

***shadow* Habitats Regulations Assessment**

Stage 1 Screening and Stage 2 Report to Inform Appropriate Assessment

D3 Cruise Terminal Outfalls, Belfast Harbour

794-NI-P&E-02904

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SHADOW HABITATS REGULATIONS ASSESSMENT

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Prepared by:	Prepared for:
Tetra Tech	Belfast Harbour Commissioners

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1 INTRODUCTION

Tetra Tech was commissioned by Belfast Harbour to undertake a shadow Habitats Regulations Assessment (HRA) to examine whether or not the installation of 2 no. outfalls at the D3 Cruise Terminal site is likely to have a significant effect on any European site. Details of the proposed project are provided in Section 3 of this report.

This shadow HRA supports a Construction Marine License application submitted to the Marine Licensing Team (MLT) of the Marine & Fisheries Division of the Department of Agriculture, Environment and Rural Affairs (DAERA). The license application is seeking consent for constructing stormwater outfalls which are seaward of the Mean High Water Springs (MHWS) boundary on the existing revetment. This approach of submitting a new application (rather than a licence variation) for the outfalls was advised by DAERA MLT in a PAD meeting in April 2026. To that end, an in-combination assessment with other permitted development and the proposed works at the D3 Cruise Terminal has been provided in Section 4.3.

It is intended that DAERA MLT (the consenting authority) will be provided with this shadow Habitats Regulations Assessment (“sHRA”) report to assist them in fulfilling their role as a Competent Authority fulfilling its duties in accordance with The Conservation (Natural Habitats, etc.) Regulations (Northern Ireland) 1995 (as amended), otherwise known as the “Habitats Regulations”.

Regulation 43 of the Habitats Regulations states:

“(1) A competent authority, before deciding to undertake, or give any consent, permission or other authorisation for, a plan or project which—

(a) is likely to have a significant effect on a European site in Northern Ireland (either alone or in combination with other plans or projects), and

(b) is not directly connected with or necessary to the management of the site, shall make an appropriate assessment of the implications for the site in view of that site’s conservation objectives.

(2) A person applying for any such consent, permission or other authorisation shall provide such information as the competent authority may reasonably require for the purposes of the assessment.

(3) The competent authority shall for the purposes of the assessment consult the Department and have regard to any representations made by it within such reasonable time as the authority may specify.

(4) The competent authority shall, if it considers it appropriate, take such steps as it considers necessary to obtain the opinion of the general public.

(5) In the light of the conclusions of the assessment, and subject to regulation 44, the authority shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the European site.

(6) In considering whether a plan or project will adversely affect the integrity of the site, the authority shall have regard to the manner in which it is proposed to be carried out or to any conditions or restrictions subject to which it proposed that the consent, permission or other authorisation should be given.”

These regulations transpose *inter alia* Articles 6(3) and 6(4) of Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora, and remain relevant following the UK’s departure from the EU. This approach is in line with the Habitats Regulations as amended, taking into account the effect of The Conservation (Natural Habitats, etc.) Regulations (Amendment) (Northern Ireland) (EU Exit) Regulations 2019 and The Conservation (Natural Habitats, etc.) (Amendment) Regulations (Northern Ireland) 2026. Terminology used in this report is in line with guidance published by DAERA in light of changes to the status of European sites following the UK’s departure from the EU (DAERA 2020)¹.

In simple terms, a project must be screened for appropriate assessment to ascertain whether or not likely significant effects on the UK national site network i.e. Special Areas of Conservation (SAC), Special Protection Areas (SPA) and Ramsar sites; will occur. The sHRA firstly considers the proposed project by itself and secondly in combination with other relevant plans or projects, and has

¹ <https://niopa.qub.ac.uk/bitstream/NIOPA/13358/1/Guidance%20explaining%20The%20Conservation%20%28Natural%20Habitats%2C%20etc.%29%20%28Amendment%29%20%28Northern%20Ireland%29%20%28EU%20Exit%29%20Regulations%202019.pdf>

been undertaken in view of best available scientific knowledge and in view of the conservation objectives set for the sites concerned and published by the DAERA in Northern Ireland.

1.1 Scientific Competence

The following section outlines the personnel who were involved in compiling this sHRA Report and their relevant experience.

██████████ BSc (Hons) MSc CEnv CSci C.WEM MCIWEM drafted this report. ██████████ is a Marine Environmental Consultant, who has 8 years of experience in Environmental Management, Monitoring and Assessment for infrastructure projects relating to offshore energy, coastal protection, aquaculture and port infrastructure. This includes coastal modelling, water quality monitoring, Marine Mammal Mitigation (Sam is a JNCC qualified MMO), and Environmental Site Management and Auditing. ██████████ is also a member of the Strangford Lough Marine Protected Area Steering Group and a former member of the Royal Yachting Association's Cruising and Environment Committee.

This report has been reviewed and approved for issue by ██████████, Technical Director of Ecology with Tetra Tech. ██████████ holds a BA (Hons) in Natural Sciences (Mod) Botany and a MSc in Habitat Creation and Management. James is a Chartered Environmentalist (CEnv), a Chartered Ecologist (CEcol), a Chartered Biologist (CBiol) and a full member of the Chartered Institute of Ecology and Environmental Management (MCIEEM) and the Royal Society of Biology (MRSB). ██████████ is a former member of the CIEEM Irish Section Committee and CIEEM Policy Review Group in Ireland. He was formerly a member of the CIEEM technical working group updating the Guidelines for Ecological Impact Assessment in the United Kingdom and Ireland, and he was recently a member of the CIEEM technical working group for Ecological Impact Assessment accreditation across the Institute's practitioner network.

██████████ has over twenty years' experience of assessing the likely significant effects of proposed development, alone and in combination with other plans and projects, in a coastal setting on European sites in estuarine and the marine environment. His experience includes assessment of potential effects of shoreside and marine activities, suspended sediments and pollution on Annex I habitats and disturbance and displacement of, and injury to of Annex II and Annex IV species and populations of Birds Directive Annex I species, and spans a wide variety of development consent applications including:

- Marine construction, dredging and disposal licences issued by DAERA
- Marine construction and dredging licences issued by Marine Directorate – Licensing Operations Team (MD-LOT) in Scotland
- Foreshore Licences issued by the Department of Housing, Local Government and Heritage
- Dumping at Sea Permits issued by the EPA
- Maritime Usage Licences issued by MARA
- Planning Permissions granted by local planning authorities and An Coimisiún Pleanála

Tetra Tech confirm that the professional judgement expressed herein is the true and bona fide opinion of the author(s). The information prepared and provided is accurate at the time of issue of this report and has been prepared and provided in accordance with CIEEM's Code of Professional Conduct (CIEEM 2025) and CIWEM's Professional Ethics and Code of Conduct (CIWEM, 2022).

2 METHODOLOGY

2.1 Guidance on Appropriate Assessment

The Environment and Heritage Service of the then Department of the Environment for Northern Ireland published 'Habitats Regulations guidance notes for competent authorities' (EHS, 2002). The purpose of the guidance was to help competent authorities and others with an interest in such sites interpret and implement the Habitats Regulations and was intended to provide a framework for making judgements under the Regulations in order to promote consistency amongst decision-makers.

In addition to the guidelines published by the former Department, the European Commission has published a number of documents which provide a significant body of guidance on the requirements of appropriate assessment, most notably including, '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' (EC, 2021), which sets out the principles of how to approach decision making during the process.

These guidelines have been followed in the preparation of this report. The following list identifies these and other pertinent guidance documents:

- Communication from the Commission on the Precautionary Principle., Office for Official Publications of the European Communities, Luxembourg (EC, 2000);
- Managing Natura 2000 Sites: the provisions of Article 6 of the 'Habitats' Directive 92/43/EEC, Office for Official Publications of the European Communities, Luxembourg (EC, 2000b);
- Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Articles 6(3) and (4) of the Habitats Directive 92/43/EEC. Office for Official Publications of the European Communities, Brussels (EC, 2001);
- Habitats Regulations Guidance Notes for Competent Authorities. Environment and Heritage Service. Belfast (EHS, 2002) [not available online];
- Guidance document on Article 6(4) of the 'Habitats Directive' 92/43/EEC – Clarification of the concepts of: alternative solutions, imperative reasons of overriding public interest, compensatory measures, overall coherence, opinion of the commission. Publications Office of the European Union, Luxembourg (EC, 2007);
- The Appropriate Assessment of Plans in Northern Ireland. RSPB, Belfast (RSPB, 2008);
- Estuaries and Coastal Zones within the Context of the Birds and Habitats Directives - Technical Supporting Document on their Dual Roles as Natura 2000 Sites and as Waterways and Locations for Ports. Publications Office of the European Union, Luxembourg (EC, 2009);
- Interpretation Manual of European Union Habitats. Version EUR 28. Publications Office of the European Union, Luxembourg (EC, 2013);
- European Commission Notice C(2018) 7621 'Managing Natura 2000 Sites: the provisions of Article 6 of the 'Habitats' Directive 92/43/EEC', Office for Official Publications of the European Communities, Luxembourg (EC, 2019);
- Institute of Air Quality Management 'A guide to the assessment of air quality impacts on designated nature conservation sites (Version 1.1)' (IAQM, 2020); and
- European Commission Notice (2021) 6913 'Assessment of plans and projects in relation to Natura 2000 sites – Methodological guidance on Article 6(3) and (4) of the Habitats Directive 92/43/EEC', Office for Official Publications of the European Communities, Luxembourg (EC,2021).

EC (2000) notes that the implementation of an approach based on the precautionary principle should start with a scientific evaluation, as complete as possible, and where possible, identifying at each stage the degree of scientific uncertainty, and also that decisions taken based on the precautionary principle should be maintained so long as scientific information is incomplete or inconclusive. EC (2001) notes also that predicting the response of a receptor to a disturbance effect can be difficult and, in the absence of firm scientific information, requires a precautionary approach.

2.2 Approach

2.2.1 Stages of the Appropriate Assessment Process

An appropriate assessment (referred to as Habitats Regulations Assessment in the UK) is a three-stage process:

1. The first stage involves a screening for appropriate assessment;
2. The second stage arises where, having screened the proposed development, the competent authority determines that an appropriate assessment is required, in which case it must then carry out that appropriate assessment; and
3. The third stage is a derogation procedure where adverse effects upon the integrity of a site remain, but the project must nonetheless proceed for imperative reasons of overriding public interest.

According to European Commission guidance documents ‘Assessment of plans and projects significantly affecting Natura 2000 sites’ (EC, 2021) and the ‘Managing Natura 2000 sites: The Provisions of Article 6 of the ‘Habitats’ Directive 92/43/EEC’ (EC, 2019), the obligations arising under Article 6 establish a step-wise procedure for Habitats Regulations Assessment as follows, and as illustrated in **Figure 2-1**.

We note that the flowchart illustrated in **Figure 2-1** is taken directly from Figure 1 of EC (2021). It is also noted that while this flowchart states in the ‘Appropriate Assessment’ stage (the dark blue step) *“Is it ascertained that [having applied the necessary mitigation measures and consulted the public] the plan or project will not have **significant effect** [with other plans or projects] on the integrity of the Natura 2000 site in view of its conservation objectives?”* (emphasis added), the applicable test at the Appropriate Assessment stage, in accordance with Article 6(3) of the Habitats Directive, is whether or not the plan or project will have an **adverse effect** the integrity of any European site (as referred to above).

- The first part of this procedure consists of a pre-assessment stage (‘screening’) to determine whether, firstly, a plan or project is directly connected with or necessary to the management of the site, and secondly, whether it is likely to have a significant effect on the site; it is governed by the first sentence of Article 6(3).
- The second part of the procedure, governed by the second sentence of Article 6(3), relates to the appropriate assessment and the decision of the competent national authorities.
- A third part of the procedure (governed by Article 6(4)) comes into play if, despite a negative assessment, it is proposed not to reject a plan or project but to give it further consideration. In this case Article 6(4) allows for derogations from Article 6(3) under certain conditions.

The extent to which the sequential steps of Article 6(3) apply to a given plan or project depends on several factors, and in the sequence of steps, each step is influenced by the previous step. The order in which the steps are followed is therefore essential for the correct application of Article 6(3).

Each step determines whether a further step in the process is required. If, for example, the conclusion at the end of a Stage 1 screening appraisal is that significant effects on European sites can be excluded, there is no requirement to proceed to the next step.

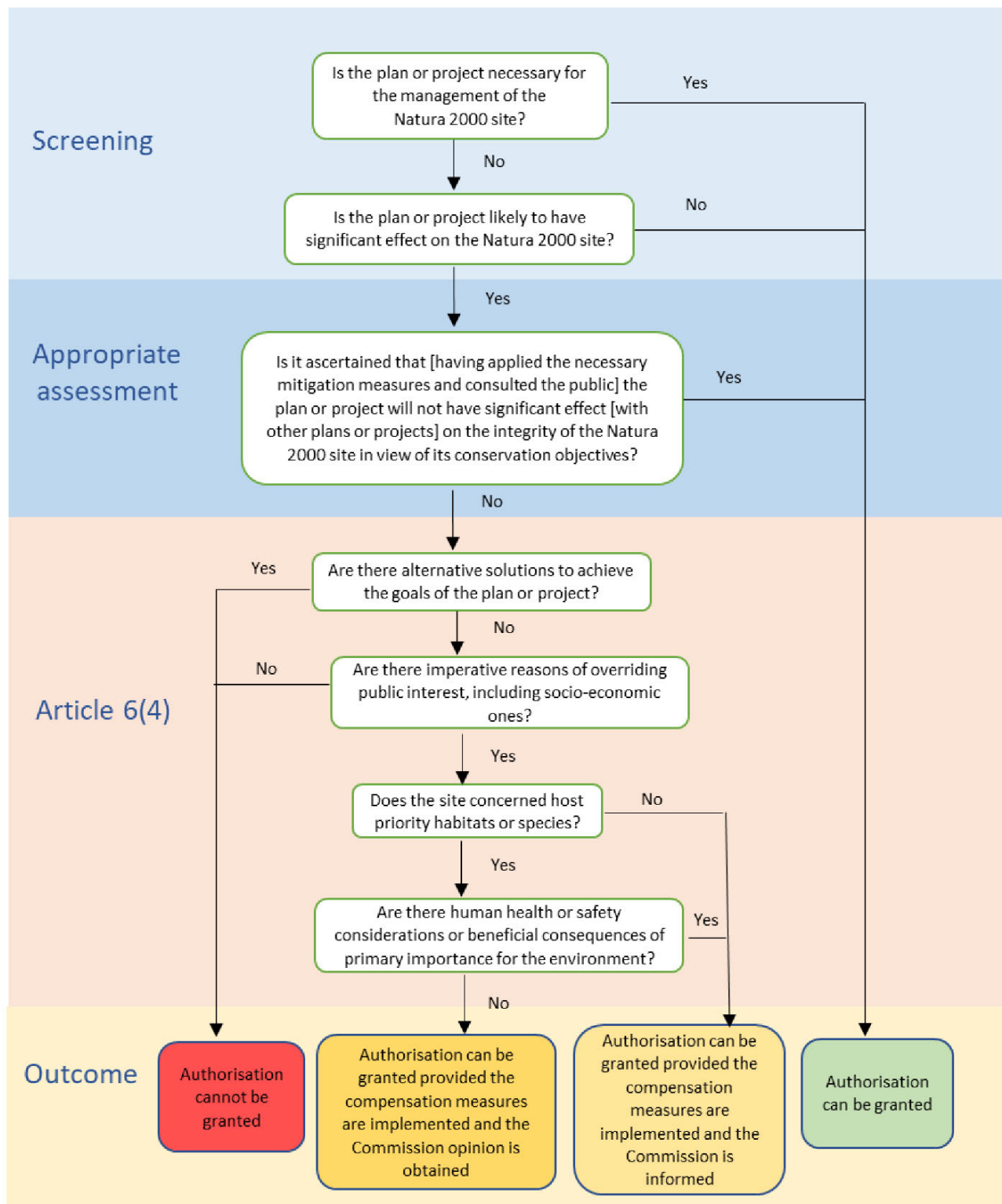


Figure 2-1: Step-wise procedure of Article 6 of the Habitats Directive (from EC,2021)

2.2.2 Likely Significant Effect

The Commission's 2018 Notice (EC, 2019) advises that the appropriate assessment procedure under Article 6(3) is triggered not by the certainty but by the likelihood of significant effects, arising from plans or projects regardless of their location inside or outside a protected site. Such likelihood exists if significant effects on the site cannot be excluded. The significance of effects should be determined in relation to the specific features and environmental conditions of the site concerned by the plan or project, taking particular account of the site's conservation objectives and ecological characteristics.

The threshold for a Likely Significant Effect (LSE) is treated as being above a *de minimis* level. A *de minimis* effect is a level of risk that is too small to be concerned with when considering ecological requirements of an Annex I habitat or a population of Annex II species present on a European site necessary to ensure their favourable conservation condition. If low level effects on habitats or individuals of species are judged to be in this order of magnitude and that judgment has been made in the absence of reasonable scientific doubt, then those effects are not considered to be likely significant effects.

The analysis involved in a Stage 1 screening appraisal for Appropriate Assessment is described in EC (2021) as comprising four steps:

- ascertaining whether the plan or project is directly connected with or necessary to the management of a Natura 2000 site;
- identifying the relevant elements of the plan or project and their likely impacts;
- identifying which (if any) Natura 2000 sites may be affected, considering the potential effects of the plan or project alone or in combination with other plans or projects;
- assessing whether likely significant effects on the Natura 2000 site can be ruled out, in view of the site's conservation objectives.

Case law of the court of Justice of the European Union (CJEU) has confirmed that a significant effect is triggered when:

- there is a probability or a risk of a plan or project having a significant effect on a European site;
- the plan is likely to undermine the site's conservation objectives; and
- a significant effect cannot be excluded on the basis of objective information.

EC (2021) defines a LSE as being "any effect that may reasonably be predicted as a consequence of a plan or project that would negatively and significantly affect the conservation objectives established for the habitats and species significantly present on the Natura 2000 site. This can result from either on-site or off-site activities, or through combinations with other plans or projects".

The requirement that the effect in question be 'significant' exists in order to lay down a *de minimis* threshold – thus, plans or projects that have no appreciable effect on the site are thereby excluded.

EHS (2002) notes that any effect that may reasonably be predicted as a consequence of a plan or project that may affect the conservation objectives of the features for which the site was designated but excluding *de minimis* or inconsequential effects.

2.2.3 Mitigation Measures

In determining whether or not likely significant effects will occur or can be excluded in the Stage 1 appraisal, measures intended to avoid or reduce the harmful effects of the proposed project on European sites, (i.e. “mitigation measures”) or best practice measures have not been taken into account in this screening stage appraisal. This approach is consistent with up-to-date EU guidance (EC,2019; EC,2021) and the case law of the Court of Justice of the European Union (CJEU):

EC (2001) states that *“project and plan proponents are often encouraged to design mitigation measures into their proposals at the outset. However, it is important to recognise that the screening assessment should be carried out in the absence of any consideration of mitigation measures that form part of a project or plan and are designed to avoid or reduce the impact of a project or plan on a Natura 2000 site”*. This direction in the European Commission’s guidance document is unambiguous in that it does not permit the inclusion of mitigation at the screening stage.

In April 2018, the Court of Justice (CJEU) of the European Union issued a ruling in case C-323/17 *People Over Wind & Peter Sweetman v Coillte Teoranta* (“People Over Wind”) that Article 6(3) of Directive 92/43/EEC must be interpreted as meaning that, in order to determine whether it is necessary to carry out, subsequently, an appropriate assessment of the implications, for a site concerned, of a plan or project, it is not appropriate, at the screening stage, to take account of the measures intended to avoid or reduce the harmful effects of the plan or project on that site. The CJEU found that taking account of mitigation measures at the screening stage could compromise the practical effect of the Habitats Directive in general, and the assessment stage in particular (since the assessment stage would be deprived of its purpose and there would be a risk of circumvention of that stage). In its judgment in *Eco-Advocacy*, the CJEU recently found that this does not preclude standard features, which are inherent to a project, and are incorporated into a project’s design, not with the aim of reducing its negative effects.

The judgment in *People Over Wind* is further emphasised in EC (2019) which refers to CJEU Case C-323/17, and also EC (2021) states specifically in Table 1 on p12 thereof that that mitigation measures cannot be considered at the screening stage of appropriate assessment, citing CJEU case C-323/17.

More recently, in June 2023, the CJEU issued a ruling in case C-721/21 *Eco Advocacy CLG vs. An Bord Pleanála* that Article 6(3) of Directive 92/43/EEC must be interpreted as meaning that, in order to determine whether it is necessary to carry out an appropriate assessment of the implications of a plan or project for a site, account may be taken of the features of that plan or project which involve the removal of contaminants and which therefore may have the effect of reducing the harmful effects of the plan or project on that site, where those features have been incorporated into that plan or project as standard features, inherent in such a plan or project, irrespective of any effect on the site.

This appraisal does not attempt to formulate any measures which involve the removal of contaminants in light of the emerging case law from the CJEU by now describing them as features that have been incorporated into the Proposed Project as ‘standard features’.

2.2.4 Consideration of ex-situ Effects

EC (2019) advises that Member States, both in their legislation and in their practice, allow for the Article 6(3) safeguards to be applied to any development pressures, including those which are external to European sites but which are likely to have significant effects on any of them.

The CJEU developed this point when it issued a ruling in case C-461/17 *Brian Holohan and Others v An Bord Pleanála* (“Holohan”) that determined inter alia that Article 6(3) of Directive 92/43/EEC must be interpreted as meaning that an appropriate assessment must on the one hand, catalogue

the entirety of habitat types and species for which a site is protected, and, on the other, identify and examine both the implications of the proposed project for the species present on that site, and for which that site has not been listed, and the implications for habitat types and species to be found outside the boundaries of that site, provided that those implications are liable to affect the conservation objectives of the site.

In that regard, consideration has been given in this Habitats Directive appraisal to implications for habitats and species located both inside and outside of the European sites considered in the screening appraisal with reference to those sites' Conservation Objectives where effects upon those habitats and/or species are liable to affect the conservation objectives of the sites concerned.

2.2.5 Conservation Objectives

The conservation objectives ("COs") for each European site are to maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the site has been selected.

The favourable conservation status of a habitat is achieved when:

- its natural range, and area it covers within that range, are stable or increasing;
- the specific structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future; and
- the conservation status of its typical species is favourable.

The favourable conservation status (or condition, at a site level) of a species is achieved when:

- population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats;
- the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future; and
- there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

2.2.6 In-combination Effects

Article 6(3) of the Habitats Directive requires that in-combination effects with other plans or projects are also considered. As set out in the Commission's 2018 Notice (EC, 2019), significance will vary depending on factors such as magnitude of impact, type, extent, duration, intensity, timing, probability, cumulative effects and the vulnerability of the habitats and species concerned. Whilst the Directive does not explicitly define which other plans and projects are within the scope of the in-combination provision of Article 6(3), it is important to note that the underlying intention of this provision is to take account of cumulative impacts, and these will often only occur over time.

In addition, other plans or projects which are completed, approved but uncompleted, or proposed have been considered. EC (2019) specifically advises that *"as regards other proposed plans or projects, on grounds of legal certainty it would seem appropriate to restrict the in-combination provision to those which have been actually proposed, i.e. for which an application for approval or consent has been introduced"*.

EC (2021) additionally advises that –

- an in-combination assessment is often less detailed at the screening stage than in the appropriate assessment;
- there is still a need to identify all other plans or projects that could give rise to cumulative impacts with the plan or project in question; and

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- if this analysis cannot reach definitive conclusions, it should at least identify any other relevant plans and projects that should be scrutinised in more detail during the appropriate assessment.

3 The Proposed Works

Storm water runoff from the D3 hinterland area will be collected and conveyed to the proposed storm water drainage system which the outfalls would serve. The system comprises two lines of gullies running the full length of the hinterland area. The hardstanding will be graded to direct surface water towards the gullies.

The Extant Approval (LA04/2016/0421/F) included three outfalls (No.1, No.2 and No.3) through the quay wall. However, following detailed design and the inclusion of the access road at the northern end of the site, the proposed development now comprises two outfalls through the quay wall (Outfalls No. 3 and No. 4 which remain in the same location) and two outfalls through the revetment (Outfalls No. 1 and No. 2), as shown in **Figure 3-1**. The relocation of 1 no. outfall and inclusion of 1 no. additional outfall are reflected in planning application ref. LA04/2026/0442/F and have been assessed in the accompanying Environmental Statement (2026) and sHRA. This planning application is currently under consideration and is anticipated to be determined by Belfast City Council Planning Committee in August 2026. The Supporting Statement which accompanies this marine licence application provides further details in respect of the marine and terrestrial consents at the site.

This Licence Application seeks permission to install Outfalls No. 1 and No. 2 at the locations shown below through the existing revetment, and these two outfalls in the locations they are proposed are what this sHRA assesses. The marine works for Outfalls No. 3 and No. 4 have already been permitted under ML2025053 and shall be considered in combination. The outfall previously located through the quay wall closest to Kinnegar Jetty (Outfall No. 2) has been relocated to pass through the revetment (**Figure 3-2**).

Outfalls through the quay wall (Outfalls No. 3 and No. 4) will extend through the combi-wall and be fitted with non-return flap/tidal valves. Outfalls through the revetment (Outfalls No. 1 and No. 2) will include a precast concrete headwall on the revetment, with the outfall pipe also fitted with a non-return flap/tidal valve (**Figure 3-3**).

An existing stormwater outfall at the southern end of the D3 site will be retained. A filter drain will be installed along the boundary between the new works and the hinterland.

A Construction Methodology has been prepared by Graham Construction and accompanies this marine licence application. The methodology for Outfall 1, as set out by the document, will be the same for Outfall 2.



Figure 3-1: Location of 4 no. outfalls – two of which are through quay wall, and the other two through the revetment

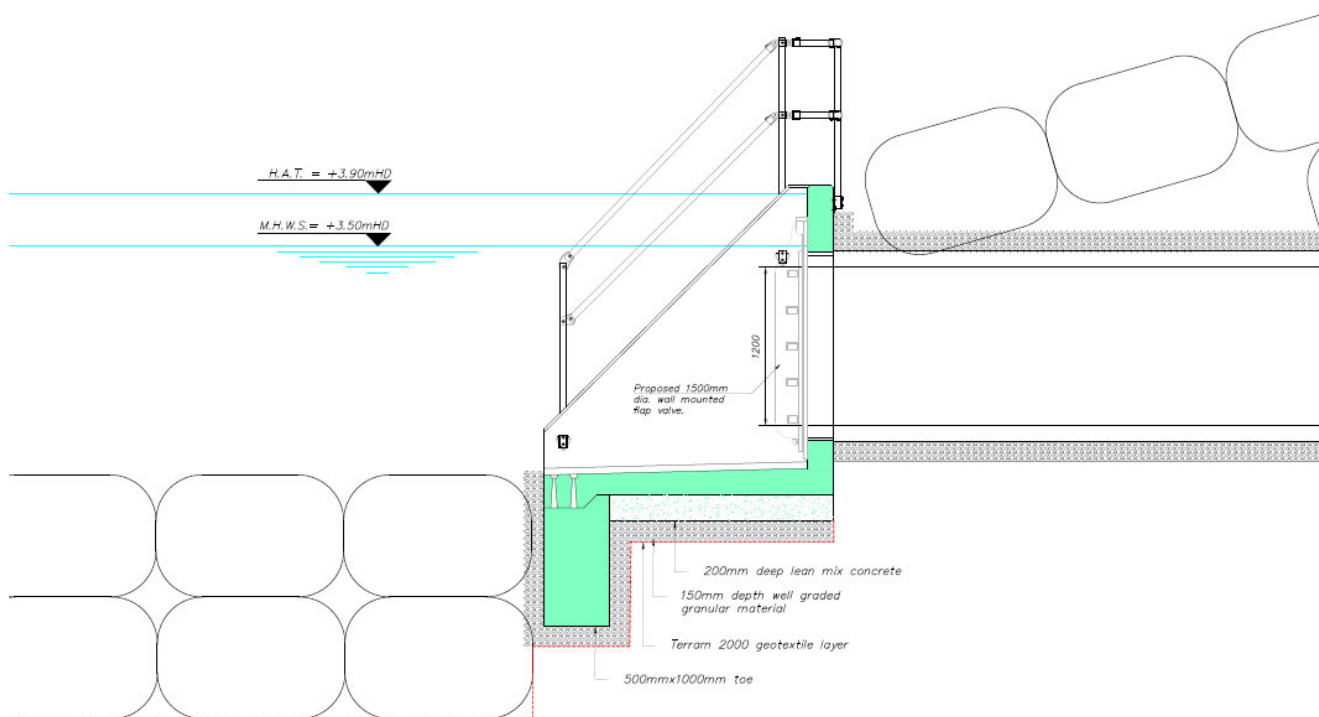


Figure 3-2: Cross-section of outfall through quay wall

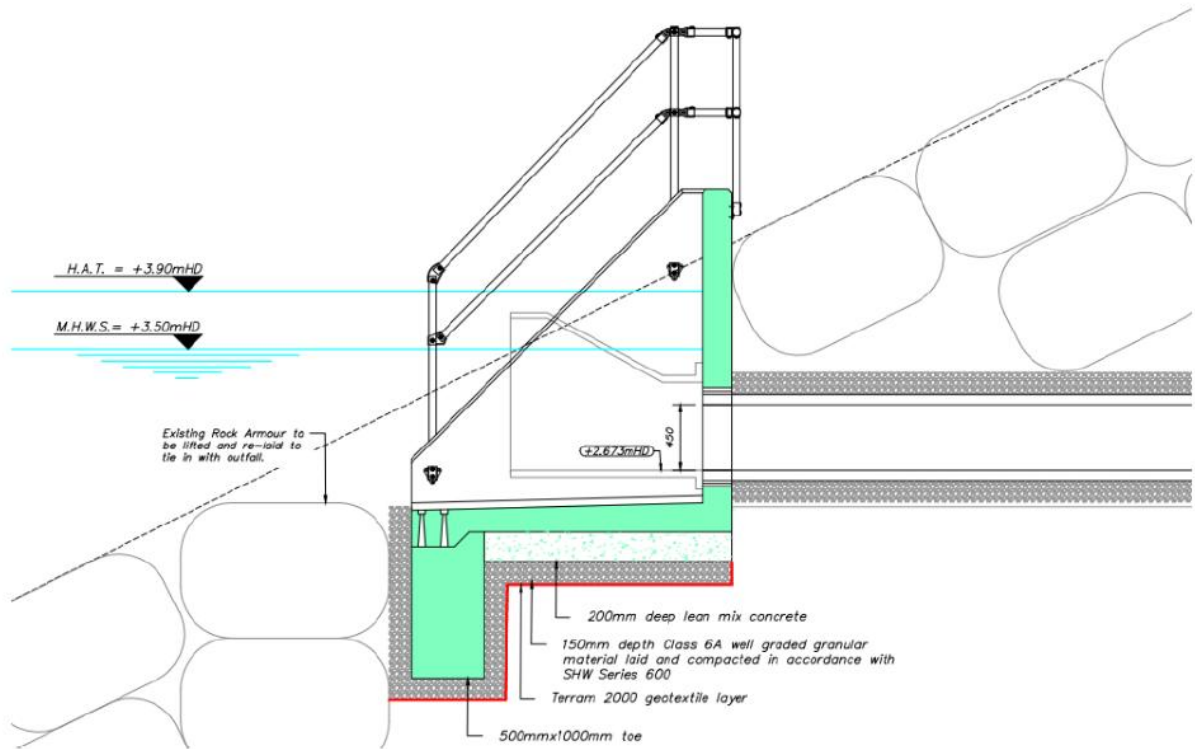


Figure 3-3: Cross-section of outfall through revetment

4 Screening Appraisal for Appropriate Assessment

4.1 European Sites

This screening exercise considers European sites. The proposed project must be screened against those European sites for which a pathway of effect can be reasonably established between a receptor and the source of an effect. The site of the proposed project is located within the boundary of Belfast Lough SPA and Ramsar Site, and adjacent to Belfast Lough Open Water SPA and the proposed East Coast (Northern Ireland) Marine SPA. **Table 4.1** provides descriptive details of designated sites and features of natural heritage importance located within proximity to the site of the proposed project; or connected to it through an identifiable impact pathway. The boundary of each of these designated sites in relation to the proposed project is illustrated in **Figure 4-1** and **Figure 4-2**.

4.2 Establishing an Impact Pathway

The possibility of significant effects is considered in this report using the source-pathway-receptor model.

- ‘Source’ is defined as the individual elements of the proposed project that have the potential to affect the identified ecological feature (or receptor).
- ‘Pathway’ is defined as the means or route by which a source can affect the ecological feature.
- ‘Receptor’ is an ecological feature which is a qualifying feature of the SPA or SAC for which conservation objectives have been set for the European sites under consideration (refer to **Table 4.1**).

Each element can exist independently however an effect is created when there is a linkage between the source, pathway and receptor. Any designated sites that are located inland and upstream from the site were not considered in **Table 4.1** due to an absence of a direct hydrological link and distance (over which disturbance is very unlikely via airborne noise), thus removing the possibility of any likely significant effect.

The pathways identified as a result of the proposed project have the potential to cause:

- Deterioration of water quality in the environment via the hydrological connections during construction and operation; and
- Disturbance as a result of airborne noise generated at the construction phase of the proposed project.

The following impacts were not considered further in the assessment due to the scale and footprint of the project. The work is confined to the immediate footprint of the outfalls near the level of MHWS on an existing revetment and does not result in the loss or fragmentation of existing habitat in the marine environment:

- Direct loss and reduction of habitat coverage. No physical destruction or loss of breeding, foraging, or resting areas for species will occur, including alteration of physical processes (the outfalls will not significantly alter the footprint of the existing hard-engineered shoreline).
- Fragmentation and alteration of distribution of qualifying habitats and habitats that feature species rely upon for their ecological functioning. No physical or ecological barriers will be created, and no habitats will be split into smaller more isolated units.
- An absence of in-water works (such as marine piling) eliminates the underwater noise pathway to receptors such as marine mammals. As such, there is no potential for the proposed project to give rise to likely significant underwater noise and vibration effects.

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Table 4.1: European or International Sites and their Qualifying Features Considered in this Appraisal

Site Code	European site	Hydrological Distance (km)	Selection feature	Conservation Objectives
UK9020101	Belfast Lough SPA and Belfast Lough Ramsar Site	Located within	• Redshank <i>Tringa totanus</i> • Common tern <i>Sterna hirundo</i> • Arctic tern <i>Sterna paradisaea</i> • Bar-tailed godwit <i>Limosa lapponica</i> • Black-tailed godwit <i>Limosa limosa</i>	• To maintain or enhance the population of the qualifying species. • To maintain or enhance the range of habitats utilised by the qualifying species. • To ensure that the integrity of the site is maintained. • To ensure there is no significant disturbance of the species. • To ensure that the following are maintained in the long term: ○ Population of the species as a viable component of the site. ○ Distribution and extent of habitats supporting the species. • Structure, function and supporting processes of habitats supporting the species.
UK9020320	East Coast (NI) Marine pSPA	Directly adjacent (< 5 m)	• Great Crested Grebe <i>Podiceps cristatus</i> • Red-throated Diver <i>Gavia stellata</i> • Sandwich Tern <i>Thalasseus sandvicensis</i> • Common Tern <i>Sterna hirundo</i> • Arctic Tern <i>Sterna paradisaea</i> • Manx Shearwater <i>Puffinus puffinus</i> • Eider Duck <i>Somateria mollissima</i>	• To maintain or enhance the population of the qualifying species • To maintain or enhance the range of habitats utilised by the qualifying species • To ensure that the integrity of the site is maintained; • To ensure there is no significant disturbance of the species and • To ensure that the following are maintained in the long term: ○ Population of the species as a viable component of the site ○ Distribution of the species within site ○ Distribution and extent of habitats supporting the species • Structure, function and supporting processes of habitats supporting the species
UK9020290	Belfast Lough Open Water SPA	Directly adjacent (< 5 m)	• Great crested grebe <i>Podiceps cristatus</i>	• To maintain or enhance the population of the qualifying species. • To maintain or enhance the range of habitats utilised by the qualifying species. • To ensure that the integrity of the site is maintained. • To ensure there is no significant disturbance of the species.

SHADOW HABITATS REGULATIONS ASSESSMENT

Site Code	European site	Hydrological Distance (km)	Selection feature	Conservation Objectives
				- To ensure that the following are maintained in the long term: - Population of the species as a viable component of the site. - Distribution and extent of habitats supporting the species. - Structure, function and supporting processes of habitats supporting the species.
UK9020271	Outer Ards SPA and Outer Ards Ramsar Site	10 km	- Arctic tern <i>Sterna paradisaea</i> - Golden plover <i>Pluvialis apricaria</i> - Light-bellied brent goose <i>Branta bernicla hrota</i> - Ringed plover <i>Charadrius hiaticula</i> - Turnstone <i>Arenaria interpres</i>	- To maintain or enhance the population of the qualifying species - Fledging success sufficient to maintain or enhance population - To maintain or enhance the range of habitats utilised by the qualifying species - To ensure that the integrity of the site is maintained; - To ensure there is no significant disturbance of the species and - To ensure that the following are maintained in the long term: - Population of the species as a viable component of the site - Distribution of the species within site - Distribution and extent of habitats supporting the species - Structure, function and supporting processes of habitats supporting the species
UK0030399	North Channel SAC	16.5 km	Harbour porpoise <i>Phocoena phocoena</i>	- To ensure that the integrity of the site is maintained and that it makes the best possible contribution to maintaining Favourable Conservation Status (FCS) for Harbour Porpoise in UK waters - In the context of natural change, this will be achieved by ensuring that: - Harbour porpoise is a viable component of the site; - There is no significant disturbance of the species; and - The condition of supporting habitats and processes, and the availability of prey is maintained.

SHADOW HABITATS REGULATIONS ASSESSMENT

Site Code	European site	Hydrological Distance (km)	Selection feature	Conservation Objectives
UK12013	Larne Lough SPA and Larne Lough Ramsar Site	43 km	- Sandwich tern <i>Sterna sandvicensis</i> - Roseate tern - Common tern <i>Sterna hirundo</i> - Light-bellied brent goose <i>Branta bernicla hrota</i> - Habitat extent - Roost site locations	- To maintain or enhance the population of the qualifying species. - Fledging success sufficient to maintain or enhance population - To maintain or enhance the range of habitats utilised by the qualifying species. - To ensure that the integrity of the site is maintained. - To ensure there is no significant disturbance of the species. - To ensure that the following are maintained in the long term: - Population of the species as a viable component of the site. - Distribution of the species within site - Distribution and extent of habitats supporting the species. - Structure, function and supporting processes of habitats supporting the species.
UK9020291	Copeland Islands SPA	24 km	- Manx shearwater <i>Puffinus puffinus</i> - Arctic tern <i>Sterna paradisaea</i>	- To maintain or enhance the population of the qualifying species. - Fledging success sufficient to maintain or enhance population - To maintain or enhance the range of habitats utilised by the qualifying species. - To ensure that the integrity of the site is maintained. - To ensure there is no significant disturbance of the species. - To ensure that the following are maintained in the long term: - Population of the species as a viable component of the site. - Distribution of the species within site - Distribution and extent of habitats supporting the species. - Structure, function and supporting processes of habitats supporting the species.
UK0030384	The Maidens SAC	15 km	- Sandbanks which are slightly covered by sea water all the time - Reefs	Reefs Maintain and enhance, as appropriate the extent of the reefs

SHADOW HABITATS REGULATIONS ASSESSMENT

Site Code	European site	Hydrological Distance (km)	Selection feature	Conservation Objectives
			Grey seals <i>Halichoerus grypus</i>	- Allow the natural processes which determine the development, structure, function and distribution of the habitats associated with the reefs, to operate appropriately. - Maintain and enhance, as appropriate, the viability, distribution and diversity of typical species within this habitat. <u>Sandbanks which are slightly covered by sea water all the time</u> - Maintain the extent and volume of sandbanks which are slightly covered by sea water all the time, subject to natural processes. - Allow the natural processes which determine the development, structure and extent of sandbanks which are slightly covered by sea water all the time, to operate appropriately. - Maintain and enhance, as appropriate, the viability, distribution and diversity of typical species within this habitat. <u>Grey seal</u> - Maintain (and if feasible enhance) population numbers and distribution of Grey Seal. - Maintain and enhance, as appropriate, physical features used by Grey Seals within the site.

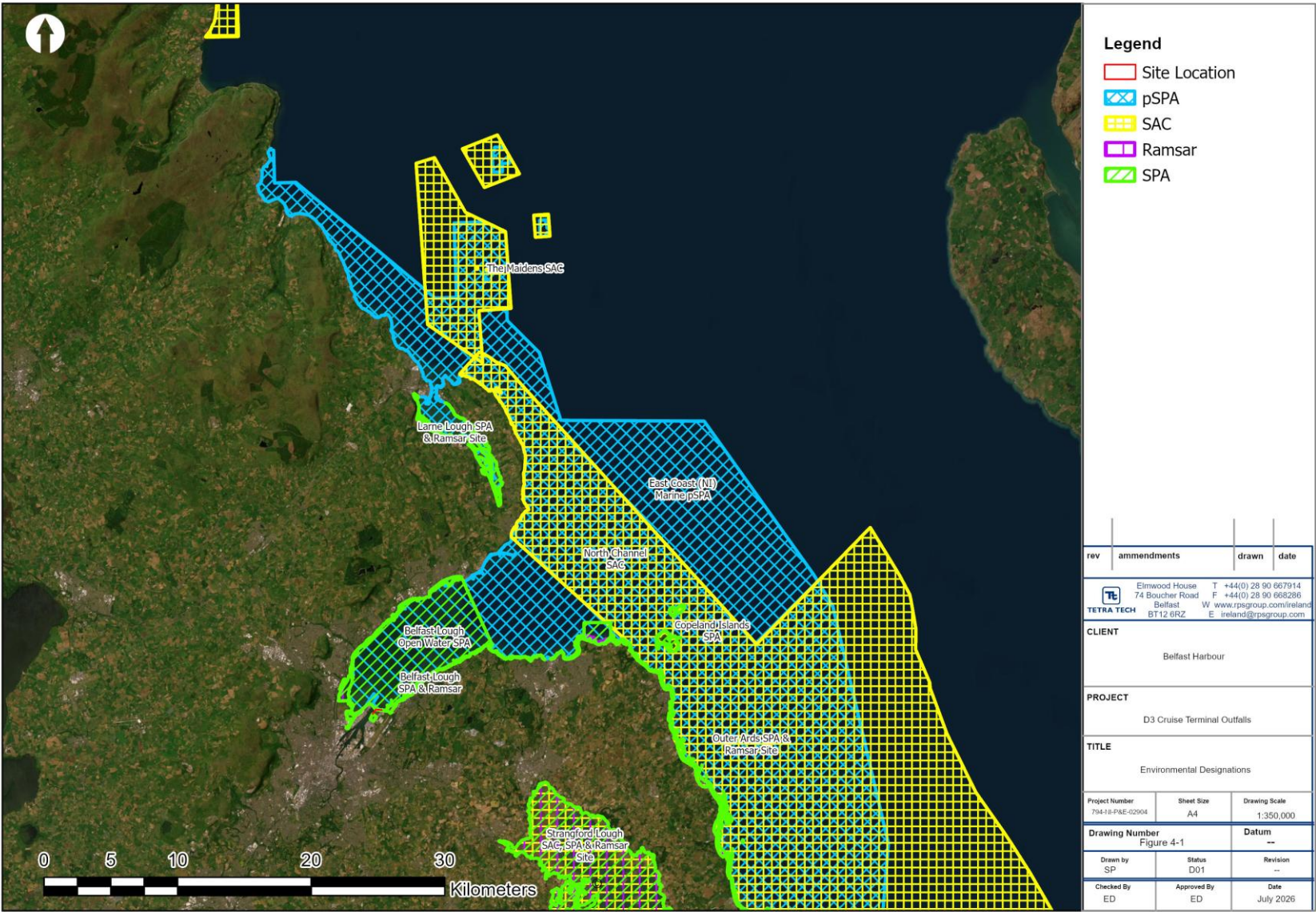


Figure 4-1: European Sites

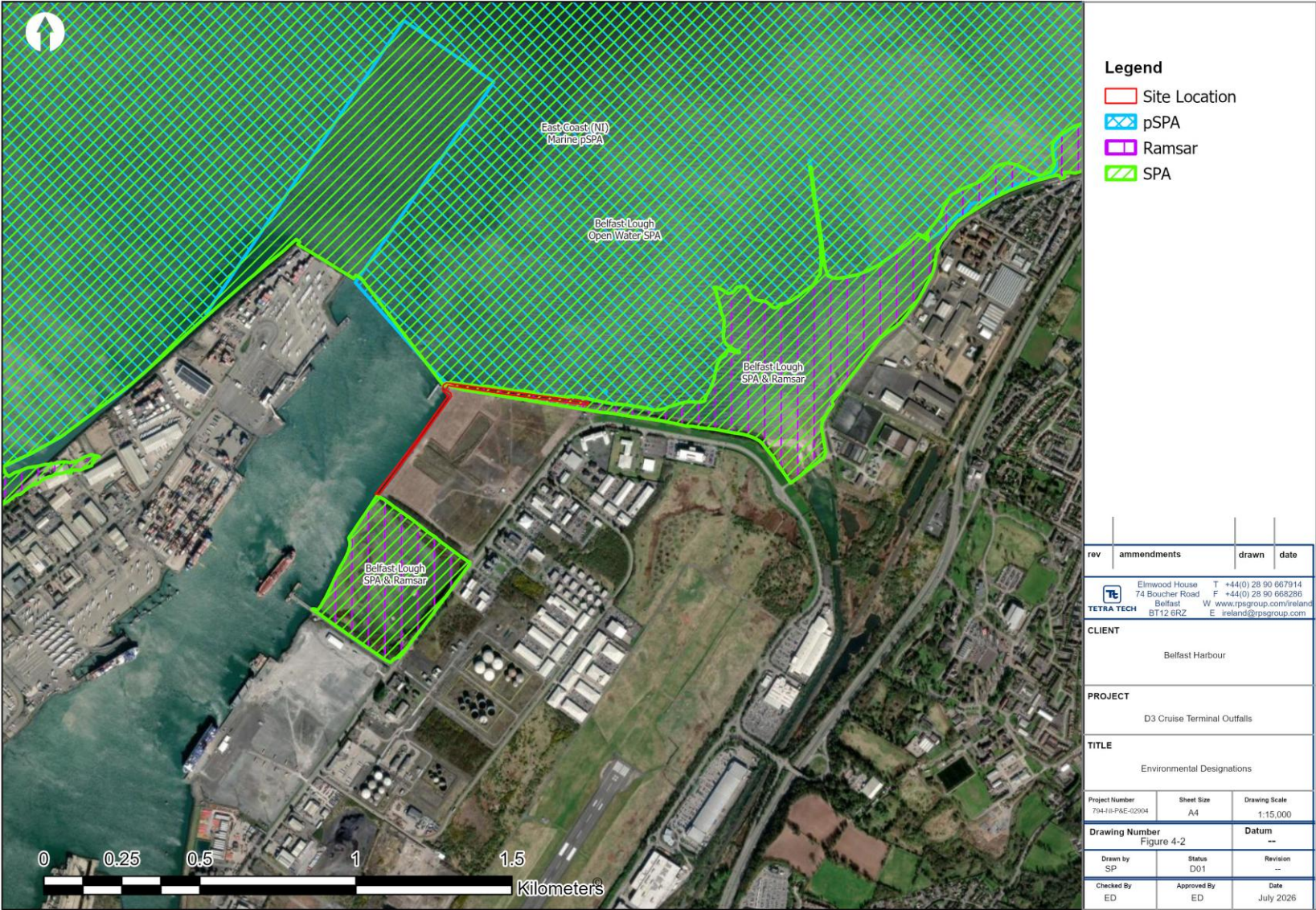


Figure 4-2: European Sites in Belfast Harbour

4.2.1 Water Quality and Habitat Deterioration

The proposed works will involve the use of small machinery. The use of such equipment in close proximity to the marine environment has the potential to give rise to the inadvertent and accidental release of chemical pollutants into the marine environment, primarily petrochemical fuels, in addition to sediments arising from the removal of the rock armour and excavation and concrete works necessary for the new outfall to be installed.

4.2.1.1 Belfast Lough SPA/Ramsar Site, Belfast Lough Open Water SPA and East Coast Marine pSPA

Features of Belfast Lough SPA/Ramsar Site, Belfast Lough Open Water SPA and the East Coast Marine pSPA include redshank, terns and great crested grebe. As above, the accidental release of chemicals into the marine environment has the potential to give rise to minor effects at a local scale upon the food resources of these species.

While any such impacts would likely be subject to significant dilution and would occur only for a short period of time before pollutants were to be dispersed across a tidal cycle, it is considered, on a precautionary basis, that species may be preferentially present close to the proposed works, that likely significant effects upon the breeding, resident or overwintering species within Belfast Lough SPA/Ramsar Site, Belfast Lough Open Water SPA and East Coast Marine pSPA cannot be excluded for water quality in the absence of consideration of mitigation measures.

Therefore, the possibility of likely significant effects cannot be excluded at the screening stage in the absence of any mitigation measures being applied for the Belfast Lough SPA/Ramsar Site, Belfast Lough Open Water SPA and East Coast Marine pSPA.

4.2.1.2 Copeland Islands SPA and Outer Ards SPA/Ramsar Site

The proposed project site is hydrologically linked to a number of sites outside of Belfast Harbour through the North Channel and the wider Irish Sea. Significant mixing of seawater occurs in Belfast Lough due to the influx of water on each tidal cycle. If suspended sediments or pollutants enter the waters of Belfast Harbour as a result of the outfall works at construction phase or through discharges to the sea at operational phase, the tidal currents, wind, and wave climate will facilitate substantial mixing and dilution of any polluting materials that escape into the marine environment as a result of the proposed works.

Due to the small footprint of the site and the nature and scale of the proposed project, there is no possibility of the accidental release of significant quantities of sediments or pollutants into the marine environment to the extent that they can remain in sufficient concentration across the distances required to potentially affect the Outer Ards SPA/Ramsar Site and Copeland Islands SPA (10 km and 24 km respectively, as outlined in **Table 4.1**).

While the use of machinery and vehicles within and in proximity to the aquatic environment has some limited potential to give rise to the discharge of petrochemical fuels into the immediate marine environment, it is considered that the quantities which could potentially be spilled, in addition to the likelihood of such a spillage, are minimal and to be considered *de minimis* (refer section 2.2.2). Furthermore, any such inputs would be subject to significant dilution before reaching Copeland Islands SPA and Outer Ards SPA/Ramsar Site outside the marine waters of Belfast Harbour.

On the basis of the above, it is considered that there is no potential for significant water quality or habitat deterioration effects on the qualifying features of the Copeland Islands SPA and Outer Ards SPA/Ramsar Site, as a result of impacts associated with suspended sediments or pollutants for the construction and operational phase.

Therefore, the possibility of likely significant effects can be excluded at the screening stage in the absence of any mitigation measures being applied for the Copeland Islands SPA and Outer Ards SPA/Ramsar Site.

4.2.1.3 North Channel SAC

The North Channel SAC is designated for Harbour porpoise *Phocoena phocoena*. It is known that harbour porpoises periodically enter Belfast Lough (mainly the outer reaches) in search of food². Considering the scale of the works being undertaken, the distance from the site, including dilution and mixing of the tides with the lough, the risk is deemed low. Since the harbour area is extremely unlikely to be a significant feeding area for harbour porpoise and no evidence exists which points to the contrary in review of the appropriate assessments for the principal Cruise Berth Project (refer ML 122_15, ML2025053, extant approval LA04/2016/0421/F and planning ref. LA04/2026/0442/F), there is no possibility of a likely significant effect upon the species.

Due to the small footprint of the site and the nature and scale of the proposed project, there is no possibility of the accidental release of significant quantities of sediments or pollutants into the marine environment to the extent that they can remain in concentrations sufficiently potent to affect the North Channel SAC.

While the use of machinery and vehicles within and in proximity to the aquatic environment has some limited potential to give rise to the discharge of petrochemical fuels into the immediate marine environment, it is considered that the quantities which could potentially be spilled, in addition to the likelihood of such a spillage, are minimal. Furthermore, any such inputs would be subject to significant dilution before reaching the North Channel SAC (or any likely foraging areas of the harbour porpoise in outer Belfast Lough) outside the marine waters of Belfast Harbour.

On the basis of the above it is considered that there is no potential for significant water quality or habitat deterioration effects on the qualifying features of the North Channel SAC, as a result of impacts associated with suspended sediments or pollutants for the construction and operational phase.

Therefore, the possibility of likely significant effects can be excluded at the screening stage in the absence of any mitigation measures being applied for the North Channel SAC.

4.2.1.4 The Maidens SAC

The Maidens SAC is designated for sandbanks which are slightly covered by seawater all the time, reefs and grey seal (*Halichoerus grypus*). Considering the scale of the works being undertaken, the distance from sensitive haul-out areas, and the dilution and mixing effects of the tidal system within the Lough, the risk of direct disturbance from pollution is considered low.

However, the accidental release of chemicals or pollutants into the marine environment has the potential to result in minor impacts at a local scale on the prey species of seals, particularly fish and other benthic organisms. As a top predator, the health and viability of the harbour seal population in Maidens is closely linked to the availability and quality of its food resources.

Due to the small footprint of the site and the nature and scale of the proposed project, there is no possibility of the accidental release of significant quantities of sediments or pollutants into the marine environment to the extent that they can remain in concentrations sufficiently potent to affect the Maidens SAC and any foraging grey seals and their food source.

While the use of machinery and vehicles within and in proximity to the aquatic environment has some limited potential to give rise to the discharge of petrochemical fuels into the immediate marine

² [Harbour Porpoise | Irish Whale and Dolphin Group](#)

environment, it is considered that the quantities which could potentially be spilled, in addition to the likelihood of such a spillage, are minimal. Furthermore, any such inputs would be subject to significant dilution before reaching the Maidens SAC (or any likely foraging areas of the grey seal) outside the marine waters of Belfast Harbour.

On the basis of the above it is considered that there is no potential for significant water quality or habitat deterioration effects on the qualifying features of the North Channel SAC, as a result of impacts associated with suspended sediments or pollutants for the construction and operational phase.

Therefore, the possibility of likely significant effects can be excluded at the screening stage in the absence of any mitigation measures being applied for the North Channel SAC.

4.2.2 Airborne Noise and Disturbance

4.2.2.1 Belfast Lough SPA/Ramsar Site, Belfast Lough Open Water SPA and East Coast Marine pSPA

Belfast Lough SPA/Ramsar Site, Belfast Lough Open Water SPA and East Coast Marine pSPA support important numbers of both breeding and wintering waterbirds. Wildfowl feed on both open water and surrounding habitats within Belfast Lough, while waders feed primarily on shellfish and burrowing invertebrates in intertidal mudflats and other intertidal areas (e.g. Hollywood bank). Intertidal areas in the vicinity of the proposed works are likely to be used by wintering waterbirds for foraging. The immediate area around the site of the proposed project is characterised by port operations and vessel movements all year round.

The RSPB WOW site on Airport Road is known as an important feeding and roosting site for the Belfast Lough SPA/Ramsar Site, Belfast Lough Open Water SPA and East Coast Marine pSPA despite being located between the D1 terminal and the D3 terminal of Belfast Harbour. No works are proposed that result in significant noise sources (such as impact piling) which would be significantly audible over the existing baseline. The noise caused by the outfall installation works is not anticipated to be of a magnitude greater than ambient noise levels. There is effectively no additional noise sources that, by themselves, could trigger a behavioural response amounting to disturbance or displacement. The proposed short-term and temporary works will not result in significant changes in the long-term population trend of the SCI species of waterbirds associated with Belfast Lough SPA/Ramsar Site, Belfast Lough Open Water SPA and East Coast Marine pSPA.

Accordingly, the possibility of likely significant effects can be excluded at the screening stage. That is the case in the absence of any mitigation measures being applied.

4.2.2.2 Copeland Islands SPA and Outer Ards SPA/Ramsar Site

The proposed project is located c.10km from the Copelands SPA and Outer Ards SPA/Ramsar Site. These sites are designated on account of their qualifying bird species. Given the small scale and short-term nature of the works, as well as the distance to these receptors, the airborne noise and disturbance during the proposed project will not have any significant effects on qualifying bird species within these sites.

Accordingly, the possibility of likely significant effects can be excluded at the screening stage. That is the case in the absence of any mitigation measures being applied.

4.2.2.3 North Channel SAC

The proposed project lies over 15 km from the North Channel SAC, which is designated on account of harbour porpoise *Phocoena phocoena* as a qualifying interest. Harbour porpoise are also found within Belfast Lough but are less likely to be present within Belfast Harbour. Any vibration and noise

disturbance will be very minimal, and considering the pathway is airborne, any noise generated from the site would not affect the harbour porpoise. Therefore, given the minor nature of the works, it will be extremely unlikely that the development will have any significant effect upon the harbour porpoise associated with the North Channel SAC due to no impact linkage.

Accordingly, the possibility of likely significant effects can be excluded at the screening stage. That is the case in the absence of any mitigation measures being applied.

4.2.2.4 The Maidens SAC

Grey Seals *Halichoerus grypus* could be present in Belfast Lough and could be members of The Maidens SAC population due to their large foraging range. This section considers the potential for disturbance or displacement of these species whilst foraging by the proposed works.

The proposed project will use small machinery and a small labour force for the construction of the outfall headwalls. Both grey and harbour seals are inquisitive creatures and may approach the area of work. As such, there is potential for the proposals to give rise to airborne noise associated with the movements of machinery, and storage, movement and installation of materials.

Given that the works are being undertaken on the coastal edge and not in the water, and given the very short time scale associated with the proposed construction phase activities, the construction of the outfalls will not result in any activities which are not already characteristic of the area in the absence of the proposed project. Human induced-disturbance will not occur at levels above *de minimis*.

Accordingly, the possibility of likely significant effects upon Grey Seals can be excluded at the screening stage. That is the case in the absence of any mitigation measures being applied.

4.3 In-combination with Other Plans and Projects

Article 6(3) of the Habitats Directive requires that in-combination effects with other plans or projects are also considered. As set out in the Commission's 2018 Notice (EC, 2019), significance will vary depending on factors such as magnitude of impact, type, extent, duration, intensity, timing, probability, cumulative effects and the vulnerability of the habitats and species concerned. The significance of any identified combined effects of the proposed project and other past, present or reasonably foreseeable future plans or projects must be evaluated.

In that context, plans or projects which are completed, approved but uncompleted, or proposed have been considered. EC (2019) specifically advises that "*as regards other proposed plans or projects, on grounds of legal certainty it would seem appropriate to restrict the in-combination provision to those which have been actually proposed, i.e., for which an application for approval or consent has been introduced*".

There are a number of significant marine infrastructure projects being progressed near to the proposed project including:

- **ML2025053:** Marine Construction Licence for the construction of the marine aspects of the project. Development comprises the construction of 340m long solid quay with mooring dolphins, located at D3, within Belfast Harbour Estate, opposite Victoria Terminal 4;
- **ML2025054:** Marine Capital Dredge Licence for the creation of a berthing pocket adjacent to D3 within Belfast Harbour Estate, by dredging to -9.8mCD, removing approximately 372,000m³ of material, with dredge works centred on Irish National Grid 337267 E, 378353 N; and
- **ML2025055:** Marine Capital Dredge Sea Disposal Licence for the disposal of dredged material at the North Channel Disposal Ground, located within a 0.2 nautical mile radius of 54° 45.3'N 05° 29.6'W.

A Planning Application (LA04/2026/0442/F) was also submitted for the updated elements of the D3 Cruise Terminal under Permission ref. LA04/2016/0421/F. This planning permission is connected to the proposed works as it relocates the access road along the northern site boundary and also results in a larger hardstanding area in part necessitating an additional outfall from the project that has already been permitted. As noted in section 3, the Extant Approval (LA04/2016/0421/F) included three outfalls (No.1, No.2 and No.3), and it should be noted that the HRA associated with the Extant Approval considered the effects of constructing and operating 3 no surface drainage outfalls in addition to effects of impact piling, berth dredging, revetment construction and cruise liner activities at operational phase. The HRA submitted with the 2026 planning application, considers the revisions to the terrestrial elements of the project, but also includes all 4 no outfalls. This marine licence application is being submitted, to ensure the marine construction licensing is consistent with the revised terrestrial proposals and all proposed plans/approvals read together.

A key consideration is the cumulation of disturbance from construction activities associated with the Extant Approval, and also the introduction of a pollution pathway to the Belfast Lough European sites from the construction of the outfalls to facilitate drainage from the D3 Cruise Terminal.

The outfall works are relatively small scale compared to other construction activities associated with the Extant Approval and other infrastructure projects in Belfast Harbour with no requirement for piling, dredging or significant plant activity, and results of a comprehensive campaign of ornithological monitoring of construction of the Extant Development to capture activity that has elicited a disturbance response during works (March 2025 to present, and ongoing) have revealed that activities unrelated to the construction of the Extant Development are causing disturbance to birds in the RSPB WOW reserve in the vast majority of cases whereas construction activities associated with the Extant Development are not causing disturbance. These observational survey results are reported to DAERA NIEA NED and RSPB on a monthly basis through the Steering Group established to oversee and manage effects of construction of the Extant Development on the avifauna assemblage of the RSPB WOW reserve and the Belfast Lough European sites.

Having observed first-hand the type and scale of construction activities that do not disturb the qualifying features of the Belfast Lough European sites, the Tetra Tech ecology team is very confident in our prediction that when considered cumulatively, construction of the headwalls and outfalls will not result in any in-combination disturbance effects when considered alongside construction of the Extant Development. There is no likelihood of significant cumulative or in-combination effects which can be considered to significantly affect the qualifying interests or conservation objectives of the European sites being assessed.

The discharge from the developments which these outfalls would serve has the potential to carry contaminants derived from either wear and tear of vehicles' mechanical parts, or from combustion of fuel or oil leaks. All surface drainage waters from the Extant Development including road drainage, will be routed through a suitable oil interceptor which will be selected and sized based on the pollution prevention guideline: "*Use and design of oil separators in surface water drainage systems: GPP 3*" (NetRegs, 2022) and BS EN 858 as per the HRA and conditions attached to planning permission LA04/2026/0442/F. That measure is a safeguard of the Extant Development and already forms part of what will become the operational phase of the D3 Cruise Terminal. In other words, the operational discharges that will flow through the outfalls are not part of the proposed development – they have been assessed under the Extant Development. The proposed works being assessed here include a new discharge location on the northern boundary of the D3 site, so the potential for in-combination effects arises from the 3 no. outfalls operating along the berthing face of D3 in combination with a new discharge operating from the northern face of the D3 site. There is potential for likely significant in combination water quality and habitat deterioration effects of the outfalls of the Extant Development operating at the same time as the proposed outfalls for which a Marine Licence is now sought. Therefore, the possibility of likely significant effects cannot be excluded at the screening stage in the absence of any mitigation measures being applied for the Belfast Lough SPA/Ramsar Site, Belfast Lough Open Water SPA and East Coast Marine pSPA.

It is considered that no other plans or projects lie within proximity to the proposed works or have the potential to give rise to significant in-combination effects with the proposed works.

4.4 Summary of the Screening Appraisal

The stage one screening appraisal was completed in compliance with EU and Northern Irish law and the relevant European Commission and national guidelines as set out at Section 2 of this report, and on the proposed works as described at Section 3 of the report to determine whether or not Likely Significant Effects on any European site could be excluded as a result of the proposed works. The potential impacts of the proposed works have been considered in the context of the European Sites identified in Section 4, their Qualifying Interests and Special Conservation Interests and any conservation objectives which have been set.

The proposed works is not directly connected with or necessary to the management of any European site. From the findings of the screening stage appraisal presented, the possibility of Likely Significant Effects upon European sites considered in the appraisal is set out below:

From the findings of the Screening exercise, it is concluded that the proposed development:

- Is not directly connected with or necessary to the management of any European site;
- Will not give rise to potentially significant effects on the qualifying features of all European Sites as a result of habitat loss or deterioration;
- Will not give rise to potentially significant effects on the qualifying features of all European Sites as a result of underwater noise or disturbance;
- Will not give rise to potentially significant effects on the qualifying features of all European Sites as a result of airborne noise or disturbance;
- May potentially give rise to significant effects on the waterbird community of Belfast Lough SPA/Ramsar Site, Belfast Lough Open Water SPA and East Coast Marine pSPA as a result of deterioration of water quality; and
- May potentially give rise to potential in-combination water quality and habitat deterioration effects with the already permitted D3 Cruise Berth development.

Having regard to the methodology employed and the findings of this screening exercise, it has been concluded that Stage 2 Appropriate Assessment is required to be undertaken in relation to the identified potential likely significant effects upon the waterbird community of Belfast Lough SPA/Ramsar Site, Belfast Lough Open Water SPA and East Coast Marine pSPA as a result of deterioration of water quality.

5 Stage 2 Appraisal for Appropriate Assessment

The screening stage appraisal concluded that an appropriate assessment of the implications of the proposed works on Belfast Lough SPA/Ramsar Site, Belfast Lough Open Water SPA and East Coast Marine pSPA is required in view of their conservation objectives, based on a precautionary assessment of potential impacts that water quality and habitat deterioration should be considered.

The 2018 Commission Notice (EC, 2019) advises that the purpose of the appropriate assessment is to assess the implications of the project in respect of the site's conservation objectives, either individually or in combination with other plans or projects, drawing conclusions to enable the competent authorities to ascertain whether the project will adversely affect the integrity of the sites concerned, where no reasonable scientific doubt remains as to the absence of such effects. Case law confirms that such an assessment must identify all the aspects of the project which can, either individually or in combination with other plans or projects, affect the conservation objectives of the sites concerned in the light of the best scientific knowledge in the field.

EC (2019) advises that an appropriate assessment should:

- include a comprehensive identification of all the potential effects of the project likely to be significant on the sites concerned;
- take into account cumulative and other effects likely to arise as a result of the combined action of the project under assessment with other plans or projects;
- apply the best available techniques and methods to assess the extent of the effects of the project on the integrity of the sites concerned;
- describe the assessment on the site's integrity based on the best possible indicators specific to the qualifying interests of the European site;
- be sufficiently detailed to demonstrate how the final conclusion was reached, and on what scientific grounds.

The competent authorities, in carrying out an appropriate assessment under Article 6(3) and Northern Irish law, are obliged to make a determination as to whether or not the proposed development would adversely affect the integrity of the relevant European site or sites in view of its conservation objectives.

5.1 Conservation Objectives of the Belfast Lough European sites

5.1.1 Proposed East Coast (NI) Marine SPA

5.1.1.1 Great crested grebe wintering population

- To maintain or enhance the population of the qualifying species.
- To maintain or enhance the range of habitats utilised by the qualifying species.
- To ensure that the integrity of the site is maintained.
- To ensure there is no significant disturbance of the species.
- To ensure that the following are maintained in the long term:
 - Population of the species as a viable component of the site.
 - Distribution and extent of habitats supporting the species.
 - Structure, function and supporting processes of habitats supporting the species.

5.1.1.2 Breeding bird populations

- To maintain or enhance the population of the qualifying species.
- To maintain or enhance the range of habitats utilised by the qualifying species.
- To ensure that the integrity of the site is maintained.
- To ensure there is no significant disturbance of the species.
- To ensure that the following are maintained in the long term:
 - Population of the species as a viable component of the site.
 - Distribution and extent of habitats supporting the species.
 - Structure, function and supporting processes of habitats supporting the species.

5.1.1.3 Habitat extent

- Maintain the extent of main habitat components subject to natural processes.

5.1.1.4 Roost / Loafing Sites

- Maintain all locations of sites.

5.1.2 Belfast Lough SPA/Ramsar Site

5.1.2.1 Redshank and Great crested grebe wintering population

- To maintain or enhance the population of the qualifying species.
- To maintain or enhance the range of habitats utilised by the qualifying species.
- To ensure that the integrity of the site is maintained.
- To ensure there is no significant disturbance of the species.
- To ensure that the following are maintained in the long term:
 - Population of the species as a viable component of the site.
 - Distribution and extent of habitats supporting the species.
 - Structure, function and supporting processes of habitats supporting the species.

5.1.2.2 Habitat Extent

- To maintain or enhance the area of natural and semi-natural habitats used or potentially usable by feature bird species, subject to natural processes.
- Maintain the extent of main habitat components subject to natural processes.

5.1.2.3 Roost Sites

- Maintain or enhance sites utilised as roosts.

5.1.3 Belfast Lough Open Water SPA

5.1.3.1 Great crested grebe wintering population

- To maintain or enhance the population of the qualifying species.
- To maintain or enhance the range of habitats utilised by the qualifying species.

- To ensure that the integrity of the site is maintained.
- To ensure there is no significant disturbance of the species.
- To ensure that the following are maintained in the long term:
 - Population of the species as a viable component of the site.
 - Distribution and extent of habitats supporting the species.
 - Structure, function and supporting processes of habitats supporting the species.

5.1.3.2 Habitat extent

- Maintain the extent of main habitat components subject to natural processes.

5.1.3.3 Roost / loafing Sites

- Maintain all locations of sites.

5.2 Potential Adverse Effects

Such works will involve the use of plant, machinery and associated petrochemical fuels, lubricating oils and other chemicals during construction works, in close proximity to the marine environment. In addition to the use of petrochemical fuels and other chemicals within the construction phase the proposals will also involve the use of quantities of cement and concrete in the construction phase. Should such highly alkaline substances enter the marine environment there is potential for impacts associated with environmental toxicity and other effects.

The use of such substances introduces the potential for the accidental release of these pollutants into the marine environment and subsequently into any hydrologically linked European Sites. Should such substances enter the marine environment there is potential for adverse effects through water quality and habitat deterioration effects, including impacts upon prey biomass for both SPA feature birds, and environmental toxicity.

While such potential inputs are likely to be subject to significant dilution within marine waters, in the absence of mitigation measures to prevent accidental pollution, sedimentation or contaminant runoff could jeopardise or imperil the achievement of the conservation objectives of these sites. Mitigation measures are required to prevent adverse effects on the integrity of Belfast Lough SPA/Ramsar Site, Belfast Lough Open Water SPA and East Coast (NI) Marine pSPA.

5.3 Mitigation Measures

5.3.1 Pollution Prevention

5.3.1.1 General

A site-specific and practical Construction Environmental Management Plan (CEMP) should be prepared by the Contractor which would inform working practices and any Construction Risk Assessments and Method Statements. Environmental inspections, responsible person(s) and environmental inductions should be outlined in these documents. These mitigation measures should be implemented by the contractor and will include the requirements for best practice and adherence to the following relevant guidelines and recognised international guidelines to prevent potential impacts to water quality:

- Good practice guidelines on the control of water pollution from construction sites developed by the Construction Industry Research and Information Association (CIRIA, 2001);

- Netregs Guidance for Pollution Prevention series (GPP), Pollution prevention guidelines (PPGs) in relation to a variety of activities developed by the Environment Agency (EA), the Scottish Environmental Agency (SEPA) and the Northern Ireland Environment Agency (NIEA);
 - GPP5: Works and maintenance in or near water
 - GPP13: Vehicle washing and cleaning
 - GPP21: Pollution incident response planning
 - GPP22: Dealing with spills

5.3.1.2 Sedimentation

Suspended sediment arising from the construction of the outfalls may enter the lough during movement of existing rock armour and exposed banks during installation. Other risks of sediment runoff are from spoil stockpiles or poorly formed temporary access roads. Where possible, the site access should be hardcore, reducing the risk of generating silty runoff. The following precautionary measures will be undertaken to minimise the risk of impacting on water quality from silt within the receiving environment:

- Daily inspections undertaken by the Site Manager will identify areas requiring appropriate erosion and sediment controls during construction.
- Spoil from foundations will be removed immediately from the site and will not be stockpiled within 10 m of the lough shoreline.
- Temporary roads will be formed with hardcore at the commencement of the works to reduce disturbance of sub-soil and generation of runoff.

5.3.1.3 Accidental Pollution

The risk of water quality impacts associated with works machinery, infrastructure, and operations (for example leakages/spillages of fuels, oils, other chemicals, and wastewater) will be controlled through good site management and the adherence to codes and practices which limit the risk to within acceptable levels. The following precautionary measures will be undertaken to minimise the risk of impacting on water quality within the receiving environment:

- A project specific Pollution Incident Response Plan should be included in the RAMS prepared by the contractor in accordance with GPP 21 Pollution Incident Response Planning.
- A spill kit and drip trays are available on site.
- Staff to be made aware of spill response through induction/toolbox talk.

5.3.1.4 Concrete Works

The new outfalls will be formed over a low tide, and where the use of precast components is not possible, will likely involve setting up a temporary timber shutter prior to placing the ready mixed concrete directly (fast curing) into the area to be filled from the delivery lorry.

In the event that the concrete delivery arrives before the area is ready, this will be held in the site until the concrete can be placed i.e., no temporary storage of concrete within the inter-tidal area is required. The concrete will be placed directly from the delivery lorry into the formwork, thus minimising the potential for spillages onto the foreshore.

The concrete placement will be timed to commence as soon as possible after the tide has cleared the area on the ebb to give the maximum time for the concrete to cure before the tide returns.

To further ensure that the risk of concrete loss into the marine environment is minimised, the concrete will be specified without retarder to ensure it achieves an initial set before the tide returns.

SHADOW HABITATS REGULATIONS ASSESSMENT

Once the new wall is poured, the area will be cleared, and all tools and any excess material will be removed above the level of MHWS.

Any cleaning or wash down of plant and equipment will be undertaken within the dedicated wash down area in the site, thus ensuring no concrete is washed directly into the Lough.

Washout will be collected in an impermeable and designated washout area as per the CEMP/RAMS.

6 Conclusion of Appropriate Assessment

Tetra Tech has conducted a Stage 1 and Stage 2 Habitats Regulations Assessment on behalf of Belfast Harbour and prepared an HRA report incorporating mitigation measures.

Having regard to the relevant legislation and the methodology followed, a Stage 1 Screening appraisal was prepared assessing whether or not the proposed works are likely to have a significant effect on the European sites listed in **Table 4.1**.

Likely Significant Effects as a result of accidental pollution could not be excluded at screening stage for the Belfast Lough SPA/Ramsar Site, Belfast Lough Open Water SPA and East Coast (NI) Marine pSPA, without the application of measures intended to avoid or reduce the harmful effects of the proposed development, alone and in combination, on the sites concerned.

A subsequent Stage 2 appraisal of the implications of the proposed works permitted the introduction of mitigation measures in accordance with European Commission and national guidance, and prevailing case law on appropriate assessment.

Having applied mitigation measures to manage and reduce the risk of accidental pollution and disturbance, there will be no adverse effects upon the integrity of any of the European sites concerned, and no scientific doubt remains as to the absence of such effects.