

TECHNICAL APPRAISAL OF THE NARROW WATER BRIDGE NATURA IMPACT STATEMENT / HABITATS REGULATIONS ASSESSMENT



NWB-ROD-ENV-AE-RP-EN-500010

November 2023

Client:
Louth County Council
Roads Section
County Hall
Millenium Centre
Dundalk
Co. Louth

Technical Appraisal of the Narrow Water Bridge

Natura Impact Statement / Habitats Regulations Assessment

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1.0 INTRODUCTION

1.1 Background

Roughan & O'Donovan (ROD) was appointed by Louth County Council, to provide environmental consultancy services in relation to the Narrow Water Bridge project ('the proposed development').

This document contains a technical appraisal of the Natura Impact Statement (NIS) / Habitats Regulations Assessment (HRA) (hereafter referred to as the 'NIS/HRA') which was submitted to Planning Service Northern Ireland as part of the planning application for the proposed development in 2012. The purpose of this technical appraisal is to review the NIS / HRA, and make recommendations on the validity of its contents and conclusion for the purposes of the Marine Licence Application to the Department of Agriculture, Environment and Rural Affairs (DAERA).

Due to the location of the proposed development spanning the Republic of Ireland and Northern Ireland border, the planning application for the proposed development was submitted to both An Bord Pleanála (ABP) in the Republic of Ireland and the Planning Service Northern Ireland in the Department of Environment (DoE), Northern Ireland. In order to satisfy the requirement for ecological assessment in each jurisdiction in relation to Appropriate Assessment and the Habitats Directive, the Natura Impact Statement (NIS) and Habitats Regulation Assessment (HRA) was submitted as one consolidated document. The legislative context for Natura Impact Statement and Habitats Regulation Assessment are explained below in Section 1.2.

1.2 Legislative Context

The Habitats Directive (92/43/EEC) and the Birds Directive (2009/147/EC) list habitats and species which are, in a European context, important for conservation and in need of protection. This protection is afforded in part through the designation of sites which support significant examples of habitats or populations of species ("European sites"). Sites designated for birds are termed "Special Protection Areas" (SPAs) and sites designated for natural habitat types or other species are termed "Special Areas of Conservation" (SACs). The complete network of European sites is referred to as "Natura 2000".

In order to ensure the protection of European sites in the context of land use planning and development, Article 6(3) of the Habitats Directive provides for the assessment of the implications of plans and projects for European sites, as follows:

"Any plan or project not directly connected with or necessary to the management of the site [or sites] but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. In the light of the conclusions of the assessment of the implications for the site [...], the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned [...]."

Following the United Kingdom's (UK) departure from the EU on 31 December 2020 (EU-Exit), the UK is no longer an EU Member State. However, through the Conservation of Habitats and Species Amendment (EU Exit) Regulations 2019 (the "EU Exit Regulations") the HRA process implemented under the Habitats Regulations continues to apply, subject only to minor changes. However, these changes are considered to have no material implications on the requirement or process for a HRA

for the proposed development. This report will hereafter refer to the 'Habitats Regulations' as including any changes enacted by the EU Exit Regulations.

The Habitats Regulations require that an HRA must be carried out on all plans and projects that are likely to have significant effects on European sites. The UK is bound by HRA judgments handed down by The Court of Justice of the European Union (CJEU) prior 31 to December 2020¹. This technical appraisal has therefore been prepared on the basis that all relevant HRA-related legislation remains in place and in accordance with Habitats Regulations that transposed the European requirements for HRA into UK law and as effected by the EU Exit Regulations (2019).

The objective of the Habitats Regulations is to conserve, at a favourable conservation status (FCS), those habitats and species listed in Annexes I and II of the Habitats Directive and Annex I of the Wild Birds Directive. Post EU-Exit, the Habitats Regulations continue to refer to Annexes I and II of the Habitats Directive and Annex I of the Birds Directive and as such, reference is made to the annexes of the Habitats and Birds Directives in this report.

1.3 Methodology

This report comprises a technical appraisal of the NIS/HRA which was lodged to An Bord Pleanála and Planning Service Northern Ireland (Department of Environment) with the planning application for the Narrow Water Bridge project in 2012.

This technical appraisal has been carried out with regards to the relevant legislation, case law and guidance. The documentation submitted with the planning application has been carefully assessed to determine if it complies with the relevant legislation. Regard has also been had to relevant case law and guidance, including but not limited to:

- European Commission (EC) (2021) *Assessment of plans and projects in relation to Natura 2000 sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC*. Environment Directorate-General of the European Commission.
- European Commission (EC) (2018) *Managing Natura 2000 sites: The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC*. European Commission, Brussels.
- European Commission (EC) (2011) *Guidance Document – The Implementation of Birds and Habitats Directives in Estuaries and Coastal Zones: with particular attention to port development and dredging*. European Commission, Brussels.
- Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019
- DAERA (2020) *Guidance explaining The Conservation (Natural Habitats, etc.) (Amendment) (Northern Ireland) (EU Exit) Regulations 2019*. Department of Agriculture, Environment and Rural Affairs.
- PINS (2017). *Advice note ten: Habitats Regulations Assessment relevant to nationally significant infrastructure projects*. November 2017, Version 8.
- Scottish Natural Heritage (2014). *Natura Casework Guidance: How to consider plans and projects affecting Special Areas of Conservation (SACs) and Special Protection Areas (SPAs)*. February 2014.

¹ The UK Supreme Court may depart from binding pre-EU Exit case law if they consider it 'right to do so' and the Inner House of the Court of Session may depart from such case law in certain circumstances

- SNH (2016). *Habitats Regulations Appraisal (HRA) on the Firth of Forth*. A Guide for developers and regulators. May 2016.
- *Technical Advice Note 5 (TAN 5): Nature Conservation and Planning (Wales)*. Welsh Assembly Government (2009)
- Welsh Government (2021) *Habitats Regulations Assessments: Protecting a European site*. Department of Environment, Food and Rural Affairs, Welsh Government, Natural England and Natural Resources Wales.
- Department of Environment, Heritage, and Local Government (DEHLG) (2010) *Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities*. Department of the Environment, Heritage and Local Government, Dublin.
- National Parks and Wildlife Service (NPWS) (2012) *Marine Natura Impact Statements in Irish Special Areas of Conservation – A Working Document*. National Parks & Wildlife Service, Department of Arts, Heritage and the Gaeltacht, Dublin.
- National Parks and Wildlife Service (NPWS) (2010a) *Appropriate Assessment under Article 6 of the Habitats Directive: Guidance for Planning Authorities*. Circular Letter NPWS 1/10 & PSSP 2/10. National Parks & Wildlife Service, Department of the Environment, Heritage and Local Government, Dublin.
- Office of the Planning Regulator (OPR) (2021) *Practice Note PN01: Appropriate Assessment Screening for Development Management*. Office of the Planning Regulator.

1.4 Statement of Authority

This technical appraisal has been undertaken by Patrick O'Shea MCIEEM. Patrick is a Principal Ecologist at ROD. Patrick holds a bachelor's degree (with honours) in Botany from Trinity College Dublin, and an MSc in Ecological Management and Conservation Biology from Queen's University Belfast. He is a full member of the Chartered Institute of Ecology and Environmental Management (MCIEEM). He has eleven year's professional experience and expertise in assessment under Article 6(3) of the Habitats Directive.

2.0 EXECUTIVE SUMMARY

This report has been prepared by Roughan & O'Donovan Consulting Engineers (ROD) and contains a review of the NIS/HRA prepared by Roughan & O'Donovan Consulting Engineers, in conjunction with Dr Brian Madden of Biosphere Environmental Services, which was submitted as part of the planning application for the proposed development.

The purpose of this review is to ensure that the information contained in the NIS/HRA, which was prepared in 2012, remains applicable in terms of the appropriate assessment process, the European sites concerned and their corresponding Conservation Objectives. The aim of this review is to satisfy the Department of Agriculture, Environment and Rural Affairs (DAERA), in its capacity as the Competent Authority, in granting a marine licence for the proposed development. A Marine Licence (Ref No. ML 144/13) was granted previously by the Department of Environment in March 2013 for the proposed development, stating a period of validity up to 31st July 2015. As this period has now lapsed, a new application is being submitted for the proposed Narrow Water Bridge project in advance of the construction of the marine elements of the proposed development.

Table 2.1 provides a summary of the findings of this technical appraisal, which is set out in Section 3 of this Report. It is ROD's opinion that the NIS/HRA has been prepared in accordance with the relevant provisions of the Habitats Directive and the Habitats Regulations as well as the relevant case law and current guidance at the time of writing. New and updated guidance documents have been since published and are referenced in this technical appraisal. It is ROD's opinion that the assessment and conclusions remain valid in the NIS/HRA.

Table 2.1 Summary of Technical Appraisal

Section	Comment
General	<p>The "Zone of Influence" of a project is the geographic extent over which significant ecological effects are likely to occur. The Zone of Influence in the NIS/HRA is defined as the area "<i>contained locally within Carlingford Lough</i>".</p> <p>No justification is given for the Zone of Influence in the NIS/HRA. However, considering the nature, scale and location of the development, the locations of European sites and the sensitivities of the ecological receptors concerned, it is considered the NIS/HRA includes an assessment of all of the European sites that could be affected.</p> <p>Therefore, the Zone of Influence contained in the NIS/HRA is appropriate.</p>
Section 1: Introduction	The introduction section remains valid, and no updates are required.
Section 2: Appropriate Assessment Process	<p>Given the time that has elapsed since the publication of the NIS/HRA, the guidance document referenced have been superseded and/or supplemented with a number of new guidance documents.</p> <p>The contents of the new guidelines have been considered as part of this technical appraisal and do not affect the conclusion of the NIS/HRA.</p>
Section 3: Description of the Project	The description of the marine elements of the project, as summarised in Section 3 of the NIS/HRA and detailed in Chapter 3 of the Environmental Impact Statement (EIS), (as per Section 3 of the NIS/HRA), remain valid.

Section	Comment
<p>Section 4: Ecological Impact Assessment</p>	<p>Given the time that had elapsed since the ecological surveys were undertaken to inform the planning application, Louth County Council commissioned ROD to undertake validation surveys in 2021 and 2022. The survey reports are appended to this document.</p> <p>The results of these validation surveys do not change the conclusion of the NIS/HRA and the NIS/HRA therefore remains valid.</p>
<p>Section 5: Natura 2000 Sites</p>	<p>The Conservation Objectives for the following Natura 2000 sites have been updated since the NIS/HRA was prepared in 2012:</p> <ul style="list-style-type: none"> • Carlingford Shore SAC (002306) • Carlingford Lough SPA (004078) • Carlingford Lough SPA (UK9020160) <p>For the reasons outlined in Section 5.1 the assessment of the Qualifying Interests of these three European sites in the NIS/HRA are considered pertinent and do not change the conclusion of the NIS/HRA.</p>
<p>Section 6: Assessment of Likely Effects on European Sites</p>	<p>Section 6.3.3 of the NIS/HRA contains the results of the in-combination effects assessment. Considering the time that has elapsed since the publication of the NIS/HRA, the following projects in the area that have been granted planning in the last 10 years have further been considered for in-combination effects with the proposed development going forward, as part of this technical appraisal.</p> <p>Considering the results of the validation surveys undertaken in 2021 and 2022, the current guidance and best practice documents, as well as the updated Conservation Objectives and Qualifying Interests for the relevant European sites, the assessment of likely significant effects, either individually or in-combination with other plans and projects, on Natura 2000 sites remains valid.</p>
<p>Section 7: Mitigation Measures</p>	<p>The mitigation measures proposed in the NIS/HRA are sufficient to ensure no adverse effects to the relevant Natura 2000 sites, in view of their Conservation Objectives. Section 7 of the NIS/HRA remains valid, and no updates are required.</p>
<p>Section 8: Residual Impacts</p>	<p>Following the successful implementation of the mitigation measures, the residual impacts assessment, as described in Section 8 of the NIS/HRA remains valid. No updates to this section are required.</p>
<p>Section 9: Conclusion</p>	<p>It is the considered opinion of ROD, as the author of this technical appraisal, that the conclusion of the NIS/HRA prepared in 2012 for the proposed Narrow Water Bridge project, remains valid. No updates to this section are required.</p>

3.0 NIS/HRA APPRAISAL

This section of the Technical Appraisal contains a review of the NIS/HRA submitted with the planning application in 2012 and provides comments on the appraisal.

3.1 'Introduction' (Section 1 of the NIS/HRA)

Section 1 is divided into an introductory paragraph and three subsections which can be summarised as follows:

- The introductory paragraph states the aim of the report.
- Section 1.1 presents the requirement for AA, and quotes Article 6(3) directly.
- Section 1.2 states the aims of the NIS/HRA.
- Section 1.3 describes the project.

Appraisal/Comments

The introduction section remains valid, and no updates are required.

3.2 'Appropriate Assessment Process' (Section 2 of the NIS/HRA)

The section has been divided into two subsections which can be summarised as follows:

- Section 2.1 provides a list of guidance documents and a quotation from NPWS (2010).
- Section 2.2 describes the four-stage AA process as per EC (2001) and outlines the issues and tests at each stage.

Appraisal/Comments

Given the time that has elapsed since the publication of the NIS/HRA, the guidance document references have been supplemented with the following guidance documents:

- Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019.
- DAERA (2020) *Guidance explaining The Conservation (Natural Habitats, etc.) (Amendment) (Northern Ireland) (EU Exit) Regulations 2019*. Department of Agriculture, Environment and Rural Affairs.
- European Commission (EC) (2021) *Assessment of plans and projects in relation to Natura 2000 sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC*. Environment Directorate-General of the European Commission.
- European Commission (EC) (2018) *Managing Natura 2000 sites: The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC*. European Commission, Brussels.
- Office of the Planning Regulator (OPR) (2021) *Practice Note PN01: Appropriate Assessment Screening for Development Management*. Office of the Planning Regulator.
- SNH (2016). *Habitats Regulations Appraisal (HRA) on the Firth of Forth. A Guide for developers and regulators*. May 2016.
- Welsh Government (2021) *Habitats Regulations Assessments: Protecting a European site*. Department of Environment, Food and Rural Affairs, Welsh Government, Natural England and Natural Resources Wales.

The contents of the new guidelines have been considered as part of this technical appraisal and do not affect the conclusion of the NIS/HRA.

3.3 'Description of the Project' (Section 3 of the NIS/HRA)

Section 3 is divided into three subsections which can be summarised as follows:

- Section 3.1 describes the location of the proposed development.
- Section 3.2 describes the link road between the bridge and the R173.
- Section 3.3 describes the bridge structure.

Appraisal/ Comments

The description of the marine elements of the project, as summarised in Section 3 of the NIS/HRA and detailed in Chapter 3 of the EIS, (as per Section 3 of the NIS/HRA), remains valid.

3.4 'Ecological Impact Assessment' (Section 4 of the NIS/HRA)

Section 4 is divided into an overview paragraph and three subsections which can be summarised as follows:

- The overview paragraph introduces the guidance documents which were used in the preparation of the NIS/HRA.
- Section 4.1 introduces the suite of surveys that were undertaken during the assessment of the proposed development.
- Section 4.2 summarises the surveys that were undertaken, the survey methodology and guidance documents that were used, relevant to the AA Process.
- Section 4.3 summarises the results of the habitat survey and refers to Section 6.3.2 of the NIS/HRA for the results of the bird surveys.

Appraisal/ Comments

Given the time that had elapsed since the initial ecological surveys were undertaken, Louth County Council commissioned ROD to undertake surveys in 2021 and 2022 to validate the conclusions of the NIS/HRA and EIS. Details of these validation surveys relevant to AA are presented in Table 3.1 below. Survey reports for these validation surveys are appended to this Technical Appraisal. The results of these validation surveys do not change the conclusion of the NIS/HRA and the NIS/HRA therefore remains valid.

Table 3.1 Details of ecological validation surveys undertaken in 2021 and 2022

Survey		Date
Habitats		7 th July 2023
Wintering Birds	Point Count Surveys	19 th January 2022
		14 th February 2022
		25 th March 2022
	Flight Line Surveys	13 th December 2021
		19 th January 2022
		9 th February 2022

Survey	Date
Breeding Birds	16 th May 2022
	7 th July 2022

3.5 'Natura 2000 Sites' (Section 5 of the NIS/HRA)

Section 5 is divided into two subsections which can be summarised as follows:

- Section 5.1 Summarises the designated sites that occur within the zone of influence for the proposed development.
- Section 5.2 Provides detailed description of the designated sites, their Qualifying Interests, and Conservation Objectives.

Appraisal/ Comments

No justification is given for the Zone of Influence in the NIS/HRA. However, considering the nature, scale and location of the development, the locations of European sites and the sensitivities of the ecological receptors concerned, it is considered the NIS/HRA includes an assessment of all of the European sites that could be affected. Figure 3.1 below illustrates the location of European sites in the vicinity of the proposed development.

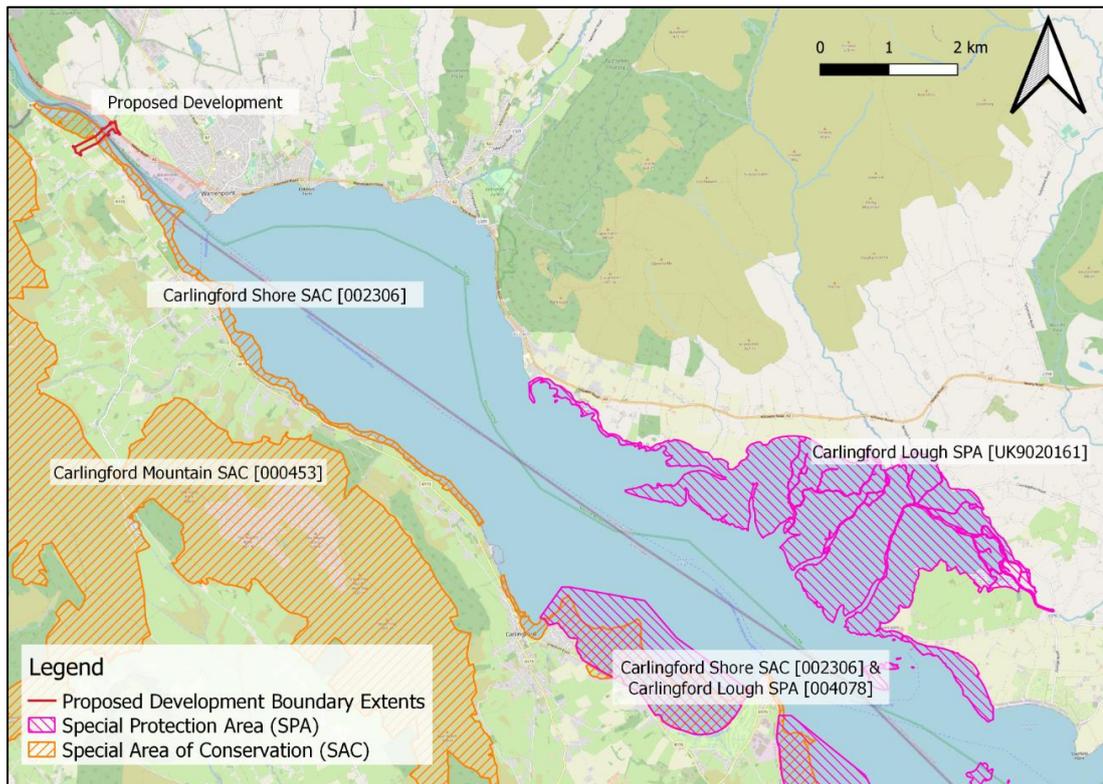


Figure 3.1 European Sites in the vicinity of the Proposed Development

Section 5.1 describes the sites that are close to the proposed development but are not considered to be within the zone of influence due to the nature of the site locations and distances from the proposed development. These sites are:

- Rostrevor Wood SAC
- Dundalk Bay SPA
- Carlingford Mountain SAC

There are no other European sites which could be affected by the proposed development. Therefore, the zone of influence contained in the NIS/HRA is appropriate.

The following designated sites were identified by the NIS/HRA as being within the Carlingford Lough and the characteristics of same were set out in section 6.2:

Republic of Ireland Sites

Carlingford Shore SAC (002306)

Site-specific Conservation Objectives for this site were published in 2013, replacing the draft Conservation Objectives considered in the assessment. The Qualifying Interests remain the same, and it is considered that the conclusion in the NIS/HRA remain valid.

Carlingford Lough SPA (004078)

The draft Conservation Objectives available at the time of publication were considered in the NIS/HRA. Site-specific Conservation Objectives were published the following year, in 2013. There are nine species that were assessed as Qualifying Interests which have now been removed from the list. These species include Great Crested Grebe, Cormorant, Scaup, Goldeneye, Redshank, Shelduck, Oystercatcher, Ringed Plover and Dunlin. The site is currently designated for two Qualifying Interests, 'Light-bellied Brent Goose' and 'Wetlands and waterbirds'. These Qualifying Interests were considered in the NIS/HRA and therefore the assessment remains valid.

Northern Ireland Sites

Carlingford Lough SPA (UK9020160)

The NIS/HRA considered one Qualifying Interest for this site, Sandwich Tern. The Conservation Objectives for this site were published in 2015 and include three Qualifying Interests, Common Tern, Sandwich Tern and Light-bellied Brent Goose. Although Common Tern and Light-bellied Brent Goose were not Qualifying Interests at the time of the publication of the NIS/HRA in 2012, the assessment of Sandwich Tern in the Carlingford Lough SPA (NI) and of Light-bellied Brent Goose in the Carlingford Lough SPA (ROI) are also applicable to Common Tern and Light-bellied Brent Goose within the Carlingford Lough SPA (NI) (See Table 1). Therefore, the conclusions of the NIS/HRA remain valid.

Table 1. New Qualifying Interests of the Carlingford Lough SPA (NI)

Qualifying Interest	European Site	What information in the NIS/HRA can be used in the assessment for the Qualifying Interests designated since 2012?
Common Tern	Carlingford Lough SPA (UK9020160)	The reasoning behind the assessment of Sandwich Tern in the Carlingford Lough SPA (NI) can also be applied to Common Tern. Ecologically, these species are similar. They migrate to Ireland in the Summer, and nest in colonies, and plunge dive for fish along the coasts. Therefore, considering the reasons outlined in the NIS/HRA relating to the assessment of Sandwich Tern, the potential for adverse effects on Common Tern in the Carlingford Lough SPA (NI) can be excluded.
Light-bellied Brent Goose	Carlingford Lough SPA (UK9020160)	The reasoning behind the assessment of Light-bellied Brent Goose in the Carlingford Lough SPA (ROI) can also be applied to Light-bellied Brent Goose in the Carlingford Lough SPA (NI). The Conservation Objectives relate to the same species as a Qualifying Interest for two European sites in close proximity to one another. Therefore, considering the reasons outlined in the NIS/HRA relating to the assessment of Light-bellied Brent Goose in the Carlingford Lough SPA (ROI), the potential for adverse effects on Light-bellied Brent Goose in the Carlingford Lough SPA (NI) can be excluded.

For the reasons outlined in Table 1 above, the assessment of the Qualifying Interests of these three European sites in the NIS/HRA are considered appropriate and do not change the conclusion of the NIS/HRA.

3.6 'Assessment of Likely Effects on Natura 2000 Sites' (Section 6 of the NIS/HRA)

Section 6 is divided into three subsections, which can be described as follows:

- Section 6.1 describes how likely significant effects on the integrity of Natura 2000 sites are assessed using available guidance documents.
- Section 6.2 summarises the field surveys that were undertaken and refers to Section 7.2 of the EIS for the detailed survey results.
- Section 6.3 is divided into three further subsections, summarising the potential impacts of the proposed development on each of the Natura 2000 sites in the zone of influence (section 6.3.1 and 6.3.2) as well as the in-combination effects of the proposed development with other projects in the vicinity (section 6.3.3).

Appraisal/Comments

Section 6.3.3 of the NIS/HRA contains the results of the in-combination effects assessment. Considering the time that has elapsed since the publication of the NIS/HRA, the following projects in the area that have been granted planning within the last 10 years have been considered for in-combination effects as part of this technical appraisal. For the purposes of the assessment, small scale and domestic developments were not considered given the nature of the proposed development and the fact that these projects would be subject to stringent planning controls.

Newry Southern Relief Road

The Department for Infrastructure (DfI) Southern Division is advancing the design and development of a new strategic road link to the south of Newry City, between the A1 Dublin Road dual carriageway and A2 Warrenpoint Road dual carriageway. This would provide an alternative route for strategic traffic that avoids Newry City centre.

The scheme would link to the Eastern Seaboard (A1/N1 Belfast-Dublin) Key Transport Corridor (KTC), which includes road and rail links between Larne (via the Belfast Metropolitan Area) and the border at Newry, facilitating onward travel to Dublin and improving access to other regional gateways. The scheme is part of DfI's Strategic Road Improvement (SRI) Programme and has also been identified within the Banbridge, Newry and Mourne Area Plan 2015.

It is anticipated that the bridge over the Newry River will be a single-span bridge, thus not directly impacting on the river. The *Stage 1 Scheme Assessment Report* (AECOM, June 2017) provides that mitigation and enhancement will be developed to avoid or minimise adverse impacts of the project on the receiving environment, and that a HRA is being undertaken alongside this Stage 1 Assessment which will establish if any specific mitigation measures are necessary to protect these Natura 2000 (SAC and SPA) sites from adverse impacts associated with the scheme. Considering the above provisions will be implemented as part of the Newry Southern Relief Road project, there will be no adverse effects on Carlingford Shore SAC or Carlingford Lough SPA in view of their Conservation Objectives, arising from the combination of this project with the proposed development.

Carlingford Lough Greenway

Sections 1 and 2 extend from Carlingford to Carlingford Marina and from Omeath Pier to the County Bridge at the Northern Ireland/Republic of Ireland border, respectively. These sections are located entirely within the Republic of Ireland and within the boundary of Louth County Council.

Section 3, which extends from the County Bridge at the Northern Ireland/Republic of Ireland border to Victoria Lock in Northern Ireland. This section is located entirely within Northern Ireland and within the boundary of Newry, Mourne and Down District Council (NMDDC).

The greenway will consist of a shared walking and cycling greenway incorporating a 5 m wide greenway corridor to include: a 2–3 m shared pedestrian and cyclist path with associated site works.

Considering the nature, scale and location of the Carlingford Lough Greenway, there will be no adverse effects to the Carlingford Shore SAC or Carlingford Lough SPA in view of their Conservation Objectives, arising from the combination of this project with the proposed development.

Warrenpoint Port

Planning Reference Number	Project Description	In-combination effect
<p>Newry, Mourne and Down County Council: LA07/2019/1019/DC; LA07/2015/0056/F</p> <p>Address: 25 metres northwest of 62 Newry Road Warrenpoint</p>	<p>Planning Application Lodged: 23 Mar 2015 Decision Date: 30 Oct 2015</p> <p>Construction of pipelines (2no) and 7 horizontal storage tanks for the supply by ship of liquid Carbon Dioxide, with a total storage capacity of 3,200 tonnes and venting by silencer at jetty. The storage tanks will have plant access steelwork and a new hard standing area, and new access road. A loading bay with weighbridge to include containerised weighbridge station for 2 road tankers. A containerised Motor Control Centre will supply power and a containerised refrigeration centre of 20 sq m to keep Carbon dioxide at normal operating temperature. A containerized Quality Assurance lab of 20sq m. (amended information received).</p>	<p>This project is located approximately 90 m southeast of the proposed development in Warrenpoint Port.</p> <p>Owing to the nature, location and scale of this project and provided the schedule of conditions laid out in the planning permission are implemented in full, no significant in-combination effects are predicted to arise from the proposed development and this Project on the Carlingford Lough MCZ.</p>

Greenore Port Expansion Projects

A number of individual projects within the Greenore Port area have been assessed for in-combination effects with the proposed development. Considering the nature and scale of these individual projects, there will be no adverse effects to the Carlingford Shore SAC or Carlingford Lough SPA in view of their Conservation Objectives, arising from the combination of these projects with the proposed development. These projects are presented and assessed in a breakdown table in Appendix C.

Considering the results of the validation surveys undertaken in 2021 and 2022, the current guidance and best practice documents, as well as the updated Conservation Objectives and Qualifying Interests for the relevant European sites, the assessment of adverse effects, either individually or in-combination with other plans and projects, on Natura 2000 sites remains valid.

3.7 'Mitigation Measures' (Section 7 of the NIS/HRA)

Section 7 describes the mitigation measures that have been proposed to reduce or eliminate adverse effects to the qualifying interests of the relevant Natura 2000 sites.

Appraisal/Comments

The mitigation measures proposed in the NIS/HRA are sufficient to ensure no adverse effects to the relevant Natura 2000 sites, in view of their Conservation Objectives. Section 7 of the NIS/HRA remains valid, and no updates are required.

3.8 'Residual Impacts' (Section 8 of the NIS/HRA)

Section 8 confirms that there will be no residual impacts on the Carlingford Shore SAC, the Carlingford Lough SPA (ROI) or the Carlingford Lough SPA (NI) as a result of the proposed development, following the implementation of the mitigation measures.

Appraisal/Comments

Following the successful implementation of the mitigation measures, the residual impacts assessment, as described in Section 8 of the NIS/HRA remains valid. No updates to this section are required.

3.9 Conclusion

It is the considered opinion of ROD, as the author of this Technical Appraisal, that the conclusion of the NIS/HRA prepared in 2012 for the proposed Narrow Water Bridge project, remains valid. The mitigation measures that have been proposed to reduce or eliminate these effects also remain relevant and appropriate. New guidance documents have been published since the preparation of this report and these are considered within this technical appraisal. It is the opinion of the author of this Technical Appraisal, that the Department of Agriculture, Environment and Rural Affairs (DEARA) may find, as the competent authority for the marine license application process, that, provided the mitigation measures are implemented in full, as described within the NIS/HRA, there will be no adverse effects on the Carlingford Shore SAC, the Carlingford Lough SPA (ROI) or the Carlingford Lough SPA (NI), or any other European site as a result of the proposed development.

APPENDIX A

Wintering and Breeding Bird Survey Report 2022

NARROW WATER BRIDGE PROJECT



Ecology Validation Surveys - Wintering and Breeding Birds Report

August 2022



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Louth County Council

NARROW WATER BRIDGE PROJECT

Ecology Validation Surveys - Wintering and Breeding Birds Report

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1. INTRODUCTION

1.1 Background

Roughan & O'Donovan (ROD) was commissioned by Louth County Council to undertake wintering and breeding bird surveys to validate the conclusions of the Environmental Impact Statement (EIS) and Natura Impact Statement (NIS) for the Narrow Water Bridge Project ("the proposed development").

The EIS and NIS for the proposed development was submitted to An Bord Pleanála (ABP) and the Planning Service in the Department of Environment (PS DoE), Northern Ireland (NI) in 2012. Following which, an Oral Hearing was held in June 2012 before ABP and PS DoE approval was received in October 2012.

The ecological baseline surveys were generally undertaken between 2006 and 2008. At the time of lodging the application, the surveys were already dated, and, given the duration of time that has now passed since the surveys, it was recommended to establish the current condition of the site to ensure compliance with legislation.

To minimise project risk, it was decided to undertake validation surveys for wintering birds and breeding birds.

The surveys were carried out in line with the following guidelines:

- *Guidelines on Ecological Surveying Techniques for Protected Flora and Fauna on National Road Schemes* (TII, 2009).
- *CBS Manual Guidelines for Countryside Bird Survey participants* (Birdwatch Ireland 2012)
- *Bird Atlas 2007-11* (BTO, 2011)

1.2 Site Location

The proposed development crosses the Newry River, approximately 10km downstream of Newry. The site is 2.5km northwest/ upstream of Omeath, County Louth and 1.5 km northwest of Warrenpoint, County Down.

2. SURVEY METHODOLOGY

2.1 Study Area

2.1.1 Wintering Birds - Point Counts

The survey included the site of the proposed development and a buffer of 500m upstream and downstream along the Newry River, and in the fields adjacent to the river.

2.1.2 Wintering Birds - Flight Lines

The flight lines survey was undertaken from the south bank of the Newry River, at the location of the future bridge span.

2.1.3 Breeding Birds

The breeding bird survey was undertaken in Cillin Wood.

2.2 Survey Methods

2.2.1 Wintering Birds - Point Counts

Counts of wintering birds were carried out monthly within two hours of low tide and two hours of high tide between January 2022 and March 2022 as set out in Table 2-1. On one occasion the survey deviated from this due to the low tide times and the short number of daylight hours, however the survey was undertaken during low tide conditions i.e. intertidal habitats were exposed. Point counts were made from several locations to allow for full coverage of the study area. All waterbirds within c. 500m of the proposed development were recorded using 10 x binoculars and a Viking ED Pro 25-65 x scope. Birds were recorded on maps using standard British Trust for Ornithology (BTO) species codes along with the numbers and activity of each species. Incidental records of raptors were also made. Details of the survey dates and times are presented in Table 2-1 below.

Table 2-1 Survey/ Tide dates and times. HT = high tide; LT = low tide.

Date	Tide/ Surveys Time			Tide/ Surveys Time		
	HT	Start	End	LT	Start	End
19/01/2022	12:10	12:00	13:20	05:55/ 18:21	09:00	10:00
14/02/2022	10:13	09:20	10:30	16:51	14:40	15:30
25/03/2022	17:03	15:35	16:40	10:41	11:10	12:15

2.2.2 Wintering Birds - Flight Lines

The survey of bird flight lines at the bridge location was undertaken on three occasions between December 2021 and February 2022, for a period of 6 hours each as set out in Table 2-2. This ensured that a range of tidal conditions were captured, in particular the period between tides when birds would be moving between high tide roosts and low tide feeding areas. On each survey, the species, the number of birds, flight height and direction were recorded. Each species was recorded using BTO species codes (BTO, 2017). Incidental records of raptors were also made.

Table 2-2 Survey/ Tide dates and times . HT = high tide; LT = low tide.

Date	HT	LT	Start	End
13/12/2021	07:06	13:18	09:45	15:45
19/01/2022	10:13	16:51	09:50	15:50
09/02/2022	17:53	11:37	10:30	16:30

2.2.3 Breeding Birds

The breeding bird survey was carried out over two mornings, on the 16th May 2022 (08:20 - 09:30) and the 7th July 2022 (08:30 - 09:30). On each survey, a loop around Cillin Wood was walked twice, and all visual and sound observations of birds were recorded. Birds were recorded on maps using standard BTO species codes along with the numbers and activity of each species. Any evidence of breeding was noted, and each species was labelled as non-breeding, possible breeder, probable breeder or confirmed breeder.

3. SURVEY RESULTS

3.1 Wintering Birds

3.1.1 Point Counts

A summary of the results of the point count surveys is presented in Table 3-1. A total of 17 species of waterbirds were recorded during the point count surveys in 2022.

Table 3-1 Peak numbers of wintering waterbirds within 500m of Narrow Water Bridge.

Species	Peak High Tide	Peak Low Tide
Black-headed Gull	57	69
Black-tailed Godwit	0	10
Common Sandpiper	0	1
Cormorant	0	2
Curlew	37	42
Great-crested Grebe	3	2
Greenshank	3	6
Grey Heron	6	4
Herring Gull	15	17
Lapwing	0	36
Light-bellied Brent Goose	28	1
Mallard	11	21
Oystercatcher	44	43
Redshank	105	87
Shelduck	2	2
Teal	3	7
Turnstone	8	0

The intertidal zone along the river is utilised by waterbirds for feeding. At high tide, waterbirds roost on the narrow spit on the northern side of the river, and on the boomerang-shaped island/ bird roost close to the south bank (see Plate 1 below).



Plate 1 Wintering Bird roost sites at bridge location

Table 3-2 Roost Counts at Narrow Water Bridge Location

Date	High tide survey		Low tide survey	
	North Spit	South Island	North Spit	South Island
19/01/2022	58 Redshank 1 Curlew 6 Oystercatcher 2 Mallard	2 Light-bellied Brent Goose 2 Herring Gull 39 Oystercatcher	36 Lapwing	15 Redshank 1 Curlew
14/02/2022	-	15 Redshank 1 Curlew	-	-
25/03/2022	45 Redshank 2 Light-bellied Brent Goose 8 Turnstone	-	-	-

3.1.2 Flight Lines

The proposed bridge deck is approximately 6m above mean low water, with the taller of the two towers 100m above the mean low water mark. Therefore, it is conceivable that any birds flying between 6m and 100m are at risk of collision with the structure. Table 3-3 presents the highest number of bird movements recorded by species during a single survey (6-hour Vantage Point (VP)). The flight lines of gulls were not recorded as a large number of gulls, particularly Black-headed Gull, were present in the study area and regularly flew around, but were not flying between roosts and feeding areas. Curlew and Oystercatcher were the most common species recorded flying up or down the river at the location of the proposed bridge. The surveys indicate that the Newry River is used by a range of species travelling up and down the river, with a noticeable increase between the tides, where numbers increase as birds fly between feeding and roosting sites.

Table 3-3 Peak counts of species recorded during flight line surveys

Species	Peak Count
Bar-tailed Godwit	7
Black-tailed Godwit	8
Cormorant	40
Curlew	198
Great-crested Grebe	1
Greenshank	17
Grey Heron	1
Light-bellied Brent Goose	2
Mallard	4
Oystercatcher	105
Redshank	53
Shelduck	35
Teal	9
Turnstone	3

3.2 Breeding Birds

A summary of the results of the breeding bird survey is presented in Table 3-4 below. In total, 17 species were recorded.

A heronry was recorded along the northern edge of Cillin Wood during the surveys in 2008. The heronry has since been abandoned and no Grey Heron nests were found in Cillin Wood. A number of specimen beech trees along the northern boundary of Cillin Wood are currently used as a night roost by Cormorant, with birds seen arriving from late afternoon. White-wash is evident below the trees indicating regular use.

Table 3-4 Results of the breeding bird surveys. BoCCI = *Birds of Conservation in Ireland 2020-2026*.

Species	Breeding Status	Max Breeding Evidence	BOCCI	Survey 1	Survey 2
Blackbird	Probable	Multiple singing males	Green	✓	✓
Blue Tit	Probable	Singling male present	Green	✓	
Chaffinch	Probable	Singling male present	Green	✓	✓
Coal Tit	Probable	Singling male present	Green		✓
Dunnock	Possible	Species in suitable habitat	Green	✓	
Goldfinch	Possible	Multiple singing males	Green	✓	✓
Great Tit	Probable	Singling male present	Green	✓	
Goldcrest	Possible	Species in suitable habitat	Green		✓
Grey Heron	Non-breeding	No nests present	Green		✓

Species	Breeding Status	Max Breeding Evidence	BOCCI	Survey 1	Survey 2
Hooded Crow	Possible	Multiple singing males	Green	✓	✓
Jay	Possible	Species in suitable habitat	Green		✓
Mistle Thrush	Possible	Species in suitable habitat	Green		✓
Robin	Probable	Singling male present	Green	✓	✓
Song Thrush	Probable	Species in suitable habitat	Green	✓	✓
Sparrowhawk	Possible	Species in suitable habitat	Green	✓	
Wood Pigeon	Possible	Multiple singing males	Green	✓	✓
Wren	Probable	Multiple singing males	Green	✓	✓

4. COMPARISON TO EIS SURVEY RESULTS

4.1 Wintering Birds

4.1.1 Point Counts

The wintering bird surveys that informed the EIS were undertaken over a 7km stretch of the Newry River, which was divided into seven 1km Sections (Section A-G). Section F corresponds to the location of the bridge, and to the 2022 survey area.

Surveys that informed the EIS in the Narrow Water Study Area (Section F) recorded 18 wintering bird species, while 25 species were recorded in the Newry River Study Area as a whole (Sections A-G). Black-headed Gull, Oystercatcher and Redshank were the most commonly recorded species recorded in the Narrow Water Study Area (Section F) in 2008. In 2022, 17 species were recorded within 500m of the proposed bridge, an area broadly corresponding to Section F.

A comparison of the species observed in 2008 and 2022 is provided in Table 4-1.

Table 4-1 Species observed during Point Count Surveys 2008 and 2021/2022 comparison

Species	2008 Survey (Sections A-G)	2008 Survey (Section F)	2022 Survey
Black-headed Gull	✓	✓	✓
Black-tailed Godwit	✓		✓
Common Gull	✓	✓	
Common Sandpiper			✓
Cormorant	✓	✓	✓
Curlew	✓	✓	✓
Dunlin	✓		
Great Black-backed Gull	✓	✓	
Great-crested Grebe	✓		✓
Greenshank	✓	✓	✓
Grey Heron	✓	✓	✓
Grey Plover	✓	✓	
Herring Gull	✓	✓	✓
Kingfisher	✓		
Lapwing	✓	✓	✓
Lesser Black-backed Gull	✓		
Light-bellied Brent Goose	✓	✓	✓
Little Egret	✓	✓	
Mallard	✓		✓
Mediterranean Gull	✓	✓	

Species	2008 Survey (Sections A-G)	2008 Survey (Section F)	2022 Survey
Moorhen	✓		
Oystercatcher	✓	✓	✓
Redshank	✓	✓	✓
Shelduck	✓	✓	✓
Teal	✓	✓	✓
Turnstone	✓	✓	✓
Total Count	25	18	17

The species recorded in 2022 that were not recorded in 2008 (Section F only) were Mallard, Great Crested Grebe, Black-tailed Godwit and Common Sandpiper. Similarly there were a number of species recorded in 2008 (Section F only) which were not recorded in 2022 including Grey Plover, Mediterranean Gull, Common Gull, Little Egret and Great Black-backed Gull.

The surveys in 2008 consisted of 11 visits between January and May, whereas the 2022 surveys were carried out on three visits between January to March. A small number of species were recorded across the full set of 2008 surveys for the EIS (covering a 7km stretch of river) which were not recorded in the 2022 wintering bird surveys, namely Common Gull, Mediterranean Gull, Grey Plover, Great Black-backed Gull, Little Egret, Moorhen, Dunlin, Lesser Black-backed Gull and Kingfisher.

In the 2008 survey of the Newry River Study Area (Sections A-G), all of the species recorded in 2022 were recorded, apart from Common Sandpiper. The presence of one Common Sandpiper on a single survey does not represent a significant change in the species present.

Table 4-2 below shows a comparison of the numbers of the most common species recorded in 2008 and 2022. The difference in species assemblage might be explained by slight difference in the study areas.

Table 4-2 Comparison of peak counts of five common species between 2008 and 2021/22 surveys.

Species	Peak Count 2008 (Section F)	Peak Count 2021/22
Black-headed Gull	71	69
Oystercatcher	51	44
Redshank	64	105
Shelduck	18	2
Teal	24	7

In the EIS, c.300 waterbirds were using the island as a high tide roost. This is considerably higher than the maximum number of birds using the island in the 2021/2022 validation surveys, which was 43 birds. The reason for this is unclear.

4.1.2 Flight Lines

The flight line surveys undertaken to inform the EIS in 2008 recorded 17 species, excluding gulls, compared to 14 species recorded in 2021/ 2022. Table 4-3 presents the most common species recorded in 2008 and 2021/ 2022. The 2021/ 2022 survey was conducted over 18 hours in total. The 2008 survey was conducted over 30 hours. Therefore, the total count figure for 2021/ 2022 has been adjusted in Table 4-3 below to make the figures comparable.

Table 4-3 Flight Line Survey 2008 and 2021/2022 comparison

Species	Total Count 2008	Total Count 2021/ 2022	Total Count 2021/ 2022 (x 1.666 to account for difference in survey effort)	% change in total movements between 2008 and 2021/2022
Cormorant	157	75	125	-20%
Curlew	443	300	500	+13%
Dunlin	892	0	0	-100%
Lapwing	504	0	0	-100%
Oystercatcher	500	281	468	-6.4%
Redshank	299	109	182	-39%

Two of the most commonly recorded species in 2008 (other than gulls), Dunlin and Lapwing, were not recorded in the 2021/ 2022 flight line surveys. The 2021/ 2022 surveys also found declines of 35% and 20% in the numbers of Redshank and Cormorant, respectively. Similar numbers of Oystercatcher and Curlew were recorded in 2008 and 2021/ 2022.

4.2 Breeding Birds

Surveys in 2008 which included specific breeding bird surveys and incidental observations, recorded 24 species of breeding birds. 17 species were recorded during the 2022 survey. Table 4-4 below list the species recorded. The difference in the number of species recorded is likely attributed to the time spent on site and the opportunities to record species incidentally. Incidental records are not included in the 2022 data. In addition, the study area in 2008 included a 7km length of the Newry River which increased the chances to encounter species not present at the bridge location.

Table 4-4 Comparison of Breeding Bird Results between 2008 and 2022

Species	2008 Survey	2022 Survey
Blackbird	✓	✓
Blackcap	✓	
Blue Tit	✓	✓
Chaffinch	✓	✓
Chiffchaff	✓	
Coal Tit	✓	✓

Species	2008 Survey	2022 Survey
Dunnock	✓	✓
Goldfinch		✓
Goldcrest	✓	✓
Goshawk	✓	
Great Tit	✓	✓
Greenfinch	✓	
Grey Heron		✓
Hooded Crow	✓	✓
Jay		✓
Jackdaw	✓	
Lesser Redpoll	✓	
Long-tailed Tit	✓	
Magpie	✓	
Mistle Thrush	✓	✓
Robin	✓	✓
Siskin	✓	
Song Thrush		✓
Sparrowhawk		✓
Starling	✓	
Swallow	✓	
Willow Warbler	✓	
Wood Pigeon	✓	✓
Wren	✓	✓

5. CONCLUSIONS

During the 2022 surveys, 17 species of wintering birds were recorded across the point count and flight line surveys. During the 2008 surveys, 18 species of wintering birds were recorded in the survey area denoted Section F. There has been no measurable change to the study area with regards to the level of wintering bird activity since the EIS surveys were carried out, and the mitigation measures for these species, which are presented in Section 13.4.1 of the EIS, therefore remain valid.

In 2022, 17 species breeding bird surveys were recorded. When considering the survey effort and study area used in the surveys to inform the EIS, this is not a significant change. The heronry recorded in Cillin Wood during the EIS surveys is no longer present, and therefore mitigation measures in the EIS for the protection of the heronry are no longer required from an ecological perspective, although it should be noted that the mitigation measures are a consent of planning.

In conclusion, the wintering and breeding bird surveys have indicated no significant changes since 2008 whereby additional mitigation measures would be required. Therefore, the mitigation measures prescribed in section 13.4.1 of the EIS remain valid.

6. REFERENCES

BTO (2017). *BTO Species Codes* Available at:
https://www.bto.org/sites/default/files/u16/downloads/forms_instructions/bto_bird_species_codes.pdf [Accessed 10/12/2021]. British Trust for Ornithology, Thetford.

Gilbert G., Stanbury, A., Lewis., L.(2021) *Birds of Conservation Concern in Ireland 4: 2020 - 2026*. Irish Birds 43:1-22.

Roughan & O'Donovan (2012) *Narrow Water Bridge Project Environmental Impact Statement. Report for Louth County Council*.

APPENDIX B

Habitat and Invasive Species Survey Report 2022

NARROW WATER BRIDGE PROJECT

Ecology Validation Surveys – Habitat and Invasive Species Survey Report

August 2022

Doc. No.: NWB-ROD-ENV-AE-RP-EN-200003

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Louth County Council

NARROW WATER BRIDGE PROJECT

Ecology Validation Surveys - Habitat and Invasive Species Survey Report

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1.0 INTRODUCTION

1.1 Background

Roughan & O'Donovan (ROD) was commissioned by Louth County Council to undertake a habitat and invasive species survey to validate the conclusions of the Environmental Impact Statement (EIS) and Natura Impact Statement (NIS) for the Narrow Water Bridge Project ("the proposed development").

The EIS and NIS for the proposed development was submitted to An Bord Pleanála (ABP) and the Planning Service in the Department of Environment (PS DoE), Northern Ireland (NI) in 2012. Following which, an Oral Hearing was held in June 2012 before ABP and PS DoE approval was received in October 2012.

The ecological baseline surveys were undertaken between 2006 and 2008.

At the time of lodging the application, the surveys were already dated, and, given the duration of time that has now passed since the surveys, it was recommended to establish the current condition of the site to ensure compliance with legislation.

To minimise project risk, it was decided to undertake validation habitat and invasive species surveys.

1.2 Site Location

The proposed development crosses the Newry River, approximately 10km downstream of Newry. The site is 2.5km northwest/ upstream of Omeath, County Louth and 1.5 km northwest of Warrenpoint, County Down.

2.0 SURVEY METHODOLOGY

2.1 Study Area

2.1.1 Habitat Survey

The habitat survey included Cillin Wood and the site of the proposed development, on both sides of the river, and also the foreshore areas used to access the new roost site.

2.1.2 Invasive Species

The invasive species survey included Cillin Wood and the site of the proposed development, on both sides of the river, and also the foreshore areas used to access the new roost site.

2.2 Survey Methods

2.2.1 Habitat Survey

Habitat surveys were conducted in accordance with best practice guidance (Smith et al., 2011). The study area was systematically surveyed, and all habitats present were assessed, classified and sketched onto field maps. Habitats were classified according to *A Guide to Habitats in Ireland* (Fossitt, 2000) and any habitats corresponding to types listed on Annex I to the Habitats Directive were identified using the *Interpretation Manual of European Union Habitats* (EC, 2013).

2.2.2 Invasive Species Survey

Invasive plants, including species listed on the Third Schedule to the Habitats Regulations, but also other species which can negatively impact biodiversity were recorded and their distributions sketched on field maps. Target notes were taken which detailed height, density, and any signs of previous management.

3.0 SURVEY RESULTS

3.1 Habitat Survey

Twelve habitats were recorded in the study area:

- Mixed Broad-leaved/ Conifer Woodland (WD2)
- Built and Artificial Surfaces (BL3)
- Improved Agricultural Grassland (GA1)
- Treelines (WL2)
- Hedgerows (WL1)
- Sheltered Rocky Shores (LR3)
- Tidal Rivers (CW2)
- Lower Salt Marsh (CM1)
- Dry Meadows and Grassy Verges (GS2)
- Scrub (WS1)
- Muddy Sand Shores (LS3)
- Reed and Large Sedge Swamp (FS1)
- Ornamental/ non-native shrub (WS3)

3.2 Invasive Species Survey

Two invasive species listed on the Third Schedule of the Habitats Regulations were recorded. Rhododendron (*Rhododendron ponticum*) was recorded in Cillin Wood and has been treated in recent years, with some new growth evident in 2022. The western end of the woodland appears to have been particularly infested, with abundant dead plant material. One plant was recorded along the hedgerow adjacent to the south bank of the Newry River, outside of the works area. Common Cord Grass (*Spartina anglica*) was also recorded growing on the mud flats in the small bay to the north of Cillin Wood.

Cherry Laurel (*Prunus lauroseracus*) and Snowberry (*Symphoricarpos albus*), which are not listed on the Third Schedule of the Habitats Regulations, were recorded in Cillin Wood. Records of Harpoon Weed (*Asparagopsis armata*), a sublittoral (subtidal) species close to Narrow Water Keep have also been noted to the Ecology Team by Loughs Agency.

4.0 COMPARATIVE ANALYSIS

4.1 Habitat Survey

Table 4.1 below presents the habitats recorded in 2008 and 2022. In 2008, 19 habitats were recorded whereas 15 habitats were recorded in 2022. Four of the habitats recorded in 2008 were not present within the study area in 2022; GS4, ED3, BC1, BC3 are temporary in nature or were recorded outside the study area of the 2022 survey. Upper salt marsh (CM2) was recorded in 2008 but not in 2022. In the 2022 survey, all of the salt marsh was classified as lower salt marsh based on the physical characteristics of these habitats and the species assemblage. These habitats grade into one another and the difference in the results is not significant. Built land and artificial surfaces (BL3) was not recorded in 2008 and was recorded in 2022, represented by the hard standing at the roundabout on the north side of the river. The habitat surveys undertaken to inform the EIS are still valid and there are no significant changes to the habitats in the study area since 2008. Table 4.1 presents the habitats recorded in 2008 and 2022.

Table 4.1 Habitats recorded in 2008 and 2022

Habitat	2008	2022
Arable Crops (BC1)	✓	
Built and Artificial Surfaces (BL3)		✓
Dry Meadows and Grassy Verges (GS2)	✓	✓
Hedgerows (WL1)	✓	✓
Improved Agricultural Grassland (GA1)	✓	✓
Lower Salt Marsh (CM1)	✓	✓
(Mixed) Broad-leaved Woodland (WD1)	✓	✓
Mud Shores (LS1)	✓	✓
Ornamental/ non-native shrub (WS3)	✓	✓
Recolonising bare ground (ED3)	✓	
Reed and Large Sedge Swamp (FS1)	✓	✓
Scattered trees and parkland (WD5)	✓	✓
Scrub (WS1)	✓	✓
Sea walls, piers and jetties (CC1)	✓	✓
Sheltered Rocky Shores (LR3)	✓	✓
Tidal Rivers (CW2)	✓	✓
Tilled land (BC3)	✓	
Treelines (WL2)	✓	✓
Upper salt marsh (CM2)	✓	
Wet Grassland (GS4)	✓	

4.2 Invasive Species Survey

No invasive species were recorded in the 2008 EIS whereas two species listed on the Third Schedule of the Habitats Regulations, and a further two invasive species not listed on the Third Schedule were recorded in 2022. All four species are located outside the works area.

The only species likely to be encountered during the works is Harpoon Weed, which is considered to be present in the river channel.

5.0 CONCLUSION

The 2022 surveys indicate that there are no significant changes in the type and distribution of habitats in the area of the proposed development since the EIS surveys were carried out, and therefore the 2008 surveys that informed the EIS are still valid.

Four invasive species were recorded in 2022 however they are located outside the works area. The only species of relevance is Harpoon Weed which is considered to be ubiquitous in the Newry River Channel. To prevent the accidental spread of this species to other locations, the Contractor shall ensure that all plant and machinery is thoroughly cleaned and washed before departure from the site.

6.0 REFERENCES

Roughan & O'Donovan (2012) *Narrow Water Bridge Project Environmental Impact Statement. Report for Louth County Council.*

APPENDIX C

In-Combination Assessment

Table D.1: Projects within the Greenore Port assessed for in-combination effects with the proposed development.

Planning Reference Number	Project Description	In-combination effect
<p>Louth County Council: 20268</p>	<p>Planning Application Lodged: 09/04/2020 Decision Date: 13/07/2020</p> <p>Extension and modifications to the existing former OpenHydro warehouse including: a. An overall 4,499 sqm extension comprising: - a 747 sqm extension to the north east (proposed extension no. 1) with a ridge height of 17.03m, to form proposed store 1 with a total floor area of 1,816sqm – A 752sqm extension to the south west (proposed extension no. 2) with a ridge height of 15.67m consistent with the existing building, to form proposed store 2 with a total floor area of 1,369sqm b. Removal of window openings on existing south east elevation and installation of 1 no. pedestrian access door (1m x 2.1m); c. Removal of window opening on existing north west elevation and installation of 3 no. roller shutter doors (each 9.85m x 5.8m) and 2 no. pedestrian access doors (each 1m c 2.1m); and d. Removal of all openings on existing north east elevation. ii. Modifications to the existing warehouse ('Store 0') including: a. Increase height from the existing 8.15m to 10.55m; b. Installation of roller shutter door (16.8m x 7.5m) on north east elevation; c. Installation of roller shutter door (7.4m x 7.5m) on north west elevation; d. Removal of openings on existing north west elevation; e. Installation of 1 no. pedestrian access door on south east elevation (1m x 2.1m). iii. All ancillary site works including drainage and landscaping treatment to southern boundary wall.</p>	<p>This project is located approximately 12.5 km southeast of the proposed development as the crow flies.</p> <p>Owing to the nature, location and scale of this project, the conditions of the planning permission and conclusion of the AA Screening Report, no significant in-combination effects are predicted to arise from the proposed development and this Project.</p>
<p>Louth County Council: 20543 (ABP Appeal Ref.: ABP-310184-21)</p>	<p>Planning Application Lodged: 23/07/2020 Decision Date: 13/04/2021</p> <p>Permission for development that will consist I. Demolition works to include the following a. demolition of remnant former railway wall, 59.7m in length with a height ranging from 2.6m to 7.1m and concrete tower (3.9m x 4.5m) and 11.8m in height; b. Demolition of wall (43.5m x 4m) located inside the southern boundary of the application area; c. Demolition of existing EBS substation and associated switch room. 2. Construction of proposed 'New Store 1' comprising : a. 1,812 sq.m. gross floor area, max. height 15.25m;</p>	<p>This project is located approximately 12.5 km southeast of the proposed development as the crow flies.</p> <p>Owing to the nature, location and scale of this project and conclusion of the Inspector's Report following appeal, no significant in-combination effects are predicted to arise from the</p>

Planning Reference Number	Project Description	In-combination effect
	<p>b. Installation of 2 no. roller shutter doors (each 7.5m x 7.2m) and 1 no. pedestrian access door (1m x 2.2m) on north west elevation; and c. Installation of 1 no. pedestrian access door (1m x 2.2m) on the south east elevation. 3. Construction of Proposed 'New Store 2' comprising: a. 1,184sq.m. gross floor area, max. height 15.25m; b. Installation of 2 no. roller shutter doors (7.5m x 7.2m and 7.5m x 7.19m) and 2no. pedestrian access doors)1m x 2.2m) on the north west elevation; c. Installation of 1 no. pedestrian access door (1m x 2.2m) on the south east elevation . 4. Construction of an ESB substation with a floor area of 6.24m2 and 2m in height and associated switch room with floor area of 12.25m2 and 2.5m in height. 5. All Ancillary site works including drainage and landscaping treatment to the southern boundary wall.</p>	<p>proposed development and this Project.</p>
<p>Louth County Council: 19807</p>	<p>Planning Application Lodged: 02/10/2019 Decision Date: 18/11/2019</p> <p>Permission for development on a site of c. 0.176 hectares, to consist of (1) The change of use of the former 'OpenHydro' building (1,607sqm) from light engineering and office to storage for port commodities (agricultural feed, fertilizer, rock and salt); and (2) The removal and closing up of an existing vehicular access door on the northeast elevation and reinstatement and rendering of façade to match the existing.</p>	<p>This project is located approximately 12.5 km southeast of the proposed development as the crow flies.</p> <p>Owing to the nature, location and scale of this project, the schedule of conditions laid out in the planning permission and conclusion of the AA Screening Report, no significant in-combination effects are predicted to arise from the proposed development and this Project.</p>
<p>Louth County Council: 17413</p>	<p>Planning Application Lodged: 01/06/2017 Decision Date: 19/07/2017</p> <p>Permission for development to consist of 1. Dredging of harbour sediments to -7.5m Chart Datum to provide navigable water depths; 2. Rehabilitation works to the quay wall at Berth No.2 by constructing a steel combi wall system of c.139m in length and extending c.5m out from the existing quay wall and will tie into existing wall; 3. Placement of approximately 4,670m3 of uncontaminated dredged material into the void between the existing and new quay wall; 4. Improvement works to the</p>	<p>This project is located approximately 12.5 km southeast of the proposed development as the crow flies.</p> <p>Owing to the nature, location and scale of this project, the conditions of the planning permission, the tidal nature, the existing activities in the area and the conclusion of the AA Screening Report, no significant in-</p>

Planning Reference Number	Project Description	In-combination effect
	quay deck at Berth No.2 including the excavation of the existing concrete deck c.139m in length and c.37m width and surface water management system incorporating silt traps and a hydrocarbon interceptor; and, v. Provision of berth infrastructure including bollards, fenders, ladders, lifesaving equipment, power outlets and fire hydrants and all associated site works.	combination effects are predicted to arise from the proposed development and this Project.
Louth County Council: 16842	<p>Planning Application Lodged: 24/11/2016 Decision Date: 12/04/2017</p> <p>Permission for development on a 0.271-hectare site will consist of: (i) 2No. grain silos and all associated conveyor systems and associated works; (ii) 1No. bulk reception unit and all associated conveyor systems and associated works; (iii) 1No. grain removal building and all associated conveyor systems and associated works; and (iv) Ancillary site development works including extension to existing surface water management system.</p>	<p>This project is located approximately 12.5 km southeast of the proposed development as the crow flies.</p> <p>Owing to the nature, location and scale of this project, the conditions of the planning permission and conclusion of the AA Screening Report, no significant in-combination effects are predicted to arise from the proposed development and this Project.</p>
Louth County Council: 15105	<p>Planning Application Lodged: 24/02/2015 Decision Date: 02/04/2015</p> <p>Permission under Section 19A of the Foreshore Act 1933 (as amended) that Frazer Ferries Ltd has applied for consent under the Foreshore Act to occupy an area of foreshore for a reinforced concrete slipway & associated works. An Environmental Impact Statement (EIS) has been prepared in respect of this proposal. The Foreshore Application, EIS, Associated documents, all relevant maps, site plans and drawings may be inspected at the following locations: Dundalk Garda Station, Dundalk, County Louth, Carlingford Library, Newry Street, Carlingford and Louth County Council, Couty Hall, Millennium Centre, Dundalk</p>	<p>This project is located approximately 12.5 km southeast of the proposed development as the crow flies.</p> <p>Owing to the nature, location and scale of this project, the conclusions of the EIS, and provided the mitigation measures in the NIS/HRA are adhered to, (EIS and NIS/HRA are accessible on the DHLGH - Foreshore Unit webpage), no significant in-combination effects are predicted to arise from the proposed development and this Project.</p>

Planning Reference Number	Project Description	In-combination effect
<p>Louth County Council: 1339</p>	<p>Planning Application Lodged: 06/02/2013 Decision Date: 26/03/2013</p> <p>Permission for the decommissioning & demolition of the existing oil tank farm including steel tanks, tank bases, pipework, loading gantry etc. all as constructed under PL ref 82/745 & the construction of a 1026.20m² extension to the existing light engineering & assembly building approved under PL Ref 11/371 together with site development works including concrete paving, 3.20m high palisade fencing (partially to replace existing fencing) to the southeast (part) & southwest boundaries & along the northwest (part) shoreline, minor alterations to single storey ancillary building to provide additional WC & tea room facilities, installation of pump sump in place of existing septic tank & connection of the pumped domestic effluent to the adjacent public foul sewerage system, surface water drainage with oil interceptor trap incl. outfalls to sea, alterations to internal fencing to provide additional 10 car parking spaces & all other site development works.</p>	<p>This project is located approximately 12.5 km southeast of the proposed development as the crow flies.</p> <p>Owing to the nature, location and scale of this project, the conditions of the planning permission and conclusion of the AA Screening Report, no significant in-combination effects are predicted to arise from the proposed development and this Project.</p>
<p>Louth County Council: 13241</p>	<p>Planning Application Lodged: 14/06/2013 Decision Date: 25/02/2014</p> <p>Permission for the proposed construction of ferry terminal facilities adjacent to Greenore Port and adjacent to 80 Greencastle Pier Road Greencastle County Down to allow operation of a vehicular ferry across the mouth of Carlingford Lough. The proposed works include: • At Greenore construction of a reinforced concrete slipway (60m long) with 7vertical tubular berthing & fender piles on the southern side to facilitate ferry berthing; relocation of existing Port entrance gates & weighbridge; realignment of existing boundary fence to northern side of Port; modification of entrance road layout, part demolition of gable walls of existing shed to allow through access for vehicles, use of existing hard stand area for parking & queuing, new lighting columns, new pedestrian footpath along the existing rock armour & replacement of existing fence on SE boundary with pedestrian bollards. • At Greencastle the construction of a reinforced concrete suspended pier (58m long),</p>	<p>This project is located approximately 12.5 km southeast of the proposed development as the crow flies.</p> <p>Owing to the nature, location and scale of this project, the conditions of the planning permission and conclusion of the EIS, no significant in-combination effects are predicted to arise from the proposed development and this Project.</p>

Planning Reference Number	Project Description	In-combination effect
	<p>supported by vertical tubular piles & a reinforced concrete slipway (70m long) to allow vehicular access to the Ferry & 12 berthing piles with fenders & steel gangway to facilitate berthing & tying up of vessels overnight, new access & hardstanding for parking & queuing, kiosk for office & ancillary staff facilities, drainage & landscape proposals. Upgrade & widening to part of the Greencastle Pier Road & provision of passing bays. • Floating navigational marks anchored to the bed of the Lough & laid at the edges of the navigable channel to delineate appropriate channel boundaries or to mark shallow rock outcrops & provide for safety of navigation. An Environmental Impact Statement & a Natura Impact Statement have been prepared in support of the planning application. This application may have transboundary environmental effects. *The Transboundary Consultation process was completed, and no submissions were received as per letter received from DOE NI 30/12/13.</p>	

ANNEX A

NARROW WATER BRIDGE PROJECT

**NATURA IMPACT STATEMENT / HABITATS REGULATION
ASSESSMENT 2012**