mitigation planting on South Bank Road due to road and footpath upgrades associated with the Dublin Port 3FM project. However, there is limited information available on this and it is not anticipated that any losses would result in significant effects. As such, it is considered that the cumulative effect on key landscape features as a result of the addition of the OTI to a context that includes cumulative development will be limited and not significant, and these effects are not considered further.
Impact 2: Impacts on landscape / townscape character	Negligible adverse (not significant) on townscape character within Poolbeg Peninsula TCA Moderate adverse (not significant) on landscape character within Mudflats LCA	No. Cumulative effects on landscape / townscape character are scoped out of detailed assessment. Cumulative developments are considered to have a limited influence on landscape / townscape character throughout the study area. Generally, cumulative developments on the Poolbeg Peninsula are of an industrial nature, and will be in keeping with the existing industrial character of this TCA. As such, the opportunity for significant cumulative effects to arise as a result of the addition of the OTI to a cumulative context with other industrial development is considered to be limited. The cumulative effect will be not significant, and these effects are not considered further.
Impact 3: Impacts on visual amenity	Moderate-minor adverse (not significant) on receptors at Viewpoint 1: Bull Wall	Yes. The O&M of the OTI, in a context which includes cumulative development, is considered to have the potential to result in significant cumulative effects on

Impact	CWP Project alone residual effect	Potential for significant cumulative effect – screened into the CEA (Yes / No)
	Minor adverse (not significant) on receptors at Viewpoint 2: Great South Wall Minor adverse (not significant) on receptors at Viewpoint 3: Pigeon House Road Moderate-minor adverse (not significant) on receptors at Viewpoint 4: Sandymount Promenade Minor adverse (significant) on receptors at Viewpoint 5: Sandymount Strand Moderate-minor adverse (not significant) on receptors at Viewpoint 6: Clontarf Promenade Minor adverse (not significant) on receptors at Viewpoint 7: Strand Road Moderate-minor adverse (not significant) on receptors at Viewpoint 8: Dublin Port Ferry Terminal Moderate-minor to minor adverse (not significant) on receptors travelling on the footpath between Sandymount and the Great South Wall Moderate-minor adverse (not significant) on receptors on Pigeon House Road	visual amenity. Impacts on visual amenity are scoped into the detailed assessment where relevant. Table 21-3 below indicates which visual receptors are considered to have the potential to experience significant effects, and are considered in further detail.
Decommissioning		
Impact 1: Impacts on landscape features **Impact 2**: Impacts on landscape / townscape character **Impact 3**: Impacts on visual amenity	The detail and scope of the decommissioning works for the CWP Project will be determined by the relevant legislation and guidance at the time of decommissioning. Project-alone impacts during the decommissioning phase of the CWP Project are assessed in EIAR **Volume 3**, **Chapter 23 LVIA**. It is anticipated that the impacts will be no greater than those identified for the construction phase, and therefore no separate assessment of cumulative impacts during the decommissioning phase is presented within this CEA.	

21.4 Stage 3: Information gathering and 'other development' screening

111. Stage 2 of the CEA is presented in **Appendix 1** of **Part 1** of the **CEA Report**. This exercise established a preliminary shortlist of other development for LVIA using set screening criteria.

112. Other developments were considered for inclusion based on the following criteria:

- Developments involving construction of buildings within 1 km of the onshore development area, due to the limited potential for significant cumulative effects to arise as a result of developments beyond this distance, due to the surrounding context of built form in the wider Dublin area;
- Developments involving construction of electricity generation infrastructure on the Poolbeg Peninsula; and
- Developments within Dublin Port involving construction of buildings, terminals or berths, and excluding developments which involve only changes to roads or alterations to existing infrastructure.

113. The shortlist of other development screened into the CEA for LVIA at Stage 2 is presented below.

- Dublin Port Company – MP2 Project (ONS_035 / ONS_036)
- Dublin Port Company – 3FM Project (ONS_058)
- Pembroke Beach DAC / Becbay Ltd & Fabrizia Developments Ltd - Former Irish Glass Bottle and Fabrizia Lands (ONS-011 - ONS-013, ONS_070 – ONS_079)
- EirGrid – Poolbeg 220kV substation (ONS-021)
- ESB – Poolbeg Open Cycle Gas Turbine (OCGT) (ONS_0222)
- ESB – Poolbeg gas fired turbine (ONS_023)
- ESB – Poolbeg BESS (ONS_024)
- National Oil Reserves Agency – ESB substation and switch room (ONS_025)
- ESB – Dublin Bay Power Station OCGT (ONS_026)
- ESB – Dublin Bay Power Station gas fired turbine (ONS_027)
- ESB – Dublin Bay Power Station BESS (ONS_028)
- Codema - Dublin District Heating System Project (ONS_053)
- GNI – Gas analyser kiosk (ONS_064)
- ESB – Removal of AIS substation and construction of GIS substation (ONS_067)

114. Information gathering (Stage 3 of the CEA) has enabled a further review of the other development shortlisted for LVIA, including a more detailed consideration of the location, nature and scale of the development, the timing of construction and operation activities, the information available to inform a CEA and the likelihood of a significant effect.

115. This information has been used to screen the Stage 2 shortlist to establish a final list of other development for detailed assessment at Stage 4 of the CEA. The results of the exercise are presented in **Table 22-3**Table 21-3 below.

Table 21-3 Summary of other development screened into the CEA for LVIA

Development	Distance from the onshore development area (km)	Tier	Included in the CEA (Yes/No)	Rationale
Dublin Port Company - 3FM Project (ONS_058) Planning Ref.: PA29N.320250	0	1	Yes	This development involves a Southern Port Access Route and road network improvements; construction of a Lo-Lo container terminal, Ro-Ro freight terminal and Maritime Village; and improvements to existing and provision of new public open space. This project includes for redevelopment works within the Poolbeg Peninsula, including on either side of the onshore substation site. Potential cumulative effects arising from the addition of the OTI to a cumulative context that features this development are considered from Viewpoint 2: Great South Wall, Viewpoint 8: Dublin Port Ferry Terminal 1, Pigeon House Road, and the footpath between Sandymount and the Great South Wall. Cumulative effects on other viewpoints / visual receptors will be not significant.
Dublin Port Company - MP2 Project (ONS_035, ONS_036) Planning & Foreshore Ref: FS 006893, PA29N.304888	0	1	Yes	This development involves construction of a new jetty, redevelopment of berths and consolidation of passenger terminal buildings, with construction of parts of the development ongoing during the operational phase of the OTI. Potential cumulative effects arising from the addition of the OTI to a cumulative context that features this development are considered from Viewpoint 8: Dublin Port Ferry Terminal 1,

Development	Distance from the onshore development area (km)	Tier	Included in the CEA (Yes/No)	Rationale
				and the footpath between Sandymount and the Great South Wall. Cumulative effects on other viewpoints / visual receptors will be not significant.
Pembroke Beach DAC / Becbay Ltd & Fabrizia Developments Ltd - Former Irish Glass Bottle Site (ONS-011 - ONS-013, ONS_070 – ONS_079) Planning Refs: PWSDZ3406/22; PWSDZ4121/21; PWSZD3270/19; 1571/25; 2596/24; 3945/24; 3798/24; 3700/24; 2247/24; 2249/24; 2252/24 3461/24; 3468/24)	1	1	Yes	This development involves construction of a mixed-use, primarily residential, development. Potential cumulative effects arising from the addition of the OTI to a cumulative context that features this development are considered in relation to the views from the footpath between Sandymount and the Great South Wall, and Pigeon House Road. Cumulative effects on other viewpoints / visual receptors will be not significant.
ESB - Dublin Bay Power Station Open Cycle Gas Turbine (ONS_026) Planning Ref: PWSDZ3074/23	0	1	No	These developments will be in keeping with existing character of surrounding industrial development on the Poolbeg Peninsula. There will be limited intervisibility with the OTI, partly due to the position of these developments within a site that contain existing energy generating infrastructure, and that creates visual separation between the cumulative developments and the OTI. Where they are seen together, the OTI will have a limited
ESB - Dublin Bay Power Station BESS facility (ONS_028) Planning Ref: 3646/20	0	1		

Development	Distance from the onshore development area (km)	Tier	Included in the CEA (Yes/No)	Rationale
ESB - Dublin Bay Power Station gas fired turbine development (ONS_027) Planning Ref: 3647/20	0	1		cumulative effect due to the existing presence of extensive industrial development. These developments are not considered further.
ESB - Poolbeg Open Cycle Gas Turbine (ONS_022) Planning Ref: 3137/23	0	1	No	These developments will be in keeping with existing character of surrounding industrial development on the Poolbeg Peninsula. There will be limited intervisibility with the OTI, partly due to the position of these developments within a site that contains existing energy generating infrastructure, and that creates visual separation between the cumulative developments and the OTI. Where they are seen together, the OTI will have a limited cumulative effect due to the existing presence of extensive industrial development. These developments are not considered further.
ESB - Poolbeg BESS facility (ONS_024) Planning Ref: 3625/20	0	1		
ESB - Poolbeg gas fired turbine development (ONS_023) Planning Ref:3624/20	0	1		
National Oil Reserves Agency - ESB Substation & Switchroom (ONS_025) Planning Ref: 3669/19	0.4	1	No	Due to the scale and nature of these proposals, there will be very limited intervisibility with the OTI. Where both developments are seen, cumulative effects are not anticipated as a result of the OTI due to the existing industrial townscape context. This development is not considered further.

Development	Distance from the onshore development area (km)	Tier	Included in the CEA (Yes/No)	Rationale
EirGrid - Poolbeg 220kV Substation (ONS_021) Planning Ref: 4057/23	0	1	Yes	This development involves construction of a substation, including GIS building and associated infrastructure. Potential cumulative effects arising from the addition of the OTI to a cumulative baseline that features this development are considered in views from the footpath between Sandymount and the Great South Wall, and Pigeon House Road. The potential for cumulative effects to be experienced by other receptors is considered to be limited due to limited intervisibility of the OTI and this development. Cumulative effects on other viewpoints / visual receptors will be not significant.
Codema – Dublin's Energy Agency - Dublin District Heating System Project (DDHS) (ONS_053) Planning Ref: N/A	0	3	No	This development will involve transmission of heat from the Dublin Waste to Energy Plant in the Poolbeg peninsula to the 'North Lotts and Grand Canal Dock Strategic Development Zone' and 'Poolbeg West Strategic Development Zone'. This may involve the construction of electricity generation infrastructure within the Poolbeg peninsula. However, due to uncertainties surrounding the nature, scale and location of this development, it is not considered further.
Gas Networks Ireland (GNI) – CCTV pole, gas analyser and associated works	0	1	No	This development will be in keeping with existing character of surrounding industrial development on the Poolbeg Peninsula. There

Development	Distance from the onshore development area (km)	Tier	Included in the CEA (Yes/No)	Rationale
(ONS_064) Planning Ref:, 2574/25				will be limited intervisibility with the OTI, partly due to the scale of this development, and its position within a site that contains existing energy generating infrastructure. Where they are seen together, the OTI will have a limited cumulative effect due to the existing presence of extensive industrial development. This development is not considered further.
ESB - Removal of AIS substation and construction of GIS substation (ONS_067) Planning Ref: 3791/24	0	1	No	This development involves removal of an existing AIS substation and construction of a new substation, including GIS building and associated infrastructure. This development will be in keeping with the existing character of surrounding industrial development on the Poolbeg Peninsula. There will be limited intervisibility with the OTI, partly due to the scale of this development, and its position within a site that contains existing energy generating infrastructure. Where they are seen together, the OTI will have a limited cumulative effect due to the existing presence of extensive industrial development. This development is not considered further.

116. In summary, the following other development will be included in the assessment of potential cumulative effects that may arise through the addition of the CWP Project, in relation to LVIA.

- Former Irish Glass Bottle Site;
- EirGrid 220kV Substation;
- Dublin Port Company MP2 Project; and
- Dublin Port 3FM Project.

117. These developments are shown in **Figure 23.6** (see LVIA **Appendix 23.3**).

118. Overall, consideration is given to the cumulative effects that may be experienced by the following receptors during the operation of the OTI:

- Visual receptors on the footpath between Sandymount and the Great South Wall;
- Visual receptors on Pigeon House Road;
- Visual receptors at Viewpoint 2: Great South Wall; and
- Visual receptors at Viewpoint 8: Dublin Port Ferry Terminal 1.

119. Consideration of cumulative effects on all other receptors, as a result of the addition of the OTI to a cumulative baseline featuring all other cumulative developments, is scoped out, primarily because the cumulative developments proposed will be in keeping with the industrial nature of the surrounding context; the OTI will represent ongoing intensification of existing industrial activity, which already exists in the immediate surroundings; and limited intervisibility between the OTI and the cumulative developments due to visual separation by existing large-scale industrial development.

21.5 Stage 4: Assessment of cumulative effects

21.5.1 Operation and maintenance

Cumulative Impact 3: Impacts on visual amenity

Viewpoint 2: Great South Wall

Receptor Sensitivity

120. As described in **Chapter 23 LVIA**, receptors at Viewpoint 2: Great South Wall are considered to be of medium-low sensitivity to changes associated with the OTI.

Cumulative Context

121. Cumulative developments that will be visible from this viewpoint comprise the Dublin Port MP2 project and Dublin Port 3FM project. These cumulative developments are both classed as Tier 1.

122. The Dublin Port MP2 project involves construction of a new jetty, alterations to existing berths, and consolidation of passenger terminal buildings. Construction of these elements is anticipated to be complete prior to the completion of the CWP Project.

123. The Dublin Port 3FM project involves construction of a Southern Port Access Route and road network improvements; construction of a Lo-Lo container terminal, Ro-Ro freight terminal and Maritime Village; and improvements to existing and provision of new public open space, including a new park at the western extent of the Poolbeg Peninsula. Construction of this project is anticipated to last beyond 2033, by which time the OTI will be operational.

Cumulative magnitude of change and significance of effect – Tier 1

124. There will be views to the north-west of infrastructure associated with the Dublin Port MP2 Project. Construction associated with the Dublin Port 3FM project will be readily visible from this viewpoint. In particular, works associated with the construction of the Lo-Lo Container Terminal will be seen in close proximity views to the west, between the viewpoint and the onshore substation. The OTI will add to views of existing industrial development seen to the west and north-west from this location and, in the context of construction works occurring to the west, will lead to a further degree of intensification of development characteristics within views. The additional cumulative magnitude of change associated with the OTI will be low.

125. Once construction of the Dublin Port 3FM Project is complete, the additional cumulative magnitude of change associated with the OTI will reduce to negligible, given that the Lo-Lo Container Terminal will largely screen views of the OTI, and the proposed uses associated with the Dublin Port 3FM project and Dublin Port MP2 project are similar in nature and scale to the existing land use and development context.

126. The sensitivity of receptors at Viewpoint 2: Great South Wall to changes associated with the OTI is considered to be medium-low, and the cumulative magnitude of change is assessed as ranging from low to negligible. Therefore, as per the matrix in Appendix 23.2, Table 1, a cumulative effect ranging from minor to negligible is predicted, which is assessed as not significant. These changes will be long-term and irreversible.

Viewpoint 8: Dublin Port Ferry Terminal 1

Receptor Sensitivity

127. As described in **Chapter 23 LVIA**, receptors at Viewpoint 8: Dublin Port Ferry Terminal 1 are considered to be of medium-low sensitivity to changes associated with the OTI.

Cumulative Context

128. Cumulative developments that will be visible from this viewpoint comprise the Dublin Port MP2 project and Dublin Port 3FM project. These cumulative developments are both classed as Tier 1.

129. The Dublin Port MP2 project involves construction of a new jetty, alterations to existing berths, and consolidation of passenger terminal buildings. Construction of these elements is anticipated to be complete prior to the completion of the CWP Project.

130. The Dublin Port 3FM project involves construction of a Southern Port Access Route and road network improvements; construction of a Lo-Lo container terminal, Ro-Ro freight terminal and Maritime Village; and improvements to existing and provision of new public open space, including a new park at the western extent of the Poolbeg Peninsula. Construction of this project is anticipated to last beyond 2033, by which time the OTI will be operational.

Cumulative magnitude of change and significance of effect – Tier 1

131. The cumulative magnitude of change associated with the O&M of the OTI, given a cumulative baseline which features the Dublin Port MP2 project and Dublin Port 3FM project, is considered to be medium-low. The introduction of the OTI to the view will result in an intensification of industrial development in

the view to the south, seen in the context of closer proximity industrial development associated with the Dublin Port MP2 Project and alongside development associated with the Dublin Port 3FM project.

132. Infrastructure associated with the Dublin Port MP2 project will be experienced primarily in the views to the west and east, while the operational development within the onshore substation site will be seen to the south. Construction associated with the Dublin Port 3FM project will be seen to the east and west of the onshore substation site. These views will include construction of the Lo-Lo Container Terminal, Ship Turning Circle, Lo-Lo Container Yard, and Ro-Ro Terminal. The OTI will therefore add to the views of existing industrial development, and in the context of construction works occurring in the wider view, will lead to an intensification of this existing feature. The additional cumulative magnitude of change associated with the OTI will be medium-low.

133. Planning application documents describe a period of c. 15 years for the construction of the Dublin Port 3FM project. Once construction of this project is complete, the cumulative magnitude of change associated with the OTI will reduce to negligible, given that the proposed uses associated with the Dublin Port 3FM Project are similar in nature and scale to the existing land use and development. Once this development is operational, the additional cumulative influence of the OTI will therefore be limited, and the cumulative magnitude of change will be negligible.

134. The sensitivity of receptors at Viewpoint 8: Dublin Port Ferry Terminal 1 to changes associated with the OTI is considered to be medium-low, and the cumulative magnitude of change is assessed as ranging from medium-low to negligible. Therefore, as per the matrix in **Appendix 23.2, Table 1**, a cumulative effect ranging from minor to negligible is predicted, which is assessed as not significant. These changes will be long-term and irreversible.

Footpath between Sandymount and the Great South Wall (Great South Wall Walk)

Receptor sensitivity

135. As described in **Chapter 23 LVIA**, receptors on the footpath between Sandymount and the Great South Wall are considered to be of medium-high sensitivity to changes associated with the OTI. The location of the Great South Wall Walk is shown in **Figure 23.5**.

Cumulative context

136. Cumulative developments that will be visible from this route include the Former Irish Glass Bottle Site, the EirGrid Poolbeg 220kV Substation, the Dublin Port MP2 Project, and the Dublin Port 3FM project. These cumulative developments are all classed as Tier 1, and the assessment below therefore considers only Tier 1 cumulative developments.

137. The Former Irish Glass Bottle Site comprises a mixed-use, primarily residential development, located between Sandymount and the Poolbeg Peninsula. The development will include buildings of up to 20 storeys. Construction of this development is anticipated to be completed prior to construction of the OTI.

138. The EirGrid Poolbeg 220kV Substation is located towards the eastern extent of the Poolbeg Peninsula, east of the Ringsend Waste Water Treatment Plant (WWTP) and Pigeon House Road. It involves construction of a 220kV GIS substation building and associated infrastructure. It is assumed that construction of this development will be complete prior to completion of the CWP Project, to allow the ESBN network cables to link to the substation.

139. The Dublin Port MP2 Project involves construction of a new jetty, alterations to existing berths, and consolidation of passenger terminal buildings. Construction of these elements is anticipated to be complete prior to the completion of the CWP Project.

140. The Dublin Port 3FM Project involves construction of a Southern Port Access Route and road network improvements; construction of a Lo-Lo container terminal, Ro-Ro freight terminal and Maritime Village; and improvements to existing and provision of new public open space, including a new park at the western extent of the Poolbeg Peninsula. Construction of this project is anticipated to last beyond 2033, by which time the OTI will be operational.

Cumulative magnitude of change and significance of effect – Tier 1

141. The cumulative magnitude of change associated with the O&M of the OTI, given a cumulative baseline that features the Former Irish Glass Bottle Site, EirGrid Poolbeg 220kV Substation, the Dublin Port 3FM project and the Dublin Port MP2 Project is considered to range from low to low-negligible.

142. The Screened Zone of Theoretical Visibility for the Onshore Substation is shown in **Figure 23.5** with the Great South Wall Walk.

143. Visibility of the operational OTI is primarily restricted to parts of the route along the Great South Wall, towards its eastern extent with some potential for glimpses of limited parts of the onshore substation shown to occur at the western end and from around the eastern end of Pigeon House Road.

144. From the Great South Wall, visibility of the Former Irish Glass Bottle Site and EirGrid Poolbeg 220kV Substation will be limited. There will be views to the north-west of infrastructure associated with the Dublin Port MP2 Project. Construction associated with the Dublin Port 3FM project, including in particular works within the Lo-Lo Container Terminal will be readily visible in close proximity from the western end of the Great South Wall. The OTI will add to views of existing industrial development seen to the west and north-west from this part of the route and, in the context of construction works occurring to the west, will lead to a further degree of intensification of development characteristics within views as illustrated by Viewpoint 2: Great South Wall. The additional magnitude of change associated with the OTI along this part of the route will be low.

145. Once construction of the Dublin Port 3FM Project is complete, the cumulative magnitude of change associated with the OTI will reduce to negligible, given that the Lo-Lo Container Terminal will largely screen views of the OTI, and the proposed uses associated with the Dublin Port 3FM Project are similar in nature and scale to the existing land use and development context. Once this development is operational, the additional cumulative influence of the OTI will therefore be limited, and the additional cumulative magnitude of change will be negligible.

146. From the section of the route around where it meets Pigeon House Road it may be possible to see glimpsed views of the upper parts of the onshore substation over the much closer EirGrid Poolbeg 220kV Substation, the site of which runs alongside the route. The cumulative magnitude of change to views from this section of the route through the addition of the operational OTI will be low-negligible.

147. From western parts of the route, near Sandymount, in close proximity to the Former Irish Glass Bottle Site and parts of the Dublin Port 3FM project (including the Ro-Ro Terminal Yard and new public park), both these developments and the onshore substation might be visible. However, visibility of the onshore substation will be restricted to upper parts of the substation buildings, seen in the context of existing industrial development on the Poolbeg Peninsula, in particular the Dublin Waste to Energy Plant. The cumulative magnitude of change associated with the OTI along this part of the route will be negligible.

148. Overall, there will be an intensification of views of development along sections of this route; however, such changes are not primarily caused by the OTI, which has limited effects on views, but by the cumulative developments.

149. The sensitivity of receptors on the footpath between Sandymount and the Great South Wall to changes associated with the OTI is considered to be medium-high, and the cumulative magnitude of change is assessed as ranging from low to negligible. Therefore, as per the matrix in **Appendix 23.2: LVIA Methodology**, effects ranging from moderate-minor to minor are predicted, which is assessed as not significant. These changes will be long-term and irreversible. Where flexibility in the proposed design exists, no other scenario will lead to a higher level of effect.

Pigeon House Road

Receptor sensitivity

150. As described in **Chapter 23 LVIA**, receptors on Pigeon House Road are considered to be of medium-low sensitivity to changes associated with the OTI.

Cumulative context

151. Cumulative developments that will be visible from this route comprise the Former Irish Glass Bottle Site, the Dublin Port 3FM project and the EirGrid Poolbeg 220kV Substation. The Dublin Port MP2 Project might also be visible, but this is considered likely to be very limited due to intervening land uses and is not considered further.

152. The Former Irish Glass Bottle Site comprises a mixed-use, primarily residential development, located between Seán Moore Park, Sandymount, and the Poolbeg Peninsula. The development will include buildings of up to 20 storeys. Construction of this development is anticipated to be completed prior to the construction works associated with the OTI.

153. The Dublin Port 3FM Project involves construction of a Southern Port Access Route and road network improvements; construction of a Lo-Lo container terminal, Ro-Ro freight terminal and Maritime Village; and improvements to existing and provision of new public open space, including a new park at the western extent of the Poolbeg Peninsula. Construction of this project is anticipated to last beyond 2033, by which time the OTI will be operational.

154. The EirGrid Poolbeg 220kV Substation is located towards the eastern extent of the Poolbeg Peninsula, east of the Ringsend WWTP and Pigeon House Road. It involves construction of a 220kV GIS building and associated infrastructure. It is assumed that construction of this development will be complete prior to completion of the CWP Project, to allow the ESBN network cables to link to the substation.

Cumulative magnitude of change and significance of effect – Tier 1

155. The cumulative magnitude of change associated with the O&M of the OTI, given a cumulative baseline that features the Former Irish Glass Bottle Site, Dublin Port 3FM Project and EirGrid Poolbeg 220kV Substation, is considered to be low. The onshore substation is primarily visible from parts of the route in close proximity to the onshore substation site, which comprises central parts of the route as illustrated in **Figure 23.5**. The Former Irish Glass Bottle Site will be visible from western parts of the route, and the EirGrid Poolbeg 220kV Substation will be visible from eastern parts. Therefore, parts of the route from which receptors will see the OTI in combination with these cumulative developments are limited.

156. The OTI may be seen in combination with construction activity associated with the Dublin Port 3FM project from central parts of the route, in particular the Lo-Lo Container Yard and Ro-Ro Terminal to the west of the onshore substation, and the ship turning circle and Lo-Lo Container Terminal to the east. The OTI will result in an intensification of views of development along this central section of the route, and the additional cumulative magnitude of change will be low.

157. The proposed uses associated with the Dublin Port 3FM Project are similar in nature and scale to the existing land use and development context, and the OTI will result in an intensification of views of industrial development along this central section of the route. Once the Dublin Port 3FM project is operational, the additional cumulative influence of the OTI will therefore be limited and the additional cumulative magnitude of change associated with the OTI will be low.

158. The addition of the operational OTI to this cumulative context will result in an increase in sequential visibility of development through the addition of the onshore substation to views such as those in Viewpoint 3: Pigeon House Road. From a section of the route of approximately 200 m it will be viewed within an already developed context over the walls surrounding the Ringsend Waste Water Treatment Works and the Pigeon House Fort Remains and in the context of construction activity associated with the Dublin Port 3FM project. The cumulative magnitude of change associated with the OTI will therefore be low.

159. The sensitivity of receptors on Pigeon House Road to changes associated with the OTI is considered to be medium-low, and the cumulative magnitude of change is assessed as low. Therefore, as per the matrix in **Appendix A23.2**, a minor effect is predicted, which is assessed as not significant**.** These changes will be long-term and irreversible. Where flexibility in the proposed design exists, no other scenario will lead to a higher level of effect.

21.6 CEA summary

160. This CEA, which supports EIAR **Volume 3, Chapter 23 LVIA** has assessed the potential cumulative effects on landscape / townscape and visual receptors from the construction and O&M phases of the CWP Project alongside other development.

161. **Table 21-4** below has been adopted from the PINS CEA Guidance (2024) as a means of summarising the potential adverse or beneficial cumulative effects of the CWP Project with other development. It summarises the outcomes of the detailed assessment provided above and sets out the proposed mitigation measures needed to address cumulative effects, if deemed necessary.

162. In summary, the CEA for LVIA does not identify any significant cumulative effects resulting from the addition of the CWP Project to a context containing other development.

Table 21-4 Summary of cumulative effects assessment

ID	Tier	Significance of cumulative effect	Proposed mitigation measure(s) to address cumulative effect	Residual cumulative effect
Operation and maintenance phase				
Cumulative Impact 3: Impacts on visual amenity				
Viewpoint 2: Great South Wall Dublin Port Company - 3FM Project (ONS_058) Dublin Port Company - MP2 Project (ONS_035, ONS_036)	1	Minor adverse to negligible adverse (not significant in EIA terms)	No additional mitigation required	Minor adverse to negligible adverse (not significant in EIA terms)
Viewpoint 8: Dublin Port Ferry Terminal 1 Dublin Port Company - 3FM Project (ONS_058) Dublin Port Company - MP2 Project (ONS_035, ONS_036)	1	Minor adverse to negligible adverse (not significant in EIA terms)	No additional mitigation required	Minor adverse to negligible adverse (not significant in EIA terms)
Footpath between Sandymount and the Great South Wall	1	Moderate-minor adverse to minor adverse (not significant in EIA terms)	No additional mitigation required	Moderate-minor adverse to minor adverse (not significant in EIA terms)

ID	Tier	Significance of cumulative effect	Proposed mitigation measure(s) to address cumulative effect	Residual cumulative effect
Operation and maintenance phase				
Dublin Port Company - 3FM Project (ONS_058) Dublin Port Company - MP2 Project (ONS_035, ONS_036) Pembroke Beach DAC / Becbay Ltd & Fabrizia Developments Ltd - Former Irish Glass Bottle Site (ONS-011 - ONS-013, ONS_070 – ONS_079) EirGrid - Poolbeg 220kV Substation (ONS_021)				
Pigeon House Road Dublin Port Company - 3FM Project (ONS_058) Pembroke Beach DAC / Becbay Ltd & Fabrizia Developments Ltd - Former Irish Glass Bottle Site (ONS-011 - ONS-013, ONS_070 – ONS_079) EirGrid - Poolbeg 220kV Substation (ONS_021)	1	Minor adverse (not significant in EIA terms)	No additional mitigation required	Minor adverse (not significant in EIA terms)

21.7 References

163. Landscape Institute and Institute of Environmental Management and Assessment (2013). Guidelines for Landscape and Visual Impact Assessment: Third Edition (GLVIA3). Routledge.

164. NatureScot (2021). Assessing the Cumulative Impact of Onshore Wind Energy Developments. https://www.nature.scot/doc/guidance-assessing-cumulative-landscape-and-visual-impact-onshore-wind-energy-developments

165. The Planning Inspectorate (2024). Nationally Significant Infrastructure Projects: Advice on Cumulative Effects Assessment. https://www.gov.uk/guidance/nationally-significant-infrastructure-projects-advice-on-cumulative-effects-assessment

166. The Planning Inspectorate (2019). Advice Note 17 Cumulative Effects Assessment.

22 NOISE AND VIBRATION

22.1 Introduction

167. This section of the **CEA Report** presents the findings of the CEA for noise and vibration, which considers the residual effects presented in **Volume 3, Chapter 24 Noise and Vibration** alongside the potential effects of other proposed and reasonably foreseeable development. Cumulative effects are considered in this document across the construction and O&M phases of the CWP Project.

168. The detail and scope of the decommissioning works for the CWP Project will be determined by the relevant legislation and guidance at the time of decommissioning. Project alone impacts during the decommissioning phase of the CWP Project are assessed in EIAR **Volume 3**, **Chapter 24 Noise and Vibration**. It is anticipated that the impacts will be no greater than those identified for the construction phase, and therefore no separate assessment of cumulative impacts during the decommissioning phase is presented within this CEA.

169. This updated CEA incorporates information from the project alone assessment presented in EIAR **Volume 3, Chapter 24 Noise and Vibration** and has been updated in response to the requests made in item 5 of the FIR.

22.2 Consultation

170. Stakeholder and regulator feedback received during the consultation process that is relevant to the noise and vibration assessment is provided in EIAR **Volume 3**, **Chapter 24 Noise and Vibration**.

171. No feedback specific to the CEA for noise and vibration has been received

22.3 CEA impact screening

172. The first step in the CEA for noise and vibration is the identification of which residual impacts assessed for the CWP Project alone have the potential for a cumulative impact with other development (described as 'impact screening'). This screening exercise is set out in **Table 22-1** below.

173. All potential impacts assessed in EIAR **Volume 3**, **Chapter 24 Noise and Vibration** are included in the CEA.

Table 22-1 Impacts and potential for cumulative effect

Impact	CWP Project alone residual effect	Potential for significant cumulative effect – screened into the CEA (Yes / No)
Construction		
Impact 1: Temporary noise level at (Noise Sensitive Location) NSLs associated with the landfall cable duct installation	Negative, Not Significant to Moderate, and temporary	Yes
Impact 2: Temporary noise level at NSLs associated with the landfall		Yes
Impact 3: Temporary noise level at NSLs associated with the intertidal works		Yes
Impact 4: Temporary noise level at NSLs associated with the onshore export cable works		Yes
Impact 5: Temporary noise level at NSLs associated with the onshore substation works		Yes
Impact 6: Temporary noise level at NSLs associated with the ESBN network cable works		Yes
Impact 7: Temporary vibration effects at VSRs associated with landfall works	Neutral, Not Significant, and temporary	No
Impact 8: Temporary vibration effects at VSRs associated with intertidal works		No
Impact 9: Temporary vibration effects at VSRs associated with onshore export cable works		No

Impact	CWP Project alone residual effect	Potential for significant cumulative effect – screened into the CEA (Yes / No)
Impact 10: Temporary vibration effects at VSRs associated with the onshore substation works		No
Impact 11: Temporary vibration effects at VSRs associated with the ESBN network cable works		No
Impact 12: Temporary road traffic noise level increases at NSLs due to construction traffic	Negative, Not Significant, and short term	No
Impact 13: Temporary noise level increases at onshore NSLs associated with the WTG monopiling construction	Negative, Not Significant, and temporary	No
Operation		
Impact 14a/ Impact 14b: Permanent noise level at onshore NSLs associated with the OWF turbines	Neutral, Imperceptible, and long term	Yes
Impact 15: Permanent noise level at NSLs associated with the onshore substation operational plant	Neutral, Imperceptible, and long term	Yes
Decommissioning		
Impact 16: Temporary decommissioning noise from impact 1 to impact 6 in **Chapter 24 Noise and Vibration**	The detail and scope of the decommissioning works for the CWP Project will be determined by the relevant legislation and guidance at the time of decommissioning. Project-alone impacts during the decommissioning phase of the CWP Project are assessed in **Volume 3**, **Chapter 24 Noise and Vibration**.	
Impact 17: Temporary decommissioning vibration from impact 7 to 11 in **Chapter 24 Noise and Vibration**		

Impact	CWP Project alone residual effect	Potential for significant cumulative effect – screened into the CEA (Yes / No)
Impact 18: Temporary road traffic noise level increases at NSLs due to decommissioning traffic	It is anticipated that the impacts will be no greater than those identified for the construction phase, and therefore no separate assessment of cumulative impacts during the decommissioning phase is presented within this CEA.	

22.4 Stage 3: Information gathering and 'other development' screening

174. Stage 2 of the CEA is presented in **Appendix 1** of **Part 1** of the **CEA Report**. This exercise established a shortlist of other development for Noise and Vibration using set screening criteria.

175. The shortlist of other development screened into the CEA for Noise and Vibration at Stage 2 are listed below.

- Pembroke Beach DAC / Becbay Ltd & Fabrizia Developments Ltd – Redevelopment of former Irish Glass Bottle Site (ONS_011-ONS_015 and ONS_070-ONS_079);
- EirGrid, Poolbeg 220kV substation, (ONS_021), Powering Up Dublin (ONS_016);
- Electricity Supply Board (ESB) - Poolbeg Generating Station: Battery Energy Storage System (BESS), Flexible Thermal Generation, Open Cycle Gas Turbine (OCGT) (ONS_024, ONS_023, ONS_022);
- ESB – Removal of existing AIS substation and construction of GIS substation & installation of 220kV underground cable measuring approx. 4.0m in length (ONS_067 and ONC_068);
- ESB - Dublin Bay Power Station: OCGT, BESS and Flexible Thermal Generation (ONS_026, ONS_028, ONS_027, and ONS_068);
- E D & F Man Liquid Products Ireland Ltd - New Storage tank, (ONS_031 and ONS_066);
- Codema - Dublin's Energy Agency, Dublin District Heating System Project (DDHS), (ONS_053);
- Hammond Lane Metal Company Ltd., Construction of 2-storey building and non-ferrous metals recovery facility, (ONS_055);
- Dublin Port Company - Bridge over existing cooling water channel (superseded by CWP project proposals), (ONS_056);
- Dublin Port Company - Alexandra Basin Re-development, (ONS_006, ONS_008 and ONS_035);
- Google Ireland (Limited) - Site of 1.089 ha known as The former Boland's Mill, (ONS_057);
- Dublin Port Company - 3FM Project, (ONS_058);
- Ecocem Ireland Limited - Construction of plant, (ONS_059);
- Gas Networks Ireland (GNI) – Development of gas kiosk (ONS_064); and
- Marine Terminals Ltd – Gantry Replacement works (ONS_065).

176. With regard to the CWP OWF WTG the following other OWF WTG developments will be assessed for potential cumulative effects with the CWP Project in relation to operational noise.

- RWE Renewables, Dublin Array OWF, (OWF_002_; and
- Sure Partners Limited / SSE Renewables, Arklow Bank OWF Phase 2, (OWF_001)

177. Information gathering (Stage 3 of the CEA) has enabled a further review of the other development shortlist for Noise and Vibration, including a more detailed consideration of the location, nature and scale of the development, the timing of construction and operation activities, the information available to inform a CEA and the likelihood of a significant effect.

This information has been used to screen the Stage 2 shortlist to establish a final list of other development for detailed assessment at Stage 4 of the CEA. The results of the exercise are presented in **Table 22-2** below.

Table 22-2 Summary of other development screened into the CEA for Noise and Vibration

Development	Distance from the array site (km)	Distance from the onshore development area (km)	Tier	Included in the CEA (Yes/No)	Rationale
Pembroke Beach DAC / Becbay Ltd & Fabrizia Developments Ltd. Redevelopment of former Irish Glass Bottle Site (ONS_011-ONS_015, & ONS_070- ONS_079) Planning Ref: PWSZD3270/19; 1571/25; 2596/24; 3945/24; 3798/24; 3700/24; 2247/24; 2249/24; 2252/24, 3461/24; 3468/24	32	0.3	1	Yes	Potential for long-term plant noise, within 250m of the closest NSL (NSL25)
EirGrid, Poolbeg 220kV substation (ONS_021) Planning Ref: 4057/23	31	0.3	1	No	No potential for long term plant as more than 1km distance from closest (NSL25).
ESB – Removal of existing AIS substation and construction of GIS substation & installation of 220kV underground cable measuring approx. 4.0m in length (ONS_067 and ONS_068)	32	0.3-0.6	1	No	No potential for long term plant as more than 600m distance from closest (NSL25).

Development	Distance from the array site (km)	Distance from the onshore development area (km)	Tier	Included in the CEA (Yes/No)	Rationale
Planning Ref: 3791/24 and 1558/24					
ESB - Poolbeg Generating Station / BESS, Flexible Thermal Generation, OCGT (ONS_024, ONS_023, ONS_022) Planning Ref: 3625/20, 3624/20, 3137/23, and 3791/24.	31	0.3	1	No	No potential for long term plant as more than 1km distance from closest (NSL25).
E D & F Man Liquid Products Ireland Limited New Storage Tank (ONS_031 and New Loading Gantry ONS_066) Planning Ref: Planning Ref: 2804/19 & 3908/23	32	0.3	1	No	New storage tank & gantry - no sources of operational plant noise No potential for long term plant as more than 600m distance from closest NSL (NSL25).
Codema - Dublin's Energy Agency Dublin District Heating System Project (DDHS)	32	0	3	No	May operate under an IED licence. No potential for long term plant as more than 600m distance from closest NSL (NSL25).

Development	Distance from the array site (km)	Distance from the onshore development area (km)	Tier	Included in the CEA (Yes/No)	Rationale
Planning Ref.: N/A					
ESB Dublin Bay Power Station / OCGT, BESS and Flexible Thermal Generation (ONS_026, ONS_028 & ONS_027) Planning Ref: 3074/23, 3646/20, 3647/20	32	0.2	1	No	Will operate under an IED licence (Ref. P0486-02) . No potential for long term plant as more than 600m distance from closest NSL (NSL25).
	32	0.2	1	No	Noise condition requires that *"The noise levels from the site, during the operational phase, measured as an L_{Aeq} (5min at night, 15 min in day) when all proposed plant is operating, shall not exceed the L_{A90} by 5dB(A) or more.* No potential for long term plant as more than 600m distance from closest NSL (NSL25).
	32	0.2	1	No	Noise condition requires that *"The noise levels from the site, during the operational phase, measured as an L_{Aeq} (5min at night, 15 min in day) when all proposed plant is operating, shall not exceed the L_{A90} by 5dB(A) or more.* No potential for long term plant as more than 600m distance from closest NSL (NSL25).
Hammond Lane Metal Company Ltd.	32	0.6	1	No	No potential for long term plant as more than 1km distance from closest NSL (NSL25).

Development	Distance from the array site (km)	Distance from the onshore development area (km)	Tier	Included in the CEA (Yes/No)	Rationale
Construction of 2-storey building and non-ferrous metals recovery facility (ONS_055) Planning Ref: 2130/18					
Dublin Port Company Bridge over existing cooling water channel (superseded by CWP project proposals) (ONS_056) Planning Ref: 3711/18	32	0.6	1	No	No potential for long term plant as more than 1km distance from closest NSL (NSL25).
Dublin Port Company - Alexandra Basin Re-development (ONS_006, ONS_008 and ONS_035) Planning Ref.: FS006980 and FS006893	34	0	1	No	No potential for long term plant as more than 1km distance from closest NSL (NSL25).

Development	Distance from the array site (km)	Distance from the onshore development area (km)	Tier	Included in the CEA (Yes/No)	Rationale
Google Ireland (Limited) - Site of 1.089 ha known as The former Boland's Mill (ONS_057) Planning Ref.: DSDZ4048/23	34	2.2	1	No	No potential for long term plant as more than 1km distance from closest NSL (NSL25).
Dublin Port Company 3FM Project (ONS_058) Planning Ref.: PA29N.320250	34	0	1	No	No potential for long term plant as more than 600m distance from closest NSL (NSL25).
Ecocem Ireland Limited - Construction of plant (ONS_059) Planning Ref.: 3041/24	32	0.5	1	No	No potential for long term plant as more than 1km distance from closest NSL (NSL25).
RWE Renewables - Dublin Array OWF (OWF_02) Planning Ref.: FS007188 / 2022-MAC-003 and 004	2.8	2	2a	Yes	Potential for long-term OWF turbine noise at common onshore NSLs
Sure Partners Limited / SSE Renewables - Arklow Bank OWF Phase 2	9.8	9.9	2a	Yes	Potential for long-term OWF turbine noise at common onshore NSLs

Development	Distance from the array site (km)	Distance from the onshore development area (km)	Tier	Included in the CEA (Yes/No)	Rationale
(OWF-01) Planning Ref.: 2022-MAC-002					
GNI – Development of gas kiosk (ONS_064) Planning Ref: 2574/25	31	0.3	1	No	No potential for long term plant as more than 1km distance from closest NSL (NSL25).
Marine Terminals Ltd – MTL Terminal, Dublin Port (ONS_065) Planning Ref : 1840/25	32	0.6	1	No	Noise condition requires that: *"The rated noise levels from the site (defined as LAeq 1 hour) shall not exceed the background noise level (as defined in B.S. 4142:2014 by 10 dB or more."* No potential for long-term cumulative plant noise, impacts at closest NSL (NSL13)

22.5 Stage 4: Assessment of cumulative effects

22.5.1 Construction phase

Onshore construction (impact 1 to impact 6)

178. Based on the residual impact identified in EIAR **Volume 3**, **Chapter 24 Noise and Vibration**, the effect of onshore construction will be negative, not significant to moderate and temporary. The significance of the residual effect is therefore predicted to be not significant in EIA terms.

179. To determine any cumulative effects from construction, the change to the highest predicted construction noise levels (CNL) at the nearest NSLs during any of the construction phases when 3 dB is added to the CNL previously outlined in **Table 24.34** in EIAR **Volume 3, Chapter 24 Noise and Vibration.**

180. Assuming a doubling of construction noise levels (a +3 dB increase) due to cumulative developments, all NSLs still remain below the daytime Construction Noise Threshold (CNT).

181. The residual cumulative construction noise impact significance of effects is changed at three NSLs, namely:

a. NSL19 (Clanna Gael Fontenoy GAA Club) where the predicted cumulative CNL is 1 dB above the existing baseline noise level but below the CNT. There is a change from not significant to a slight effect at this receptor.
b. NSL05 (Poolbeg Flexgen) where the predicted cumulative CNL is 6 dB above the existing baseline noise level but below the CNT. There is a change from slight to a moderate effect at this receptor.
c. NSL03 (City Analysts) where the predicted cumulative CNL is 7 dB above the existing baseline noise level but below the CNT. There is a change from slight to a moderate effect at this receptor.

182. The implementation of construction noise thresholds at NSLs and recommended good practices have been outlined in **Section 24.10** in EIAR **Volume 3, Chapter 24 Noise and Vibration**, as well as the compliance of the CEA developments with their respective planning conditions, will ensure that each development will control noise impacts using best practice guidance documents and appropriate noise limits.

183. The residual cumulative effect of the proposed development in combination with other developments can therefore be considered to be **negative, not significant to moderate and temporary**. Therefore the effect is predicted to be not significant in EIA terms as the construction activities undertaken will be required to operate below the recommended CNT set out in **Table 24.34** in EIAR **Volume 3, Chapter 24 Noise and Vibration.**

Table 22-3 Comparison of Highest Cumulative Predicted CNL with Noise Threshold Limits and Predicted Cumulative Significance of Effect

Receptor			CNT (BS 5228-1 ABC Category or Fixed Limit)	CNL, dB $L_{Aeq,T}$	EPA EIAR Significance of Effects
ID	Description	Ambient Daytime Noise Level (L_{Aeq})	Weekday Day (07:00-19:00)		Weekday Day (07:00-19:00)
Impact 1, Scenario 1: Temporary noise level at NSLs associated with the landfall cable duct installation (Open cut and cofferdam piling)					
NSL09	ED&F Man Liquid	66	75 (Fixed noise limit)	59	Not Significant
NSL10	Marine Terminals Limited	60	75 (Fixed noise limit)	50	Not Significant
NSL14	Poolbeg Quay Apartments	60	65 (A)	50	Not Significant
NSL15	Representative of Dwellings on Leukos Road	60	65 (A)	51	Not Significant
NSL16	Representative of Dwellings on Cymric Road	60	65 (A)	52	Not Significant
NSL17	Representative of Dwellings on Bremen Road	60	65 (A)	50	Not Significant
NSL18	Representative of Dwellings in Bremen Grove	60	65 (A)	49	Not Significant
NSL19	Clanna Gael Fontenoy GAA Club	49	65 (A)	50 Note 1	Slight
NSL20	Star of the Sea National School	58	65 (A)	51	Not Significant
NSL21	Representative of Dwellings on R802 Beach Road Between R131 and Leahy's Terrace Junction	58	65 (A)	50	Not Significant

Receptor			CNT (BS 5228-1 ABC Category or Fixed Limit)	CNL, dB $L_{Aeq,T}$	EPA EIAR Significance of Effects
ID	Description	Ambient Daytime Noise Level (L_{Aeq})	Weekday Day (07:00-19:00)		Weekday Day (07:00-19:00)
NSL22	Representative of Dwellings on R802 Beach Road Between Leahy's Terrace and Beach Drive Junction	58	65 (A)	53	Not Significant
NSL23	Representative of Dwellings on R802 Beach Road Between Beach Drive and Sandymount Court Junction	58	65 (A)	55	Not Significant
NSL24	Representative of Dwellings on R802 Beach Road Between Sandymount Court and Marine Drive Junction	58	65 (A)	57	Not Significant
NSL25	Representative of Dwellings on R802 Beach Road Between Marine Drive and Seafort Avenue Junction	58	65 (A)	58	Not Significant
NSL26	Sandymount Park Educate Together School	58	65 (A)	56 Note 1	Not Significant
NSL27	Church	58	65 (A)	58	Not Significant
NSL28	Representative of Dwellings on R131 Strand Road	58	65 (A)	58	Not Significant

Receptor			CNT (BS 5228-1 ABC Category or Fixed Limit)	CNL, dB $L_{Aeq,T}$	EPA EIAR Significance of Effects
ID	Description	Ambient Daytime Noise Level (L_{Aeq})	Weekday Day (07:00-19:00)		Weekday Day (07:00-19:00)
NSL29	Representative of Proposed Dwellings on Former Irish Glass Site	66	70 (B)	52 Note 1	Not Significant
Impact 3, Scenario 3: Temporary noise level at NSLs associated with the intertidal works (Tensioner Piling)					
NSL05	Poolbeg Flexgen	53	75 (Fixed noise limit)	59	Moderate
Impact 4, Scenario 4.1: Temporary noise level at NSLs associated with the onshore export cable works (Tunnelling at Temporary Tunnel Compound 1 (Launch Shaft in Compound A)					
NSL06	Covanta Plant	44	75 (Fixed noise limit)	67	Moderate
NSL11	1st Port of Dublin Ringsend Sea Scouts	60	65 (A)	49	Not Significant
NSL12	71-80 Pigeon House Road	60	65 (A)	49	Not Significant
NSL13	70 Pigeon House Road	60	65 (A)	47	Not Significant
Impact 4, Scenario 4.2: Temporary noise level at NSLs associated with the onshore export cable works (Tunnelling at Temporary Tunnel Compound 2 (Shellybanks Road Reception Shaft)					
NSL07	Hammond Lane Metal	58	75 (Fixed noise limit)	58	Not Significant
NSL08	Car Mechanics	58	75 (Fixed noise limit)	70	Moderate

Receptor			CNT (BS 5228-1 ABC Category or Fixed Limit)	CNL, dB $L_{Aeq,T}$	EPA EIAR Significance of Effects
ID	Description	Ambient Daytime Noise Level (L_{Aeq})	Weekday Day (07:00-19:00)		Weekday Day (07:00-19:00)
Impact 4, Scenario 4.3: Temporary noise level at NSLs associated with the onshore export cable works (Tunnelling at Temporary Tunnel Compound 3 (Onshore Substation Launch Shaft)					
NSL02	Celtic Anglian Water	58	75 (Fixed noise limit)	67	Moderate
NSL03	City Analysts	58	75 (Fixed noise limit)	65	Moderate
Impact 5, Scenario 5: Temporary noise level at NSLs associated with the onshore substation works					
NSL01	Hammond Lane Metal Recycling	58	75 (Fixed noise limit).	73	Moderate
Impact 6, Scenario 6: Temporary noise level at NSLs associated with the ESBN network cable works (HDD)					
NSL04	Poolbeg AGI	53	75 (Fixed noise limit).	63	Moderate

Note 1: CNL reduced to 52 dB from 62 dB presented in **Table 24.34** in Noise and Vibration Chapter, due to 2.4m site hoarding mitigation for Impact 1 e.g. a 10 dB reduction as no direct line of sight between noise source and receiver post mitigation.

22.5.2 Operation and maintenance phase

OWF WTG operation and maintenance (impact 14a/14b):

184. In **Section 24.9.3** of EIAR **Volume 3, Chapter 24 Noise and Vibration** the CWP WTG (Option A / Option B) predicted noise levels, at the closest NSL to the array site, below the 35 dB L_{A90} criterion and therefore outside the study area for background noise surveys:

   a. In Option A at rated power the predicted WTG operational phase noise level at the closest onshore NSL is predicted as 27 dB L_{A90} at WTG NSL01 (Easting 733,317, Northing 690,867 ITM Ref.).
   b. In Option B at rated power the predicted WTG operational phase noise level at the closest onshore NSL is predicted as 31 dB L_{A90} at WTG NSL01 (Easting 733,317, Northing 690,867 ITM Ref.).

185. Thus, there was no further consideration of operational noise from the CWP WTGs in EIAR **Volume 3, Chapter 24 Noise and Vibration**.

186. However, the inclusion of other OWFs (OWF_01 and OWF_02) has the potential to increase predicted noise levels to above 35 dB L_{A90} at common NSLs to the other OWFs.

187. Based on CWP WTG Option B operational phase noise level of 31 dB L_{A90} theoretically any predicted noise level above 32 dB L_{A90}, due to any other OWF in its own right, could cumulatively result in a noise level above 35 dB L_{A90} when considered in conjunction with the proposed CWP Project.

188. Further consideration of the cumulative effect from both windfarms is outlined in the following sections below.

Cumulative Assessment of CWP WTG with Dublin Array (DA) WTG (OWF_02)

189. The Dublin Array Project Array Site (OWF_02) is located approximately 2.8 km to the northwest of the CWP array area.

190. The closest common receiver to the CWP and DA is CWP/DA WTG NSL01 (Easting 729,717, Northing 712,544 ITM Ref.) and this is shown in EIAR **Volume 4**, **Appendix 24.1**, **Figure 1**.

191. As per the Danish methodology outlined in EIAR **Volume 3, Chapter 24 Noise and Vibration** and assuming downwind conditions at rated power for both OWF, the predicted cumulative WTG operational phase noise level at the common onshore NSL is predicted as 34 dB L_{A90} at CWP/DA WTG NSL01. Full modelling inputs and assumptions are presented in **Appendix 24.3 Operational phase Offshore Wind Farm (OWF) turbine noise**.

192. As the predicted noise levels in either option remain below the 35 dB L_{A90} threshold, there is no change in the CWP and DA WTGs cumulative assessment in comparison to the effects presented in EIAR **Volume 3, Chapter 24 Noise and Vibration.**

193. The predicted cumulative operational WTG noise levels are conservative as they do not take account of screening due to buildings close to the NSL i.e. no barrier corrections applied to reduce the noise levels further at the NSLs.

194. No specific CWP WTG mitigation measures are required.

Cumulative Assessment of CWP WTG with Arklow Bank (AB) WTG (OWF_01)

195. The Arklow Bank OWF Phase 2 Array Site is located approximately 9.8 km to the southwest of the CWP array area.

196. The closest common receiver to the CWP and AB is CWP/AB WTG NSL01 (Easting 733,317, Northing 690,867 ITM Ref.) and this is shown in EIAR **Volume 4**, **Appendix 24.1**, **Figure 1**.

197. As per the Danish methodology outlined in EIAR **Volume 3, Chapter 24 Noise and Vibration** and assuming downwind conditions at rated power, the predicted CWP WTG operational noise level at CWP/AB WTG NSL01 is 31 dB L_{A90}.

198. Based on model outputs provided by the AB project at rated power, the predicted AB OWF WTG operational noise level at CWP/AB WTG NSL01 is 30 dB L_{A90}.

199. As per the Danish methodology outlined in EIAR **Volume 3, Chapter 24 Noise and Vibration** and assuming downwind conditions at rated power for both OWF, the predicted cumulative OWF WTG operational phase noise level at the common onshore NSL is predicted as 34 dB L_{A90} at CWP/AB WTG NSL01.

200. As the predicted noise levels in either option remain below the 35 dB L_{A90} threshold, there is no change in the CWP and AB WTGs cumulative assessment in comparison to the effects presented in EIAR **Volume 3, Chapter 24 Noise and Vibration.**

201. This cumulative assessment is conservative as it assumes all receptors are downwind of all turbines at the same time, all of which are operating omni-directional and they do not take account of screening due to buildings close to the NSL.

202. No specific CWP WTG mitigation measures are required.

22.5.3 Onshore operation and maintenance (impact 15)

203. In EIAR **Volume 3**, **Chapter 24 Noise and Vibration** the rating levels have been calculated and then compared to the representative daytime and night-time representative background sound levels for the residential NSLs and assessed in accordance with BS4142:2014+A1:2019. The results of this assessment are shown in **Table 24.42**, where the predicted rating levels and background sound levels have been rounded to the nearest decibel.

204. Based on the residual impact identified in EIAR **Volume 3**, **Chapter 24 Noise and Vibration**, the effect will be **neutral, imperceptible and long-term**. The significance of the residual effect is therefore predicted to be not significant in EIA terms.

205. The closest predicted rating levels and background noise levels from the O&M activities was at NSL25, where the rating level was 23 dB $L_{AR,T}$ and the background sound level at night-time was 40 dB L_{A90} (as shown in EIAR **Volume 3**, **Chapter 24 Noise and Vibration Table 24.42**).

206. The planning conditions of the some of the other developments outline a requirement for an IED licence or note the following for noise mitigation:

> *"The noise levels from the site, during the operational phase, measured as an L_{Aeq} (5min at night, 15 min in day) when all proposed plant is operating, shall not exceed the L_{A90} by 5dB(A) or more."*

Therefore, the assumed noise level for each of the other developments is 45 dB $L_{AR,T}$ at 50 m from their site boundaries.

207. Given the propagation of sound over distance at that each of the developments is at least 250 m from NSL25, it has been calculated that each of the other developments will have a noise contribution at NSL25 that does not exceed 30 dB $L_{AR,T}$.

208. **Table 22-4** below summarises the predicted cumulative noise levels at NSL25. The predicted cumulative rated noise level does not exceed 40 dB at the closest façade during the night-time period.

Table 22-4 Predicted rated cumulative noise levels at NSL25

Development Site (Ref)	Predicted rated noise level at closest receiver (dB)
Pembroke Beach DAC / Becbay Ltd & Fabrizia Developments Ltd. Redevelopment of former glass bottle site (ONS_011 and ONS_072)	30
Pembroke Beach DAC / Becbay Ltd & Fabrizia Developments Ltd. Redevelopment of former glass bottle site (ONS_012)	30
Pembroke Beach DAC / Becbay Ltd & Fabrizia Developments Ltd. Redevelopment of former glass bottle site (ONS_013)	30
Pembroke Beach DAC / Becbay Ltd & Fabrizia Developments Ltd. Redevelopment of former glass bottle site (ONS_014)	30
Pembroke Beach DAC – 6 storey structure (ONS_015)	30
Pembroke Beach DAC – Redevelopment of former glass bottle site (ONS_070)	30
Pembroke Beach DAC - Redevelopment of former glass bottle site (ONS_071)	30

Development Site (Ref)	Predicted rated noise level at closest receiver (dB)
Pembroke Beach DAC – Redevelopment of former glass bottle site (ONS_073)	30
Pembroke Beach DAC – Redevelopment of former glass bottle site (ONS_074)	30
Proposed Project	23
Cumulative rated noise level at closest receiver (NSL25)	**40**

22.6 CEA summary

209. This CEA, which supports EIAR **Volume 3, Chapter 24 Noise and Vibration** has assessed the potential cumulative effects on noise and vibration from the construction and O&M phases of the CWP Project alongside other development.

210. **Table 22-5** below has been adopted from the PINS CEA Guidance (2024) as a means of summarising the potential adverse or beneficial cumulative effects of the CWP Project with other development. It summarises the outcomes of the detailed assessment provided above and sets out the proposed mitigation measures needed to address cumulative effects, if deemed necessary.

211. In summary, the CEA for noise and vibration does not identify any significant cumulative effects resulting from the CWP Project alongside other development.

Table 22-5 Summary of cumulative effects assessment

ID	Tier	Significance of cumulative effect	Proposed mitigation measure(s) to address cumulative effect	Residual cumulative effect
Construction phase				
Cumulative Impact 1: Temporary noise level at NSLs associated with the landfall cable duct installation				
ONS_011, ONS_012, ONS_013, ONS_014, ONS_070, ONS_071, ONS_072, ONS_073, ONS_074, ONS_075, ONS_076, ONS_078, ONS_079, ONS_015, ONS_065	1	Neutral to Slight Adverse (not significant in EIA terms)	The implementation of construction noise thresholds at NSLs and recommended good practices have been outlined in **Section 24.10 in Chapter 24 Noise and Vibration**, as well as the compliance of the CEA developments with their respective planning conditions, will ensure that each development will control noise impacts using best practice guidance documents and appropriate noise limits	Neutral to Slight Adverse (not significant in EIA terms)
Cumulative Impact 2: Temporary noise level at NSLs associated with the landfall				
ONS_011, ONS_012, ONS_013, ONS_014, ONS_070, ONS_071, ONS_072, ONS_073, ONS_074, ONS_075, ONS_076, ONS_078, ONS_079, ONS_015, ONS_065	1	Neutral (not significant in EIA terms)	The implementation of construction noise thresholds at NSLs and recommended good practices have been outlined in **Section 24.10** in **Chapter 24 Noise and Vibration**, as well as the compliance of the CEA developments with their respective planning conditions, will ensure that each development	Neutral (not significant in EIA terms)

			will control noise impacts using best practice guidance documents and appropriate noise limits	
Cumulative Impact 3: Temporary noise level at NSLs associated with the intertidal works				
ONS_011, ONS_012, ONS_013, ONS_014, ONS_070, ONS_071, ONS_072, ONS_073, ONS_074, ONS_075, ONS_076, ONS_078, ONS_079, ONS_015, ONS_065	1	Moderate Adverse (not significant in EIA terms)	The implementation of construction noise thresholds at NSLs and recommended good practices have been outlined in **Section 24.10** in **Chapter 24 Noise and Vibration**, as well as the compliance of the CEA developments with their respective planning conditions, will ensure that each development will control noise impacts using best practice guidance documents and appropriate noise limits	Moderate Adverse (not significant in EIA terms)
Cumulative Impact 4: Temporary noise level at NSLs associated with the onshore export cable works				
ONS_011, ONS_012, ONS_013, ONS_014, ONS_070, ONS_071, ONS_072, ONS_073, ONS_074, ONS_075, ONS_076, ONS_078, ONS_079, ONS_015, ONS_065	1	Neutral to Moderate Adverse (not significant in EIA terms)	The implementation of construction noise thresholds at NSLs and recommended good practices have been outlined in **Section 24.10** in **Chapter 24 Noise and Vibration**, as well as the compliance of the CEA developments with their respective planning conditions, will ensure that each development will control noise impacts using best practice guidance documents and appropriate noise limits	Neutral to Moderate Adverse (not significant in EIA terms)

Cumulative Impact 5: Temporary noise level at NSLs associated with the onshore substation works				
ONS_011, ONS_012, ONS_013, ONS_014, ONS_070, ONS_071, ONS_072, ONS_073, ONS_074, ONS_075, ONS_076, ONS_078, ONS_079, ONS_015, ONS_065	1	Moderate Adverse (not significant in EIA terms)	The implementation of construction noise thresholds at NSLs and recommended good practices have been outlined in **Section 24.10** in **Chapter 24 Noise and Vibration**, as well as the compliance of the CEA developments with their respective planning conditions, will ensure that each development will control noise impacts using best practice guidance documents and appropriate noise limits	Moderate Adverse (not significant in EIA terms)
Cumulative Impact 6: Temporary noise level at NSLs associated with the ESBN network cable works				
ONS_011, ONS_012, ONS_013, ONS_014, ONS_070, ONS_071, ONS_072, ONS_073, ONS_074, ONS_075, ONS_076, ONS_078, ONS_079, ONS_015, ONS_065	1	Moderate Adverse (not significant in EIA terms)	The implementation of construction noise thresholds at NSLs and recommended good practices have been outlined in **Section 24.10 in Chapter 24 Noise and Vibration**, as well as the compliance of the CEA developments with their respective planning conditions, will ensure that each development will control noise impacts using best practice guidance documents and appropriate noise limits	Moderate Adverse (not significant in EIA terms)

Operation and maintenance phase				
Cumulative Impact 14a/14b: Permanent noise level at onshore NSLs associated with the OWF turbines				
CEA-0037, CEA-0004	1	Neutral (not significant in EIA terms)	No additional mitigation required	Neutral (not significant in EIA terms)
Cumulative Impact 15: Permanent noise level at NSLs associated with the onshore substation operational plant				
CEA-0037, CEA-0004	1	Neutral (not significant in EIA terms)	No additional mitigation required	Neutral (not significant in EIA terms)

23 AIR QUALITY

23.1 Introduction

212. This section of the **CEA Report** presents the findings of the CEA for air quality, which considers the residual effects presented in EIAR **Volume 3, Chapter 25 Air Quality** alongside the potential effects of other proposed and reasonably foreseeable development. Cumulative effects are considered in this document across the construction and O&M phases of the CWP Project.

213. The detail and scope of the decommissioning works for the CWP Project will be determined by the relevant legislation and guidance at the time of decommissioning. Project alone impacts during the decommissioning phase of the CWP Project are assessed in EIAR **Volume 3**, **Chapter 25 Air Quality**. It is anticipated that the impacts will be no greater than those identified for the construction phase, and therefore no separate assessment of cumulative impacts during the decommissioning phase is presented within this CEA.

214. This updated CEA incorporates information from the project alone assessment presented in EIAR **Volume 3, Chapter 25 Air Quality** and has been updated in response to the requests made in item 5 of the FIR.

23.2 Consultation

215. Stakeholder and regulator feedback received during the consultation process that is relevant to the air quality assessment is provided in **Volume 3, Chapter 25 Air Quality**.

216. No stakeholder or regulator feedback was received during the consultation process that is relevant to the CEA for air quality.

23.3 CEA impact screening

217. The first step in the CEA for air quality is the identification of which residual impacts assessed for the CWP Project alone have the potential for a cumulative impact with other development (described as 'impact screening'). This screening exercise is set out in **Table 23-1.**

Only potential impacts assessed in **Volume 3**, **Chapter 25 Air Quality** as 'not significant or above are included in the CEA (i.e. those assessed as 'imperceptible' are not taken forward as there is no potential for them to contribute to a cumulative effect).

Table 23-1 Impacts and potential for cumulative effect

Impact	CWP Project alone residual effect	Potential for significant cumulative effect – screened into the CEA (Yes / No)
Construction		
Impact 1: Impact of construction dust from demolition, earthworks, construction and trackout in terms of dust soiling, human health and ecosystems.	Direct, localised, negative, short-term and not significant	Yes
Operation		
Operational impacts scoped out as per **Section 25.3** of **Chapter 25 Air Quality**.	n/a	No
Decommissioning		
The detail and scope of the decommissioning works for the CWP Project will be determined by the relevant legislation and guidance at the time of decommissioning. Project alone impacts during the decommissioning phase of the CWP Project are assessed in **Volume 3, Chapter 25 Air Quality**. It is anticipated that the impacts will be no greater than those identified for the construction phase, and therefore no separate assessment of cumulative impacts during the decommissioning phase is presented within this CEA.		

23.4 Stage 3: Information gathering and 'other development' screening

218. Stage 2 of the CEA is presented in **Appendix 1** of **Part 1** of the **CEA Report**. This exercise established a shortlist of other development for EIAR **Volume 3, Chapter 25 Air Quality** using set screening criteria.

219. The shortlist of other development screened into the CEA for air quality are listed below.

- Uisce Éireann - Ringsend Wastewater Treatment Plant Upgrade Project (ONS_009);
- Uisce Éireann – Ringsend WWTP Upgrade Works – (ONS_087).
- Pembroke Beach DAC / Becbay Ltd & Fabrizia Developments Ltd – Redevelopment of former Irish Glass Bottle Site (ONS_011, ONS_012, ONS_013, ONS_014, ONS_015 ONS_070 – ONS_079);
- Dublin Port Company – MP2 Project (ONS_035, ONS_036);
- Dublin Port Company – construction of a bridge (ONS_056);
- Dublin Port Company – 3FM Project (ONS_058);
- Codema - Dublin's Energy Agency – Dublin District Heating System Project (DDHS) (ONS_053);
- EirGrid : Powering Up Dublin, Programme of Works (ONS_016);
- Marine Terminals Ltd – Gantry Replacement works – (ONS_065).
- National Transport Authority (NTA) – Ringsend to City Centre Bus Connects – ONS_086)
- Kilsaran Concrete (ONS_054 and ONS_069);
- E D & F Man Liquid Products Ireland Limited – New Storage tank (ONS_031 and ONS_066);
- Ecocem Ireland Limited – Construction of Silos, compressor room and associated facilities. (ONS_059);

- Electricity Supply Board (ESB) – Dublin Bay Power Station: Open Cycle Gas Turbine (OCGT), Battery Energy Storage System (BESS) and Flexible Thermal Generation (ONS_026, ONS_027, ONS_028);
- ESB – Poolbeg Generating Station: BESS, Flexible Thermal Generation, OCGT (ONS_022, ONS_023, ONS_024);
- ESB – GIS substation construction and 220kV underground cable installation – (ONS_067, ONS_068);
- ESB – Single Storey Substation (NORA) (ONS_025);
- EirGrid: Poolbeg 220kV substation (ONS_021);
- Hammond Lane Metal Company Ltd. - Construction of 2-storey building and non-ferrous metals recovery facility (ONS_055); and
- Gas Networks Ireland (GNI) – CCTV, gas kiosk and all associated works (ONS_062,063 and 064).

220. Information gathering (Stage 3 of the CEA) has enabled a further review of the other development shortlist for air quality, including a more detailed consideration of the location, nature and scale of the development, the timing of construction and operation activities, the information available to inform a CEA and the likelihood of a significant effect.

221. This information has been used to screen the Stage 2 shortlist to establish a final list of other development for detailed assessment at Stage 4 of the CEA. The results of the exercise are presented in **Table 23-2** below.

Table 23-2 Summary of other development screened into the CEA for air quality

Development	Distance from onshore development area (km)	Tier	Included in the CEA (Yes/No)	Rationale
Uisce Éireann - Ringsend Wastewater Treatment Plant Upgrade Project (ONS_009) Planning Ref: 5319/22	0	1	No	This development is proposed to be operational by 2030. There is no potential for a temporal overlap between the construction phases of the projects. On this basis, the proposed Ringsend development was not considered further in this assessment.
Uisce Éireann – Ringsend WWTP upgrade works (ONS_087) Planning Ref: 301798	0	1	No	These upgrades (the 2.4 million PPE works) were undertaken within the confines of the existing WWTP site boundary, with the construction activities completed in 2025. The upgraded WWTP is currently operational. There is no potential for a temporal overlap between the construction phases of the projects. On this basis, the proposed Ringsend development was not considered further in this assessment.
Pembroke Beach DAC / Becbay Ltd & Fabrizia Developments Ltd – Redevelopment of former Irish Glass Bottle Site (ONS_011, ONS_012, ONS_013, ONS_014, ONS_015 ONS_070 – ONS_079) Planning Refs: PWSZD3270/19; 1571/25; 2596/24; 3945/24; 3798/24; 3700/24; 2247/24; 2249/24; 2252/24, 3461/24; 3468/24)	0	1	No	This development is proposed to be operational by 2030. There is no potential for a temporal overlap between the construction phases of the projects. On this basis, the proposed Pembroke Beach DAC development was not considered further in this assessment.

Development	Distance from onshore development area (km)	Tier	Included in the CEA (Yes/No)	Rationale
Dublin Port Company – MP2 Project (ONS_035, ONS_036) Planning/Foreshore Ref: FS006893 and ABP-304888-19	0	1	Yes	There is potential for a temporal overlap between the construction phase of this project and that of the CWP Project. If construction does overlap, concurrent construction activities within 500 m of the CWP Project onshore development area could cause cumulative air quality effects, as dust impacts are considered within a 250m buffer from each project, as detailed in Section 25.3.1 of Chapter 25 Air Quality.
EirGrid: Poolbeg 220kV substation (ONS_021) Planning Ref: 4057/23	0	1	No	Construction will commence in early 2026 and will take approximately 36 months. This is the Poolbeg 220kV substation that the CWP Project will connect into. This development is proposed to be operational by 2030. There is no potential for a temporal overlap between the construction phases of the projects. On this basis, the proposed substation development was not considered further in this assessment.
ESB – Dublin Bay Power Station: OCGT, BESS and Flexible Thermal Generation (ONS_026, ONS_027, ONS_028) Planning Ref: 3074/23, 3646/20 and 3647/20	0	1	No	This development is proposed to be operational by 2030. There is no potential for a temporal overlap between the construction phases of the projects. On this basis, the proposed Dublin Bay Power Station development was not considered further in this assessment.
ESB – Single Storey Substation (NORA) (ONS_025) Planning Ref: 3625/20	0.4	1	No	This development is proposed to be operational by 2030. There is no potential for a temporal overlap between the construction phases of the projects. On this basis, the proposed substation development was not considered further in this assessment.
ESB – Poolbeg Generating Station: BESS, Flexible Thermal	0	1	No	This development is proposed to be operational by 2030. There is no potential for a temporal overlap between the construction phases of the

Development	Distance from onshore development area (km)	Tier	Included in the CEA (Yes/No)	Rationale
Generation, OCGT (ONS_022, ONS_023, ONS_024) Planning Ref: 3074/23, 3646/20 and 3647/20				projects. On this basis, the proposed ESB development was not considered further in this assessment.
Dublin Port Company – construction of a bridge (ONS_056) Planning Ref: 3711/18	0	1	No	This project refers to construction of a bridge over existing cooling water channel. Permission expired in September 2024. The installation of a bridge over the cooling water channel into the onshore substation is included as part of the OTI. The location mirrors that of this proposed bridge development. In the event that the CWP Project proceeds, this proposed bridge development would be superseded by the Project. On this basis, the proposed bridge development was not considered further in this assessment.
Hammond Lane Metal Company Ltd. - Construction of 2-storey building and non-ferrous metals recovery facility (ONS_055) Planning Ref: 2130/18	0	1	No	This development is proposed to be operational by 2030. There is no potential for a temporal overlap between the construction phases of the projects. On this basis, the proposed Hammond Lane Metal Company Ltd development was not considered further in this assessment.
Kilsaran Concrete (ONS_054 and ONS_069) Planning Ref: PWSDZ3469/22, 3890/24	0	1	No	This development is proposed to be operational until 2027. There is no potential for a temporal overlap between the construction phases of the projects. On this basis, the proposed Kilsaran Concrete development was not considered further in this assessment.

Development	Distance from onshore development area (km)	Tier	Included in the CEA (Yes/No)	Rationale
E D & F Man Liquid Products Ireland Limited – New Storage tank (ONS_031 and ONS_066) Planning Ref: 2804/19 and 3908/23	0.03	1	No	This development is proposed to be operational by 2030. There is no potential for a temporal overlap between the construction phases of the projects. On this basis, the proposed E D & F Man Liquid Products Ireland Limited development was not considered further in this assessment.
Codema - Dublin's Energy Agency – Dublin District Heating System Project (DDHS) (ONS_053) Planning Ref: N/A	0	3	No	The Dublin District Heating System (DDHS) will be a thermal energy network that uses energy from waste heat and distributes it as hot water through insulated dual (supply and return) pipe lines to homes and business for space heating, hot water and industrial purposes. It is understood that this project will be located on a site within the Poolbeg peninsula, potentially in proximity to Construction Compound A. However, this project is not yet submitted for planning consent. There is insufficient details available about this project to undertake a meaningful cumulative effects assessment. Therefore the project is screened out from further assessment.
Dublin Port Company – 3FM Project (ONS_059) Planning Ref: 3041/24	0	1	Yes	There is potential for a temporal overlap between the construction phase of this project and that of the CWP Project. If construction does overlap, concurrent construction activities within 500 m of the CWP Project onshore development area could cause cumulative air quality effects, as dust impacts are considered within a 250m buffer from each project, as detailed in Section 25.3.1 of Chapter 25 Air Quality.
EirGrid : Powering Up Dublin, Programme of Works (ONS_016) Planning Ref: N/A	0	3	No	Works are required to upgrade Dublin City's electricity infrastructure. This includes the installation of 50 km of cables across the city. This will include underground cable routes, some of which will link to the Poolbeg ESB Poolbeg Generating Station. Final route technologies have not yet been confirmed and the project has not yet been submitted for planning consent.

Development	Distance from onshore development area (km)	Tier	Included in the CEA (Yes/No)	Rationale
				There is insufficient details available about this project to undertake a meaningful cumulative effects assessment. Therefore the project is screened out from further assessment.
ESB – GIS substation construction and 220kV underground cable installation – (ONS_067, ONS_068) Planning Ref: 3791/24,1558/24	0	1	Yes	There is potential for a temporal overlap between the construction phase of this project and that of the CWP Project. If construction does overlap, concurrent construction activities within 500 m of the CWP Project onshore development area could cause cumulative air quality effects, as dust impacts are considered within a 250m buffer from each project, as detailed in Section 25.3.1 of Chapter 25 Air Quality.
Gas Networks Ireland (GNI) – CCTV, gas kiosk and all associated works (ONS_062,063 and 064) Planning Ref: 2703/24,1928/25, 2574/25	0	1	No	This development is proposed to be operational by 2030. There is no potential for a temporal overlap between the construction phases of the projects. On this basis, the proposed GNI development was not considered further in this assessment.
Marine Terminals Ltd – Gantry Replacement works – (ONS_065) Planning Ref: 1840/25	0.04	1	No	This development is proposed to be operational by 2030. There is no potential for a temporal overlap between the construction phases of the projects. On this basis, the proposed Marine Terminals Ltd development was not considered further in this assessment.
National Transport Authority (NTA) – Ringsend to City Centre Bus Connects – ONS_086) Planning Ref: HA29N.317679	0.4	1	No	The NTA BusConnect Schemes are proposed to be operational by 2030. There is no potential for a temporal overlap between the projects. Additionally, there will be no spatial overlap in the project construction working areas, and a low risk of shared receptors in relation to air quality given the scale of the project and the localised nature of the works.

23.5 Stage 4: Assessment of cumulative effects

23.5.1 Construction phase

Cumulative Impact 1: Impact of construction dust from demolition, earthworks, construction and trackout in terms of dust soiling, human health and ecosystems

222. According to the Institute of Air Quality Management (IAQM) Guidance (2024) should the construction phase of a CWP Project coincide with the construction phase of any other development within 500 m, as dust impacts are considered within a 250m buffer from each project (as detailed in **Section 25.3.1** and **Section 25.3.4** of **Chapter 25 Air Quality**), then there is the potential for cumulative construction dust impacts to nearby sensitive receptors.

223. The sensitive receptors for which there are potential cumulative construction dust impacts are as described in **Section 25.3.2**, **Figure 25.1** and **Section 25.9.1** of **Chapter 25 Air Quality.** The maximum distance a receptor may be impacted by cumulative construction dust impacts is within 250 m of the CWP Project.

224. **Section 25.9.1** of **Chapter 25 Air Quality** has determined that the residual effect, with the adoption of the additional mitigation measures, in terms of dust soiling, human health and ecology impacts from all construction activities assessed, is predicted to be **direct, localised, negative**, **short-term** and not significant, which is overall not significant in EIA terms.

225. A review of recent planning permissions for the area was conducted and it was found that there are 3 no. relevant sites for which cumulative impacts may occur should their construction phase and that of the CWP Project overlap. Planning application documents, such as Planner's reports, Environmental Reports and EIA air quality chapters, were reviewed for potential construction dust impacts and mitigation measures.

226. For the ESB GIS substation (ONS_067), the Planner's Reports for the following planning permission stated that an EIA was not required, as *"there is no likelihood of significant effects on the environment arising from the proposed development"*. No construction dust assessment was therefore required, or mitigation measures provided. However, planning permission was granted subject to the condition *"site development works and construction works shall be carried out in such a manner as to ensure that the adjoining street(s) are kept clear of debris, soil and other material and if the need arises for cleaning works to be carried out on the adjoining public roads, the said cleaning works shall be carried out at the developers expense"*: This was reflected in the planning conditions for the development. Similarly, the planning conditions for the ESB underground cable installation (ONS_068) require adherence to Dublin City Council's Air Quality Monitoring and Noise Control Unit's Good Practice Guide for Construction and Demolition.

227. The remaining proposed developments have undertaken construction dust assessments, in accordance with either Transport Infrastructure Ireland (TII) guidance (TII, 2025) or the IAQM guidance (IAQM, 2024) as part of an EIA and which included a suite of best practice mitigation methods to minimise emissions of dust and fine particulate matter during construction, derived either from the IAQM (IAQM, 2024) or BRE (BRE, 2003) guidance. The developments are:

- DPC – MP2 Project (ONS_035, ONS_036); and
- DPC – 3FM Project (ONS_058).

228. Additionally each air quality assessment carried out as part of the above developments' EIA determined construction dust impacts from demolition, earthworks, construction and trackout in terms of dust soiling, human health and ecosystems to be not significant.

229. IAQM guidance (IAQM, 2024) states that, with the implementation of the recommended mitigation, impacts would be not significant. Therefore considering the mitigation measures and significance of effects identified for the other developments, as well as the application of the dust mitigation measures for the CWP Project outlined in **Section 25.10** of **Chapter 25 Air Quality**, it is therefore not anticipated that there would be significant cumulative impacts associated with construction phase dust emissions from these other projects combined with the CWP Project.

230. In accordance with the EPA Guidelines (EPA, 2022), and with appropriate mitigation measures in place, the predicted cumulative impacts on air quality associated with the construction phase of the CWP Project are considered to be **short-term, direct, localised, negative** and **not significant**, which is not significant in EIA terms.

23.5.2 Operation and maintenance phase

231. Operational and maintenance impacts were scoped out in **Chapter 25 Air Quality**, with impacts on air quality during this phase predicted to be long-term, direct, localised, neutral and imperceptible. There is therefore no potential for a significant impact on air quality in combination with other permitted developments. The predicted cumulative impact on air quality during the operational phase of the CWP Project is therefore predicted to be **long-term, direct, localised, neutral and imperceptible**, which is not significant in EIA terms.

23.6 CEA summary

232. This CEA, which supports EIAR **Volume 3, Chapter 25 Air Quality** has assessed the potential cumulative effects on Air Quality from the construction and O&M phases of the CWP Project alongside other development.

233. **Table 23-3** below has been adopted from the PINS CEA Guidance (2024) as a means of summarising the potential adverse or beneficial cumulative effects of the CWP Project with other development. It summarises the outcomes of the detailed assessment provided above and sets out the proposed mitigation measures needed to address cumulative effects, if deemed necessary.

234. In summary, the CEA for Air Quality does not identify any significant cumulative effects resulting from the CWP Project alongside other development.

Table 23-3 Summary of cumulative effects assessment

ID	Tier	Significance of cumulative effect	Proposed mitigation measure(s) to address cumulative effect	Residual cumulative effect
Construction phase				
Cumulative Impact 1: Impact of construction dust from demolition, earthworks, construction and trackout in terms of dust soiling, human health and ecosystems				
DPC – MP2 Project (ONS_035, ONS_036);	1	Direct, localised, negative, short-term and not significant	No additional mitigation required.	Direct, localised, negative, short-term and not significant
DPC – 3FM Project (ONS_058)	1	Direct, localised, negative, short-term and not significant	No additional mitigation required.	Direct, localised, negative, short-term and not significant
ESB – GIS substation construction and 220kV underground cable installation – (ONS_067, ONS_068)	1	Direct, localised, negative, short-term and not significant	No additional mitigation required.	Direct, localised, negative, short-term and not significant
Operation and maintenance phase				
Operational impacts scoped out as per **Section 25.3** of EIAR **Volume 3**, **Chapter 25 Air Quality**.	n/a	n/a	n/a	n/a

23.7 References

235. BRE (2003) Controlling Particles, Vapours & Noise Pollution From Construction Sites

236. IAQM (2024). Guidance on the Assessment of Dust from Demolition and Construction V2.2

237. Transport Infrastructure Ireland (TII) (2025) PE-ENV-01106 - Air Quality Assessment of Specified Infrastructure Projects - Overarching Technical Document

24 MATERIAL ASSETS - BUILT SERVICES

24.1 Introduction

238. This section of the **CEA Report** presents the findings of the CEA, for Material Assets: Built Services, which considers the residual effects presented in EIAR **Volume 3, Chapter 26: Material Assets: Built Services**, alongside the potential effects of other proposed and reasonably foreseeable development. Cumulative effects are considered in this document across the construction and O&M phases of the CWP Project.

239. The detail and scope of the decommissioning works for the CWP Project will be determined by the relevant legislation and guidance at the time of decommissioning. Project alone impacts during the decommissioning phase of the CWP Project are assessed in EIAR **Volume 3, Chapter 26 Material Assets: Built Services**. It is anticipated that the impacts will be no greater than those identified for the construction phase, and therefore no separate assessment of cumulative impacts during the decommissioning phase is presented within this CEA.

240. This updated CEA incorporates information from the project alone assessment presented in EIAR **Volume 3, Chapter 26: Material Assets: Built Services** and has been updated in response to the requests made in item 5 of the FIR.

24.2 Consultation

241. Stakeholder and regulator feedback received during the consultation process that is relevant to the Material Assets: Built Services assessment is provided in EIAR **Volume 3, Chapter 26 Material Assets: Built Services**. No feedback specific to the CEA for Material Assets: Built Services has been received.

Project wide consultation has been undertaken with the major utility companies, regarding the interface with existing utilities and measures to protect these.

24.3 CEA impact screening

242. The first step in the CEA for Material Assets: Built Services is the identification of which residual impacts assessed for the CWP Project alone have the potential for a cumulative impact with other development (described as 'impact screening'). This screening exercise is set out in **Table 24-1** below.

243. Only potential impacts assessed in EIAR **Volume 3, Chapter 26 Material Assets: Built Services** as 'not significant' or above are included in the CEA (i.e. those assessed as 'Imperceptible' are not taken forward as there is no potential for them to contribute to a cumulative effect).

Table 24-1 Impacts and potential for cumulative effect

Impact	CWP Project alone residual effect	Potential for significant cumulative effect – screened into the CEA (Yes / No)
Construction		
Impact 1: Disruption to utility assets / services	Yes	Yes The main potential for crossing existing utilities occurs along the onshore export cable and Electricity Supply Board Networks (ESBN) network cable routes. If construction works for other developments were to take place at the same time as the CWP Project, cumulative effects may arise with overlapping installation works, works next to utilities or where utility diversions are required for both the development and the CWP Project. This could result in additional engagement with utility service providers and/or cumulative disruptions to a utility. The cumulative effect of potential disruption from other projects could increase the magnitude of the effect within the receiving environment.
Operation		
N/A	N/A	No The potential for impact in terms of disruption to / demand for utility assets / services during the O&M phase has been scoped out of the Material Assets: Built Services impact assessment and therefore there is no CEA assessment related to the O&M phase. See **Section 26.7** 'Scope of the assessment' in EIAR **Volume 3, Chapter 26 Material Assets: Built Services**.
Decommissioning		
Impact 1: Disruption to utility assets / Services	No	No The detail and scope of the decommissioning works for the CWP Project will be determined by the relevant legislation and guidance at the time of decommissioning. Project alone impacts during the decommissioning phase of the CWP Project are assessed in **Chapter 26 Material Assets: Built Services.** It is anticipated that the effects will be no greater than those identified for the construction phase, and therefore no separate assessment of cumulative effects during the decommissioning phase is presented within this CEA.

24.3.1 Stage 3: Information gathering and 'other development' screening

244. Stage 2 of the CEA is presented in **Appendix 1** of **Part 1** of the **CEA Report**. This exercise established a shortlist of other development for Material Assets: Built Services using set screening criteria.

245. The shortlist of other development screened into the CEA for Material Assets: Built Services at Stage 2 are listed below.

- Dublin Port Company - MP2 Project (ONS_036);
- Dublin Port Company - Construction of a bridge (ONS_056);
- Dublin Port Company 3FM Project (ONS_058);
- Electricity Supply Board (ESB) - Poolbeg Generating Station: Battery Energy Storage System (BESS), Flexible Thermal Generation, Open Cycle Gas Turbine (OCGT) (ONS_024, ONS_023, and ONS_022);
- EirGrid: Poolbeg 220kV substation (ONS_021);
- ESB - Dublin Bay Power Station / OCGT, BESS and Flexible Thermal Generation (ONS_026, ONS_028 & ONS_027);
- Pembroke Beach DAC / Becbay Ltd & Fabrizia Developments Ltd – Redevelopment of former glass bottle site (ONS_011, ONS_012, ONS_013, ONS_014 & ONS_015, ONS_070 – ONS_079);
- Hammond lane Metal Company Ltd. - Construction of 2-storey building and non-ferrous metals recovery facility (ONS_055);
- E D & F Man Liquid Products Ireland Limited - New Storage tank (ONS_031 and ONS_066);
- EirGrid: Powering Up Dublin (ONS_016);
- Uisce Éireann - Ringsend Wastewater Treatment Plant (WWTP) Upgrade Project (ONS_009);
- Gas Networks Ireland (GNI) – CCTV pole, gas analyser and associated works (ONS_062, ONS_063, ONS_064);
- Marine Terminals Ltd – Gantry Replacement works – (ONS_065);
- ESB – GIS substation construction and 220Kv underground cable installation – (ONS_067, ONS_068);
- Codema – Dublin's Energy Agency, Dublin District Heating System Project (DDHS) (ONS_053)
- Ecocem Ireland Limited - Construction of plant (ONS_059).

246. Information gathering (Stage 3 of the CEA) has enabled a further review of the other development shortlist for Material Assets: Built Services, including a more detailed consideration of the location, nature and scale of the development, the timing of construction and operation activities, the information available to inform a CEA and the likelihood of a significant effect.

247. This information has been used to screen the Stage 2 shortlist to establish a final list of other development for detailed assessment at Stage 4 of the CEA. The results of the exercise are presented in **Table 24-2** below.

Table 24-2 Summary of other development screened into the CEA for Material Assets: Built Services

Development	Distance from onshore development area (km)	Tier	Included in the CEA (Yes/No)	Rationale
Dublin Port Company - MP2 Project (ONS 036) Planning ref: ABP-304888-19	0 km	1	No	The MP2 Project is proposed on the northern side of Poolbeg, north of the River Liffey. The EIAR produced for the MP2 Project did not identify significant residual cumulative impacts on built service / utility receptors as a result of its construction and operational phases. There is potential for a temporal overlap between the project construction phases. However, a review of the available information has shown that there will be no spatial overlap in the project construction working areas, and a low risk of shared receptors in relation to Material Assets: Built Services. This development was not considered further.
ESB - Poolbeg Generating Station / BESS, Flexible Thermal Generation and OCGT (ONS_024, ONS_023, ONS_022) Planning Ref: 3625/20, 3624/20, 3137/23	0 km	1	No	It is expected that these developments will be operational before the CWP Project commences construction activities. There is no potential for cumulative impacts on utility assets. These developments were not considered further.

Development	Distance from onshore development area (km)	Tier	Included in the CEA (Yes/No)	Rationale
ESB - Dublin Bay Power Station / OCGT, BESS and Flexible Thermal Generation (ONS_026, ONS_028 & ONS_027) Planning Ref: 3074/23, 3646/20 and 3647/20	0 km	1	No	It is expected that these developments will be operational before the CWP Project commences construction activities. There is no potential for cumulative impacts on utility assets. These developments were not considered further.
EirGrid - Poolbeg 220kV Substation (ONS_021) Planning Ref: 4057/23	0 km	1	No	Construction will commence in early 2026 and will take approximately 36 months. This is the Poolbeg 220kV substation that the CWP Project will connect into. It has been assumed that this development will be operational before the CWP Project commences construction activities. There is no potential for cumulative impacts on utility assets. This development was not considered further.
Pembroke Beach DAC / Becbay Ltd & Fabrizia Developments Ltd Redevelopment of former Irish Glass Bottle Site	0 km	1	No	Development of residential, office and mixed-use scheme at the former Irish Glass Bottle and Fabrizia sites at Poolbeg West. However, a review of the available information has shown that there will be no spatial overlap in the project construction working areas, and a low risk of shared receptors in relation to Material Assets: Built Services.

Development	Distance from onshore development area (km)	Tier	Included in the CEA (Yes/No)	Rationale
(ONS_011, ONS_012, ONS_013, ONS_014 & ONS_015, ONS_070 to ONS_79) Planning Refs: PWSZD3270/19; 1571/25; 2596/24; 3945/24; 3798/24; 3700/24; 2247/24; 2249/24; 2252/24, 3461/24; 3468/24)				This development was not considered further.
E D & F Man Liquid Products Ireland Limited - New storage tank (ONS_031 and ONS_066) Planning Ref: 2804/19 and 3908/23	0.05 km	1	No	Considering the localised and small scale nature of the developments, there is no potential for significant cumulative impacts in relation to material assets: built services. It is also likely that the timelines will not coincide, with the E D & F developments being completed in advance of the CWP Project construction commencing. This development was not considered further.
Dublin Port Company - Bridge over existing cooling water channel	0 km	1	No	This project refers to construction of a bridge over existing cooling water channel. Permission expired in September 2024.

Development	Distance from onshore development area (km)	Tier	Included in the CEA (Yes/No)	Rationale
(superseded by CWP project proposals) (ONS_056) Planning Ref: 3711/18				The installation of a bridge over the cooling water channel into the onshore substation is included as part of the OTI. The location mirrors that of this proposed bridge development. In the event that the CWP Project proceeds, this proposed bridge development would be superseded by the CWP Project proposals. This development was not considered further.
Hammond Lane Metal Company Ltd. - Construction of 2-storey building and non-ferrous metals recovery facility (ONS_055) Planning Ref: 2130/18	0 km	1	No	This permission expired in June 2023. This project is likely to already have been constructed and be part of the baseline. It is assumed that the construction phase will not overlap with the CWP Project and the development in question is also of small scale (i.e., 10 m x 40 m). There is no potential for cumulative impacts on utility assets. This development was not considered further.
Dublin Port Company-3FM Project (ONS_058) Planning Ref: PA29N.320250	0 km	1	Yes	The planning application for this development was submitted in July 2024. The 3FM Project is the third and final Strategic Infrastructure Development (SID) Project needed to deliver the capacity objectives of the Dublin Port Masterplan 2040. The project is intended to provide the additional infrastructure for freight required in the unitised modes (Ro-Ro and Lo-Lo). Key components of

Development	Distance from onshore development area (km)	Tier	Included in the CEA (Yes/No)	Rationale
				this project will include the Southern port access road (SPAR). There is potential for a temporal overlap between the construction phase of this project and that of the CWP Project. If construction does overlap, concurrent construction activities within 50 m of the CWP Project onshore development area could cause cumulative effects.
Codema – Dublin's Energy Agency DDHS (ONS_053) Planning Ref: N/A	0 km	3	No	The DDHS will be a thermal energy network that uses energy from waste heat and distributes it as hot water through insulated dual (supply and return) pipelines to homes and business for space heating, hot water and industrial purposes. It is understood that this project will be located within the Poolbeg peninsula, potentially in proximity to Construction Compound A. However, this project is not yet submitted for planning consent. There are insufficient details available about this project to undertake a meaningful cumulative effects assessment. Therefore, the project is screened out from further assessment.
EirGrid – Powering Up Dublin Programme of Works	0 km	3	No	Works are required to upgrade Dublin City's electricity infrastructure. This includes the installation of 50 km of cables across the city. This will include underground

Development	Distance from onshore development area (km)	Tier	Included in the CEA (Yes/No)	Rationale
(ONS_016) Planning Ref: N/A				cable routes, some of which will link to the Poolbeg ESB Poolbeg Generating Station. Final route technologies have not yet been confirmed and the project has not yet been submitted for planning consent. There are insufficient details available about this project to undertake a meaningful cumulative effects assessment. Therefore, the project is screened out from further assessment.
Irish Water – Ringsend Wastewater Treatment Plant Upgrade Project (ONS_009) Planning Ref: 5319/22	0.25	1	No	Proposed development consists of 2 no. units comprising a Combined Heat and Power Engine and Steam Generator unit with roof top plant areas. Considering the localised and small-scale nature of the project, there is no potential for cumulative effects with the CWP Project. This development was not considered further.
ESB – GIS substation construction and 220Kv underground cable installation (ONS_067, ONS_068). Planning Ref: 3791/24,1558/24	0 km	1	No	These developments will consist of • A 220kV underground cable measuring approximately 4.0m in length, from the Ringsend Open Cycle Gas Turbine (OCGT) plant to the existing Irishtown 220kV substation; and • Replacement of an AIS substation with a GIS substation

Development	Distance from onshore development area (km)	Tier	Included in the CEA (Yes/No)	Rationale
				The works will be localised and undertaken within an already developed site. It is also likely that the timelines will not coincide, with the ESB developments being completed in advance of the CWP Project construction commencing. It is assumed on this basis, that there is no potential for cumulative effects This development was not considered further.
Marine Terminals Ltd – Demolition and removal of existing temporary reefer gantry & installation of a new steel frame reefer gantry (ONS_065) Planning Ref: 1840/25	0.04 km	1	No	The application is for minor development activities within an existing operational site. As the site is already in operation and proposed works are considered localised within an existing site boundary, it was concluded that there is no potential for cumulative effects with the CWP Project.
Gas Networks Ireland (GNI) – CCTV pole, gas analyser and associated works (ONS_062, ONS_063, ONS_064)	0 km	1	No	The EIA Screening Report completed by MWP, dated May 2025 indicates, a mandatory EIA would not be required and that the proposed development would not give rise to effects of a significant or adverse nature such as to have a significant effect on the environment. The works areas also do not overlap and It is also likely that the timelines will not coincide, with the GNI

Development	Distance from onshore development area (km)	Tier	Included in the CEA (Yes/No)	Rationale
Planning Ref: 2703/24,1928/25, 2574/25				developments being completed in advance of the CWP Project construction commencing. It is assumed on this basis, that there is no potential for cumulative effects This development was not considered further.
Ecocem Ireland Limited - Construction of plant (ONS_059) Planning Ref: 3041/24	0 km	1	No	Construction of silos, compressor room, cooling room, pump room, retaining walls, new fencing, new gates and revision of car park layout. Also includes for retention for silos, laboratory and offices at existing Ecocem facility within the Poolbeg Peninsula. Planning consent has been granted with construction likely to be completed by end of 2026. Given the short timeframe for construction (likely 4 months), it is unlikely that construction activities will overlap. The project is screened out from further assessment.

24.3.2 Assessment of cumulative effects

Construction phase

Cumulative impact 1: Disruption to utility assets / services

248. The CWP Project may result in a temporary disruption to utility assets / services during the construction phase. Given the proximity of the CWP Project to the DPC 3FM Project (ONS_058) (listed in **Table 24-2** above), there is potential for a cumulative increase in potential disruption resulting in a temporary loss of services where project timelines overlap. Based on construction timelines, the construction of the ESB onshore energy generation projects (ONS_022, ONS_023, ONS_024, ONS_026, ONS_027 and ONS_028) will not overlap with the CWP Project. Additionally, the construction of the EirGrid Poolbeg 220kV Substation (ONS_021) will not overlap with the CWP Project construction phase.

249. The DPC 3FM project is the third and final strategic infrastructure development (SID) project needed to deliver the capacity objectives of the Dublin Port Masterplan 2040, and to provide additional infrastructure within the port. A waterside turning circle is also proposed as part of the 3FM Project, in the mouth of the River Liffey, immediately adjacent to the proposed CWP Project onshore substation site. The 3FM project is concentrated on Dublin Port lands on the Poolbeg Peninsula with a construction programme that will span over a decade and that will coincide that of the CWP Project.

250. Key construction phase interfaces between the DPC 3FM development with the CWP Project would be on the Shellybanks Road and Pigeon House Road, and at the onshore substation. The DPC 3FM EIAR details that the project will not have significant residual impact on existing or proposed utilities. Mitigation measures are also detailed to address impacts including interactions with underground utilities.

251. The CWP Project and the DPC 3FM Project will both implement appropriate mitigation measures which will avoid or reduce the potential for impact of disruption on utility assets / services. The CWP Project is currently engaging with both DPC and ESB stakeholders and it is expected that this would continue during the construction phase. Furthermore, no excavations to facilitate the crossing of existing utility infrastructure will take place without prior consultation with relevant utility asset owners / service providers.

252. It is not considered necessary that additional mitigation measures other than the primary mitigation and additional mitigation already proposed in **Section 26.9** and **Section 26.10 of Chapter 26 Material Assets: Built Services** would be required.

253. Therefore, based on the predicted level of effect (Slight) and no additional mitigation required, the residual effect significance remains as set out above – Slight.

24.3.3 CEA summary

254. This CEA, which supports EIAR **Volume 3, Chapter 26 Material Assets: Built Services**, has assessed the potential cumulative effects on **Material Assets: Built Services** from the construction phase of the CWP Project alongside other development.

255. **Table 24-3** below has been adopted from PINS CEA Guidance (2024) as a means of summarising the potential adverse or beneficial cumulative effects of the CWP Project with other development. It summarises the outcomes of the detailed assessment provided above and sets out the proposed mitigation measures needed to address cumulative effects, if deemed necessary.

256. In summary, the CEA for Material Assets: Built Services does not identify any significant cumulative effects resulting from the CWP Project alongside other development. It is not considered necessary that additional mitigation measures are required.

Table 24-3 – Summary of cumulative effects assessment

ID	Tier	Significance of cumulative effect	Proposed mitigation measure(s) to address cumulative effect	Residual cumulative effect
Construction phase				
Cumulative Impact 1: Disruption to utility assets / services				
DPC 3FM project (ONS_058)	1	No significant cumulative effects	No additional mitigation required	Not Significant
Operation and maintenance phase				
No operation and maintenance impacts taken forward.				
Decommissioning phase				
No decommissioning impacts taken forward.				

25 TRAFFIC AND TRANSPORT

25.1 Introduction

257. This technical note clarifies the treatment of committed and cumulative development within the EIAR **Volume 3**, **Chapter 27 Traffic and Transport** in response to item 5 of the Further Information Request (FIR).

258. The original CEA list was updated and is presented in **Appendix A** of the CEA Report. A detailed desktop review of planning applications within the Poolbeg Peninsula and the wider Dublin Port area was originally undertaken to inform the planning application in June 2024. This list was subsequently updated in October 2025 in response to item 5 of the FIR.

259. The structure and content of **Appendix A** was revised to reflect additional other development, current planning status and temporal overlap with the CWP construction phase. This list was then reviewed to understand any relevance to the transport network assessed in EIAR **Volume 3**, **Chapter 27 Traffic and Transport** and **Appendix 27.1 Traffic and Transport Assessment** (TTA).

25.1.1 Review and revision of committed development

260. The traffic and transport assessment focuses on the construction phase of the CWP Project, as the operational phase is expected to generate minimal traffic and is therefore unlikely to result in significant interaction with other developments.

261. As part of this process, developments previously identified as committed were reassessed against updated planning information and programme assumptions.

262. Several developments were found to fall into one or more of the following categories:

- Developments confirmed to be operational prior to the commencement of the CWP construction phase and therefore not generating construction traffic during the assessment period;
- Developments that have been revised, superseded, or replaced by updated planning permissions or applications, with amended scope, scale, or delivery timelines; and
- Developments that do not coincide spatially or temporally with the CWP construction phase and would not materially interact with the assessed construction traffic routes or junctions.

25.2 Construction Timeline

263. In the EIAR **Volume 3**, **Chapter 27 Traffic and Transport**, construction of the CWP onshore transmission infrastructure was assumed to commence in 2026 and continue over an approximate four-year period.

264. For the purposes of this updated review of committed and cumulative development, this assumption has been revised to reflect the current project programme. Construction of the CWP Project is now assumed to commence in 2030 and continue over an approximate four-year period.

265. The construction and operational phases of other developments were reviewed, relative to the revised CWP construction programme. This allows for a transparent and consistent assessment of temporal overlap between the CWP Project and other developments considered within the cumulative assessment.

25.3 Previously identified committed development

266. As stated in EIAR **Volume 3, Chapter 27 Traffic and Transport** the TTA forms the detailed assessment of the CWP Project traffic impacts, on the existing road network.

267. The TTA considered committed developments and an allowance for traffic from other developments, together with CWP Project is accounted for in the traffic analysis.

268. This incorporation of committed development forms the CEA for EIAR **Volume 3**, **Chapter 27 Traffic and Transport**. The output from the traffic analysis determines how other plans, projects and activities may act cumulatively with the Project.

269. The TTA submitted with the EIAR for the planning application, incorporated the committed development shown in **Table 25-1** into the traffic analysis.

Table 25-1 Previously identified committed development traffic generation

Planning Application	AM Peak		PM Peak	
	Arrivals		Departures	
	LV	HV	LV	HV
Developer: ESB Dublin Bay Power Station and ESB Poolbeg Generating Station ONS_022 (CEA-1338) & ONS_026 (CEA-1327) Open Cycle Gas Turbine (OCGT)	56	5	56	5
Developer: EirGrid 220kV Substation located at the Poolbeg Generating Station ONS_021 (CEA-1346)	-	4	-	4
Total Committed Development	56	9	56	9

270. As stated in **Construction Timeline 25.2**, construction of the CWP Project is now assumed to commence in 2030, and continue over an approximate four-year period.

271. The previously identified committed developments ONS_022, ONS_026, and ONS_021 are not considered relevant to the cumulative construction-phase traffic assessment, as their construction phases are assumed to be complete by 2029.

272. As such, these developments would be operational prior to the commencement of the CWP Project and would generate only minimal operational traffic, which would not materially contribute to cumulative construction traffic impacts.

25.4 Committed development update

273. On the basis of the desktop review discussed in **Section 25.1**, the following developments have been identified and their relevance to the cumulative assessment determined, having regard to their current planning status, phasing, and anticipated construction timelines.

25.4.1 ONS_011 to ONS_015 and ONS_070 to ONS_79: Former Irish Glass Bottle site: (Planning Reference: PWSDZ3406-22, PWSDZ4380/22 and PWSZD3270/19)

274. The Former Irish Glass Bottle site has several phases of development which incorporates the provision of overarching site infrastructure (roads etc), residential and commercial schemes, community, arts, leisure and office space, cafés and educational resources. The development also incorporates a 20-storey hotel tower with 228 bedrooms. Based on the operational traffic data, the addition of traffic from the Former Irish Glass Bottle site does not materially change the conclusions of the CWP Project TTA.

275. CWP Project construction traffic will access the onshore development area from the Sean Moore Roundabout via the Dublin Tunnel and East Link Bridge. Vehicular access to the Former Irish Glass Bottle site is from both the Central Boulevard directly onto the R131 Sean Moore Road (opposite Pine Road) and also South Bank onto the Sean Moore Roundabout, thereby providing alternative routes.

276. As set out in the EIAR **Volume 4**, **Appendix 27.2 Traffic Management Plan** (**Section 4.2**), CWP construction phase HGVs will be managed by Traffic Management Officers (TMOs) during peak hours, and contractors are required to schedule deliveries to avoid peak traffic flows, thereby reducing the potential for congestion during the peak periods of operational traffic for the former Irish Glass Bottle site. It is noted that the CWP Project has been engaged with the above stakeholder and it is expected that this would continue through the construction phase

277. Therefore, this development traffic is not expected to affect the current conclusions of EIAR **Volume 3**, **Chapter 27 Traffic and Transport** and **Appendix 27.1 TTA**, and no significant cumulative traffic and transport effects are anticipated.

25.4.2 ONS_058: Dublin Port Company 3FM (Planning Reference: PA29N.320250)

278. The DPC 3FM Project was considered in the cumulative effects assessment. Key components of this project include:

- Southern Port Access Road (SPAR);
- Ro-Ro terminal;
- Waterside turning circle;
- Container terminal;
- Provision for utilities; and
- Maritime Village.

279. As stated in Table 14.43 (Summary of 3FM Project Construction Flows (Daily, One-way) of the DPC 3FM EIAR, the peak construction period for the southern port estate is anticipated to occur in 2030, within the overall CWP Project construction window of 2030–2034. During the peak construction week, the DPC 3FM Project is expected to generate approximately 10 heavy vehicle (HV) and 53 light vehicle (LV) one-way movements per day. Based on an assumed 8-hour construction day, this equates to a peak of up to 8 vehicle movements per hour (combined HV and LV).

280. As outlined in **Section 25.3** , the previously identified committed developments are no longer considered likely to result in cumulative traffic impacts. While the DPC 3FM Project will generate construction traffic that may temporally overlap with CWP construction traffic, the scale of HV movements is comparable to those already assessed in the CWP EIAR (i.e. 9 HGV arrivals and 9 HGV departures, as presented in **Table 25-1**), with the majority of additional movements comprising LV traffic.

281. Accordingly, the level of construction traffic associated with the DPC 3FM Project is consistent with the traffic scenarios assessed in the EIAR **Volume 3**, **Chapter 27 Traffic and Transport** and

Appendix 27.1 TTA. Therefore, this development traffic is not expected to materially affect the conclusions of existing CWP assessment, and no significant cumulative traffic and transport effects are anticipated.

25.4.3 ONS_035+036: Dublin Port Company MP2 Project: FS006893 & PA29N.304888

282. The DPC MP2 Project involves major port and marine infrastructure works. The Project has been granted planning permission.

283. As stated in Section 3.3.6 Construction Traffic of the DPC MP2 Project Screening for Appropriate Assessment and Natura Impact Statement, the peak construction period is anticipated to occur in Q4 2030. During this peak week, there will be an average of 81 HGV movements per day. This includes a peak of up to 17 HGV movements (inbound and outbound combined) per hour between 7:00 am and 8:00 am.

284. The DPC MP2 Project is primarily located within the north-eastern part of the Dublin Port Company port estate, on the northern side of the River Liffey. As a result, construction activities and associated traffic will be largely concentrated within this area.

285. Consequently, there is expected to be limited interaction between the DPC MP2 Project and the CWP Project, given their spatial separation. Therefore, this development traffic is not expected to affect the existing conclusions of EIAR **Volume 3**, **Chapter 27 Traffic and Transport** and **Appendix 27.1 TTA** and no significant cumulative traffic and transport effects are anticipated.

25.4.4 ONS_010: Dublin Port Company Capital Dredging Project: FS007164

286. As stated in DPC Capital Dredging Project Section 3.3.3 of the EIAR, the capital dredging works under FS007164 will be undertaken by specialist dredging vessels arriving and departing by sea, with 10 private cars for staff accessing the site. It is expected that no cumulative traffic impacts will arise from this project.

25.4.5 ONS_006: Dublin Port Company Dumping at Sea: S0033-01

287. The submission relates to the disposal of dredged sediments at an existing licensed offshore disposal site located at the entrance to Dubin Bay to the west of the Burford Bank. The site is charted as a spoil site on Admiralty Charts. This license is associated with dredged material from the inner Liffey Channel, including areas within Dublin Port's navigation channel, basins and berths. All work is to be completed offshore and by the end of September 2029. It is expected that no cumulative traffic impacts will arise from this project.

25.4.6 ONS_018: North Wall Power Generating Station: 2697/20

288. The development will consist of alterations to the existing North Wall Power Generating station, which include the replacement of existing indoor gas turbines with new and more efficient indoor gas turbines. All work to be completed offshore and by the end of September 2029. It is expected that no cumulative traffic impacts will arise from this project.

25.4.7 ONS_016: EirGrid Powering Up Dublin

289. The EirGrid "Powering Up Dublin" project is a planned national grid reinforcement scheme that will include:

- The installation of approximately 50 km of high-voltage underground cables across Dublin to replace older cables and reinforce the electricity network; and
- The upgrade of existing substations and the construction of a new substation, currently proposed at Eastpoint Business Park in central Dublin.

290. A planning application has not yet been submitted for this project. Traffic and environmental screening surveys were undertaken as part of the project design process and published in 2024. Three potential routes into the Poolbeg area were identified, each with limited traffic interaction. The Carrickmines to Poolbeg Generating Station route crosses Dublin Bay directly, minimizing impact on land-based traffic. The Inchicore to Poolbeg route is designed as a micro-tunnel, reducing surface-level disruption. Finally, the Finglas to Poolbeg route accesses the area via North Wall on the north side of Dublin Port and passes under the River Liffey, further limiting potential traffic effects.

291. It is noted that the three proposed routes into the Poolbeg area are designed to minimize traffic disruption through over-water crossings, micro-tunneling, and under-river connections. However, there may be minimal cumulative traffic impacts, should construction phases overlap.

292. To address this, as stated in EIAR **Volume 4**, **Appendix 27.2 Traffic Management Plan** (**Section 4.2**), the appointed contractor for the CWP Project shall liaise with the management of other construction projects and the local authority to coordinate deliveries and construction activities, ensuring any overlap is managed effectively. It is noted that the CWP Project has been engaged with the EirGrid and it is expected that this would continue through the construction phase.

25.4.8 ONS_053: Codema (Dublin's Energy Agency) Dublin District Heating System Project (DDHS)

293. The main transmission line from the Dublin Waste to Energy Plant in the Poolbeg Area will be designed to carry the entire heat production of c. 90MW. Heat will be provided to the 'North Lotts and Grand Canal Dock Strategic Development Zone' and 'Poolbeg West Strategic Development Zone which are required to be 'district heat enabled'. This development is expected to require the construction of infrastructure within the Poolbeg area. However, a site has not been confirmed and a planning application has not yet been submitted. Recent publications refer to a 'target heat on date' of Q2 2028.

294. Should construction phases overlap, it is expected that there would be minimal cumulative traffic impacts. To address this, as stated in EIAR **Volume 4**, **Appendix 27.2 Traffic Management Plan** (**Section 4.2**), the appointed contractor for the CWP Project shall liaise with the management of other construction projects and the local authority to coordinate deliveries and construction activities, ensuring any overlap is managed effectively.

25.4.9 ONS_087: Uisce Éireann Ringsend WWTP Upgrade Works (Planning Reference 301798)

295. These upgrades were undertaken within the confines of the existing WWTP site boundary, with the construction activities completed in 2025. The upgraded WWTP is currently operational. There is no overlap in construction phases.

296. It is not expected that this developments operational traffic would affect the existing conclusions of EIAR **Volume 3**, **Chapter 27 Traffic and Transport** and **Appendix 27.1 TTA** and no significant cumulative traffic and transport effects are anticipated.

297. As stated in EIAR **Volume 4**, **Appendix 27.2 Traffic Management Plan** (**Section 4.2**), the appointed contractor for the CWP Project shall inform locals on any traffic related matters during the construction phase. It is noted that the CWP Project has been engaged with the Uisce Éireann and it is expected that this would continue through the construction phase.

25.5 Conclusion

298. The cumulative development assessment has been updated to reflect the most current planning information, with outdated or superseded committed developments removed and replaced by revised, relevant developments.

299. This replacement-based approach—specifically substituting the previously identified committed developments with the DPC 3FM Project ensures that traffic demand is accurately represented. By doing so, the assessment avoids double-counting and maintains a proportionate, transparent, and robust evaluation of potential cumulative effects on the transport network.

300. The analysis confirms that:

- The revised committed development schedule does not result in a material increase in traffic volumes beyond those already assessed;
- Junction performance and network operation remain consistent with the findings of the original TTA; and
- Cumulative development does not materially alter the conclusions regarding the potential traffic impacts of the CWP Project construction

26 CLIMATE – CARBON BALANCE ASSESSMENT

301. EIAR **Volume 3**, **Chapter 28 Climate – Carbon Balance Assessment** quantifies the green house gas (GHG) emissions from the CWP Project over its lifetime and compares these emissions to relevant carbon budgets, targets, and policy to contextualise magnitude and significance of effect.

302. PE-ENV-01104 (TII, 2022a) is the principal guidance document that has informed the greenhouse gas emissions assessment (GHGA). It recommends the sources of input data and the appraisal methodology for the assessment of impacts for both the construction and operational phases and recommends the approach for determining the significance of effects.

303. With respect to the requirement for a cumulative assessment PE-ENV-01104 (TII, 2022a) states that:

> *"..as the identified receptor for GHG Assessment is the global climate and impacts on the receptor from a project are not geographically constrained, the normal approach for cumulative assessment in EIA is not considered applicable.*
>
> *By presenting the GHG impact of a project in the context of its alignment to Ireland's trajectory of net zero and any sectoral carbon budgets, this assessment will demonstrate the potential for the project to affect Ireland's ability to meet its national carbon reduction target. This assessment approach is considered to be inherently cumulative.*
>
> *For road projects, transport modelling used as the basis for calculating road user emissions, will also have accounted for the cumulative impacts of other locally committed projects."*

304. A standalone CEA has therefore not been provided.

27 POPULATION

27.1 Introduction

305. This section of the **CEA Report** presents the findings of the CEA for Population, which considers the residual effects presented in EIAR **Volume 3, Chapter 29 Population** alongside the potential effects of other proposed and reasonably foreseeable development. Cumulative effects are considered in this document across the construction and O&M phases of the CWP Project.

306. The detail and scope of the decommissioning works for the CWP Project will be determined by the relevant legislation and guidance at the time of decommissioning. Project alone impacts during the decommissioning phase of the CWP Project are assessed in EIAR **Volume 3**, **Chapter 29 Population**. It is anticipated that the impacts will be no greater than those identified for the construction phase, and therefore no separate assessment of cumulative impacts during the decommissioning phase is presented within this CEA.

307. Updates to the project alone assessment for Population as a consequence of ACPs FIR are presented in Section 29 of the **EIAR Addendum**. This updated CEA incorporates relevant updates from the project alone assessment and has been updated in response to the requests made in item 5 of the FIR.

27.2 Consultation

308. Stakeholder and regulator feedback received during the consultation process that is relevant to the population assessment is provided in EIAR **Volume 3, Chapter 29 Population**. No feedback specific to the CEA for population has been received.

27.3 CEA impact screening

309. The first step in the CEA for population is the identification of which residual impacts assessed for the CWP Project alone have the potential for a cumulative impact with other development (described as 'impact screening'). This screening exercise is set out in **Table 27-1** below.

Table 27-1 Impacts and potentials for cumulative effects

Impact	CWP Project alone residual effect	Potential for significant cumulative effect- screened into the CEA (Yes / No)
Construction		
Onshore		
Impact 1: Impacts on onshore and nearshore recreational receptors during the construction of the OTI and landfall.	Imperceptible to Not Significant (Not Significant)	Yes
Impact 2: Impact on the tourism economy during the construction phase of the offshore infrastructure.	Imperceptible (Not Significant)	No
Impact 3: Economic effects associated with construction of the CWP Project.	Positive Moderate-Slight (Not Significant)	Yes
Operation and maintenance		
Impact 1: Impacts on recreational receptors associated with the O&M phase of the offshore infrastructure	Imperceptible to Not Significant (Not Significant)	Yes
Impact 2: Impacts on the tourism economy associated with the O&M phase of the offshore infrastructure.	Imperceptible (Not Significant)	No
Impact 3: Economic effects associated with the O&M phase of the CWP Project	Positive Moderate-Slight (Not Significant)	Yes
Decommissioning		
Impact 1: Impacts on onshore and nearshore recreational receptors during the decommissioning of the OTI.	The detail and scope of the decommissioning works for the CWP Project will be determined by the relevant legislation and guidance at the time of decommissioning. Project alone impacts during the decommissioning phase of the CWP Project are assessed in EIAR **Volume 3**, **Chapter 29 Population** and **EIAR Addendum, Section 29**. It is anticipated that the impacts will be no greater than those identified for the construction phase, and therefore no separate assessment of cumulative impacts during the decommissioning phase is presented within this CEA.	
Impact 2: Impacts on the tourism economy during the decommissioning of the offshore infrastructure.		
Impact 3: Economic effects associated with decommissioning of the CWP Project.		

27.4 Stage 3: Information gathering and 'other development' screening

310. Stage 2 of the CEA is presented in **Appendix 1** of **Part 1** of the **CEA Report**. This exercise established a shortlist of other development for Population using set screening criteria.

311. The shortlist of other development screened into the CEA for Population at Stage 2 are listed below.

- RWE - Dublin Array (OWF_02);
- SSE Renewables – Arklow Bank OWF Phase 2 (ONS_0004);
- SSE Renewables – Arklow Bank OWF Phase 1 (CEA-0003);
- Statkraft - North Irish Sea Array (NISA) (OWF_04);
- Parkwind and ESB - Oriel OWF (OWF_06);
- Dublin Port Company – MP2 Project (ONS_035, ONS_036);
- Electricity Supply Board (ESB)– Poolbeg Generating Station / Battery Energy Storage System (BESS), Flexible Thermal Generation, Open Cycle Gas Turbine (OCGT) (Developer: ESB) (ONS_024, ONS_023, & ONS_022));
- EirGrid: Poolbeg 220kV substation (ONS_021);
- ESB – Dublin Bay Power Station / OCGT, BESS and Flexible Thermal Generation (ONS_026, ONS_028 & ONS_027);
- ESB – Single Storey Substation (NORA) (ONS_025)
- Hammond lane Metal Company Ltd – Construction of 2-storey building and non-ferrous metals recovery facility (ONS_055);
- E D & F Man Liquid Products Ireland Limited – New Storage tank (ONS_031 and ONS_066);
- Irish Water – Ringsend Wastewater Treatment Plant Upgrade Project (ONS_009);
- Uisce Éireann - Ringsend WWTP Upgrade Works (ONS_087);
- Kilsaran Concrete – Continuation of use of an existing concrete batching plant (ONS_054 and ONS_069);
- Pembroke Beach DAC / Becbay Ltd & Fabrizia Developments Ltd – Redevelopment of former Irish Glass Bottle Site (ONS_011, ONS_012, ONS_013, ONS_014, ONS_015 ONS_070 – ONS_079);
- Dublin Port Company – Construction of a bridge- (ONS_056);
- Dublin Port Company – Site Investigations (ONS_001);
- Dublin Port Company – Capital Dredging (ONS_010);
- Dublin Port Company – Dredge Disposal (ONS_004), (ONS_005), (ONS_006), (ONS_007), (ONS_008);
- Dublin Port Company – Alexandra Basin redevelopment (ONS_003);
- Dublin Port Company – 3FM Project (ONS_058);
- Ecocem Ireland Limited – Construction of a Plant (ONS_059);
- EirGrid Programme of Works (ONS_016); and
- Codema - Dublin's Energy Agency – Dublin District Heating System Project (DDHS) (ONS_053).

312. Information gathering (Stage 3 of the CEA) has enabled a further review of the other development shortlist for Population, including a more detailed consideration of the location, nature and scale of the development, the timing of construction and operation activities, the information available to inform a CEA and the likelihood of a significant effect.

313. This information has been used to screen the Stage 2 shortlist to establish a final list of other development for detailed assessment at Stage 4 of the CEA. The results of the exercise are presented in **Table 27-2** below.

Table 27-2 Summary of other development screened into the CEA for population

Development	Distance from the array site	Distance from the export cable corridor	Tier	Included in the CEA (Yes/No)	Rationale
Dublin Array OWF (OWF_02)	2.8	0.0	1	Yes	This development is one of the Phase 1 Projects and involved the construction of 45-61 turbines. Potential cumulative effects arising from the addition of the CWP Project in a cumulative context which features this development are considered in relation to sea scape, landscape and townscape, national designated landscapes and visual effect by **EIAR Appendix 15.01 Cumulative Effects Assessment.** There is therefore potential for cumulative impacts on the tourism economy during the construction, O&M phase, and decommissioning of the offshore infrastructure. The construction, O&M and decommissioning of this project along with that of the CWP Project would support the development of the local and national supply chain, enabling increased use of local content in the long-term, resulting in larger cumulative economic benefits. Potential temporal overlap with the CWP Project during the construction and O&M phases may also lead to competition for local and national labour.
Arklow Bank OWF Phase 2 (OWF_01)	9.3	17.6	1	Yes	This development is one of the Phase 1 Projects and involves the construction of up to 47 turbines. Potential cumulative effects arising from the addition of the CWP Project in a cumulative context which features this development are considered in relation to seascape, landscape and townscape, national designated landscapes and visual effects. There is therefore potential for cumulative impacts on the tourism economy during the construction, O&M phase, and decommissioning of the offshore infrastructure.

Development	Distance from the array site	Distance from the export cable corridor	Tier	Included in the CEA (Yes/No)	Rationale
					The construction, O&M and decommissioning of this project along with that of the CWP Project would support the development of the local and national supply chain, enabling increased use of local content in the long-term, resulting in larger cumulative economic benefits. Potential temporal overlap with the CWP Project during the construction and O&M phases may also lead to competition for local and national labour.
Arklow Bank OWF Phase 1 (OWF_03)	22.1	28.3	1	Yes	The O&M and decommissioning of this project along with that of the CWP Project would support the development of the local and national supply chain, enabling increased use of local content in the long-term, resulting in larger cumulative economic benefits. Potential temporal overlap with the CWP Project during the O&M phases may also lead to competition for local and national labour.
NISA OWF (OWF_04)	51.0	35.7	1	Yes	This development is one of the Phase 1 Projects and involves the construction of 30-36 turbines. Potential cumulative effects arising from the addition of the CWP Project in a cumulative context which features this development are considered in relation to seascape, landscape and townscape, national designated landscapes and visual effects. There is therefore potential for cumulative impacts on the tourism economy during the construction, O&M phase, and decommissioning of the offshore infrastructure. The construction, O&M and decommissioning of this project along with that of the CWP Project would support the development of the local and national supply chain, enabling increased use of local content in the long-term, resulting in larger cumulative economic benefits.

Development	Distance from the array site	Distance from the export cable corridor	Tier	Included in the CEA (Yes/No)	Rationale
					Potential temporal overlap with the CWP Project during the construction and O&M phases may also lead to competition for local and national labour.
Oriel OWF (OWF_06)	84.9	61.6	1	Yes	The construction, O&M and decommissioning of this project along with that of the CWP Project would support the development of the local and national supply chain, enabling increased use of local content in the long-term, resulting in larger cumulative economic benefits. Potential temporal overlap with the CWP Project during the construction and O&M phases may also lead to competition for local and national labour.
Dublin Port Company Dublin Port Capital Dredging Project (ONS_010 and ONS_002) Planning Ref: FS007164 and FS007132	34.0	2.0	1	No	No significant cumulative impacts which may result in impacts on tourism and recreation assets associated with these projects were identified by the cumulative assessments outlined in **CEA Report Part 2** and **Part 3**.
Dublin Port Company Site Investigations (ONS_001) Planning Ref: FS006497	34.0	2.0	1	No	No significant cumulative impacts which may result in impacts on tourism and recreation assets associated with these projects were identified by the cumulative assessments outlined in **CEA Report Part 2** and **Part 3.**
Dublin Port Company Alexandra Basin Re-development	34.0	2.0	1	No	No significant cumulative impacts which may result in impacts on tourism and recreation assets associated with these projects were

Development	Distance from the array site	Distance from the export cable corridor	Tier	Included in the CEA (Yes/No)	Rationale
(ONS_003) Planning Ref.: FS006980					identified by the cumulative assessments outlined in **CEA Report Part 2** and **Part 3.**
Dublin Port Company Dredge disposal (ONS_004, ONS_005, ONS_006, ONS_007 and ONS_008.) Planning Ref: S0004-02, S0004-03, S0033-01, S0004-01 and S0024-02	34.0	2.0	1	No	No significant cumulative impacts which may result in impacts on tourism and recreation assets associated with these projects were identified by the cumulative assessments outlined in **CEA Report Part 2** and **Part 3.**
Uisce Éireann Ringsend Wastewater Treatment Plant Upgrade Project (ONS_009) Planning Ref: 5319/22	31.0	0.2	1	No	No significant cumulative impacts which may result in impacts on tourism and recreation assets associated with these projects were identified by the cumulative assessments outlined in **CEA Report Part 2** and **Part 3.**
Uisce Éireann – Ringsend WWTP upgrade works (ONS_087) Planning Ref: 301798		0	1	No	
Pembroke Beach DAC / Becbay Ltd &	32.0	0.3	1	No	No significant cumulative impacts which may result in impacts on tourism and recreation assets associated with these projects were

Development	Distance from the array site	Distance from the export cable corridor	Tier	Included in the CEA (Yes/No)	Rationale
Fabrizia Developments Ltd – Redevelopment of former Irish Glass Bottle Site (ONS_011, ONS_012, ONS_013, ONS_014, ONS_015 ONS_070 – ONS_079) Planning Refs: PWSZD3270/19; 1571/25; 2596/24; 3945/24; 3798/24; 3700/24; 2247/24; 2249/24; 2252/24, 3461/24; 3468/24)					identified by the cumulative assessments outlined in **CEA Report Part 2** and **Part 3.**
ESB – Poolbeg Generating Station: BESS, Flexible Thermal Generation, OCGT (ONS_022, ONS_023, ONS_024)	31.0	0.3	1	No	No significant cumulative impacts which may result in impacts on tourism and recreation assets associated with these projects were identified by the cumulative assessments outlined in **CEA Report Part 2** and **Part 3**.
EirGrid: Poolbeg 220kV substation (ONS_021) Planning Ref: 4057/23					No significant cumulative impacts which may result in impacts on tourism and recreation assets associated with these projects were identified by the cumulative assessments outlined in **CEA Report Part 2** and **Part 3**.
ESB Dublin Bay Power Station / OCGT, Battery Energy	32.0	0.2	1	No	No significant cumulative impacts which may result in impacts on tourism and recreation assets associated with these projects were

Development	Distance from the array site	Distance from the export cable corridor	Tier	Included in the CEA (Yes/No)	Rationale
Storage System (BESS) and Flexible Thermal Generation (ONS_026, ONS_028 and ONS_027) Planning Ref: 3074/23, 3646/20 and 3647/20					identified by the cumulative assessments outlined in **CEA Report Part 2** and **Part 3**.
Dublin Port Company MP2 Project (ONS_035 and ONS_036) Planning Ref: FS006893 and FS006893	34.0	0.0	1	No	No significant cumulative impacts which may result in impacts on tourism and recreation assets associated with these projects were identified by the cumulative assessments outlined in **CEA Report Part 2** and **Part 3.**
ESB – Single Storey Substation (NORA) (ONS_025) Planning Ref: 3625/20	31.0	0.6	1	No	No significant cumulative impacts which may result in impacts on tourism and recreation assets associated with these projects were identified by the cumulative assessments outlined in **CEA Report Part 2** and **Part 3.**
Dublin Port Company Bridge over existing cooling water channel (superseded by CWP Project proposals) (ONS_056) Planning Ref: 3711/18	32.0	0.6	1	No	No significant cumulative impacts which may result in impacts on tourism and recreation assets associated with these projects were identified by the cumulative assessments outlined in **CEA Report Part 2** and **Part 3.**

Development	Distance from the array site	Distance from the export cable corridor	Tier	Included in the CEA (Yes/No)	Rationale
Hammond Lane Metal Company Ltd Construction of two-storey building and non-ferrous metals recovery facility (ONS_055) Planning Ref: 2130/18	32.0	0.6	1	No	No significant cumulative impacts which may result in impacts on tourism and recreation assets associated with these projects were identified by the cumulative assessments outlined in **CEA Report Part 2** and **Part 3.**
Kilsaran Concrete (ONS_054 and ONS_069) Planning Ref: PWSDZ3469/22, 3890/24	32.0	0.1	1	No	No significant cumulative impacts which may result in impacts on tourism and recreation assets associated with these projects were identified by the cumulative assessments outlined in **CEA Report Part 2** and **Part 3.**
E D & F Man Liquid Products Ireland Limited – New Storage tank (ONS_031 and ONS_066) Planning Ref: 2804/19 and 3908/23	32.0	0.3	1	No	No significant cumulative impacts which may result in impacts on tourism and recreation assets associated with these projects were identified by the cumulative assessments outlined in **CEA Report Part 2** and **Part 3.**
Dublin Port Company 3FM Project (ONS_058) Planning Ref: 3041/24	34.0	0.0	1	No	No significant cumulative impacts which may result in impacts on tourism and recreation assets associated with these projects were identified by the cumulative assessments outlined in **CEA Report Part 2** and **Part 3.**

Development	Distance from the array site	Distance from the export cable corridor	Tier	Included in the CEA (Yes/No)	Rationale
Ecocem Ireland Limited – Construction of a Plant (ONS_059) Planning Ref: 3041/24	32.0	0.5	1	No	No significant cumulative impacts which may result in impacts on tourism and recreation assets associated with these projects were identified by the cumulative assessments outlined in **CEA Report Part 2** and **Part 3.**
Codema – Dublin's Energy Agency Dublin District Heating System (DDHS) project (ONS_053) Planning Ref: N/A	32.0	0.0	3	No	No significant cumulative impacts which may result in impacts on tourism and recreation assets associated with these projects were identified by the cumulative assessments outlined in **CEA Report Part 2** and **Part 3.**
EirGrid Programme of Works (ONS_016) Planning Ref: N/A	31.0	0.0	3	No	No significant cumulative impacts which may result in impacts on tourism and recreation assets associated with these projects were identified by the cumulative assessments outlined in **CEA Report Part 2** and **Part 3.**

314. In summary, the following other developments will be included in the assessment of potential cumulative effects that may arise through the addition of the CWP Project, in relation to population:

- Dublin Array OWF (OWF_02);
- Arklow Bank OWF Phase 2 (OWF_01);
- Arklow Bank OWF Phase 1 (OWF_03);
- NISA OWF (OWF_04); and
- Oriel OWF OWF_06)

27.5 Stage 4: Assessment of cumulative effects

27.5.1 Construction phase

Cumulative Impact 1: Impacts on onshore and nearshore recreational receptors during the construction of the OTI and landfall

315. During the construction of the OTI and landfall, the CWP Project alone will result **in Imperceptible to Not Significant** impacts on onshore and nearshore recreational receptors, which is not significant in EIA terms.

316. Potential impacts which may result in consequential impacts on recreational receptors are considered in the following topic specific assessments:

- **Chapter 15 Seascape Landscape Visual and Impact Assessment (SLVIA)**;
- **Chapter 23 Landscape and Visual Impact Assessment (LVIA)**;
- **Chapter 24 Noise and Vibration;**
- **Chapter 25 Air Quality; and**
- **Chapter 27 Traffic and Transport Assessment.**

317. CEAs have also been produced to support each of those assessments and are reported in **CEA Report Part 2** and **Part 3.**

318. As outlined in **Table 27-2**, the onshore LVIA, Air Quality Assessment and Traffic and Transport Assessment identified no significant impacts which could result in significant impacts on onshore or nearshore recreational receptors during construction of the OTI and landfall.

319. Neither the SLVIA or Noise and Vibration assessment identified significant cumulative environmental impacts which could result in impacts on onshore and nearshore recreational receptors during the construction of the OTI and landfall.

320. Therefore, when assessed cumulatively, the magnitude of the impact on onshore and nearshore recreational receptors during construction of the OTI and landfall is considered to be **Negligible**.

321. The sensitivity of onshore and nearshore recreational receptors is outlined in **Section 29** of the **EIAR Addendum**.

322. A summary of the cumulative effect on recreational receptors during the construction of the OTI and landfall is outlined in **Table 27-3.**

Table 27-3 Significance of Cumulative Effect on Recreational Receptors During Construction

Attraction	Sensitivity of Receptor	Magnitude of Impact	Significance
Poolbeg Lighthouse and the Great South Wall	Negligible	Negligible	Imperceptible (Not significant in EIA terms)
Footpath between Sandymount and the Great South Wall	Negligible	Negligible	Imperceptible (Not significant in EIA terms)
Irishtown Nature Park	Low	Negligible	Not Significant (Not significant in EIA terms)
Sandymount Beach	Low	Negligible	Not Significant (Not significant in EIA terms)
Dublin Bay	Low	Negligible	Not Significant (Not significant in EIA terms)
Half Moon Swimming & Water Polo Club	Negligible	Negligible	Imperceptible (Not significant in EIA terms)
Sean Moore Park	Negligible	Negligible	Imperceptible (Not significant in EIA terms)
Clanna Gael Club	Negligible	Negligible	Imperceptible (Not significant in EIA terms)
Poolbeg Yacht Club	Negligible	Negligible	Imperceptible (Not significant in EIA terms)
North Bull Island Nature Reserve	Low	Negligible	Not Significant (Not significant in EIA terms)
Mens Swimming Shelter	Low	Negligible	Not Significant (Not significant in EIA terms)
Clontarf Promenade	Negligible	Negligible	Imperceptible (Not significant in EIA terms)
Pure Magic Watersports	Negligible	Negligible	Imperceptible (Not significant in EIA terms)
Merrion Strand	Low	Negligible	Not Significant (Not significant in EIA terms)
The Royal Dublin Golf Club	Negligible	Negligible	Imperceptible (Not significant in EIA terms)
Dollymount Strand	Low	Negligible	Not Significant (Not significant in EIA terms)

Attraction	Sensitivity of Receptor	Magnitude of Impact	Significance
Elm Park Golf & Sports Club	Negligible	Negligible	Imperceptible (Not significant in EIA terms)
St. Anne's Golf Club	Negligible	Negligible	Imperceptible (Not significant in EIA terms)
Seapoint Beach	Low	Negligible	Not Significant (Not significant in EIA terms)

Cumulative Impact 2: Impacts the tourism economy during the construction phase of the offshore infrastructure

323. During the construction of the offshore infrastructure, the CWP Project alone will result in an **Imperceptible** impact the tourism economy of the Tourism and Recreation Study Area (TRSA), which is Not Significant in EIA terms. The impact on the tourism economy during the construction phase was therefore not screened through for the cumulative assessment. However, as the significance effects on some individual assets were not assessed as Imperceptible, these individual impacts were screened through.

324. No significant cumulative environmental effects which could result in significant cumulative effects on tourism and recreation assets during the construction phase of the offshore infrastructure have been identified in the CEA's.

325. The sensitivity of tourism assets within 50km of the Offshore Infrastructure was outlined in **Section 29** of the **EIAR Addendum.**

326. A summary of the cumulative effect on individual tourism assets screened through during the construction phase of the offshore infrastructure is outlined in **Table 27-4**.

Table 27-4 Significant Cumulative Effects Identified on Tourism and Recreation Assets, Construction

Attraction	Sensitivity of Receptor	Magnitude of Impact	Significance
Marine Recreation within 15km of the Array Area	Low	Negligible	Not Significant (Not Significant in EIA terms)
Greystones to Wicklow Trail	Low	Negligible	Not Significant (Not Significant in EIA terms)
Silverstrand	Low	Negligible	Not Significant (Not Significant in EIA terms)
Travelahawk Beach	Low	Negligible	Not Significant (Not Significant in EIA terms)
Newcastle Beach	Low	Negligible	Not Significant (Not Significant in EIA terms)

Attraction	Sensitivity of Receptor	Magnitude of Impact	Significance
Kilcoole Beach/Cooldross Lower Bay Beach	Low	Negligible	Not Significant (Not Significant in EIA terms)
Greystones Beach	Low	Negligible	Not Significant (Not Significant in EIA terms)
Major's Cove	Low	Negligible	Not Significant (Not Significant in EIA terms)
Magheramore Beach	Low	Negligible	Not Significant (Not Significant in EIA terms)
Blainroe Beach	Low	Negligible	Not Significant (Not Significant in EIA terms)
Bray Head	Low	Negligible	Not Significant (Not Significant in EIA terms)
Bray-Greystone Cliff Walk	Low	Negligible	Not Significant (Not Significant in EIA terms)
Bray Promenade and Beach	Low	Negligible	Not Significant (Not Significant in EIA terms)
Little Sugar Loaf	Low	Negligible	Not Significant (Not Significant in EIA terms)
Brittas Bay Beach	Low	Negligible	Not Significant (Not Significant in EIA terms)
Great Sugar Loaf	Low	Negligible	Not Significant (Not Significant in EIA terms)
Dublin Mountain Way	Low	Negligible	Not Significant (Not Significant in EIA terms)
Carrickgollogan	Low	Negligible	Not Significant (Not Significant in EIA terms)
Wicklow Way	Low	Negligible	Not Significant (Not Significant in EIA terms)
Sallymount Bay Beach	Low	Negligible	Not Significant (Not Significant in EIA terms)
Ardanairy Bay Beach	Low	Negligible	Not Significant (Not Significant in EIA terms)
Djouce Mountain	Low	Negligible	Not Significant (Not Significant in EIA terms)

Attraction	Sensitivity of Receptor	Magnitude of Impact	Significance
Ennereilly Beach	Low	Negligible	Not Significant (Not Significant in EIA terms)
Johnstown Bay Beach	Low	Negligible	Not Significant (Not Significant in EIA terms)
Three Rock	Low	Negligible	Not Significant (Not Significant in EIA terms)
Howth Head Loop	Low	Negligible	Not Significant (Not Significant in EIA terms)
Porter's Rock Beach	Low	Negligible	Not Significant (Not Significant in EIA terms)
North Bull Wall	Low	Negligible	Not Significant (Not Significant in EIA terms)
Arklow North Beach	Low	Negligible	Not Significant (Not Significant in EIA terms)
The Cove	Low	Negligible	Not Significant (Not Significant in EIA terms)
Brockagh Mountain	Low	Negligible	Not Significant (Not Significant in EIA terms)
Clogga Beach	Low	Negligible	Not Significant (Not Significant in EIA terms)
Kilmichael Point	Low	Negligible	Not Significant (Not Significant in EIA terms)
Clone Strand	Low	Negligible	Not Significant (Not Significant in EIA terms)
Kilbegnet Bay Beach	Low	Negligible	Not Significant (Not Significant in EIA terms)
Kildermot Bay Beach	Low	Negligible	Not Significant (Not Significant in EIA terms)
Ballymoney Beach	Low	Negligible	Not Significant (Not Significant in EIA terms)
Courtown Beach	Low	Negligible	Not Significant (Not Significant in EIA terms)
The Parade Bay Beach	Low	Negligible	Not Significant (Not Significant in EIA terms)

Attraction	Sensitivity of Receptor	Magnitude of Impact	Significance
Shankill Beach	Low	Negligible	Not Significant (Not Significant in EIA terms)
Shanganagh Bay Beach	Low	Negligible	Not Significant (Not Significant in EIA terms)
Killiney Beach	Low	Negligible	Not Significant (Not Significant in EIA terms)
White Rock Beach	Low	Negligible	Not Significant (Not Significant in EIA terms)
Vico Bathing Place	Low	Negligible	Not Significant (Not Significant in EIA terms)
Seapoint Beach	Low	Negligible	Not Significant (Not Significant in EIA terms)
Doldrum Beach	Low	Negligible	Not Significant (Not Significant in EIA terms)
Jamesons Cove	Low	Negligible	Not Significant (Not Significant in EIA terms)
Merrion Strand	Low	Negligible	Not Significant (Not Significant in EIA terms)
Claremont Beach	Low	Negligible	Not Significant (Not Significant in EIA terms)
Balscadden Bay Beach	Low	Negligible	Not Significant (Not Significant in EIA terms)
Sutton Strand	Low	Negligible	Not Significant (Not Significant in EIA terms)
Sand Dunes Bay Beach	Low	Negligible	Not Significant (Not Significant in EIA terms)
Portmarnock Beach	Low	Negligible	Not Significant (Not Significant in EIA terms)
Velvet Strand	Low	Negligible	Not Significant (Not Significant in EIA terms)
Malahide Beach	Low	Negligible	Not Significant (Not Significant in EIA terms)
Corballis Bay Beach	Low	Negligible	Not Significant (Not Significant in EIA terms)

Attraction	Sensitivity of Receptor	Magnitude of Impact	Significance
Donabate beach	Low	Negligible	Not Significant (Not Significant in EIA terms)
Tower Bay Beach	Low	Negligible	Not Significant (Not Significant in EIA terms)
Ladies Beach	Low	Negligible	Not Significant (Not Significant in EIA terms)
Portrane Beach	Low	Negligible	Not Significant (Not Significant in EIA terms)
Seaview Park	Low	Negligible	Not Significant (Not Significant in EIA terms)
North Beach	Low	Negligible	Not Significant (Not Significant in EIA terms)
Rush Harbour Beach	Low	Negligible	Not Significant (Not Significant in EIA terms)
South Beach Rush	Low	Negligible	Not Significant (Not Significant in EIA terms)
Rush North Beach	Low	Negligible	Not Significant (Not Significant in EIA terms)
Loughshinny Beach	Low	Negligible	Not Significant (Not Significant in EIA terms)
St. Catherine's Bay Beach	Low	Negligible	Not Significant (Not Significant in EIA terms)
Irishtown Nature Park	Low	Negligible	Not Significant (Not Significant in EIA terms)
Sandymount Beach	Low	Negligible	Not Significant (Not Significant in EIA terms)
Dublin Bay	Low	Negligible	Not Significant (Not Significant in EIA terms)
North Bull Island Nature Reserve	Low	Negligible	Not Significant (Not Significant in EIA terms)
Mens Swimming Shelter	Low	Negligible	Not Significant (Not Significant in EIA terms)
Dollymount Strand	Low	Negligible	Not Significant (Not Significant in EIA terms)

Cumulative Impact 3: Economic effects associated with the construction phase of the CWP Project

327. The cumulative effects of the offshore wind developments outlined in **Table 27-2** (OWF_01, OWF_02, OWF_04, OWF_06) will be a significant driver of demand for services and goods to support the offshore wind energy sector. This is expected to create substantial opportunities for supporting activities not only in the in the Dublin and Wicklow regions but also across Ireland as a whole.

328. This would include demand for port services, vessels, manufacturing facilities and skills. This demand will in turn drive the investment required in in port facilities, manufacturing facilities and skills development. Wind Energy Ireland (WEI) (2020) estimated that the potential investment associated with the aim of 3.1 GW of offshore wind in Ireland could represent a total lifetime investment of €15.9 billion, with the potential to add another €8.4 billion of commercial opportunity for the Irish Supply Chain as the country's ability to support the sector increases. This investment will maximise the benefits of the rollout of offshore wind by fostering a stronger national supply chain, which will create further demand for local workers and lead to lower reliance on transient workers. Without the cumulative developments, there would be reduced chance of supply chain development in County Dublin, County Wicklow and Ireland.

329. The cumulative impact of offshore wind developments outlined in **Table 27-2** is therefore to enable the supply chain to generate beneficial impacts which are greater than those of the CWP Project alone. Therefore, when assessed cumulatively with the offshore wind projects outlined in Error! Reference source not found., the impact of the magnitude is considered to be **High** and **Positive** in the long-term in the surrounding economy. The sensitivity of the surrounding economy was assessed as **Medium.** The significance of the effect is therefore assessed as **Profound.**

330. There is potential for the cumulative effect of offshore wind developments outlined in **Table 27-2** (OWF_01, OWF_02, OWF_04, OWF_06) to be a reduction in the impact of the CWP Project alone. The potential overlapping construction phases of these projects could result in competition for local and Irish labour. However, as conservative assumptions were utilised to assess the impact of the CWP Project alone, it is not expected that the cumulative impact of the offshore wind developments will result in a reduction to the beneficial impacts outlined in EIAR **Volume 3, Chapter 29 Population and Section 29** of the **EIAR Addendum.**

27.5.2 Operation and maintenance phase

Cumulative Impact 1: Impacts on onshore and nearshore recreational receptors during the O&M phase of the OTI and landfall

331. During the O&M phase of the OTI and landfall, the CWP Project alone will result in **Imperceptible to Not Significant** impacts on onshore and nearshore recreational receptors, which is not significant in EIA terms.

332. As outlined in **Table 27-2**, the onshore LVIA, Air Quality Assessment and Traffic and Transport Assessment identified no significant impacts which could result in significant impacts on onshore or nearshore recreational receptors during the O&M phase of the OTI and landfall.

333. Neither the SLVIA or Noise and Vibration assessment identified significant cumulative environmental impacts which could result in impacts on onshore and nearshore recreational receptors during the O&M phase of the OTI and landfall.

334. Therefore, when assessed cumulatively, the magnitude of the impact on onshore and nearshore recreational receptors during the O&M phase of the OTI and landfall is considered to be **Negligible**.

335. The sensitivity of onshore and nearshore recreational receptors was outlined in **Section 29** of the **EIAR Addendum.**

336. A summary of the cumulative effect on recreational receptors during the O&M phase of the OTI and landfall is outlined in **Table 27-5**.

Table 27-5 Significance of Cumulative Effect on Recreational Receptors During O&M

Attraction	Sensitivity of Receptor	Magnitude of Impact	Significance
Poolbeg Lighthouse and the Great South Wall	Negligible	Negligible	Imperceptible (Not significant in EIA terms)
Footpath between Sandymount and the Great South Wall	Negligible	Negligible	Imperceptible (Not significant in EIA terms)
Irishtown Nature Park	Low	Negligible	Not Significant (Not significant in EIA terms)
Sandymount Beach	Low	Negligible	Not Significant (Not significant in EIA terms)
Dublin Bay	Low	Negligible	Not Significant (Not significant in EIA terms)
Half Moon Swimming & Water Polo Club	Negligible	Negligible	Imperceptible (Not significant in EIA terms)
Sean Moore Park	Negligible	Negligible	Imperceptible (Not significant in EIA terms)
Clanna Gael Club	Negligible	Negligible	Imperceptible (Not significant in EIA terms)
Poolbeg Yacht Club	Negligible	Negligible	Imperceptible (Not significant in EIA terms)
North Bull Island Nature Reserve	Low	Negligible	Not Significant (Not significant in EIA terms)
Mens Swimming Shelter	Low	Negligible	Not Significant (Not significant in EIA terms)
Clontarf Promenade	Negligible	Negligible	Imperceptible (Not significant in EIA terms)
Pure Magic Watersports	Negligible	Negligible	Imperceptible (Not significant in EIA terms)
Merrion Strand	Low	Negligible	Not Significant (Not significant in EIA terms)

Attraction	Sensitivity of Receptor	Magnitude of Impact	Significance
The Royal Dublin Golf Club	Negligible	Negligible	Imperceptible (Not significant in EIA terms)
Dollymount Strand	Low	Negligible	Not Significant (Not significant in EIA terms)
Elm Park Golf & Sports Club	Negligible	Negligible	Imperceptible (Not significant in EIA terms)
St. Anne's Golf Club	Negligible	Negligible	Imperceptible (Not significant in EIA terms)
Seapoint Beach	Low	Negligible	Not Significant (Not significant in EIA terms)

Cumulative Impact 2: Impacts on the tourism economy during the O&M phase of the offshore infrastructure

337. During the O&M phase of the offshore infrastructure, the CWP Project alone will result in Imperceptible impacts on the tourism economy of the TRSA, which is not significant in EIA terms. The impact on the tourism economy during the O&M phase was therefore not screened through for the cumulative assessment. However, as the significance impacts on some individual assets were not assessed as Imperceptible, these individual impacts were screened through.

338. No significant cumulative environmental impacts have been identified during the O&M phase in **CEA Report Part 2** and **Part 3** which could result in impacts on tourism assets or the tourism economy during the O&M phase of the offshore infrastructure.

339. **Appendix 15.15 Cumulative Effects Assessment** identified a number of Significant and Very Significant impacts which encompass or are located at tourism assets.

340. The cumulative SLVIA identified significant effects when the O&M phase of the offshore infrastructure of the CWP Project was assessed cumulatively with NISA (OWF_04), Dublin Array (OWF_02) and Arklow Bank Phase 2 (OWF_01). This includes visual impacts during the O&M phase on:

- Visual Receptor Group 5, which encompasses Travelahawk Beach and Major's Cove;
- Visual Receptor Group 6, which encompasses Little Sugar Loaf and the Dublin Mountain Way;
- Visual Receptor Group 9, which encompasses marine recreation receptors within 15 km of the Array Area; and
- Bray Head Special Amenity Area, which encompasses Bray Promenade and Beach.

341. The cumulative SLVIA also identified significant impacts during the O&M phase on a number of viewpoints which are or encompass tourism or recreation assets, including:

- Kilcoole Beach/Cooldross Lower Bay Beach (Viewpoint 11);
- Newcastle Beach (Viewpoint 12);
- Magheramore Beach (Viewpoint 23); and
- Greystones Beach (Viewpoint 26).

342. The cumulative SLVIA also identified significant impacts on viewpoints encompassed by recreational trails and specific key routes during the O&M phase, including:

- Great Sugar Loaf (Viewpoint 9):
- Greystones to Wicklow Trail (Key Route); and
- Bray to Greystones Cliff Walk (Key Route).

343. The ability of visitors visiting beaches such as Greystones Beach, Kilcoole Beach/Cooldross Lower Bay Beach, Newcastle Beach, Bray Promenade and Beach, Major's Cove, Travelahawk Beach and Magheramore Beach to take part in activities such as walking, viewing wildlife and undertaking water sports such as kayaking, swimming and angling will not be prevented by the visual impacts. It is also not expected that visitors taking part in marine recreation, such as boating, swimming, and kitesurfing, within 15 km of the Array Area, will be prevented from taking part in these activities. It is therefore not expected that they will experience a change in tourism activity. The personal preferences of some visitors to these locations may be to not see any offshore wind turbines, and so there is the potential for some visitors to change their behaviour. However, as outlined in **EIAR Addendum Section 29**, while the personal preferences of some visitors to these locations may be to not see any offshore wind turbines, and so there is the potential for some visitors to change their behaviour. In similar cases, such as Lynn Offshore Wind Farm and Inner Dowsing, which became operational in 2008, local beaches along the East Lindsey Coastal Strip with visibility of these projects did not experience adverse impacts on tourism activity, with employment in tourism in East Lincolnshire, largely driven by the coastal strip, increasing between 2007 and 2009 (Greater Lincolnshire LEP, 2013). It is therefore expected that the change in tourism activity will be minor, if any. The magnitude of the impact on these assets is therefore assessed as **Low.**

344. While the Great Sugar Loaf, Little Sugar Loaf, and Dublin Mountain Way are expected to experience visual impacts, they motivate visitors with their ascents and the views they offer of the surrounding landscape, including Bray Head, Greystones, and Dublin. As these motivations to visit will not be impacted, it is therefore expected that the change in tourism activity will be minor, if any. The magnitude of the impact on these assets is therefore assessed as **Low.**

345. Greystones to Wicklow Trail and Bray-Greystones Cliff Walk attract visitors with their coastal routes and views. It is not expected that the ability of visitors to take these routes will be impacted. As with beaches and marine recreation personal preferences of some visitors to these locations may be to not see any offshore wind turbines, and so there is the potential for some visitors to change their behaviour, however evidence suggests no relationship between the presence of offshore wind and adverse impacts on tourism activity on the coast. It is therefore expected that the change in tourism activity will be minor, if any. The magnitude of the impact on these assets is therefore assessed as **Low.**

346. A summary of the cumulative effect on tourism assets within the TRSA during the O&M phase of the offshore infrastructure is outlined in **Table 27-6**.

Table 27-6 Significant Cumulative Effects Identified on Tourism and Recreation Assets, O&M

Attraction	Sensitivity of Receptor	Magnitude of Impact	Significance
Marine Recreation within 15km of the Array Area	Low	Low	Slight (Not Significant in EIA terms)
Greystones to Wicklow Trail	Low	Low	Slight (Not Significant in EIA terms)
Silverstrand	Low	Negligible	Not Significant (Not Significant in EIA terms)
Travelahawk Beach	Low	Low	Slight (Not Significant in EIA terms)

Attraction	Sensitivity of Receptor	Magnitude of Impact	Significance
Newcastle Beach	Low	Low	Slight (Not Significant in EIA terms)
Kilcoole Beach/Cooldross Lower Bay Beach	Low	Low	Slight (Not Significant in EIA terms)
Greystones Beach	Low	Low	Slight (Not Significant in EIA terms)
Major's Cove	Low	Low	Slight (Not Significant in EIA terms)
Magheramore Beach	Low	Low	Slight (Not Significant in EIA terms)
Blainroe Beach	Low	Negligible	Not significant (Not Significant in EIA Terms)
Bray Head	Low	Negligible	Not significant (Not Significant in EIA Terms)
Bray-Greystones Cliff Walk	Low	Low	Slight (Not Significant in EIA terms)
Bray Promenade and Beach	Low	Low	Slight (Not Significant in EIA terms)
Little Sugar Loaf	Low	Low	Slight (Not Significant in EIA terms)
Brittas Bay Beach	Low	Negligible	Not Significant (Not Significant in EIA terms)
Great Sugar Loaf	Low	Low	Slight (Not Significant in EIA terms)
Dublin Mountain Way	Low	Low	Slight (Not Significant in EIA terms)
Carrickgollogan	Low	Negligible	Not Significant (Not Significant in EIA terms)
Wicklow Way	Low	Negligible	Not Significant (Not Significant in EIA terms)
Sallymount Bay Beach	Low	Negligible	Not Significant (Not Significant in EIA terms)
Ardanairy Bay Beach	Low	Negligible	Not Significant (Not Significant in EIA terms)

Attraction	Sensitivity of Receptor	Magnitude of Impact	Significance
Djouce Mountain	Low	Negligible	Not Significant (Not Significant in EIA terms)
Ennereilly Beach	Low	Negligible	Not Significant (Not Significant in EIA terms)
Johnstown Bay Beach	Low	Negligible	Not Significant (Not Significant in EIA terms)
Three Rock	Low	Negligible	Not Significant (Not Significant in EIA terms)
Howth Head Loop	Low	Negligible	Not Significant (Not Significant in EIA terms)
Porter's Rock Beach	Low	Negligible	Not Significant (Not Significant in EIA terms)
North Bull Wall	Low	Negligible	Not Significant (Not Significant in EIA terms)
Arklow North Beach	Low	Negligible	Not Significant (Not Significant in EIA terms)
The Cove	Low	Negligible	Not Significant (Not Significant in EIA terms)
Broackagh Mountain	Low	Negligible	Not Significant (Not Significant in EIA terms)
Clogga Beach	Low	Negligible	Not Significant (Not Significant in EIA terms)
Kilmichael Point	Low	Negligible	Not Significant (Not Significant in EIA terms)
Clone Strand	Low	Negligible	Not Significant (Not Significant in EIA terms)
Kilbegnet Bay Beach	Low	Negligible	Not Significant (Not Significant in EIA terms)
Kildermot Bay Beach	Low	Negligible	Not Significant (Not Significant in EIA terms)
Ballymoney Beach	Low	Negligible	Not Significant (Not Significant in EIA terms)
Courtown Beach	Low	Negligible	Not Significant (Not Significant in EIA terms)

Attraction	Sensitivity of Receptor	Magnitude of Impact	Significance
The Parade Bay Beach	Low	Negligible	Not Significant (Not Significant in EIA terms)
Shankill Beach	Low	Negligible	Not Significant (Not Significant in EIA terms)
Shanganagh Bay Beach	Low	Negligible	Not Significant (Not Significant in EIA terms)
Killiney Beach	Low	Negligible	Not Significant (Not Significant in EIA terms)
White Rock Beach	Low	Negligible	Not Significant (Not Significant in EIA terms)
Vico Bathing Place	Low	Negligible	Not Significant (Not Significant in EIA terms)
Seapoint Beach	Low	Negligible	Not Significant (Not Significant in EIA terms)
Doldrum Beach	Low	Negligible	Not Significant (Not Significant in EIA terms)
Jamesons Cove	Low	Negligible	Not Significant (Not Significant in EIA terms)
Merrion Strand	Low	Negligible	Not Significant (Not Significant in EIA terms)
Claremont Beach	Low	Negligible	Not Significant (Not Significant in EIA terms)
Balscadden Bay Beach	Low	Negligible	Not Significant (Not Significant in EIA terms)
Sutton Strand	Low	Negligible	Not Significant (Not Significant in EIA terms)
Sand Dunes Bay Beach	Low	Negligible	Not Significant (Not Significant in EIA terms)
Portmarnock Beach	Low	Negligible	Not Significant (Not Significant in EIA terms)
Velvet Strand	Low	Negligible	Not Significant (Not Significant in EIA terms)
Malahide Beach	Low	Negligible	Not Significant (Not Significant in EIA terms)

Attraction	Sensitivity of Receptor	Magnitude of Impact	Significance
Corballis Bay Beach	Low	Negligible	Not Significant (Not Significant in EIA terms)
Donabate beach	Low	Negligible	Not Significant (Not Significant in EIA terms)
Tower Bay Beach	Low	Negligible	Not Significant (Not Significant in EIA terms)
Ladies Beach	Low	Negligible	Not Significant (Not Significant in EIA terms)
Portrane Beach	Low	Negligible	Not Significant (Not Significant in EIA terms)
Seaview Park	Low	Negligible	Not Significant (Not Significant in EIA terms)
North Beach	Low	Negligible	Not Significant (Not Significant in EIA terms)
Rush Harbour Beach	Low	Negligible	Not Significant (Not Significant in EIA terms)
South Beach Rush	Low	Negligible	Not Significant (Not Significant in EIA terms)
Rush North Beach	Low	Negligible	Not Significant (Not Significant in EIA terms)
Loughshinny Beach	Low	Negligible	Not Significant (Not Significant in EIA terms)
St. Catherine's Bay Beach	Low	Negligible	Not Significant (Not Significant in EIA terms)
Irishtown Nature Park	Low	Negligible	Not Significant (Not Significant in EIA terms)
Sandymount Beach	Low	Negligible	Not Significant (Not Significant in EIA terms)
Dublin Bay	Low	Negligible	Not Significant (Not Significant in EIA terms)
North Bull Island Nature Reserve	Low	Negligible	Not Significant (Not Significant in EIA terms)
Mens Swimming Shelter	Low	Negligible	Not Significant (Not Significant in EIA terms)

Attraction	Sensitivity of Receptor	Magnitude of Impact	Significance
Dollymount Strand	Low	Negligible	Not Significant (Not Significant in EIA terms)

Cumulative Impact 3: Economic effects associated with the O&M phase of the CWP Project

347. The cumulative effects of the offshore wind developments outlined in **Table 27-2** (CEA-0037, CEA-0004, CEA-0003, CEA-0094 and CEA-0096) will be a significant driver of demand for services and goods to support the offshore wind energy sector. This is expected to create substantial opportunities for supporting activities not only in the in the Dublin and Wicklow regions but also across Ireland as a whole. This would include demand for port services, vessels, manufacturing facilities and skills. This demand will in turn drive the investment required in in port facilities, manufacturing facilities and skills development. WEI (2020) estimated that the potential investment associated with the aim of 3.1 GW of offshore wind in Ireland could represent a total lifetime investment of €15.9 billion, with the potential to add another €8.4 billion of commercial opportunity for the Irish Supply Chain as the country's ability to support the sector increases. This investment will maximise the benefits of the rollout of offshore wind by fostering a stronger national supply chain, which will create further demand for local workers and lead to lower reliance on transient workers. Without the cumulative developments, there would be reduced chance of supply chain development in County Dublin, County Wicklow and Ireland.

348. The cumulative impact of offshore wind developments outlined in **Table 27-2** is therefore to enable the supply chain to generate beneficial impacts which are greater than those of the CWP Project alone. Therefore, when assessed cumulatively with the projects outlined in **Table 27-2,** the impact of the magnitude is considered to be **High** and **Positive** in the long-term in the surrounding economy. The sensitivity of the surrounding economy was assessed as **Medium.** The significance of the effect is therefore assessed as **Profound.**

349. There is potential for the cumulative effect of offshore wind developments outlined in **Table 27-2** (CEA-0037, CEA-0004, CEA-0003, CEA-0094 and CEA-0096) to be a reduction in the impact of the CWP Project alone. The potential overlapping O&M phases of these projects could result in competition for local and Irish labour. However, as conservative assumptions were utilised to assess the impact of the CWP Project alone, it is not expected that the cumulative impact of the offshore wind developments will result in a reduction to the beneficial impacts outlined in EIAR **Volume 3, Chapter 29 Population** and **Section 29** of the **EIAR Addendum.**

27.5.3 Decommissioning Phase

350. The detail and scope of the decommissioning works for the CWP Project will be determined by the relevant legislation and guidance at the time of decommissioning. Project alone impacts during the decommissioning phase of the CWP Project are assessed in EIAR **Volume 3**, **Chapter 29 Population** and **Section 29** of the **EIAR Addendum**.

351. It is anticipated that the impacts will be no greater than those identified for the construction phase, and therefore no separate assessment of cumulative impacts during the decommissioning phase is presented within this CEA.

27.6 CEA summary

352. This CEA, which supports **EIAR Volume 3, Chapter 29 Population** has assessed the potential cumulative effects on population from the construction and O&M phases of the CWP Project alongside other development.

353. **Table 27-7** below has been adopted from the PINS CEA Guidance (2024) as a means of summarising the potential adverse or beneficial cumulative effects of the CWP Project with other development. It summarises the outcomes of the detailed assessment provided above and sets out the proposed mitigation measures needed to address cumulative effects, if deemed necessary.

354. In summary, the CEA for population does not identify any adverse significant cumulative effects resulting from the CWP Project alongside other developments. It is expected that, in the long-term, due to the cumulative contribution of other developments that the local and national offshore wind sector will develop, resulting in larger economic impacts than those of the CWP Project alone.

Table 27-7 Summary of Cumulative Impacts, Population

ID	Tier	Significance of cumulative effect	Proposed mitigation measure(s) to address cumulative effect	Residual cumulative effect
Construction phase				
Cumulative Impact 1: Impacts on onshore and nearshore recreational receptors during the construction of the OTI and landfall				
OWF_02, OWF_01, OWF_03, OWF_04, OWF_06) , ONS_010, ONS_002,ONS_001, ONS_003,ONS_004, ONS_005, ONS_006, ONS_007, ONS_008, ONS_009, ONS_011, ONS_012, ONS_013, ONS_014, ONS_015 ONS_070 – ONS_079, ONS_022, ONS_023, ONS_024, ONS_021, ONS_026, ONS_028 and ONS_027, ONS_035 and ONS_036, ONS_025, ONS_056, ONS_055, ONS_054 and ONS_069, ONS_031 and ONS_066, ONS_058, ONS_059, ONS_053, and ONS_016	1	Imperceptible to Not Significant (Not Significant in EIA terms)	No additional mitigation required	Imperceptible to Not Significant (Not Significant in EIA terms)

ID	Tier	Significance of cumulative effect	Proposed mitigation measure(s) to address cumulative effect	Residual cumulative effect
Cumulative Impact 2: Impacts on the tourism economy during the construction phase of the offshore infrastructure				
OWF_02, OWF_01, OWF_03, OWF_04, OWF_06)	1	Not Significant (Not Significant in EIA terms)	No additional mitigation required	Not Significant (Not Significant in EIA terms)
Cumulative Impact 3: Economic effects associated with the construction of the CWP Project				
OWF_02, OWF_01, OWF_03, OWF_04, OWF_06)	1	High (Positive) (Significant in EIA terms)	N/A	High (Positive) (Significant in EIA terms)
Operation and maintenance phase				
Cumulative Impact 1: Impacts on onshore and nearshore recreational receptors during the O&M phase of the OTI and landfall				
OWF_02, OWF_01, OWF_03, OWF_04, OWF_06) , ONS_010, ONS_002,ONS_001, ONS_003,ONS_004, ONS_005, ONS_006, ONS_007, ONS_008, ONS_009, ONS_011, ONS_012, ONS_013, ONS_014, ONS_015 ONS_070 – ONS_079, ONS_022, ONS_023, ONS_024, ONS_021, ONS_026, ONS_028 and ONS_027, ONS_035 and ONS_036, ONS_025, ONS_056,	1	Imperceptible to Not Significant (Not Significant in EIA terms)	No additional mitigation required	Imperceptible to Not Significant (Not Significant in EIA terms)

ID	Tier	Significance of cumulative effect	Proposed mitigation measure(s) to address cumulative effect	Residual cumulative effect
ONS_055, ONS_054 and ONS_069, ONS_031 and ONS_066, ONS_058, ONS_059, ONS_053, and ONS_016				
Cumulative Impact 2: Impacts on the tourism economy during the O&M phase of the offshore infrastructure				
OWF_02, OWF_01, OWF_03, OWF_04, OWF_06)	1	Not Significant to Slight (Not Significant in EIA terms)	No additional mitigation required	Not Significant to Slight (Not Significant in EIA terms)
Cumulative Impact 3: Economic effects associated with the O&M phase of the CWP Project				
OWF_02, OWF_01, OWF_03, OWF_04, OWF_06)	1	High (Positive) (Significant in EIA terms)	N/A	High (Positive) (Significant in EIA terms)

27.6.1 References

Greater Lincolnshire LEP (2013), European Structural and Investment Funds (ESIF) Strategy 2014–2020

UK Government (2024), Nationally Significant Infrastructure Projects: Advice on Cumulative Effects Assessment

Wind Energy Ireland (2020), Harnessing Our Potential: Investment and Job in Ireland's Offshore Wind Industry, https://windenergyireland.com/images/files/final-harnessing-our-potential-report-may-2020.pdf [Accessed December 2025]

28 HUMAN HEALTH

355. Human health is primarily linked to environmental pathways by which health may be impacted, such as air quality, noise and vibration, water, soils and traffic. EIAR **Volume 3**, **Chapter 30 Human Health** is therefore supported by other assessment findings in **Volume 3** of the EIAR (i.e. **Chapter 25 Air Quality**, **Chapter 24 Noise and Vibration**, **Chapter 20 Hydrology and Hydrogeology**, **Chapter 19 Land, Soils and Geology**, **Chapter 27 Traffic and Transport**).

356. In summary, the human health impact assessment concludes that with the standard best practice mitigation measures applied, no significant effects on human health receptors from the construction, O&M, and decommissioning phases of the CWP Project are predicted. Furthermore, no significant cumulative effects have been identified in the relevant impact assessments for Air Quality (Section 23), Noise and Vibration (Section 22), Marine Water Quality (Section 4), Material Assets – Marine Infrastructure (Section 16), Land, Soils and Geology (Section 17) and Traffic and Transport (Section 25).

357. It is therefore concluded that there are no pathways to significant cumulative effects on human health.

29 WASTE & RESOURCE MANAGEMENT

29.1 Introduction

358. This section of the **CEA Report** presents the findings of the CEA for Waste and Resource Management, which considers the residual effects presented in EIAR **Volume 3, Chapter 31 Waste and Resource Management,** alongside the potential effects of other proposed and reasonably foreseeable development. Cumulative effects are considered in this document across the construction and O&M phases of the CWP Project.

359. The detail and scope of the decommissioning works for the CWP Project will be determined by the relevant legislation and guidance at the time of decommissioning. Project alone impacts during the decommissioning phase of the CWP Project are assessed in EIAR **Volume 3, Chapter 31 Waste and Resource Management**. It is anticipated that the impacts will be no greater than those identified for the construction phase, and therefore no separate assessment of cumulative impacts during the decommissioning phase is presented within this CEA.

360. This updated CEA incorporates information from the project alone assessment presented in EIAR **Volume 3, Chapter 31 Waste and Resource Management** and has been updated in response to the requests made in item 5 of the FIR.

29.2 Consultation

361. Stakeholder and regulator feedback received during the consultation process that is relevant to the waste and management resource assessment is provided in EIAR **Volume 3, Chapter 31 Waste and Resource Management**. No feedback specific to the CEA for waste and resource management has been received.

29.3 CEA impact screening

362. The first step in the CEA for Waste and Resource Management is the identification of which residual impacts assessed for the CWP Project alone have the potential for a cumulative impact with other development (described as 'impact screening'). This screening exercise is set out in **Table 29-1** below.

363. Only potential impacts assessed in EIAR **Volume 3, Chapter 31 Waste and Resource Management** as 'not significant' or above are included in the CEA (i.e., those assessed as 'imperceptible' are not taken forward as there is no potential for them to contribute to a cumulative effect).

Table 29-1 Impacts and potential for cumulative effect

Impact	CWP Project alone residual effect	Potential for significant cumulative effect – screened into the CEA (Yes / No)
Construction		
Impact 1: Generation and management of excavated materials	No	No Relates to materials generated and requiring management during excavation activities of the construction phase. The development of the onshore transmission infrastructure (OTI) and landfall will result in the generation of excavated materials requiring management. With the adoption of the mitigation measures outlined within **Chapter 31** and included in the **CDWMP** submitted as part of the planning application, it is predicted that the magnitude of effect will be Negligible. Therefore, a residual effect of permanent, likely, '**Imperceptible**' adverse significance in terms of waste generation and waste management is predicted, which is not significant in EIA terms.
Impact 2: Generation and management of construction waste associated with the installation of the OTI (C&D, Municipal etc.)	No	No Relates to construction waste materials generated and requiring management during the construction phase. The development of the OTI and landfall will result in the generation of waste materials (C&D, Municipal etc.) requiring waste management. With the adoption of the mitigation measures outlined in the **CDWMP** submitted as part of the planning application, it is predicted that the magnitude of effect will be Negligible. Therefore, a residual effect of permanent, likely, '**Imperceptible**' adverse significance in terms of waste generation and waste management is predicted, which is not significant in EIA terms.
Operation		
N/A	N/A	N/A

Impact	CWP Project alone residual effect	Potential for significant cumulative effect – screened into the CEA (Yes / No)
Decommissioning		
Impact 1: Generation of waste associated with the decommissioning of the OTI (C&D, Municipal etc.)	No	No The detail and scope of the decommissioning works for the CWP Project will be determined by the relevant legislation and guidance at the time of decommissioning. Project alone impacts during the decommissioning phase of the CWP Project are assessed in Volume 3, **Chapter 31 Waste and Resource Management.** It is anticipated that the impacts will be no greater than those identified for the construction phase, and therefore no separate assessment of cumulative effects during the decommissioning phase is presented within this CEA.

29.4 CEA summary

364. This CEA, which supports EIAR **Volume 3, Chapter 31 Waste and Resource Management** has considered the potential for cumulative effects on Waste and Resource Management from the CWP Project alongside other developments.

365. With the adoption of the mitigation measures outlined within EIAR **Volume 3, Chapter 31 Waste and Resource Management** and included in the **CDWMP** submitted as part of the planning application, it is predicted that the magnitude of effect for Impact 1 and Impact 2 in terms of waste generation and management during the construction phase will be 'Negligible'. Therefore, a residual effect of permanent, likely, '**Imperceptible**' adverse significance is predicted for both impacts, which is '**Not Significant**' in EIA terms.

366. As the residual effects are assessed as '**Imperceptible**' they were not taken forward as there is no potential for them to contribute to a cumulative effect.

30 RISK OF MAJOR ACCIDENTS AND DISASTERS

367. EIAR **Volume 3**, **Chapter 32 Risk of Major Accidents and Disasters** identifies residual risk scenarios that are as low as reasonably practicable (ALARP) with mitigations in place, and therefore not significant in EIA terms.

368. Major accidents and disasters are by their nature extremely unlikely events. It is extremely unlikely therefore that two unrelated accidents or disasters could occur in the same time period whilst also affecting the same receptors.

369. Therefore, given the conclusions of the project alone assessment no assessment of cumulative effects has been undertaken.

31 REFERENCES

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