

Volume 4 - Onshore Chapters

Chapter 21

Land and Soils (includes soils, geology and hydrogeology)

Contents

21.	Land, Soils, Geology and Hydrogeology	21.1
21.1	Introduction	21.2
21.2	Methodology	21.2
21.3	Baseline Environment	21.5
21.4	Characteristics of the Proposed Development	21.9
21.5	Potential Effects	21.9
21.6	Mitigation and Monitoring Measures	21.10
21.7	Residual Effects	21.11
21.8	Transboundary Effects	21.11
21.9	Cumulative Effects	21.11
21.10	References	21.11

Tables

Table A21.1: Publicly available datasets (Replaces Table 21.1 in the 2024 EIAR)	21.3
Table A21.2: Summary of Potential Sources of Contaminated Land Adjacent to the Proposed Development (Replaces Table 21.21 in the 2024 EIAR).	21.6

21. Land, Soils, Geology and Hydrogeology

North Irish Sea Array Windfarm Ltd (NISA, hereafter referred to as ‘the Developer’) has been considering the Request for Further Information (RFI) issued by An Bord Pleanála (now An Coimisiún Pleanála) as well as the third-party submissions received following public consultation. At An Coimisiún Pleanála’s behest, the Developer has also continued to consult with stakeholders in respect of the 2024 planning application throughout 2024-2026. The Developer has refined elements of the design to respond to the third-party submissions, the continued public and stakeholder consultation and the RFI. Amendments are therefore required to Chapter 21: Land, Soils, Geology and Hydrogeology of the 2024 Environmental Impact Assessment Report (EIAR). Full details of consultation undertaken can be found in Appendix A1.2 in the Addendum to the EIAR.

For the purposes of clarity, this document shall be read in conjunction with the Chapter 21 submitted as part of the 2024 EIAR.

Any cross reference to a chapter, section, table, image, figure or appendix within this document is to another location within the Addendum to the EIAR unless explicitly stated otherwise. Any cross reference to anything included in the 2024 EIAR will be clearly labelled as such.

Text in bold is only used throughout this document to indicate where changes are required, and why they are required. Text in italics is text from a section of the 2024 EIAR which is deleted, or quotations from other documents (as explicitly stated). Replacement text is in normal font.

Tables which have been updated from the 2024 EIAR, or entirely new tables, have been included in the Addendum to the EIAR. These tables can be identified by the “A” prefix in the table caption. Any changes within the updated table, in comparison to tables within the 2024 EIAR, are indicated by grey shading in the relevant cell, column or row, as necessary. The exception here is where a table has been replaced in its entirety.

The section relevant to Chapter 21 in the RFI is included below.

RFI Section	RFI	Relevance to Chapter
1 (b)	The scientific information provided as part of the planning application documentation should be based on up-to-date survey reports and data. Accordingly, the applicant is requested to confirm/provide justification/verification that the information submitted in support of the planning application remains relevant and appropriate at the point of submitting further information or to update same as required.	The timeframes associated with the RFI have necessitated a review of the datasets previously used in the 2024 EIAR to ensure any necessary updates to the baseline environment are captured. Therefore, a review of the baseline environment has been undertaken to comply with RFI Section 1 (b).
5	The Marine Institute in their observation raises concerns in relation to the methodology applied in the submitted cumulative effects assessment and the manner in which the information is presented, noting the lack of a standard Irish methodology in relation to CEA. The applicant is advised that guidance exists in the UK, namely Nationally Significant Infrastructure Projects: Advice on Cumulative Effects Assessment - GOV.UK, September 2024 (NSIP, 2024).	A revised CEA, which considers the methodology and template provided in the Nationally Significant Infrastructure Projects: Advice on Cumulative Effects Assessment – GOV.UK, September 2024 (NSIP, 2024), has been prepared. The revised CEA is provided in Chapter 38 Cumulative and Inter-Related Effects, Appendix 38.1 – Onshore Long List and Appendix A38.2 Offshore Long List. The update to this chapter in relation to this, is provided in Section 21.9.

RFI Section	RFI	Relevance to Chapter
	The applicant is requested to revise the submitted cumulative assessment in line with NSIP (2024) and submit a standalone document to clearly demonstrate the CEA conclusions. In the interests of consistency and transparency, the applicant is requested to complete the assessment in accordance with the templates provided in the NSIP (2024), namely “Appendix 1: Matrix 1 – Identification of ‘other development’ for CEA” and “Appendix 2: Matrix 1 – Assessment matrix” (see attached Appendix B)...	

21.1 Introduction

There are no changes to this section. Refer to Section 21.1 of Chapter 21 of the 2024 EIAR.

21.2 Methodology

21.2.1 Introduction

There are no changes to this section. Refer to Section 21.2.1 of Chapter 21 of the 2024 EIAR.

21.2.2 Study Area

There are no changes to this section. Refer to Section 21.2.2 of Chapter 21 of the 2024 EIAR.

21.2.3 Relevant Guidance and Policy

In accordance with RFI Section 1 (b), a review of relevant guidance and policy documentation was undertaken. However, no updated guidance has been published since submission of the 2024 EIAR.

Therefore, the relevant guidance and policy documentation referenced in the land, soils, geology, and hydrogeology impact assessment remain unchanged.

As a result, there are no changes to this section. Refer to Section 21.2.3 of Chapter 21 of the 2024 EIAR.

21.2.4 Data Collection and Collation

The only change for this section is that an additional site walkover of the landfall site was undertaken in October 2025. The following paragraph of Section 21.2.4 of Chapter 21 in the 2024 EIAR shall be deleted:

“Data was compiled from publicly available datasets, the findings of ground investigations, design information, scheme walkover surveys carried out over multiple dates and seasons between August 2021 and February 2024 (see Section 21.2.4.3), and other sources, as outlined below.”

And be replaced with:

Data was compiled from publicly available datasets, the findings of ground investigations, design information, scheme walkover surveys carried out over multiple dates and seasons between August 2021 and October 2025 (see Section 21.2.4.3), and other sources, as outlined below.

There are no other changes required to this section. Refer to Section 21.2.4 of Chapter 21 of the 2024 EIAR.

21.2.4.1 Publicly Available Datasets

The only change required for Section 21.2.4.1 of Chapter 21 of the 2024 EIAR is to Table 21.1 following an updated review of all publicly available datasets, including the EPA Water Abstraction Register to October 2025. This change is indicated in grey in Table A21.1. No other updates are required for the remaining datasets included in Table A21.1.

For the purposes of clarity, Table 21.1 from Chapter 21 of the 2024 EIAR shall be deleted and replaced with Table A21.1:

Table A21.1: Publicly available datasets (Replaces Table 21.1 in the 2024 EIAR)

Source	Name	Description
Ordnance Survey Ireland Geohive (OSI) (now called Tailte Éireann)	Current and historical ordnance survey maps	Current and historical survey maps produced by the OSI
	Aerial photography	Current and historical survey maps produced by the OSI
Google	Aerial photography	Current aerial imagery produced by Google
Bing	Aerial photography	Current aerial imagery produced by Bing
Teagasc	Teagasc Soils Data	Surface soils classification and description
Geological Survey Ireland (GSI)	Quaternary Mapping	Geological maps of the site area produced by the GSI and available on GSI online map viewer
	Bedrock Mapping	
	Aggregate Potential Mapping	
	Mineral Localities	
	Geotechnical Sites	
	Bedrock Aquifer Mapping	
	Groundwater Vulnerability	
	Groundwater Recharge	
	Groundwater Resources	
	Groundwater Flooding	
	National Landslide Database	
	Karst Database	
	Historic Mine Sites - Inventory and Risk Classification	
	Active Quarries and pits	
County Geological Sites and Geological Heritage Areas		
GSI, Memoirs		
Environmental Protection Agency (EPA)	Corine Land Cover 2018	These datasets are based on interpretation of satellite imagery and national in-situ vector data
	Historic Mine Sites - Inventory and Risk classification	
	River Network Map	

Source	Name	Description
	EPA Licence & Permit Databases	Information on any EPA IE/IPC licences and Permits in the area
	EPA HydroNet	Reports of groundwater level monitoring points
	EPA Water Abstraction Register – October 2025	A register containing water abstractions of 25 cubic meters (25,000 litres) or more per day that have been registered with the EPA
	Waste Boundaries	Boundaries of all waste Facilities within Ireland that are or are going to be licensed by the EPA
National Parks and Wildlife Service	Designated Natural Heritage Areas (NHA), Special Protection Areas (SPA), Special Areas of Conservation (SAC) Sites	This dataset provides information on national parks, protected sites and nature reserves
National Monuments Service (2018) (Archaeological Survey of Ireland)	Archaeological Monuments	This dataset provides all recorded archaeological monuments
Department of Communications, Energy and Natural Resources	State Mining and Prospecting Facilities	A booklet contains a list of all current and prospecting mining facilities
	Historic Mine Sites - Inventory and Risk Classification	Inventory of Irelands Historic Mine Sites with investigations and potential risk posed by these sites

There are no other changes required to this section. Refer to Section 21.2.4.1 of Chapter 21 of the 2024 EIAR.

21.2.4.2 Ground Investigation

There are no changes to this section. Refer to Section 21.2.4.2 of Chapter 21 of the 2024 EIAR.

21.2.4.3 Scheme Walkover

The key update to this section is the inclusion of an updated site walkover, undertaken during October 2025. The following paragraph of the Section 21.2.4.3 of Chapter 21 in the 2024 EIAR shall be deleted:

Multiple site walkover surveys were carried out at various times of the year between August 2021 and February 2024 to verify and confirm the findings of the desktop study.

And be replaced with:

Multiple site walkover surveys were carried out at various times of the year between August 2021 and October 2025 to verify and confirm the findings of the desktop study.

There are no other changes required to this section. Refer to Section 21.2.4.3 of Chapter 21 of the 2024 EIAR.

21.2.5 Technical Limitations

There are no changes to this section. Refer to Section 21.2.5 of Chapter 21 of the 2024 EIAR.

21.2.6 Impact Assessment Methodology

There are no changes to this section. Refer to Section 21.2.6 of Chapter 21 of the 2024 EIAR.

21.3 Baseline Environment

21.3.1 Introduction

There are no changes to this section. Refer to Section 21.3.1 of Chapter 21 of the 2024 EIAR.

21.3.2 Regional Overview

There are no changes to this section. Refer to Section 21.3.2 of Chapter 21 of the 2024 EIAR.

21.3.2.1 Regional Topography and Geomorphology

There are no changes to this section. Refer to Section 21.3.2.1 of Chapter 21 of the 2024 EIAR.

21.3.2.2 Regional Soils (EPA/Teagasc Classification)

There are no changes to this section. Refer to Section 21.3.2.2 of Chapter 21 of the 2024 EIAR.

21.3.2.3 Regional Subsoils (GSI Quaternary Classification)

There are no changes to this section. Refer to Section 21.3.2.3 of Chapter 21 of the 2024 EIAR.

21.3.2.4 Regional Bedrock Geology

There are no changes to this section. Refer to Section 21.3.2.4 of Chapter 21 of the 2024 EIAR.

21.3.2.5 Regional Geological Heritage

There are no changes to this section. Refer to Section 21.3.2.5 of Chapter 21 of the 2024 EIAR.

21.3.2.6 Regional Aquifer Type and Classification

There are no changes to this section. Refer to Section 21.3.2.6 of Chapter 21 of the 2024 EIAR.

21.3.2.7 Regional Aquifer Vulnerability

There are no changes to this section. Refer to Section 21.3.2.7 of Chapter 21 of the 2024 EIAR.

21.3.2.8 Regional Recharge

There are no changes to this section. Refer to Section 21.3.2.8 of Chapter 21 of the 2024 EIAR.

21.3.2.9 Regional Groundwater Resources

As noted in Section 21.2.4.1, the EPA Water Abstraction Register was reviewed as of October 2025. However, there are no changes required to this section. Refer to Section 21.3.2.9 of Chapter 21 of the 2024 EIAR.

21.3.2.10 Regional Hydro-ecology Designated Sites

There are no changes to this section. Refer to Section 21.3.2.10 of Chapter 21 of the 2024 EIAR.

21.3.3 Site Specific Environment

There are no changes to this section. Refer to Section 21.3.3 of Chapter 21 of the 2024 EIAR.

21.3.3.1 Current and Historic Land Use of the Proposed Development

There are no changes to this section. Refer to Section 21.3.3.1 of Chapter 21 of the 2024 EIAR.

21.3.3.2 Geomorphology and Topography

There are no changes to this section. Refer to Section 21.3.3.2 of Chapter 21 of the 2024 EIAR.

21.3.3.3 Soils (Teagasc Soil Classification)

There are no changes to this section. Refer to Section 21.3.3.3 of Chapter 21 of the 2024 EIAR.

21.3.3.4 Subsoils (GSI Quaternary Classification)

There are no changes to this section. Refer to Section 21.3.3.4 of Chapter 21 of the 2024 EIAR.

21.3.3.5 Bedrock Geology

There are no changes to this section. Refer to Section 21.3.3.5 of Chapter 21 of the 2024 EIAR.

21.3.3.6 Historic and Project Specific Ground Investigations

There are no changes to this section. Refer to Section 21.3.3.6 of Chapter 21 of the 2024 EIAR.

21.3.3.7 Karst

There are no changes to this section. Refer to Section 21.3.3.7 of Chapter 21 of the 2024 EIAR.

21.3.3.8 Soft/and or Unstable Ground

There are no changes to this section. Refer to Section 21.3.3.8 of Chapter 21 of the 2024 EIAR.

21.3.3.9 Contaminated Land

The only change required for Section 21.3.3.9 of Chapter 21 of the 2024 EIAR is Table 21.21 following an updated review of all potential sources of contaminated land. The Developer also notes that an additional petrol station was excluded in error from the 2024 EIAR that was outside the proposed development boundary, but within the buffer zone. This has been included in Table A21.2. Additional petrol stations as potential sources of contamination have been noted within the development buffer zone. These changes are indicated in grey in Table A21.2.

For the purposes of clarity, Table 21.21 from Chapter 21 of the 2024 EIAR shall be deleted and replaced with Table A21.2:

Table A21.2: Summary of Potential Sources of Contaminated Land Adjacent to the Proposed Development (Replaces Table 21.21 in the 2024 EIAR).

Feature	Description	Location	Importance	Justification for Importance Rating
Historic Quarry	2 disused quarries have been identified on the OSI maps, which of one has been backfilled and the for the other one there is no information related. Additional 10 pits were identified within the 2km radius of the onshore cable route	Both quarries are located approximately 1.0km from southern area of the onshore cable route	Low	Assumed backfield with inert material. Degree or extent of soil contamination is minor on a local scale
Active Quarry	Feltrim Quarry, aggregates and fill materials	Approximately 1.0km from the southern area of the onshore cable route and within one of the quarries mentioned above	Low	No waste material. Degree or extent of soil contamination is minor on a local scale
Waste Facilities	Fingal Co. Co., Nevitt Landfill EPA Licensed Area (W0231-01): Disposal of non-hazardous waste	Approximately 1km west of the onshore cable route	Medium	Non-hazardous waste. Degree or extent of soil contamination is moderate on a local scale
	Bord Na Móna Recycling Limited (Advanced Environmental Solutions (Ireland) Limited)	Approximately 0.5km from the central area of the onshore cable route	Medium	Non-hazardous waste. Degree or extent of soil contamination is moderate on a local scale

Feature	Description	Location	Importance	Justification for Importance Rating
	EPA Licensed Area (W0222-01); Disposal of non-hazardous waste			
	Fingal Co. Co., Balleally Landfill. EPA Licensed Area (W0009-03); Disposal of non-hazardous waste	Approximately 1.5km from the central area of the onshore cable route	Medium	Non-hazardous waste. Degree or extent of soil contamination is moderate on a local scale
Petrol Stations	<p>A number of petrol stations were identified along the onshore cable route.</p> <p>Northern Area:</p> <p>Sailln Garage - approximately 0.12km from the onshore cable route.</p> <p>JH McLouglin Dublin- approximately 0.5km from the onshore cable route.</p> <p>Applegreen (Balbriggan) – approximately 0.4km from the onshore cable route.</p> <p>Texaco Scanlans - approximately 0.2km from the onshore cable route.</p> <p>Central Area:</p> <p>Applegreen M1 Balbriggan – approximately 0.1km from the onshore cable route.</p> <p>Applegreen Southbound MSA Lusk East - approximately 0.5km from the onshore cable route.</p> <p>Applegreen M1 - approximately 1km from the onshore cable route.</p> <p>Applegreen - within the onshore cable route.</p> <p>Top Oil Blake Cross Service Station - within the onshore cable route.</p> <p>Maxol Service Sation Turvey - within the onshore cable route.</p> <p>Circle K Westview – within the onshore cable route.</p> <p>Southern Area:</p> <p>Applegreen Swords Rd Mountgorry Malahide – approximately 1km from the onshore cable route.</p> <p>Circle K Main Street Malahide - approximately 1.5km from the onshore cable route.</p>	Onshore cable route	Medium	Degree or extent of soil contamination is moderate on a local scale

Feature	Description	Location	Importance	Justification for Importance Rating
	<p>Applegreen Malahide Rd, Kinsealy - within the onshore cable route.</p> <p>Certa - approximately 0.2km from the onshore cable route.</p> <p>Circle K Balgriffin - approximately 0.35km from the onshore cable route.</p> <p>Texaco Malahide Road - approximately 1.0km from the onshore cable route.</p> <p>Applegreen Grange, Grange Rd, Baldoyle - approximately 1km from the onshore cable route.</p> <p>Circle K Donaghmede - approximately 0.4km from the onshore cable route.</p> <p>Circle K Clonshaugh – approximately 0.7km from the cable route.</p>			
Project Specific Ground Investigation	Three samples were classified as non-hazardous	TP09 Landfall TP21 Blakes Cross TP108 Onshore Cable Route	Medium	Degree or extent of soil contamination is moderate on a local scale
Project Specific Ground Investigation	Two samples were classified as hazardous	ST02 Bremore Cottages ST31 Malahide Road	Medium	Degree or extent of soil contamination is moderate on a local scale
Old Landfills close to Belcamp	Unlicensed Landfill	Belcamp	Medium	Degree or extent of soil contamination is moderate on a local scale

21.3.3.10 Mineral Aggregate Resources

There are no changes to this section. Refer to Section 21.3.3.10 of Chapter 21 of the 2024 EIAR.

21.3.3.11 Geological Heritage Areas

There are no changes to this section. Refer to Section 21.3.3.11 of Chapter 21 of the 2024 EIAR.

21.3.3.12 Aquifer Type and Classification

There are no changes to this section. Refer to Section 21.3.3.12 of Chapter 21 of the 2024 EIAR.

21.3.3.13 Groundwater Vulnerability

There are no changes to this section. Refer to Section 21.3.3.13 of Chapter 21 of the 2024 EIAR.

21.3.3.14 Groundwater Recharge

There are no changes to this section. Refer to Section 21.3.3.14 of Chapter 21 of the 2024 EIAR.

21.3.3.15 Groundwater Resources

As noted in Section 21.2.4.1 of Chapter 21 in the 2024 EIAR, the EPA Water Abstraction Register was reviewed as of October 2025. However, there are no changes required to this section. Refer to Section 21.3.3.15 of Chapter 21 of the 2024 EIAR.

21.3.3.16 Groundwater Quality and Levels

There are no changes to this section. Refer to Section 21.3.3.16 of Chapter 21 of the 2024 EIAR.

21.3.3.17 Hydro-ecology

There are no changes to this section. Refer to Section 21.3.3.17 of Chapter 21 of the 2024 EIAR.

21.3.3.18 Summary of Features of Importance

There are no changes to this section. Refer to Section 21.3.3.18 of Chapter 21 of the 2024 EIAR.

21.3.4 Conceptual Site Model

There are no changes to this section. Refer to Section 21.3.4 of Chapter 21 of the 2024 EIAR.

21.3.4.1 Environment Type

There are no changes to this section. Refer to Section 21.3.4.1 of Chapter 21 of the 2024 EIAR.

21.3.4.2 Activities/Environmental Matrix

There are no changes to this section. Refer to Section 21.3.4.2 of Chapter 21 of the 2024 EIAR.

21.4 Characteristics of the Proposed Development

21.4.1.1 Landfall Site

There are no changes to this section. Refer to Section 21.4.1.1 of Chapter 21 of the 2024 EIAR.

21.4.1.2 Grid Facility

There are no changes to this section. Refer to Section 21.4.1.2 of Chapter 21 of the 2024 EIAR.

21.4.1.3 Onshore Cable Route

There are no changes to this section. Refer to Section 21.4.1.3 of Chapter 21 of the 2024 EIAR.

21.5 Potential Effects

21.5.1 Do-Nothing Scenario

There are no changes to this section. Refer to Section 21.5.1 of Chapter 21 of the 2024 EIAR.

21.5.2 Construction Phase

There are no changes to this section. Refer to Section 21.5.2 of Chapter 21 of the 2024 EIAR.

21.5.2.1 Landfall site

As noted in Section 21.2.4, an updated site walkover of the landfall site was undertaken in October 2025. No significant changes relating to coastal erosion were noted during this updated site walkover, and as such, there are no changes to this section. Refer to Section 21.5.2.1 of Chapter 21 of the 2024 EIAR.

Therefore, the significance of effect remains unchanged across all potential impacts previously assessed for the landfall site as described in Section 21.5.2.1 in Chapter 21 of the 2024 EIAR.

21.5.2.2 Grid facility

There are no changes to this section. Refer to Section 21.5.2.2 of Chapter 21 of the 2024 EIAR.

Therefore, the significance of effect remains unchanged across all potential impacts previously assessed for the grid facility as described in Section 21.5.2.2 in Chapter 21 of the 2024 EIAR.

21.5.2.3 *Onshore cable route*

There are no changes to this section. Refer to Section 21.5.2.3 of Chapter 21 of the 2024 EIAR.

Therefore, the significance of effect remains unchanged across all potential impacts previously assessed for the onshore cable route as described in Section 21.5.2.3 in Chapter 21 of the 2024 EIAR.

21.5.3 *Operational Phase*

There are no changes to this section. Refer to Section 21.5.3 of Chapter 21 of the 2024 EIAR.

21.5.4 *Decommissioning*

There are no changes to the introductory text in this section. Refer to Section 21.5.2.4 of Chapter 21 of the 2024 EIAR.

21.5.4.1 *Effects on the surrounding ground*

There are no changes to this section. Refer to Section 21.5.4.1 of Chapter 21 of the 2024 EIAR.

Therefore, the significance of the potential effect is unchanged from the 2024 EIAR.

21.5.4.2 *Effect on groundwater quality and groundwater dependant ecosystems*

There are no changes to this section. Refer to Section 21.5.4.2 of Chapter 21 of the 2024 EIAR.

Therefore, the significance of the potential effect is unchanged from the 2024 EIAR.

21.6 **Mitigation and Monitoring Measures**

There are no changes to this section. Refer to Section 21.6 of Chapter 21 of the 2024 EIAR.

21.6.1 *Construction Phase*

There are no changes to this section. Refer to Section 21.6.1 of Chapter 21 of the 2024 EIAR.

21.6.1.1 *General*

There are no changes to this section. Refer to Section 21.6.1.1 of Chapter 21 of the 2024 EIAR.

21.6.1.2 *Mitigation of potential effects*

Loss or damage of topsoil and subsoil and Loss of Solid Geology

The only update in this section is a text update to reflect official nomenclature for reuse of material as a by-product from “Article 27” to “Regulation 27”. The following sentence of Section 21.6.1.2 of Chapter 21 in the 2024 EIAR shall be deleted:

“The reuse of this material as a by-product on other construction sites would be subject to Article 27 notification to the EPA.”

And be replaced with:

The reuse of this material as a by-product on other construction sites would be subject to Regulation 27 notification to the EPA.

There are no other changes required to this section. Refer to Section 21.6.1.2 of Chapter 21 of the 2024 EIAR.

21.6.1.3 *Monitoring during construction*

There are no changes to this section. Refer to Section 21.6.1.3 of Chapter 21 of the 2024 EIAR.

21.6.2 *Operational Phase*

There are no changes to this section. Refer to Section 21.6.2 of Chapter 21 of the 2024 EIAR.

21.6.3 Decommissioning

There are no changes to this section. Refer to Section 21.6.3 of Chapter 21 of the 2024 EIAR.

21.7 Residual Effects

21.7.1 Construction Phase

There are no changes to this section. Refer to Section 21.7.1 of Chapter 21 of the 2024 EIAR.

Therefore, the significance of residual effect remains unchanged across all residual effects previously assessed for the construction phase as described in Section 21.7.1 in Chapter 21 of the 2024 EIAR.

21.7.2 Operational Phase

There are no changes to this section. Refer to Section 21.7.2 of Chapter 21 of the 2024 EIAR.

Therefore, the previous conclusion of no significant residual effects on land and soils, geology and hydrogeology as a result of the operation of the proposed development remains unchanged.

21.7.3 Decommissioning

There are no changes to this section. Refer to Section 21.7.3 of Chapter 21 of the 2024 EIAR.

Therefore, the previous conclusion of no significant residual effects on land and soils, geology and hydrogeology as a result of the decommissioning of the proposed development remains unchanged.

21.8 Transboundary Effects

There are no changes to this section. Refer to Section 21.8 of Chapter 21 of the 2024 EIAR.

Therefore, no transboundary effects on land, soils, geology and hydrogeology are predicted.

21.9 Cumulative Effects

The Cumulative Effects Assessment (CEA) is presented in Volume 6, Chapter 38: Cumulative and Inter-Related Effects. In response to RFI Section 5, the CEA has been updated to align with the UK Guidance document *Nationally Strategic Infrastructure Projects (NSIP) Advice on Cumulative Effects Assessment*. However, it should be noted that the overall conclusions of the CEA from a land, soils, geology and hydrogeology perspective remain unchanged from the 2024 EIAR (as stated below).

Therefore, the entirety of Section 21.9 of Chapter 21 of the 2024 EIAR shall be deleted and replaced with the text herein:

A long list of “other existing and/or approved developments” which were deemed to be potentially relevant for inclusion in the cumulative impact assessment was compiled (refer to Volume 6, Chapter 38: Cumulative and Inter-related Effects (hereafter referred to as ‘Chapter 38’)). A screening exercise of the “long list” was carried out in order to determine whether each of those “other existing and/or approved developments” has the potential to give rise to likely significant cumulative effects with the proposed development from a land soils, geology and hydrogeology perspective. Many of the “other existing and/or approved developments” were screened out for a number of reasons including their location, scale and nature of the project. Those projects which were “screened in” were carried forward for assessment. The results of the assessment are presented in Section 38.2.3.12 of Chapter 38.

The assessment concluded that there are no likely significant direct or indirect cumulative effects with the potential to cause a significant effect on land and soils, geology and hydrogeology during the construction, operation or decommissioning phases of the proposed development.

21.10 References

The only updates in this section are revised references to publicly available data sources following updated review in October 2025. The following references of Section 21.10 of Chapter 21 in the 2024 EIAR shall be deleted:

EPA (2023) EPA Water Abstraction Register - August 2023, Available:
<https://www.epa.ie/publications/monitoring--assessment/freshwater--marine/epa-water-abstraction-register.php>

EPA (2024a). EPA Maps. [Online] Available from <https://gis.epa.ie/EPAMaps/>

EPA (2024b). Hydronet. [Online] Available <https://epawebapp.epa.ie/hydronet/#Groundwater>

GSI (2024a) . Geological Survey Ireland Spatial Resources. [Online] Available from
<https://dcenr.maps.arcgis.com/apps/MapSeries/index.html?appid=a30af518e87a4c0ab2fbde2aaac3c228>

GSI (2024b) Groundwater bodies. [Online] Available: [https://www.gsi.ie/en-ie/programmes-and-projects/groundwater/activities/understanding-ireland-groundwater/Pages/Groundwater-bodies.aspx#:~:text=The%20Groundwater%20Body%20\(GWB\)%20is,groundwater%20and%20linked%20surface%20waters.](https://www.gsi.ie/en-ie/programmes-and-projects/groundwater/activities/understanding-ireland-groundwater/Pages/Groundwater-bodies.aspx#:~:text=The%20Groundwater%20Body%20(GWB)%20is,groundwater%20and%20linked%20surface%20waters.)

GSI (2024c) Groundwater Vulnerability. [Online] Available from <https://www.gsi.ie/en-ie/programmes-and-projects/groundwater/activities/understanding-ireland-groundwater/groundwater-vulnerability/Pages/default.aspx>

Google Maps (2024) Google Maps. [Online] Available from <http://www.google.com/maps/>

NPWS (2020). Proposed / Designated NHA, SPA, SAC Sites. [Online] Available from
<http://webgis.npws.ie/npwsviewer/>, accessed May 2019;

And be replaced with:

EPA (2025) EPA Water Abstraction Register – October 2025, Available at: <https://www.epa.ie/our-services/licensing/freshwater--marine/water-abstraction/>

EPA (2025a). EPA Maps. [Online] Available from <https://gis.epa.ie/EPAMaps/>

EPA (2025b). Hydronet. [Online] Available <https://epawebapp.epa.ie/hydronet/#Groundwater>

GSI (2025a). Geological Survey Ireland Spatial Resources. [Online] Available from
<https://dcenr.maps.arcgis.com/apps/MapSeries/index.html?appid=a30af518e87a4c0ab2fbde2aaac3c228>

GSI (2025b) Groundwater bodies. [Online] Available: [https://www.gsi.ie/en-ie/programmes-and-projects/groundwater/activities/understanding-ireland-groundwater/Pages/Groundwater-bodies.aspx#:~:text=The%20Groundwater%20Body%20\(GWB\)%20is,groundwater%20and%20linked%20surface%20waters.](https://www.gsi.ie/en-ie/programmes-and-projects/groundwater/activities/understanding-ireland-groundwater/Pages/Groundwater-bodies.aspx#:~:text=The%20Groundwater%20Body%20(GWB)%20is,groundwater%20and%20linked%20surface%20waters.)

GSI (2025c) Groundwater Vulnerability. [Online] Available from <https://www.gsi.ie/en-ie/programmes-and-projects/groundwater/activities/understanding-ireland-groundwater/groundwater-vulnerability/Pages/default.aspx>

Google Maps (2025) Google Maps. [Online] Available from <http://www.google.com/maps/>

NPWS (2020). Proposed / Designated NHA, SPA, SAC Sites. [Online] Available from
<http://webgis.npws.ie/npwsviewer/>, accessed October 2025

There are no other changes required to this section. Refer to Section 21.10 of Chapter 21 of the 2024 EIAR.