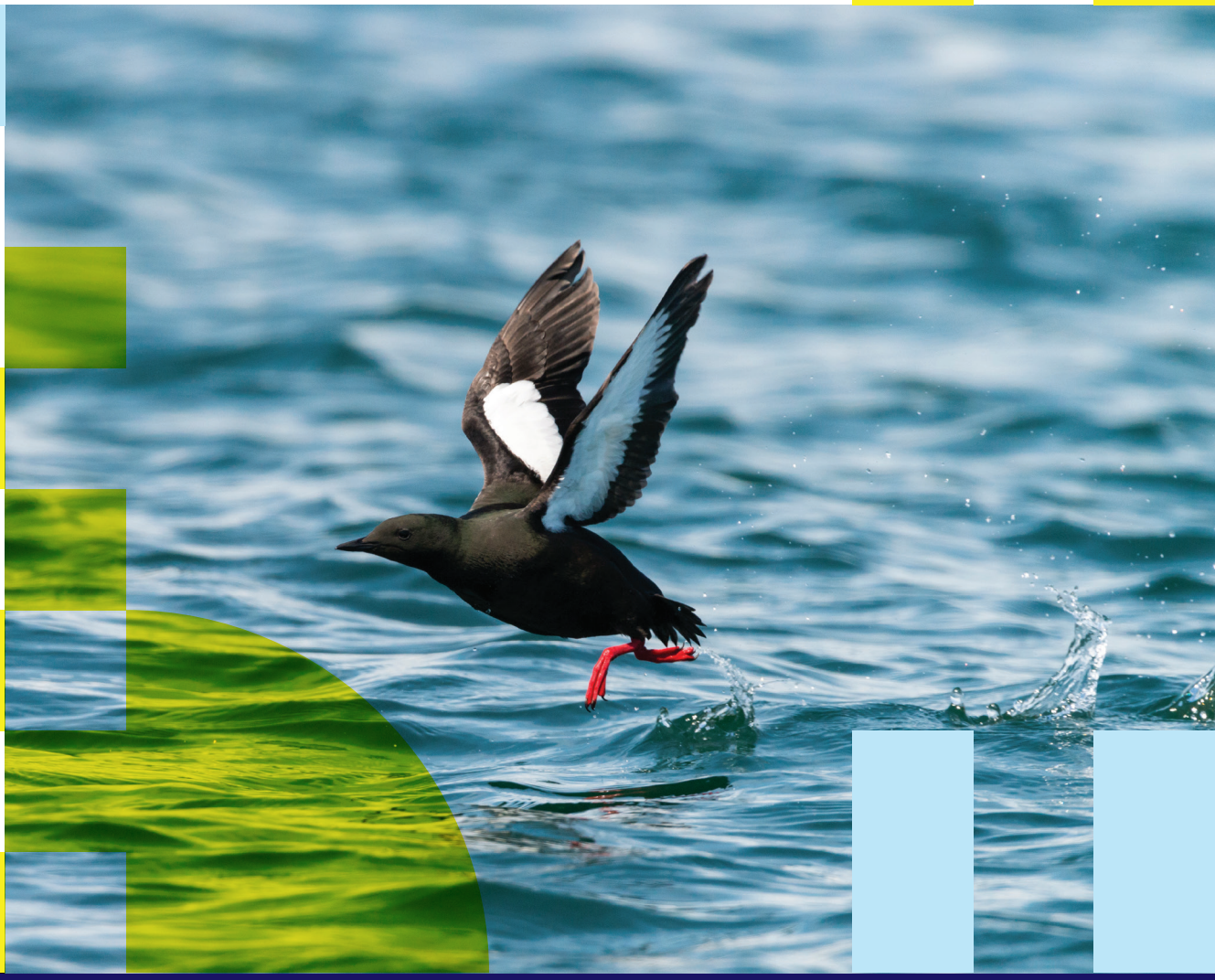
3FMProject

Bringing
Dublin Port
To 2040

Appropriate Assessment Screening Report



COMHLACHT CHALAFORT ÁTHA CLIATH
DUBLIN PORT COMPANY

RPS
A TETRA TECH COMPANY

Third & Final
Masterplan
Project

APPROPRIATE ASSESSMENT SCREENING REPORT

3FM Project, Dublin Port

3FM Project, Dublin Port
AA Screening
Rev F
July 2024

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1 INTRODUCTION

With the introduction of the Habitats Directive (Council Directive 92/43/EEC on the Conservation of natural habitat and of wild fauna and flora) came the obligation on Member States to establish the Natura 2000 network of Sites of Community Interest (SCIs), comprising a network of areas of highest biodiversity importance for rare and threatened habitats and species across the European Union (EU).

The Natura 2000 network of sites comprises Special Areas of Conservation (SACs, including candidate SACs) and Special Protection Areas (SPAs, including candidate SPAs) classified under the Birds Directive (Council Directive 2009/147/EC on the conservation of wild birds) both designated under domestic legislation transposing the obligations under Directive 92/43/EEC into Irish law.

SACs are designated for the conservation of Annex I habitats (including priority types which are in danger of disappearance) and Annex II species (other than birds). SPAs are designated for the conservation of Annex I birds and other regularly occurring migratory birds and their habitats. The annexed habitats and species for which each site is designated correspond to the qualifying interests of the sites; and from these the conservation objectives of the site are derived.

SACs and SPAs make up the pan-European network of Natura 2000 sites. 'European sites' are defined in section 177R of the Planning and Development Act 2000, as amended (PDA 2000), and regulation 2(1) of the European Communities (Birds and Natural Habitats) Regulations 2011, as amended (2011 Regulations), as follows:

> *"(a) a candidate site of Community importance,*
>
> *(b) a site of Community importance,*
>
> *(ba) a candidate special area of conservation,*
>
> *(c) a special area of conservation,*
>
> *(d) a candidate special protection area,*
>
> *(e) a special protection area;*

1.1 Appropriate Assessment

1.1.1 The Habitats Directive

A key protection mechanism in the Habitats Directive is the requirement to subject plans and projects to Appropriate Assessment (AA) in line with the requirements of Article 6(3), which states that–

> *Any plan or project not directly connected with or necessary to the management of the site 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 and subject to the provisions of paragraph 4, 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 and if appropriate, after having obtained the opinion of the general public.*

Thus, Article 6(3) defines a two-step procedure for considering plans and projects:

- The first part of this procedure consists of a preliminary 'screening' stage to determine whether, firstly, the 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.

1.1.2 Transposition into Irish Law

1.1.2.1 Screening

In relation to applications for permission under PDA 2000, section 177U of the 2000 Act requires, *inter alia*, that a screening for appropriate assessment of an application for consent for proposed development shall be carried out by the competent authority to assess, in view of best scientific knowledge, if that proposed development, individually or in combination with another plan or project is likely to have a significant effect on a European site.

While the provisions of section 177U adopt the terminology used in Article 6(3) of the Habitats Directive in terms of the test for screening, section 177U expands on this, in light if the interpretation given in decisions of the Court of Justice of the European Union. Thus, section 177U give effect to the requirement to screen an application for development consent for appropriate assessment by assessing whether the proposed development is likely to have a significant effect on a European site by considering whether such a significant effect can or cannot be excluded.

Regulation 42 of the 2011 Regulations requires *inter alia* that screening for appropriate assessment of a project for which an application for consent is received, and which is not directly connected with or necessary to the management of the site as a European Site, shall be carried out by the public authority to assess, in view of best scientific knowledge and in view of the conservation objectives of the site, if that project, individually or in combination with other plans or projects is likely to have a significant effect on the European site.

1.1.2.2 Appropriate Assessment

Again, in respect of applications for permission under PDA 2000, section 177V of that Act requires, *inter alia*, that an appropriate assessment carried out by the competent authority shall include a determination under Article 6(3) of the Habitats Directive as to whether or not a proposed development would adversely affect the integrity of a European site and an appropriate assessment shall be carried out by the competent authority where it has made a screening determination that an appropriate assessment is required, before consent is given for the proposed development.

Regulation 42 of the 2011 Regulations requires *inter alia* that a public authority shall determine that an appropriate assessment of a project is required where the project is not directly connected with or necessary to the management of the site as a European Site and if it cannot be excluded, on the basis of objective scientific information following screening that the project, individually or in combination with other plans or projects, will have a significant effect on a European site.

1.1.3 The Appropriate Assessment Process

According to European Commission Notice C(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' (EC, 2021) Appropriate Assessment a step-wise procedure as illustrated in **Figure 1.1**.

As referenced 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.

The second part of the procedure relates to the appropriate assessment itself and the decision of the competent authority or authorities.

A third part of the procedure under Article 6(4), arises only in circumstances where, notwithstanding a negative assessment under Article 6(3), it is proposed to grant approval for a plan or project for imperative reasons of overriding public interest (IROPI). This part of the appropriate assessment process does not arise in the respect of the 3FM Project.

1.2 Objective of the AASR

The purpose of this Appropriate Assessment Screening Report (AASR), which contains a Stage 1 screening appraisal to inform screening for appropriate assessment, is to assist the competent authorities carry out a screening for appropriate assessment of the implications of the Dublin Port Company 3FM Project on European sites in view of their conservation objectives.

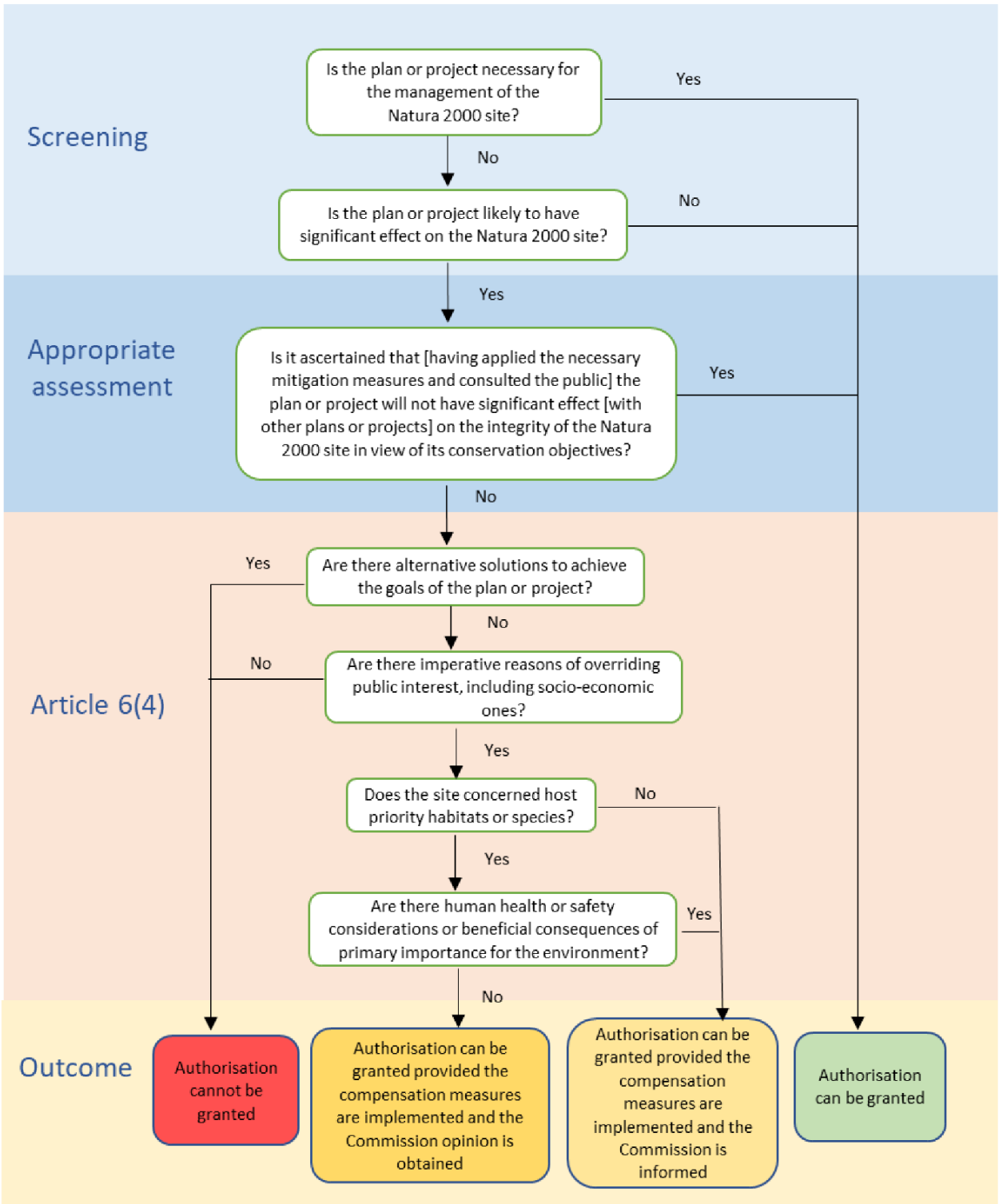


Figure 1.1: Step-wise procedure of Appropriate Assessment (from EC, 2021)

1.3 Document Structure

1.3.1 Methodology and Guidance

Section 2 of the document, sets out the methodology followed and guidance documents used in conducting a screening appraisal of the implications of the proposed development on European sites.

1.3.2 Proposed Development

Section 3 of the report describes and illustrates the proposed development and activities to be undertaken.

1.3.3 Stage 1 Screening Appraisal

Section 4 of the report contains a preliminary examination and analysis to understand whether or not the proposed development is likely to have a significant effect on any European site. This is a screening appraisal for appropriate assessment. It has been undertaken in view of the best available scientific knowledge, in light of the Conservation Objectives of the sites concerned and considers the proposed development individually or in combination with other plans and projects.

In accordance with EC guidance and settled case law of the CJEU, measures intended to avoid or reduce the harmful effects of the proposed development on European sites, (i.e. “mitigation measures”) or best practice measures have not been taken into account in the screening stage appraisal.

The analysis involved in a screening appraisal for appropriate assessment is described in EC (2021) as comprising of 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.

2 METHODOLOGY

2.1 Published guidance on Appropriate Assessment

Guidelines on appropriate assessment for Planning Authorities have been published by the Department of the Environment Heritage and Local Government (DEHLG, 2010) and by the Office of the Planning Regulator (OPR, 2021). In addition to the advice available from the Department and the Planning Regulator, 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 Commission Notice C(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 (EC, 2021), which sets out the principles as to approach decision-making during the appropriate assessment process. These principal national and European guidelines have been followed in the preparation this report. The following list identifies these and other pertinent guidance documents which has guided the preparation of this appraisal:

- Communication from the Commission on the Precautionary Principle., Office for Official Publications of the European Communities, Luxembourg (EC, 2000);
- 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);
- 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; (EC, 2007);
- 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. European Commission (EC, 2009);
- Appropriate Assessment of Plans and Projects in Ireland. Guidance for Planning Authorities. Department of the Environment, Heritage and Local Government, Dublin (DEHLG, 2010);
- Guidance document on the implementation of the birds and habitats directive in estuaries and coastal zones with particular attention to port development and dredging. European Commission (EC, 2011a);
- European Commission Staff Working Document 'Integrating biodiversity and nature protection into port development' (EC, 2011b);
- Marine Natura Impact Statements in Irish Special Areas of Conservation: A working document, National Parks and Wildlife Service, Dublin (NPWS, 2012);
- Interpretation Manual of European Union Habitats. Version EUR 28. European Commission (EC, 2013);
- European Commission Notice "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). Institute of Air Quality Management, London (IAQM, 2020);
- Office of the Planning Regulator Practice Note (PN01) 'Appropriate Assessment Screening for Development Management' (OPR, 2021);
- European Commission Notice C(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); and
- European Commission Guidance document on Assessment of plans and projects in relation to Natura 2000 sites – A summary (EC, 2022).

2.2 Likely Significant Effect

The Commission's 2018 Notice (EC, 2019) stated 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 on the basis of objective information. 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. 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 Commission's guidance acknowledges that against this background, what may be significant in relation to one site may not be in relation to another.

The threshold for a Likely Significant Effect ("LSE") is treated in the screening exercise as being above a *de minimis* level. A *de minimis* effect is a level of risk that is too small to be concerned with and results in no appreciable effect 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. This view is confirmed by the CJEU in paragraph 48 of the Judgment of the Court in case C-258/11:

> *"the requirement that the effect in question be 'significant' exists in order to lay down a* de minimis *threshold. Plans or projects that have no appreciable effect on a European site are thereby excluded. If all plans or projects capable of having any effect whatsoever on the site were to be caught by Article 6(3), activities on or near the site would risk being impossible by reason of legislative overkill".*

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* or negligible threshold – thus, plans or projects that have no appreciable or imperceptible effects on the site are thereby excluded.

2.3 No Consideration of Mitigation Measures at Screening Stage

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 development 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 (EU,2019; EC,2021; EC, 2022) and the case law of the Court of Justice of the European Union (CJEU) arising from judgment in *People Over Wind* (C-323/17). In *Eco-Advocacy* (C-721/21), the CJEU 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.

This screening appraisal does not attempt to formulate any measures previously considered to be mitigation measures in light of the emerging case law from the CJEU by describing them as features that have been incorporated into the proposed 3FM Project as 'standard features'. The AASR has been prepared on the basis that mitigation measures have not been taken into account.

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.

In that regard, consideration has been given in this AASRI 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.

2.5 Conservation Objectives

The conservation objectives 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.

EC (2022) advises that an assessment should be completed for all of the designating features (species, habitat types) that are significantly present on the site (habitats and species with A, B or C, but not D, site assessment in the Standard Data Form for the site) in view of their conservation objectives. EC (2022) additionally notes that "*the lack of site-specific conservation objectives or the establishment of conservation objectives, which are not in line with the required standard, as specified in the Commission note on "Setting conservation objectives of Natura 2000 sites" (EC, 2012), jeopardises compliance with the requirements of Article 6(3)*".

2.5.1 Site-Specific Conservation Objectives

NPWS began preparing detailed Site-Specific Conservation Objectives (SSCOs) for European sites in Ireland in 2011. The European sites within Dublin Bay in closest proximity to the proposed development which are considered in some detail in this report have all had SSCOs set. The published SSCO documents used in the appraisal are identified in Section 4.1 of this document.

The published SSCO documents note that an appropriate assessment based on the most up-to-date conservation objectives will remain valid even if the targets are subsequently updated, providing they were the most recent objectives available when the assessment was carried out. It is essential that the date and version are included when objectives are cited.

The most up-to-date Conservation Objectives for the European sites being considered, and details in relation to the Qualifying Interests and Special Conservation Interests of these European sites is based on publicly available data on these European Sites, sourced from the NPWS website in July 2024.

All European sites considered in this appraisal have published SSCOs, including the recently advertised North-West Irish Sea candidate SPA (cSPA) (site code IE004236), which was notified to the public by the Department of Housing, Local Government and Heritage in July 2023 following selection by the Minister under the 2011 Regulations, as a site to be considered for consideration for classification as a SPA. A further notification then followed in December 2023, commencing a period during which observations and objections to the proposed designation, on scientific/ornithological grounds, may be submitted by interested parties. This notification publicised a closing date for observations or objections to the classification of the site as an SPA in February 2024. As at 5 July 2024, it is understood that the site remains classified as a candidate SPA. However, as set out above, in the context of Irish law, the definition of "European site" includes a candidate SPA and, accordingly, the Article 6(3) assessments should include the North-West Irish Sea candidate cSPA.

NPWS published detailed Site-Specific Conservation Objectives for the North-West Irish Sea cSPA in September 2023. Details of the site, including a Natura 2000 Standard Data Form, will be transmitted to the European Commission when the applicable statutory processes have been completed, which has not occurred as at 5 July 2024.

2.5.2 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 that context, one must consider plans or projects which are completed, approved but uncompleted, or proposed. EC (2019) specifically advises [on p43] 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*".

This AASR has been prepared so as to assess the effects of other proposed projects for which an application for consent has been submitted but not determined.

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
- 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 DEVELOPMENT

3.1 3FM Project

The 3FM Project (http://www.dublinport3fm.ie) is Dublin Port Company's (DPC's) third and final Masterplan Project. It focuses on development in the south port area, known as the Poolbeg Peninsula, which contains nearly one-fifth of the Dublin Port estate. The estimated capital cost of the 3FM Project is €1.1 billion (2024 costs).

The 3FM Project at Dublin Port has been designed in accordance with the Dublin Port Masterplan 2040. The proposed project focuses on the DPC-owned lands of the south port area on the Poolbeg Peninsula. Figure 3 in the Masterplan (reproduced in **Figure 3.1**) identifies the land uses and development projects on port lands which will allow the port to achieve its ultimate capacity of 73.8m tonnes of cargo throughput per annum by 2040.

The 3FM Project has evolved from the concept drawings of the Masterplan, driven by DPC's understanding of the key environmental constraints formulated by a decade of environmental monitoring, collaborative working with NGOs and Universities, and early consultation with key stakeholders.

The 3FM Project has six key elements:

1) A new public road and bridge called the **Southern Port Access Route (SPAR)** to link the north and south port areas.

The route will include a new bridge over the River Liffey. It will be located immediately east of Tom Clarke Bridge and north of the R131. The route will facilitate Heavy Goods Vehicles (HGVs), active travel users (pedestrians, cyclists, wheelers etc), emergency (blue light) vehicle services and public transport users moving to and from the South Port and Poolbeg Peninsula. The SPAR will allow the 3FM Project to be fully rail enabled through rapid shunting of freight by electric vehicles from the South Port Estate, across the Liffey, to rail intermodal facilities in the vicinity of the North Port Estate. The SPAR will have a direct connection to the Dublin Tunnel via the North Port Estate road system.

2) A new **Lift-on Lift-off (Lo-Lo) container terminal** with an annual throughput capacity of 550,000 Twenty-foot Equivalent Units (TEU) or 5.34 million tonnes. The Lo-Lo container terminal will consist of two main components:

   - A terminal located north of the ESB's Generating Station on the eastern end of Poolbeg Peninsula with 650m of deep water berthage dredged to a depth of -13.0 m CD (Chart Datum), plus associated cargo handling areas (Dublin Port Masterplan Area N). This terminal will accommodate larger Lo-Lo vessels of up to 240 m length, primarily from Continental Europe.
   - A transit container storage yard located on waterside land currently used for bulk cargo handling (Dublin Port Masterplan Area L).

3) Replacement of the existing Lo-Lo container terminal, currently operated by Marine Terminals Limited (MTL), with a new **Roll-On Roll-Off (Ro-Ro) freight terminal** with an annual throughput capacity of

360,000 Ro-Ro units or 8.69 million tonnes. The Ro-Ro freight terminal will consist of two main components:

- A terminal located at existing Berths 42 – 45 including provision of two berths, each with a single tier Ro-Ro ramp, plus associated cargo handling facilities (Dublin Port Masterplan Area K).
- A terminal located on Port-owned land on the southern side of the Poolbeg Peninsula (Dublin Port Masterplan Area O).

This combined terminal will accommodate larger Ro-Ro vessels of up to 240 m length, primarily from Continental Europe.

4) Provision of a **325 m diameter ship turning circle** in the river channel north of Pigeon House Harbour, dredged to a depth of -10.0 m CD. The ship turning circle will enable safe navigation and efficient manoeuvring of vessels up to 240 m in length.

5) Development of a new **Maritime Village** at Pigeon House Road and Berth 41.

This village will accommodate local rowing, sailing, and boat clubs and will provide a significantly enhanced public realm and facilities on the waterside. It will also accommodate the relocation of Port Harbour Operations from the North Port Estate.

6) **Community Gain** - Integrating Dublin Port with Dublin City and its people is a core objective of the Masterplan for Dublin Port. Development of proposed new public amenities on the Poolbeg Peninsula as part of the 3FM Project will provide **community gain** and contribute towards integrating the port with the city. These include:

Enhanced **recreational** amenity through:

- **7 km of new or upgraded Active Travel Path** (cycle, pedestrian, wheelers etc) and **4.9 km of new or upgraded footway** for the North Port Estate, SPAR and Poolbeg Peninsula, which will link with the 1.4 km Liffey Tolka Greenway in the North Port Estate, and from there to the 4.0 km Tolka Estuary Greenway currently under construction by Dublin Port. DPC will provide Dublin City Council with a €5 million contribution for future upgrading of the existing coastal path along the southern perimeter of the Poolbeg Peninsula.
- Development of a sailing, rowing and maritime campus (Maritime Village) adjacent to the existing Poolbeg Yacht and Boat Club in conjunction with local yacht and boating clubs, including a public slipway and facilities for maritime skills training.
- Provision of Recreational Space:
  - **Port Park and Wildflower Meadow** (2.5 ha)
  - **Coastal Park** (1.6 ha)
- Provision of 1.1 ha extension to Irishtown Nature Park.

Enhanced **public realm** through:

- Development of a new public plaza as a key part of the Maritime Village.

- Extensive boundary softening works adjacent to the development sites forming part of the 3FM Project.

Community support through:

- Establishment of a new €2 million Community Benefit Fund for Education, Heritage & Maritime Training Skills projects within the Poolbeg area. The initial capital for the Fund will be administered by DPC in consultation with local stakeholders.

Heritage & Biodiversity enhancements through:

- Commissioning a new Public Access Feasibility Study regarding the Great South Wall so as to identify improved public interpretation, accessibility, facilities and conservation possibilities,
- Provision of up to €1 million funding to implement the study recommendations.
- Provision of an additional permanent marine structure (dolphin) to expand the available habitat and range of the Dublin Port Tern Colonies.

A General Arrangement Drawing illustrating the main elements of the 3FM Project is presented in **Figure 3.2**. Other significant ancillary works include:

- Improvements to the existing road network, linking and providing access to the port terminals, including new signal-controlled junctions and a new roundabout on Pigeon House Road;
- Improved pedestrian access from Irishtown to the proposed Maritime Village; and
- Demolition of the existing Poolbeg Oil Jetty and Sludge Jetty.

Without the 3FM Project, Dublin Port will reach its capacity limit much earlier than 2040, perhaps as early as 2030. If this were to happen, there is a risk of a national port capacity shortage.

Post-2040, additional capacity at other new or existing east coast ports will be required so that, as Dublin Port approaches its ultimate capacity, excess volumes which Dublin Port cannot handle can be accommodated elsewhere.

In addition, but outside the scope of the 3FM Project, DPC is making the following provisions:

- **Reservation for Utilities** – The provision of a 0.62 ha site within Dublin Port Masterplan Area O to accommodate the infrastructure required to deliver District Heating from the Dublin Waste to Energy Scheme. The planning consent for this infrastructure will not form part of the 3FM Project and will be a matter for Dublin City Council. At the date of drafting of this report, there is no proposal, even in concept form, as to the location, scale, mass or nature of any Dublin District Heating Scheme at this site.
- **Renewable Energy Infrastructure** - The provision of a 1.5 ha site within Dublin Port Masterplan Area M for a substation to facilitate the onshoring and transmission of Offshore Renewable Energy by Codling Wind Park offshore wind farm. Planning permission for the development of this infrastructure will be a matter for Codling Wind Park as an offshore renewable energy (ORE) developer.

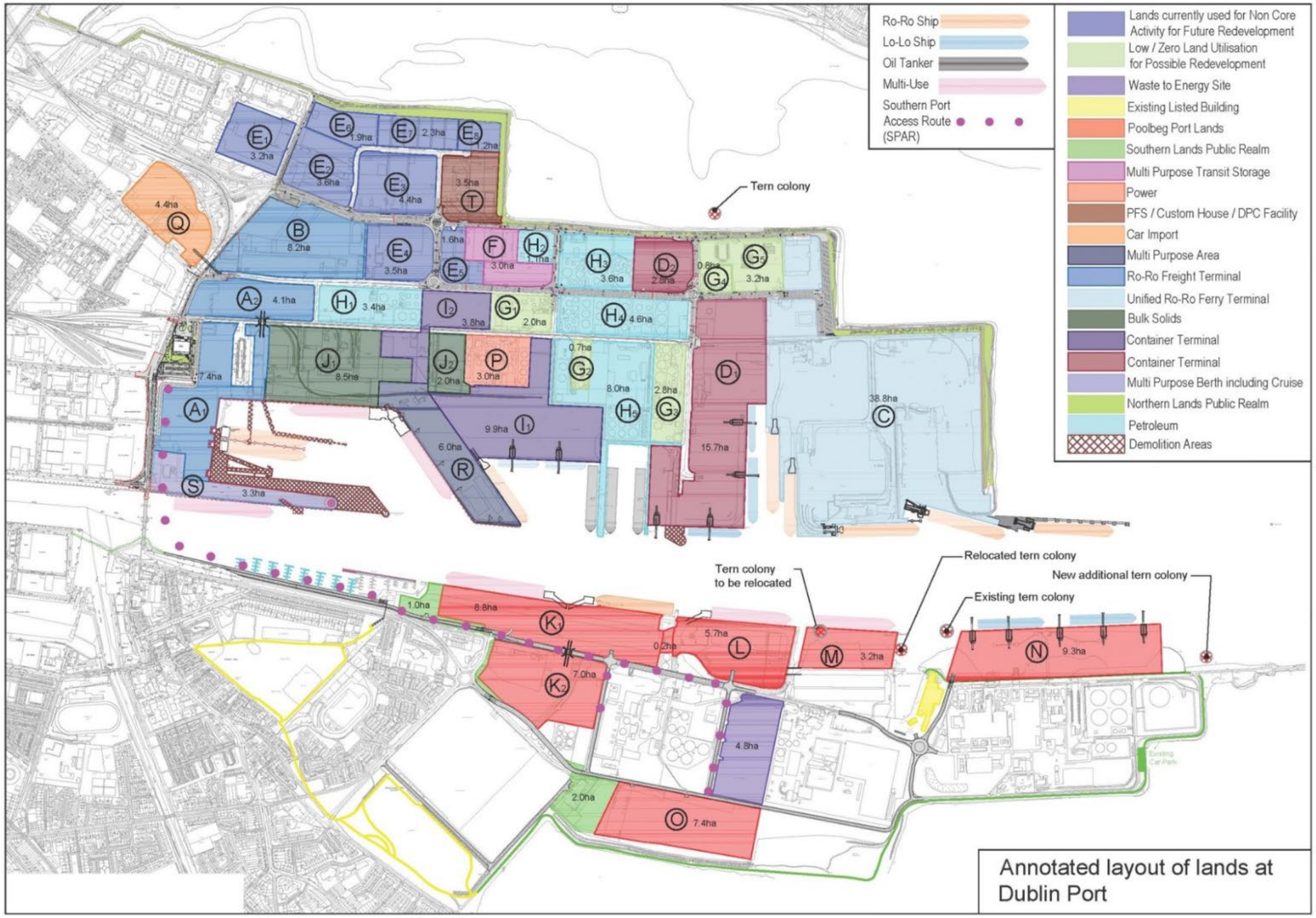


Figure 3.1: Dublin Port Masterplan 2040, reviewed 2018, Annotated Layout at Dublin Port
(Reproduced from Figure 3 of the Masterplan)

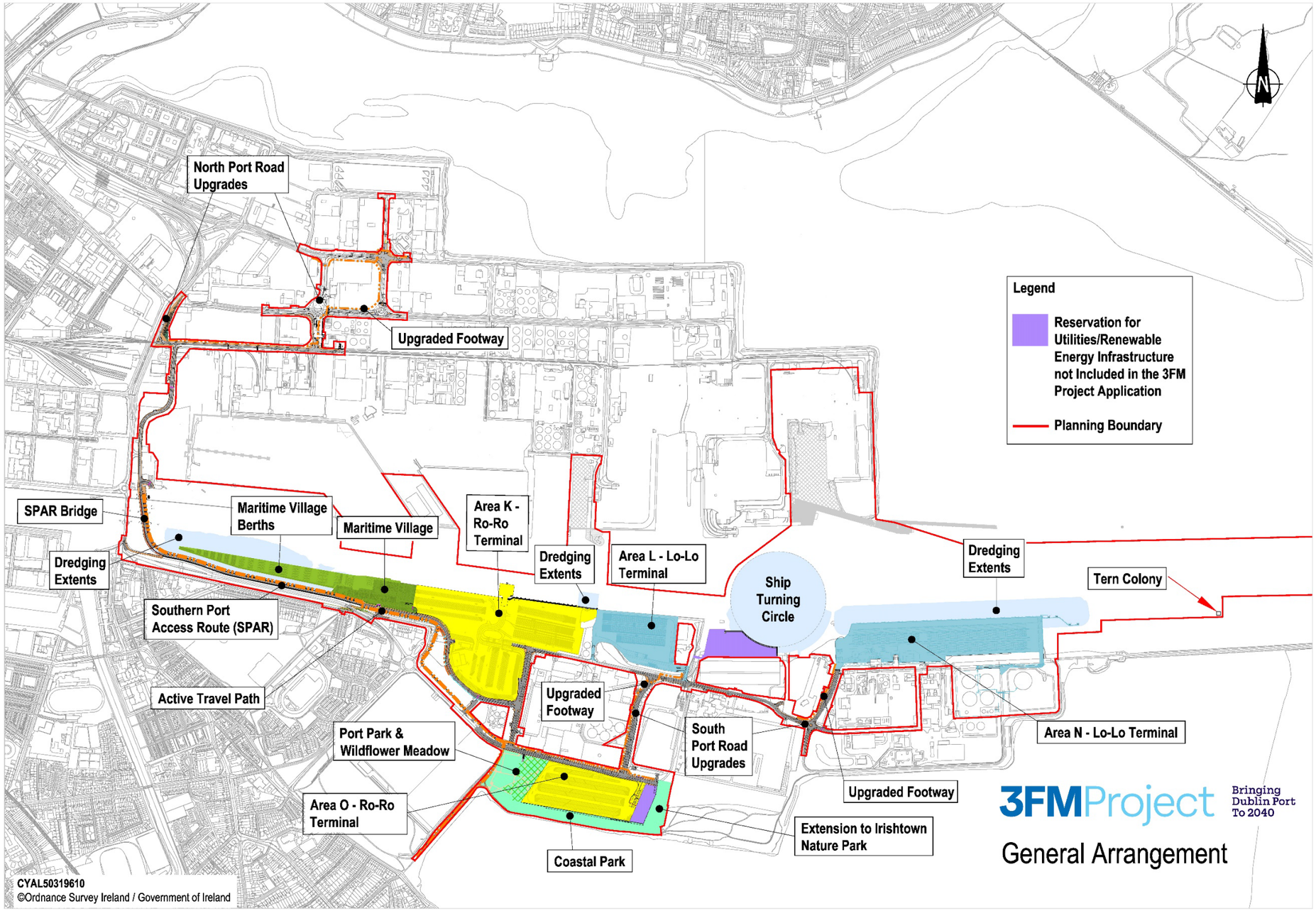


Figure 3.2: Main Elements of the 3FM Project

4 STAGE 1 SCREENING APPRAISAL FOR APPROPRIATE ASSESSMENT

A screening exercise must be undertaken to determine whether, firstly, the 3FM 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).

4.1 Directly Connected with or Necessary to the Management of the Site

The 3FM Project at Dublin Port is being proposed for development in accordance with the Dublin Port Masterplan to allow the port to increase its capacity to 77.2 million gross tonnes by 2040.

On this basis, the proposed development is not directly connected with or necessary to the management of any site as a European Site, and as such must be subject to a prior assessment procedure required by Article 6(3) of the Habitats Directive.

4.2 European Sites in proximity to Dublin Port

There is a significant aggregation of designated sites in and around Dublin Bay, including European sites (SACs and SPAs), NHAs and pNHAs, Ramsar sites, IBAs and Nature Reserves. It is a coastal wetland complex of considerable nature conservation value in a European and international context and the UNESCO designated Dublin Bay Biosphere extends to over 300 km^2, containing or overlapping with 14 European sites.

This screening appraisal considers European sites designated under the Habitats and Birds Directives. The proposed development will be screened against those European sites in order to appraise whether they are likely to have a significant effect on the site(s) concerned.

Details in relation to the Qualifying Interests and Special Conservation Interests of these European sites are provided in **Table 4.1**. The most up-to-date Conservation Objectives for these European sites under consideration are presented in subsequent tables, based on publicly available data sourced from NPWS in October 2023.

European sites discussed in this appraisal are illustrated in **Figure 4.1** at 1:95,000 at A3 print size. The sites scoped into the appraisal are explained in section 4.3 below.

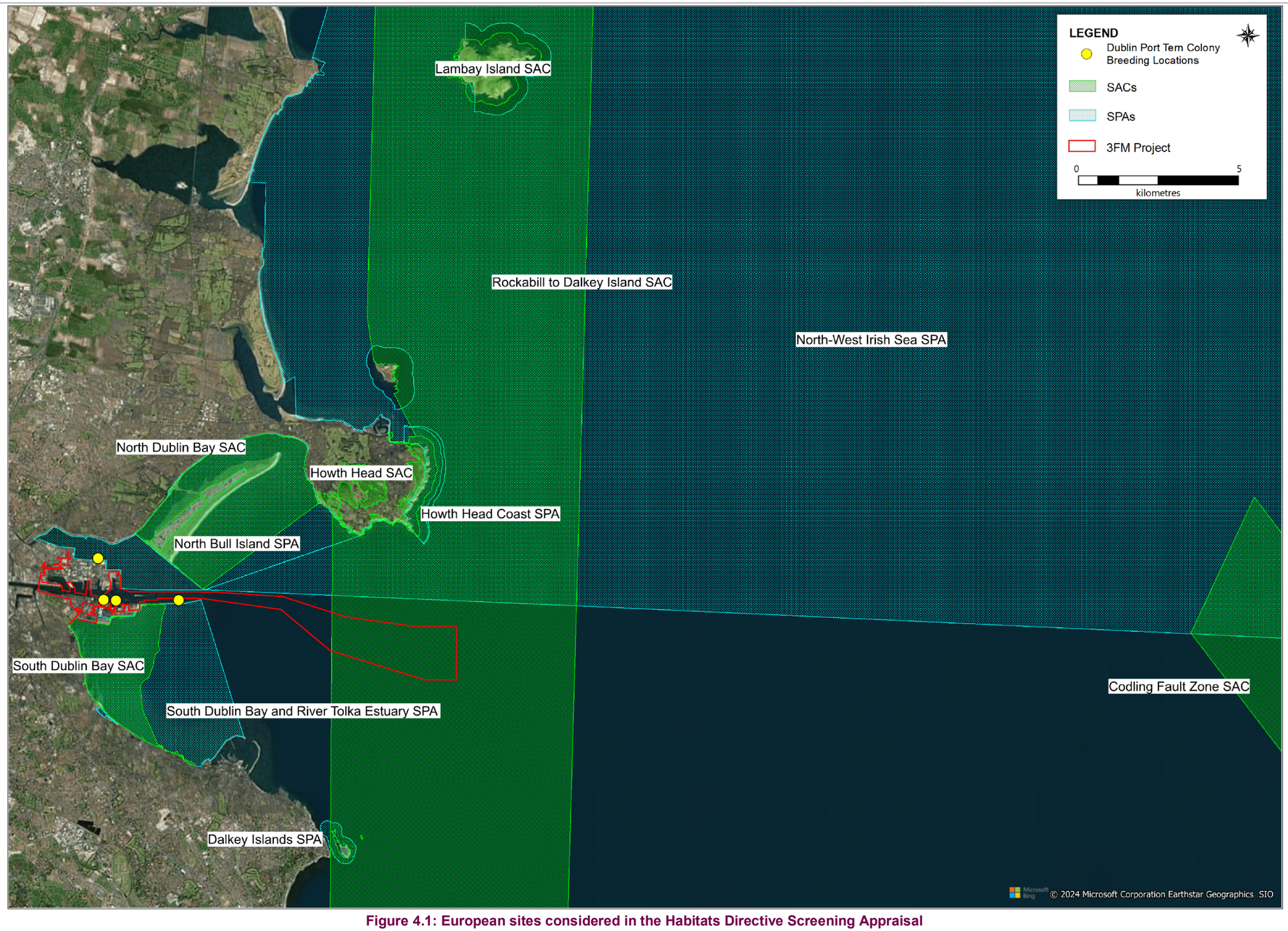


Figure 4.1: European sites considered in the Habitats Directive Screening Appraisal

Table 4.1: Qualifying Interests and Special Conservation Interests of the European sites considered

Site Code	Site Name	Qualifying Interests & Conservation Objectives	Distance from proposed development
IE000206	North Dublin Bay SAC	**Conservation Objectives Specific Version 1.0 (06/11/13)** To maintain or restore the favourable conservation condition of 9 no. Annex 1 habitat type in the SAC, as defined by a range of attributes and targets; and of 1 no. Annex II species in the SAC, as defined by 5 no. attributes and targets. o Mudflats and sandflats not covered by seawater at low tide [1140] o Annual vegetation of drift lines 1210] o Salicornia and other annuals colonizing mud and sand [1310] o Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330] o Petalophyllum ralfsii [1395] o Mediterranean salt meadows (Juncetalia maritimi) [1410] o Embryonic shifting dunes [2110] o Shifting dunes along the shoreline with Ammophila arenaria ("white dunes") [2120] o *Fixed coastal dunes with herbaceous vegetation (“grey dunes”) [2130] o Humid dune slacks [2190]	1.35 km to the northeast and by sea from the Plot N dredge pocket
IE000210	South Dublin Bay SAC	**Conservation Objectives Specific Version 1.0 (22/08/13)** To maintain the favourable conservation condition of 1 no. Annex 1 habitat type [1140] in the SAC, as defined by 4 no. attributes and targets. *Note*: Habitat types [1210], [1310] and [2110] were added as qualifying interests in 2015 and the site’s conservation objectives have not yet been revised to take account of these features. Their objectives from North Dublin Bay SAC have been adopted for this assessment. o Mudflats and sandflats not covered by seawater at low tide [1140] o Annual vegetation of drift lines [1210] o Salicornia and other annuals colonizing mud and sand [1310] o Embryonic shifting dunes [2110]	0 m at Stormwater discharge points south of Plot O. 0 m at landscaped coastal edge along existing pathway of Irishtown Nature Park south of Plot O 2.95 km by sea from dredge pocket of Plot N out to end of Great South Wall and back around other side
IE003000	Rockabill to Dalkey Island SAC	**Conservation Objectives Specific Version 1.0 (07/05/13)** To maintain the favourable conservation condition of 1 no. Annex 1 habitat type in the SAC, as defined by 3 no. attributes and targets; and of 1 no. Annex II species in the SAC, as defined by 2 no. attributes and targets. o Reefs [1170] o Harbour porpoise (Phocoena phocoena) [1351]	0 m at licensed sea disposal site 5.75 km east by sea from Plot N dredge pocket

Site Code	Site Name	Qualifying Interests & Conservation Objectives	Distance from proposed development
IE000204	Lambay Island SAC	**Conservation Objectives Specific Version 1.0 (22/07/2013)** To maintain the favourable conservation condition of 2 no. Annex 1 habitat types in the SAC, as defined by various attributes and targets; and of 3 no. Annex II species in the SAC, as defined by various attributes and targets. ○ Reefs [1170] ○ Vegetated sea cliffs of the Atlantic and Baltic coasts [1230] ○ Phocoena phocoena (Harbour Porpoise) [1351] * ○ Halichoerus grypus (Grey Seal) [1364] ○ Phoca vitulina (Harbour Seal) [1365 * Harbour porpoise was included as a qualifying interest to this European site in spring 2024 by way of an amendment notification[1]. Conservation attributes, measures and targets for harbour porpoise are currently not contained in the published conservation objectives for this European site. For the purposes of this assessment, the same harbour porpoise community is assumed to use the waters of Lambay Island SAC, Rockabill to Dalkey Island SAC and Codling Fault Zone SAC as one region., As such, it is reasonable to assess potential effects on harbour porpoise in this European site against conservation objectives published for harbour porpoise in Rockabill to Dalkey Island SAC.	16.0 km north of sea disposal site 22.4 km from Plot N dredge pocket
IE003015	Codling Fault Zone SAC	**Conservation Objectives Specific Version 1.0 (15/06/2023)** To maintain the favourable conservation condition of 1 no. Annex 1 habitat type in the SAC, as defined by 4 no. attributes and targets; and of 1 no. Annex II species in the SAC, as defined by 2 no. attributes and targets. ○ Submarine structures made by leaking gases [1180] ○ Phocoena phocoena (Harbour Porpoise) ** ** Harbour porpoise was included as a qualifying interest to this European site in spring 2024 by way of an amendment notification[2]. Conservation attributes, measures and targets for harbour porpoise are currently not contained in the published conservation objectives for this European site. For the purposes of this assessment, the same harbour porpoise community is assumed to use the waters of Lambay Island SAC, Rockabill to Dalkey Island SAC and Codling Fault Zone SAC as one region., As such, it is reasonable to assess potential effects on harbour porpoise in	22.9 km east of sea disposal site 32.5 km from Plot N dredge pocket

[1] https://www.npws.ie/sites/default/files/protected-sites/amendment_notifications/AN000204.pdf

[2] https://www.npws.ie/sites/default/files/protected-sites/amendment_notifications/AN003015.pdf

Site Code	Site Name	Qualifying Interests & Conservation Objectives	Distance from proposed development
		this European site against conservation objectives published for harbour porpoise in Rockabill to Dalkey Island SAC.	
IE004024	South Dublin Bay & River Tolka Estuary SPA	**Conservation Objectives Specific Version 1.0 (09/03/2015)** To maintain the favourable conservation condition of – o 9 no. overwintering species in the SPA, as defined by 2 no. attributes and targets; o 3 no. breeding and passage species of terns, as defined by a wider range of attributes and targets; and o wetland habitats in the SPA as a resource for the regularly-occurring migratory waterbirds that utilise it, as defined by 1 no. attribute and target. *Note: Grey Plover (Pluvialis squatarola) [A140] is proposed for removal from the list of Special Conservation Interests for South Dublin Bay and River Tolka Estuary SPA. As a result, a site-specific conservation objective has not been set for this species.* o Light-bellied Brent Goose (Branta bernicla hrota) [A046] o Oystercatcher (Haematopus ostralegus) [A130] o Ringed Plover (Charadrius hiaticula) [A137] o Knot (Calidris canutus) [A143] o Sanderling (Calidris alba) [A144] o Dunlin (Calidris alpina) [A149] o Bar-tailed Godwit (Limosa lapponica) [A157] o Redshank (Tringa etanus) [A162] o Black-headed Gull (Croicocephalus ridibundus) [A179] o Roseate Tern (Sterna dougallii) [A192] o Common Tern (Sterna hirundo) [A193] o Arctic Tern (Sterna paradisaea) [A194] o Wetland and Waterbirds [A999]	0 m at ESB structure for breeding terns between turning circle and Plot N where structure is located within Plot N dredge pocket 15 m at ESB structure for breeding terns between turning circle and Plot N where structure is located 15 m from turning circle dredge pocket Tolka Estuary portion of SPA is 260 m north of Plot N dredge pocket Sandymount Strand portion of SPA is 1.75 km from dredge pocket of Plot N along Great South Wall and around other side
IE004006	North Bull Island SPA	**Conservation Objectives Specific Version 1.0 (09/03/2015)** To maintain the favourable conservation condition of 17 no. Annex 1 species in the SPA, as defined by 2 no. attributes and targets; and of wetland habitats in the SPA as a resource for the regularly-occurring migratory waterbirds that utilise it, as measured by 1 no. attribute and target o Light-bellied Brent Goose (*Branta bernicla hrota*) [A046] o Shelduck (Tadorna tadorna) [A048] o Teal (Anas crecca) [A052] o Pintail (Anas acuta) [A054] o Shoveler (Anas clypeata) [A056] o Oystercatcher (Haematopus ostralegus) [A130] o Ringed Plover (Charadrius hiaticula) [A137]	1.35 km to the northeast and by sea from the Plot N dredge pocket

Site Code	Site Name	Qualifying Interests & Conservation Objectives	Distance from proposed development
		○ Golden Plover (Pluvialis apricaria) [A140] ○ Grey Plover (Pluvialis squatarola) [A141] ○ Knot (Calidris canutus) [A143] ○ Dunlin (Calidris alpina) [A149] ○ Black-tailed Godwit (Limosa limosa) [A156] ○ Bar-tailed Godwit (Limosa lapponica) [A157] ○ Curlew (Numenius arquata) [A160] ○ Redshank (Tringa totanus) [A162] ○ Black-headed Gull (Croicocephalus ridibundus) [A179] ○ Wetland and Waterbirds [A999]	
IE000202	Howth Head SAC	**Conservation Objectives Specific Version 1.0 (06/12/2016)** To maintain the favourable conservation condition of 2 no. Annex 1 habitat type in the cSAC, as defined by a range of attributes and targets. ○ Vegetated sea cliffs of the Atlantic and Baltic coasts [1230] ○ European dry heaths [4030]	2.8 km north of licensed sea disposal site 6.60 km east-northeast of Plot N
IE004113	Howth Head Coast SPA	**Site Specific Conservation Objectives (12/10/2022)** To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA ○ Kittiwake (Rissa tridactyla) [A188] (Note: Conservation attributes and targets for the SCI species have not been published in the first order site specific conservation objectives for Howth Head Coast SPA).	2.6 km north of licensed sea disposal site 8.60 km east-northeast of Plot N
IE004172	Dalkey Islands SPA	**Site Specific Conservation Objectives (12/10/2022)** To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA ○ Roseate Tern (Sterna dougallii) [A192] ○ Common Tern (Sterna hirundo) [A193] ○ Arctic Tern (Sterna paradisaea) [A194] (Note: Conservation attributes and targets for the SCI species have not been published in the first order site specific conservation objectives for Dalkey Islands SPA).	5.2 km south-southwest of licensed sea disposal site 9.40 km southeast of Plot O
IE004236	North-West Irish Sea SPA	**Conservation Objectives Specific Version 1.0 (19/09/2023)** To maintain the favourable conservation condition of 21 no. Annex 1 species in the SPA, as defined by 5 no. attributes and targets	780 m north of licensed sea disposal site

Site Code	Site Name	Qualifying Interests & Conservation Objectives	Distance from proposed development
		○ Manx Shearwater (Puffinus puffinus) [A013] ○ Cormorant (Phalacrocorax carbo) [A017] ○ Shag (Phalacrocorax aristotelis) [A018] ○ Lesser Black-backed Gull (Larus fuscus) [A183] ○ Roseate Tern (Sterna dougallii) [A192] ○ Common Tern (Sterna hirundo) [A193] ○ Arctic Tern (Sterna paradisaea) [A194] ○ Little Tern (Sterna albifrons) [A195] ○ Puffin (Fratercula arctica) [A204] ○ Red-throated Diver (Gavia stellata) [A001] ○ Great Northern Diver (Gavia immer) [A003] ○ Common Scoter (Melanitta nigra) [A065] ○ Black-headed Gull (Chroicocephalus ridibundus) [A179] ○ Common Gull (Larus canus) [A182] ○ Great Black-backed Gull (Larus marinus) [A187] ○ Little Gull (Hydrocoloeus minutus) [A862] ○ Fulmar (Fulmarus glacialis) [A009] ○ Herring Gull (Larus argentatus) [A184] ○ Kittiwake (Rissa tridactyla) [A188] ○ Guillemot (Uria aalge) [A199] ○ Razorbill (Alca torda) [A200]	1.80 km east and by sea from the Plot N dredge pocket

4.3 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 works that have the potential to affect the identified ecological receptor.
- '**Pathway**' is defined as the means or route by which a source can affect the ecological receptor.
- '**Ecological receptor**' is defined as the Special Conservations Interests (for SPAs) or Qualifying Interests (of SACs/cSACs) for which conservation objectives have been set for the European sites under consideration (refer **Table 4.1**).

Each element can exist independently however an effect can potentially be created when there is a linkage between the source, pathway and receptor. Possible effects are discussed under four themes:

- Habitat loss;
- Diminution of Water Quality and Habitat deterioration (captured as 'Water Quality' below);
- Underwater noise and disturbance; and
- Aerial noise and disturbance.

4.3.1 Summary of the Proposed Construction Works

The major construction elements of the proposed development are outlined in Section 3 above. In summary and for the purposes of this assessment they have been considered as the following main types of works:

- Demolition of existing structures, i.e. Poolbeg Oil Jetty and Sludge Jetty;
- Road and Bridge Construction - the Southern Port Access Route (SPAR) including new bridge across the River Liffey to link the north and south Port areas and improvements to the existing road network on the Poolbeg Peninsula;
- Maritime Village Construction;
- Construction of new Lo-Lo container terminal with cargo handling area, imports terminal (Area N) and exports terminal in front of the ESBs generating station (Area O);
- Redevelopment of the existing container terminal to create a new Ro-Ro unaccompanied freight terminal, allowing more efficient use of the space:
- Capital Dredging and Spoil Disposal
    - Dredging of deep berthage to a depth of -13.0m CD (Chart Datum) at the new Lo-Lo container terminal at Area N;
    - Dredging of ship turning circle in front of Pigeon House Harbour to a depth of -10 m CD;
    - Dredging of Liffey channel from Poolbeg Marina to Tom Clarke Bridge
    - Disposal of dredge spoil at the offshore disposal site
- Landside ancillary works required to serve the marine side operations.

4.3.2 Programme and Sequencing of Construction Works

The proposed development has a fifteen year programme of construction works, with many elements of the project not commencing for a number of years. An outline proposed project phasing of the key work elements over a 15 year project period, with a potential commencement in 2026, is presented in **Figure 4.2**.

A summary of the construction sequence is presented here. Further detail is presented in **Appendix A: 3FM Construction Sequencing** to this AASR. It is important to note that the actual construction sequence is likely to vary over the 15-year construction period due to the difficulty of undertaking the redevelopment of brown-field sites within a working port of national importance. The construction sequence presented is therefore indicative only but is designed to represent a 'worst case scenario' for assessment.

Precise phasing and timing of work elements may be subject to some change. Following permission for the proposed development, if granted, there will be a period of approximately 12-18 months during which initial design and procurement will take place before construction commences.

Road upgrades will be undertaken at the outset of the project to facilitate access to construction logistics zones and to the key 3FM Project sites.

The proposed Ro-Ro Terminal located on DPC-owned land on the south side of the Poolbeg Peninsula (Masterplan Area O) and the proposed Lo-Lo Terminal yard adjacent to the Liffey (Masterplan Area L) will be used for landside and marine logistics respectively for up to the first 10 years of the project duration. An area at North Wall Quay Extension will also be used for marine logistics during construction of the SPAR.

Tree planting and landscaping will be undertaken early in the project to create green buffer zones, particularly around Masterplan Area O that will provide a barrier to mitigate visual impacts.

Construction of the Turning Circle and Lo-Lo Terminal (Masterplan Area N) will commence at an early stage in the project which includes the construction of the open-piled wharf at Area N. Both will entail capital dredging which will be confined to the winter months (October to March).

The proposed Tern Colony will be constructed at an early stage of the construction of the open-piled wharf at Area N.

The completion of the new Lo-Lo Terminal at Masterplan Area N will allow the existing Lo-Lo Terminal, currently operated by MTL, at Masterplan Area K to be relocated to Area N. This in turn will free up Berth 41 for the construction of the buildings associated with the Maritime Village and Port Operations. This work will be completed prior to demolition of the existing Poolbeg Yacht & Boat Club and Stella Maris buildings to allow for the continuous operation of the marina. Public Realm space will then be constructed on the site of the existing buildings and environs.

The freeing up of space at Area K also allows for the construction of the new Ro-Ro Terminal.

The next stages in the construction of the 3FM Project will focus on the SPAR Bridge, SPAR Viaduct and the Maritime Village berths. To enable these works to proceed, the existing yacht swinging moorings will be removed and temporary pontoons put in place along North Wall Quay Extension, to accommodate the displaced yachts. This will enable the construction of the SPAR Bridge, and capital dredging in advance of the construction of the SPAR Viaduct. At this point in the construction sequence the existing marina berths will continue to operate as normal.

After the SPAR Bridge and SPAR Viaduct works are well advanced, permanent pontoons will be installed to form the western portion of the new marina. This will allow sailing craft using the existing marina to relocate to this new facility. Temporary access arrangements will be put in place to transfer

boat owners between the western portion of the new marina and landside facilities by boat (such as the Liffey Taxi).

This in turn will free up the use of the existing marina which will be demolished to allow further capital dredging, completion of the SPAR Viaduct and the eastern portion of the new marina.

Construction of the Lo-Lo Container Yard at Masterplan Area L and Ro-Ro Terminal at Area O are required after Year 10 of the 3FM Project, when the sites are no longer needed as logistics areas. This timing also suits the expected growth in cargo from the Lo-Lo Terminal at Area N and the Ro-Ro Terminal at Area K.

Remaining community gain elements, including Port Park, Wildflower Meadow and the extension to Irishtown Nature Park will also be completed within the final 5 years of the project.

The construction sequence, described above, has been designed to enable the construction works to proceed without significant disruption to existing port operations and to enable the continued use of the marina facilities at Poolbeg. However, to satisfy these constraints, the construction of the SPAR Bridge can only be completed towards the end of the construction sequence. The transportation of plant, materials and construction staff to site must therefore use the existing road networks. Consequently, the construction sequence has been used to derive an estimate of the maximum envisaged construction traffic volumes in order to undertake a robust assessment of the maximum potential impact on the local road network, in combination with other planned construction activity in the area, and to assess the maximum potential impact at sensitive receptors.

4.3.3 Elements of the Proposed Development with the potential to give rise to Likely Significant Effects

4.3.3.1 Habitat Loss

A small portion of the red line boundary of the proposed development was located within the site boundaries of South Dublin Bay SAC and South Dublin Bay and River Tolka Estuary SPA during early design. This encroachment into the European sites occurred in three discrete areas in Sandymount Strand in an area to the south of Port Park and Plot O, as illustrated in **Figure 4.2**.

The first area was where Port Park meets the active travel route from Strand Road. The second and third areas were where stormwater discharge outfalls were proposed to be located, to direct runoff from hardstanding areas of 3FM Project. During iterative design evolution, these encroachments into European sites were designed out. DPC confirms that the area of the 3FM Project (as delineated in red in the planning application drawings) does not encroach upon any European site.

At a number of locations, the red line boundary of the proposed development runs adjacent to the boundary of European sites:

- Between the terminus of the red line boundary at Sean Moore Park at the Strand Road end, the red line boundary runs parallel to the boundary of South Dublin Bay SAC for 320 m of the active travel path. The boundary of South Dublin Bay and River Tolka Estuary SPA is offset by 12 m (on average) seaward on the Mean High Water Mark (MHWM), along this length.
- Between the turn in the active travel path at Port Park along the shoreline of Sandymount Strand south of Plot O and the Irishtown Nature Reserve, the red line boundary runs parallel to the boundary of South Dublin Bay SAC for 625 m. The boundary of South Dublin Bay and River Tolka Estuary SPA is offset by between 5 m and 14 m seaward on the MHWM, along this length.

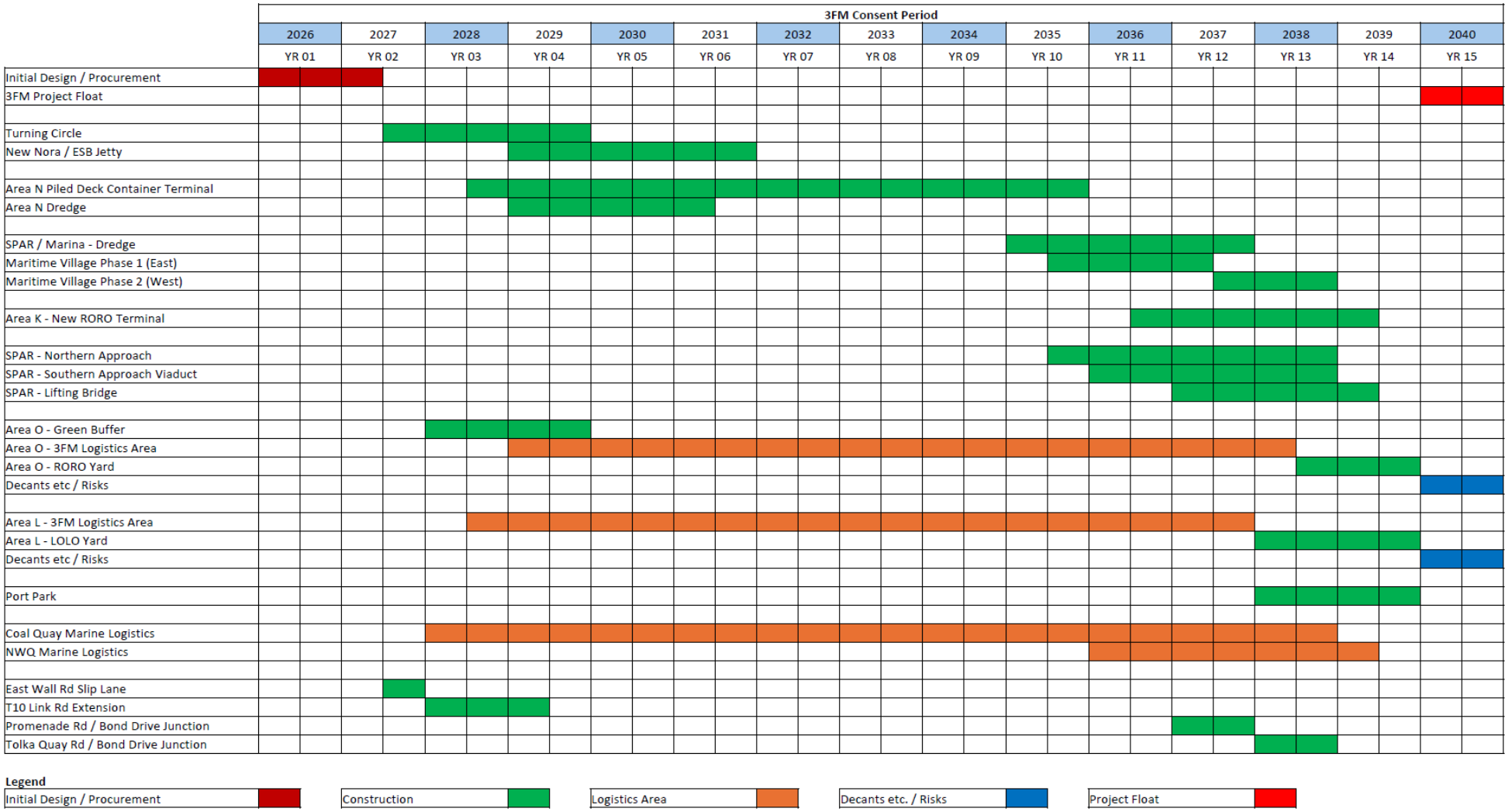


Figure 4.2: Construction Sequence

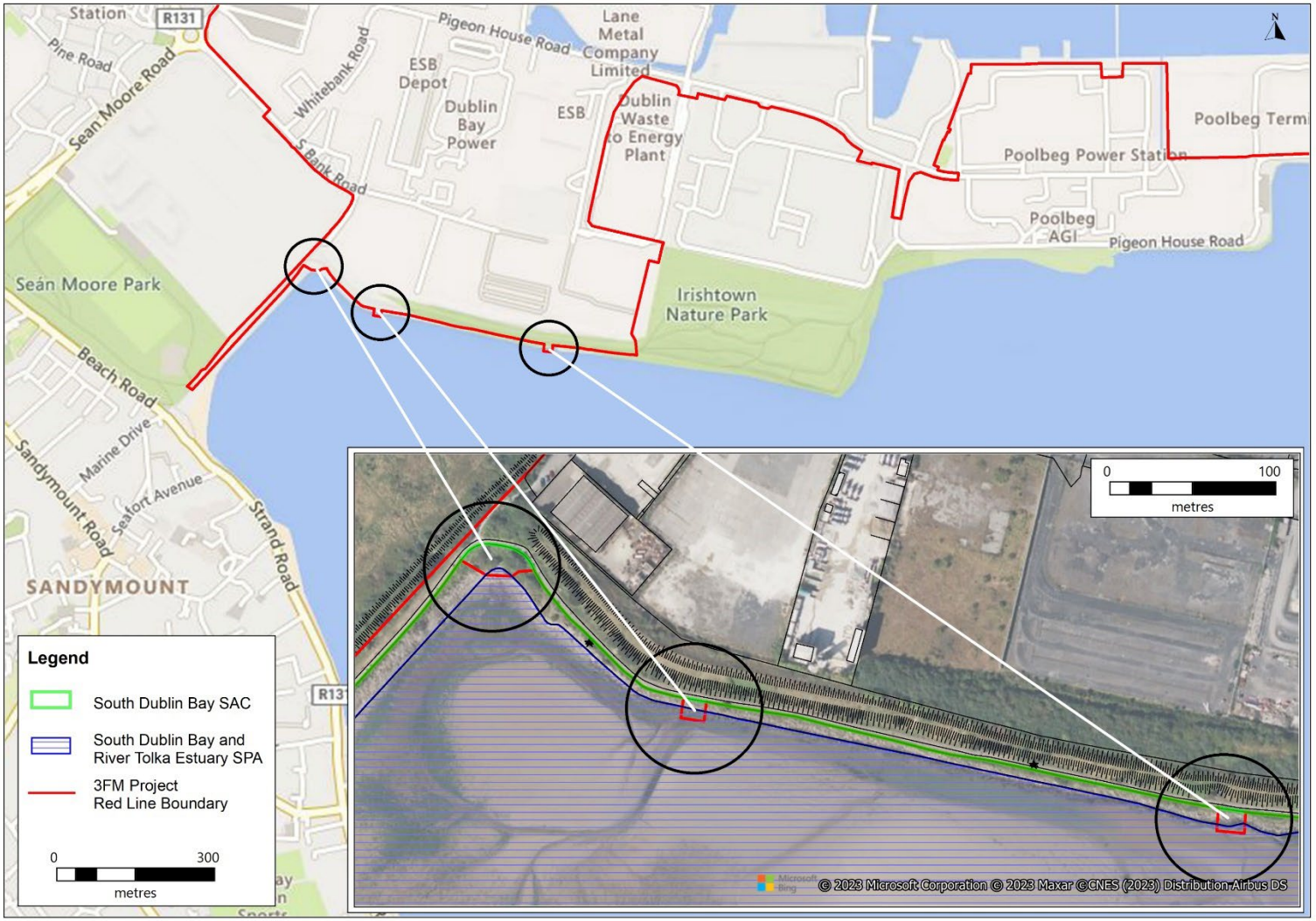


Figure 4.3: Discrete areas of 3FM Project previously encroaching into European sites

- At Shelley Banks beach, the red line boundary runs parallel to and offset from the boundary of South Dublin Bay SAC by 8 m (on average) around the boundary of the NORA oil facilities until it meets the Great South Wall (GSW), for a distance of 450 m. The red line boundary and the boundary of South Dublin Bay SAC are separated by the width of Shelley Banks Road at this location. The boundary of South Dublin Bay and River Tolka Estuary SPA is offset by between 2 m and 5 m seaward along this length.
- On the northern side of the river, at the Terminal 5 Basin serving Berths 52/53, the red line boundary runs along the coastal edge of the Tolka Estuary for 410 m, being set back 20 m from the boundary of South Dublin Bay and River Tolka Estuary SPA.

Indirect effects upon habitats are also possible as a result of hydromorphological impacts, associated with the operation of coastal and bankside structures. The installation of marine structures and/or changes in the configuration of the seabed bathymetry through capital dredging works has the potential to impact on coastal processes. The following elements have the potential to impact on coastal processes:

- Installation of SPAR bridge abutments
- Dredging and re-development at Poolbeg marina
- Dredging at Plot K
- Removal of the existing caisson pier structure at Plot K
- Excavation and reclamation work at Pigeon house road
- Dredging at the Turning circle
- Piling and dredging at Plot N

In particular, these elements of work have the potential to impact the following coastal processes during the operational phase of the project:

- Tidal current patterns within Dublin Port and Dublin Bay
- Sedimentation and erosion patterns within Dublin Port and Dublin Bay
- The inshore wave climate within Dublin Port and surrounding area
- The dispersion of thermal plumes generated by various power plants within the Dublin Port area
- Prevailing water levels and the existing flood risk in Dublin Port and the surrounding area

4.3.3.2 Water Quality

Temporary effects as a result of diminution of water quality have the potential to occur during the construction phase of the works, principally for marine work elements but also for landside elements. Mobilised suspended sediments and cement/hydrocarbon release through construction activities are the principal potential sources of water quality impact. The following have the potential to occur at construction phase:

- Increased suspended sediment levels due to the accidental release of sediment to the water column during:
    - Demolition of buildings & structures;
    - Berth Construction including the construction of waterside berths, quay walls, jetties and open piled structures.

- Capital Dredging and Sediment disposal operations;
- Landside ancillary works to serve the marine operations including the construction of ramps and deck structures to access linkspans, services and drainage installation, and installation of jetty furniture and fender systems etc;
- Road and bridge construction to link the north and south port areas.

- Accidental release of highly alkaline contaminants from concrete and cement during the demolition of buildings and structures and the construction of hardstand areas, waterside berths, quay walls, jetties, bridging structures, etc.; and
- General water quality impacts associated with works machinery, infrastructure and on-land operations including the temporary storage of construction materials, oils, fuels and chemicals.

The operational phase impacts associated with the 3FM Project (buildings/structures, roads, berths and associated marine berthing and landside works areas) represents an increase in or intensification of the current normal day to day port activities. These associated impacts are currently well understood and managed within the Port's operational and maintenance procedures. The principal potential sources of water quality effects are:

- Increased suspended sediment levels due to port operations including the ongoing maintenance dredging of the new berths;
- Increased number and size of vessels using Dublin Port;
- General water quality impacts associated with works machinery, infrastructure and on-land operations including the temporary storage of construction materials, oils, fuels and chemicals and releases associated with the operation and maintenance of surface water and foul drainage systems;
- Discharges from dredging vessels at construction stage and vessels using the berths of the operational project (ballast water, wastewater, oil spillages, fuel bunkering); and

  Discharges from cargo handling (leakages from containers, bulk material spillages, losses from conveyor systems).

4.3.3.3 Underwater Noise and Disturbance

Marine species living and feeding in the water column can be vulnerable to underwater noise and its associated disturbance, such as the harbour porpoise community of Rockabill to Dalkey Island SAC, Codling Fault Zone SAC and Lambay Island SAC; or the Grey seal and Harbour seal populations of Lambayy Island SAC . As described in Section 3, some aspects of the proposed development will require activities in the marine environment and new marine infrastructure to be constructed and operated. Marine engineering construction includes many activities producing underwater noise, including:

- Demolition and removal of existing marine infrastructure;
- Marine piling;
- Dredging of 1,113,000 m^3 of sediment as a result of capital dredging at Poolbeg Marina, the Turning circle and Plot N and also localised scour protection at Plot K;
- Dispose of the dredged material at the proposed disposal site; and
- Increased vessel traffic following construction and operation of new port facilities.

These activities carry an inherent risk of noise induced effects upon some marine species as a result of underwater acoustic energy being released into the marine environment. Underwater noise is not a persistent effect, and once the noise source ceases noise levels drop very quickly to pre-existing levels. The natural underwater soundscape of Dublin Port and Dublin Bay is not silent - biological sounds from fish and marine mammals are mixed with sounds from waves and surface noise; current flow and turbulence; rain and wind/storm noise; and noise from shipping and leisure craft activities. The ambient noise levels in coastal and inshore water, bays and harbours are subject to huge variation.

The activities giving rise to the highest levels of underwater noise during the construction phase are piling and dredging. Details of the piles required in the marine environment are set out in **Table 4.2**.

Table 4.2: In Water Piling Works

Location	Permanent Works	Pile Diameter/Width	Pile Thickness	Installation method
SPAR Bridge	Y	1.2 m dia.	n/a	Bored reinforced concrete, within dewatered sheet pile cofferdam
SPAR Bridge Dolphins	Y	0.81 m dia.	22 mm	Vibration and impact driving
SPAR Bridge Cofferdams	N	1.4 m wide pair		Vibration and impact driving
SPAR Bridge Causeway	N	0.8 m dia.		Vibration and impact driving
SPAR Bridge Temporary Dolphins	N	1.0 m dia.		Vibration and impact driving
SPAR Viaduct	Y	1.2 m dia.	10 mm	Vibration driving
SPAR Viaduct Mooring Guides	N	0.75-0.9 m		Vibration and impact driving
Maritime Village, Marina Finger Berth Guide Piles	Y	0.61 m dia.	25.4 mm	Vibration and impact driving
Area K - Ro-Ro Terminal, King Piles	Y	1.42 m dia.	25.4 mm	Impact driving
Area K - Ro-Ro Terminal, Infill Sheet Piles	Y	1.4 m wide pair	9 mm	Vibration driving
Area K – Ro-Ro Terminal, Ro-Ro Ramp Guides	Y	2.4 m dia.	40 mm	Impact driving
Area L/Turning Circle, Ro-Ro Ramp Guides	N	1.07 and 1.22 m dia.	25.4 mm	Impact driving
Turning Circle, King Piles	Y	2.03 m dia.	22 mm	Impact driving
Turning Circle, Infill Sheet Piles	Y	1.6 m wide pair	12.5 mm	Vibration driving
Area N – Lo-Lo Terminal	Y	1.63 m dia. 1.22 m	22 mm 18 mm	Impact driving
Oil Terminal Dolphin	Y	1.02 m dia. 1.47 m dia	22 mm 22 mm	Impact driving
Tern Colony	Y	0.51 m dia	22 mm	Impact driving

The piling activity required to strengthen the quay walls at the proposed Ro-Ro Terminal (Plot K) and the Maritime Village will have a similar underwater noise profile to that carried out previously under the ABR Project, i.e. the construction of a combi-wall using vibro-piling, impact piling and sheet piling. The open-piled wharf proposed to form the Lo-Lo Terminal (Plot N) requires tubular piles, similar to the king piles used for the ABR Project.

Smaller diameter piles will be required at the finger berth marina, while two larger diameter locating piles will be required to secure the proposed ramp at the Ro-Ro Terminal (Plot K).

Further piling is required to support the SPAR Bridge and the suspended deck linking the bridge to the site of Poolbeg Marina.

Two types of dredging activity are proposed, Backhoe Dredging and Trailing Suction Hopper Dredging (TSHD). The process has a similar underwater noise profile to work carried out previously at Dublin Port.

During the operational phase, underwater noise will arise from vessel traffic manoeuvring, berthing and transit, and regular maintenance dredging.

4.3.3.4 Aerial Noise and Disturbance

Mobile species can be vulnerable to aerial noise and visual triggers of disturbance. As described in Section 3, aspects of the proposed development will require activities in the marine environment and on land close to the waters edge where many of the waterbirds using Dublin Bay feed and roost.

Some of the SPAs considered in this screening appraisal are designated for waders or waterbirds falling into that category. Some European sites such as the South Dublin Bay & River Tolka Estuary SPA are adjacent to the proposed development. Whereas others, such as North Bull Island SPA and the North-West Irish Sea cSPA are located in proximity but with stretches of open water between them and the proposed development. The remaining SPA sites are classified for their breeding seabird populations, and are located at greater distances from the proposed development, such as Howth Head Coast SPA and Dalkey Island SPA, where the prospect of noise or visual disturbance caused by the proposed development diminishes significantly.

Much of Sandymount Strand and the Tolka Estuary is covered with water at high tide, whereas at low tide, waders and gulls can occur throughout the intertidal zone - on the mudflats in the inner estuary and the sandflats in the outer estuary. Most of the wildfowl are distributed in the inner, muddier parts of the site. However, as the tide rises, the amount of intertidal foraging area is dramatically reduced, and ultimately disappears on the high tide.

The areas that waterbirds use are therefore governed by tidal state, and also by season. The vast majority of the non-breeding SCIs of South Dublin Bay & River Tolka Estuary SPA and North Bull Island SPA occur here only in the passage and overwintering seasons. Conversely, breeding SCIs of Howth Head Coast SPA, Dalkey Island SPA and South Dublin Bay & River Tolka Estuary SPA are present only during the breeding season in each year. Similar to South Dublin Bay & River Tolka Estuary SPA, the North-West Irish Sea cSPA has SCI species across all seasons.

Construction of the proposed development will involve a range of activities emitting aerial noise and associated movement of people, vehicles and vessels across a fifteen year period of construction, both in proximity to intertidal areas that waterbirds rely on for their feeding and in proximity to breeding sites of some seabirds.

At operational phase, there is also the potential for disturbance to the same breeding and non-breeding SCIs of these same SPAs from normal operational port activities within Dublin Port and approaches to and from the berths of the Port and the Maritime Village in the navigation channel.

There is also potential for disturbance to occur as a result of the use of the 3FM Project community gain elements by recreational and amenity use of the Active Travel Path, and the facilities of Port Park and Coastal Park as a destination for amenity users.

4.4 Potential Effects on European sites

The possibility of Likely Significant Effects (LSEs) under these four themes are discussed on a site-by-site basis, set out in tabular form, as below:

- **Table 4.3** - North Dublin Bay SAC
- **Table 4.4** - South Dublin Bay SAC
- **Table 4.5** - Rockabill to Dalkey Island SAC
- **Table 4.6** - Lambay Island SAC
- **Table 4.7** - Codling Fault Zone SAC
- **Table 4.8** - South Dublin Bay & River Tolka Estuary SPA
- **Table 4.9** - North Bull Island SPA
- **Table 4.10** - Howth Head SAC
- **Table 4.11** - Howth Head Coast SPA
- **Table 4.12** - Dalkey Islands SPA
- **Table 4.13** - North-West Irish Sea SPA

Table 4.3: Potential for Likely Significant Effects on North Dublin Bay SAC

Qualifying Interest (QI) / Special Conservation Interest (SCI)	Potential for Likely Significant Effect (LSE)			
	Habitat Loss	**Deterioration of Water Quality**	**Underwater Disturbance**	**Aerial Disturbance**
Mudflats and sandflats not covered by seawater at low tide [1140]	The benthic marine community types comprising the [1140] Annex habitat type occur 1.35 km from the closest part of the proposed development. There is no possibility of LSEs as a result of habitat loss.	An open pathway of potential effect occurs between the marine areas of the proposed development and the marine habitats of the [1140] Annex habitat type, and a conservation objective target is to conserve the marine communities of this habitat type in a natural condition. The possibility of LSEs as a result of deterioration of water quality cannot be excluded at the screening stage.	The [1140] Annex habitat type is not susceptible to the effects of elevated levels of underwater noise. There is no possibility of LSEs as a result of underwater disturbance.	The [1140] Annex habitat type is not susceptible to the effects of elevated levels of aerial noise. There is no possibility of LSEs as a result of aerial disturbance.
Annual vegetation of drift lines [1210]	The [1210] Annex habitat type occurs on North Bull Island, over 1.35 km from the closest part of the proposed development and separated by the North Bull Wall. There is no possibility of LSEs as a result of habitat loss.	The [1210] Annex habitat type occurs in the supralittoral zone along the high tide mark, where tidal litter accumulates. Conservation objective targets for this QI focus on the occurrence (or not) of physical obstructions to sediment supply and vegetation structure and composition. There is no possibility of LSEs as a result of deterioration of water quality.	The [1210] Annex habitat type is not susceptible to the effects of elevated levels of underwater noise. There is no possibility of LSEs as a result of underwater disturbance.	The [1210] Annex habitat type is not susceptible to the effects of elevated levels of aerial noise. There is no possibility of LSEs as a result of aerial disturbance.
Salicornia and other annuals colonizing mud and sand [1310]	The [1310] Annex habitat type occurs in the saltmarsh habitats of the western side of North Bull Island, over 1.35 km from the closest part of the proposed development and separated by the North Bull Wall. There is no possibility of LSEs as a result of habitat loss.	Conservation objective targets for this QI focus on the occurrence (or not) of physical obstructions to sediment supply, maintenance of the tidal regime and vegetation structure and composition. There is no possibility of LSEs as a result of deterioration of water quality.	The [1310] Annex habitat type is not susceptible to the effects of elevated levels of underwater noise. There is no possibility of LSEs as a result of underwater disturbance.	The [1310] Annex habitat type is not susceptible to the effects of elevated levels of aerial noise. There is no possibility of LSEs as a result of aerial disturbance.

Qualifying Interest (QI) / Special Conservation Interest (SCI)	Potential for Likely Significant Effect (LSE)			
	Habitat Loss	**Deterioration of Water Quality**	**Underwater Disturbance**	**Aerial Disturbance**
Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330]	The [1330] Annex habitat type occurs in the saltmarsh habitats of the western side of North Bull Island, over 1.35 km from the closest part of the proposed development and separated by the North Bull Wall. There is no possibility of LSEs as a result of habitat loss.	Conservation objective targets for this QI focus on the occurrence (or not) of physical obstructions to sediment supply, maintenance of the tidal regime and vegetation structure and composition. There is no possibility of LSEs as a result of deterioration of water quality.	The [1330] Annex habitat type is not susceptible to the effects of elevated levels of underwater noise. There is no possibility of LSEs as a result of underwater disturbance.	The [1330] Annex habitat type is not susceptible to the effects of elevated levels of aerial noise. There is no possibility of LSEs as a result of aerial disturbance.
Petalophyllum ralfsii [1395]	The [1395] Annex II species (petalwort) occurs in in open damp dune slacks on North Bull Island, over 1.35 km from the closest part of the proposed development and separated by the North Bull Wall. There is no possibility of LSEs as a result of habitat loss.	Conservation objective targets for this QI focus on the maintenance of the area of suitable habitat (i.e. the dune slacks which are also a separate QI (see below)), and soil moisture levels. There is no possibility of LSEs as a result of deterioration of water quality.	The [1395] QI is not susceptible to the effects of elevated levels of underwater noise. There is no possibility of LSEs as a result of underwater disturbance.	The [1395] QI is not susceptible to the effects of elevated levels of aerial noise. There is no possibility of LSEs as a result of aerial disturbance.
Mediterranean salt meadows (Juncetalia maritimi) [1410]	The [1410] Annex habitat type occurs in the saltmarsh habitats of the western side of North Bull Island, over 1.35 km from the closest part of the proposed development and separated by the North Bull Wall. There is no possibility of LSEs as a result of habitat loss.	Conservation objective targets for this QI focus on the occurrence (or not) of physical obstructions to sediment supply, maintenance of the tidal regime and vegetation structure and composition. There is no possibility of LSEs as a result of deterioration of water quality.	The [1410] Annex habitat type is not susceptible to the effects of elevated levels of underwater noise. There is no possibility of LSEs as a result of underwater disturbance.	The [1410] Annex habitat type is not susceptible to the effects of elevated levels of aerial noise. There is no possibility of LSEs as a result of aerial disturbance.
Embryonic shifting dunes [2110]	The [2110] Annex habitat type occurs in the sand dune habitats of the eastern side of North Bull Island, over 1.35 km from the closest part of the proposed development and separated by the North Bull Wall. There is no possibility of LSEs as a result of habitat loss.	Conservation objective targets for this QI focus on the occurrence (or not) of physical obstructions to sediment supply and vegetation structure and composition. There is no possibility of LSEs as a result of deterioration of water quality.	The [2110] Annex habitat type is not susceptible to the effects of elevated levels of underwater noise. There is no possibility of LSEs as a result of underwater disturbance.	The [2110] Annex habitat type is not susceptible to the effects of elevated levels of aerial noise. There is no possibility of LSEs as a result of aerial disturbance.

Qualifying Interest (QI) / Special Conservation Interest (SCI)	Potential for Likely Significant Effect (LSE)			
	Habitat Loss	**Deterioration of Water Quality**	**Underwater Disturbance**	**Aerial Disturbance**
Shifting dunes along the shoreline with Ammophila arenaria ("white dunes") [2120]	The [2120] Annex habitat type occurs in the sand dune habitats of the eastern side of North Bull Island, over 1.35 km from the closest part of the proposed development and separated by the North Bull Wall. There is no possibility of LSEs as a result of habitat loss.	Conservation objective targets for this QI focus on the occurrence (or not) of physical obstructions to sediment supply and vegetation structure and composition. There is no possibility of LSEs as a result of deterioration of water quality.	The [2120] Annex habitat type is not susceptible to the effects of elevated levels of underwater noise. There is no possibility of LSEs as a result of underwater disturbance.	The [2120] Annex habitat type is not susceptible to the effects of elevated levels of aerial noise. There is no possibility of LSEs as a result of aerial disturbance.
***Fixed coastal dunes with herbaceous vegetation ("grey dunes") [2130]**	The [2130] Annex habitat type occurs in the sand dune habitats of the eastern side of North Bull Island, over 1.35 km from the closest part of the proposed development and separated by the North Bull Wall. There is no possibility of LSEs as a result of habitat loss.	Conservation objective targets for this QI focus on the occurrence (or not) of physical obstructions to sediment supply and vegetation structure and composition. There is no possibility of LSEs as a result of deterioration of water quality.	The [2130] Annex habitat type is not susceptible to the effects of elevated levels of underwater noise. There is no possibility of LSEs as a result of underwater disturbance.	The [2130] Annex habitat type is not susceptible to the effects of elevated levels of aerial noise. There is no possibility of LSEs as a result of aerial disturbance.
Humid dune slacks [2190]	The [2190] Annex habitat type occurs in the sand dune habitats of the eastern side of North Bull Island, over 1.35 km from the closest part of the proposed development and separated by the North Bull Wall. There is no possibility of LSEs as a result of habitat loss.	Conservation objective targets for this QI focus on the occurrence (or not) of physical obstructions to sediment supply, maintaining the natural hydrological regime of the water table and vegetation structure and composition. There is no possibility of LSEs as a result of deterioration of water quality.	The [2190] Annex habitat type is not susceptible to the effects of elevated levels of underwater noise. There is no possibility of LSEs as a result of underwater disturbance.	The [2190] Annex habitat type is not susceptible to the effects of elevated levels of aerial noise. There is no possibility of LSEs as a result of aerial disturbance.

Table 4.4: Potential for Likely Significant Effects on South Dublin Bay SAC

Qualifying Interest (QI) / Special Conservation Interest (SCI)	Potential for Likely Significant Effect (LSE)			
	Habitat Loss	**Deterioration of Water Quality**	**Underwater Disturbance**	**Aerial Disturbance**
Mudflats and sandflats not covered by seawater at low tide [1140]	The benthic marine community type comprising the [1140] Annex habitat type (fine sands with Angulus tenuis community complex) occurs at the location where two stormwater discharge outfalls are proposed to the south of Plot O in the SAC. The possibility of LSEs as a result of habitat loss cannot be excluded at the screening stage.	An open pathway of potential effect occurs between the marine areas of the proposed development and the marine habitats of the [1140] Annex habitat type, and a conservation objective target is to conserve the marine communities of this habitat type in a natural condition. This habitat type occurs to the south of the GSW in a large intertidal area stretching from Sandymount to Dun Laoghaire. The possibility of LSEs as a result of deterioration of water quality cannot be excluded at the screening stage.	The [1140] Annex habitat type is not susceptible to the effects of elevated levels of underwater noise. There is no possibility of LSEs as a result of underwater disturbance.	The [1140] Annex habitat type is not susceptible to the effects of elevated levels of aerial noise. There is no possibility of LSEs as a result of aerial disturbance.
Annual vegetation of drift lines [1210]	The [1210] Annex habitat type has not been mapped in this SAC, and does not have conservation objectives for it published by the Department, but it occurs in the supralittoral zone along the high tide mark, where tidal litter accumulates and as such it could occurs at the location where two stormwater discharge outfalls are proposed to the south of Plot O in the SAC. The possibility of LSEs as a result of habitat loss cannot be excluded at the screening stage.	The [1210] Annex habitat type occurs in the supralittoral zone along the high tide mark, where tidal litter accumulates. Conservation objective targets for this QI in North Dublin Bay SAC focus on the occurrence (or not) of physical obstructions to sediment supply and vegetation structure and composition. Given that two outfalls are proposed in an area that may contain this habitat type and their purpose is to discharge stormwater directly into the habitats of the SAC, the possibility of LSEs as a result of deterioration of water quality cannot be excluded at the screening stage.	The [1210] Annex habitat type is not susceptible to the effects of elevated levels of underwater noise. There is no possibility of LSEs as a result of underwater disturbance.	The [1210] Annex habitat type is not susceptible to the effects of elevated levels of aerial noise. There is no possibility of LSEs as a result of aerial disturbance.

Qualifying Interest (QI) / Special Conservation Interest (SCI)	Potential for Likely Significant Effect (LSE)			
	Habitat Loss	Deterioration of Water Quality	Underwater Disturbance	Aerial Disturbance
Salicornia and other annuals colonizing mud and sand [1310]	The [1310] Annex habitat type has not been mapped in this SAC, and does not have conservation objectives for it published by the Department, There is no possibility of LSEs as a result of habitat loss.	Conservation objective targets for this QI focus on the occurrence (or not) of physical obstructions to sediment supply, maintenance of the tidal regime and vegetation structure and composition. There is no possibility of LSEs as a result of deterioration of water quality.	The [1310] Annex habitat type is not susceptible to the effects of elevated levels of underwater noise. There is no possibility of LSEs as a result of underwater disturbance.	The [1310] Annex habitat type is not susceptible to the effects of elevated levels of aerial noise. There is no possibility of LSEs as a result of aerial disturbance.
Embryonic shifting dunes [2110]	The [2110] Annex habitat type occurs in the sand dune habitats of the eastern side of North Bull Island, over 1.35 km from the closest part of the proposed development and separated by the North Bull Wall. There is no possibility of LSEs as a result of habitat loss.	Conservation objective targets for this QI focus on the occurrence (or not) of physical obstructions to sediment supply and vegetation structure and composition. There is no possibility of LSEs as a result of deterioration of water quality.	The [2110] Annex habitat type is not susceptible to the effects of elevated levels of underwater noise. There is no possibility of LSEs as a result of underwater disturbance.	The [2110] Annex habitat type is not susceptible to the effects of elevated levels of aerial noise. There is no possibility of LSEs as a result of aerial disturbance.

Table 4.5: Potential for Likely Significant Effects on Rockabill to Dalkey Island SAC

Qualifying Interest (QI) / Special Conservation Interest (SCI)	Potential for Likely Significant Effect (LSE)			
	Habitat Loss	Deterioration of Water Quality	Underwater Disturbance	Aerial Disturbance
Reefs [1170]	The marine communities comprising the [1170] Annex habitat type occurs as intertidal reefs occurs on the east side of Dalkey Island, on the east and southern shores of Ireland's Eye and on all shores of Rockabill and the Muglins. It also ocurs on the south coast of Howth. Subtidal reefs occur at these same island	An open pathway of potential effect occurs between the marine areas of the proposed development and the marine habitats of the [1170] Annex habitat type, and a conservation objective target is to conserve the Intertidal reef community complexes; and Subtidal reef community	The [1140] Annex habitat type is not susceptible to the effects of elevated levels of underwater noise. There is no possibility of LSEs as a result of underwater disturbance.	The [1140] Annex habitat type is not susceptible to the effects of elevated levels of aerial noise. There is no possibility of LSEs as a result of aerial disturbance.

Qualifying Interest (QI) / Special Conservation Interest (SCI)	Potential for Likely Significant Effect (LSE)			
	Habitat Loss	**Deterioration of Water Quality**	**Underwater Disturbance**	**Aerial Disturbance**
	locations and also offshore between Lambay Island and Rush Village. Reef habitat at Howth Head is located 3.3 km to the northwest of the proposed sea disposal site and 6.5 km to the northeast of the proposed dredging area at Plot N. Reef habitat at Dalkey Island and the Muglins is located 5.0 km to the southwest of the proposed sea disposal site and 9.9 km to the southeast of the proposed outfalls south of Plot O. There is no possibility of LSEs as a result of habitat loss.	complexes of this habitat type in a natural condition. The possibility of LSEs as a result of deterioration of water quality cannot be excluded at the screening stage.		
Harbour porpoise (Phocoena phocoena) [1351]	Whilst this SAC is 5.75 km east of and out to sea from Dublin port, it is proposed that dredge spoil arising from the 3FM Project will be disposed of at the licenced offshore disposal site located at the entrance to Dublin Bay, to the west of the Burford Bank. This 210 ha licensed disposal site is located entirely within the SAC, but the SAC extends to over 27,000 ha of marine areas. The proposed use of the licensed disposal site does not equate to habitat loss for the harbour porpoise community of the SAC. The harbour porpoise uses all elements of the water column throughout its life cycle, and is not solely reliant on the seabed itself. Adding dredged material to the seabed within the licensed disposal site will not reduce the habitat available to the harbour porpoise community. There is no possibility of LSEs as a result of habitat loss.	Harbour porpoise feeds on a wide range of prey species consisting of small benthic or demersal fish such as gobies, sandeels, whiting and other gadoids and pelagic species such as herring and sprat when available. Diminution of water quality as a result of disposal of dredged material at sea may result in a reduction in prey species, either locally or temporarily. The possibility of LSEs as a result of deterioration of water quality cannot be excluded at the screening stage.	Harbour porpoise is susceptible to the effects of elevated levels of underwater noise. Dredging, piling and the construction of various types of marine infrastructure will occur in the marine environment for more than ten years. Whilst the sources of this construction noise are located over 5 km away from the SAC boundary, operations to dispose of dredged material at sea will be occurring intermittently over a six year period within the SAC. disposal operations The possibility of LSEs as a result of underwater disturbance cannot be excluded at the screening stage.	Harbour porpoise is not susceptible to the effects of elevated levels of aerial noise. There is no possibility of LSEs as a result of aerial disturbance.

Table 4.6: Potential for Likely Significant Effects on Lambay Island SAC

Qualifying Interest (QI) / Special Conservation Interest (SCI)	Potential for Likely Significant Effect (LSE)			
	Habitat Loss	**Deterioration of Water Quality**	**Underwater Disturbance**	**Aerial Disturbance**
Reefs [1170]	The marine communities comprising the [1170] Annex habitat type occurs as intertidal reefs recorded extensively on all shores of the island with the exception of the sandy beach around the quay on the western shore; and a *Laminaria* dominated community occurring on the broad expanse of hard substrate in the north, east and southern shores of the island and in a narrow band on its western shore. This habitat type occurs more than 15 km from the proposed development. As such, there is no possibility of LSEs as a result of habitat loss.	An open pathway of potential effect occurs between the marine areas of the proposed development and the marine habitats of the [1170] Annex habitat type, and a conservation objective target is to conserve the Intertidal reef community complexes; and Subtidal reef community complexes of this habitat type in a natural condition. The possibility of LSEs as a result of deterioration of water quality cannot be excluded at the screening stage.	The [1140] Annex habitat type is not susceptible to the effects of elevated levels of underwater noise. There is no possibility of LSEs as a result of underwater disturbance.	The [1140] Annex habitat type is not susceptible to the effects of elevated levels of aerial noise. There is no possibility of LSEs as a result of aerial disturbance.
Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]	Vegetated sea cliffs is a notable habitat on the island and these are quite representative of Irish east-coast cliffs with diversity in height, slope and aspect. The north, east and south sides of Lambay have generally steep cliffs. These vary from sheer rock-face of c.60 m such as at Seal Hole, to more gently sloping areas such as at parts of the north side of the island. This habitat type occurs more than 15 km from the proposed development. As such, there is no possibility of LSEs as a result of habitat loss.	Vegetated sea cliffs are a coastal habitat type not inundated by seawater and whilst subject to sea spray from time to time, not reliant on seawater for their ecological structure and functioning. Maintaining the hydrological regime of this habitat type relates to natural geomorphological processes and flushes at the surface. There is no link to marine water quality. Maintaining the vegetation structure is linked to grazing pressures on the island. Maintenance of typical species and sub-communities is related to the presence of species such as knotted clover (*Trifolium striatum*), Spring vetch (*Vicia lathyroides*) and spring squill (*Scilla verna*). These are terrestrial plants not related to marine habitats.	The [1230] Annex habitat type is not susceptible to the effects of elevated levels of underwater noise. There is no possibility of LSEs as a result of underwater disturbance.	The [1230] Annex habitat type is not susceptible to the effects of elevated levels of aerial noise. There is no possibility of LSEs as a result of aerial disturbance.

Qualifying Interest (QI) / Special Conservation Interest (SCI)	Potential for Likely Significant Effect (LSE)			
	Habitat Loss	**Deterioration of Water Quality**	**Underwater Disturbance**	**Aerial Disturbance**
		There is no possibility of LSEs as a result of deterioration of water quality.		
Halichoerus grypus (Grey Seal) [1364] **Phoca vitulina (Harbour Seal) [1365]**	This SAC is 16.0 km north of the licenced offshore disposal site located at the entrance to Dublin Bay, and over 20 km by sea from proposed elements of 3FM Project at Dublin Port. Kiely et al. (2000) identified a number of islands off the Dublin coast as grey seal haul out and/or breeding sites including Lambay Island, St Patrick's Island & Shenick Island off Skerries, Rockabill, Dalkey Island and Ireland's Eye. The proposed use of the licensed disposal site does not equate to habitat loss for the grey seal and harbour seal populations of the SAC outside of the SAC. Grey seal and harbour seal use all elements of the water column within the network of SACs and beyond their boundaries including moulting, resting and haul-out sites outside of SACs. Adding dredged material to the seabed within the licensed disposal site will not reduce the habitat available to the grey seal and harbour seal populations outside of Lambay Island SAC. There is no possibility of LSEs as a result of habitat loss.	Harbour seal is considered opportunistic, generalist feeders, and probably consume prey in relation to its availability with sandeels constituting much of the prey. Sole, sandeels and Trisopterus species have also been found to be an important species by weight Grey seal is a successful aquatic predator that feeds on a wide variety of fish and cephalopod species. For individual grey seals of all ages, intervals between foraging trips in coastal or offshore waters are spent resting ashore at terrestrial or intertidal haul-out sites, or in the water. Diminution of water quality over 15 km from the boundary of the SAC as a result of disposal of dredged material at sea and over 20 km from the proposed elements of 3FM Project at Dublin Port may result in a reduction in prey species, either locally or temporarily, at a distance from and outside of the SAC. As these species forage widely and are known to occur in Dublin Bay and Dublin Port, the possibility of LSEs as a result of deterioration of water quality cannot be excluded at the screening stage.	Harbour seal and grey seal are susceptible to the effects of elevated levels of underwater noise. Dredging, piling and the construction of various types of marine infrastructure will occur in the marine environment for more than ten years. Whilst the sources of this construction noise are located over 15 km away from the SAC boundary, the species have been sighted within and are known to occur within Dublin Port. As such, the possibility of LSEs as a result of underwater disturbance cannot be excluded at the screening stage.	Harbour seal and grey seal are susceptible to the effects of elevated levels of aerial noise capable of triggering disturbance, but the proposed elements of 3FM Project at Dublin Port are located over 20 km from the breeding, resting, moult and haul out sites of the species in the SAC. There is no possibility of LSEs as a result of aerial disturbance.

Qualifying Interest (QI) / Special Conservation Interest (SCI)	Potential for Likely Significant Effect (LSE)			
	Habitat Loss	**Deterioration of Water Quality**	**Underwater Disturbance**	**Aerial Disturbance**
Harbour porpoise (Phocoena phocoena) [1351]	This SAC is 16.0 km north of the licenced offshore disposal site located at the entrance to Dublin Bay, and over 20 km by sea from proposed elements of 3FM Project at Dublin Port. The proposed use of the licensed disposal site does not equate to habitat loss for the harbour porpoise community of the SAC outside of the SAC. The harbour porpoise uses all elements of the water column within the network of SACs and beyond their boundaries. Adding dredged material to the seabed within the licensed disposal site will not reduce the habitat available to the harbour porpoise community outside of Lambay Island SAC. There is no possibility of LSEs as a result of habitat loss.	Harbour porpoise feeds on a wide range of prey species consisting of small benthic or demersal fish such as gobies, sandeels, whiting and other gadoids and pelagic species such as herring and sprat when available. Diminution of water quality 16.0 km from the boundary of the SAC as a result of disposal of dredged material at sea may result in a reduction in prey species, either locally or temporarily, at a distance of 16.0 km from the SAC. For the purposes of this assessment however, the same harbour porpoise community is assumed to use the waters of Lambay Island SAC, Rockabill to Dalkey Island SAC and Codling Fault Zone SAC as one region. As such, the possibility of LSEs as a result of deterioration of water quality cannot be excluded at the screening stage.	Harbour porpoise is susceptible to the effects of elevated levels of underwater noise. Dredging, piling and the construction of various types of marine infrastructure will occur in the marine environment for more than ten years. Whilst the sources of this construction noise are located over 15 km away from the SAC boundary, for the purposes of this assessment, the same harbour porpoise community is assumed to use the waters of Lambay Island SAC, Rockabill to Dalkey Island SAC and Codling Fault Zone SAC as one region. As such, the possibility of LSEs as a result of underwater disturbance cannot be excluded at the screening stage.	Harbour porpoise is not susceptible to the effects of elevated levels of aerial noise. There is no possibility of LSEs as a result of aerial disturbance.

Table 4.7: Potential for Likely Significant Effects on Codling Fault Zone SAC

Qualifying Interest (QI) / Special Conservation Interest (SCI)	Potential for Likely Significant Effect (LSE)			
	Habitat Loss	Deterioration of Water Quality	Underwater Disturbance	Aerial Disturbance
Submarine structures made by leaking gases [1180]	Codling Fault Zone SAC lies within the Kish Bank Basin. Within the Basin, a number of sea mounds were identified which were aligned along the Codling Fault Zone, a major strike-slip fault running in a north-western direction from Cardigan Bay in the eastern Irish Sea to the Kish Bank Basin in the west. A number of sea mounds had been identified from this area and were confirmed to be composed primarily of Methane-derived authigenic carbonate (MDAC). The sea mounds in the Codling Fault Zone SAC occur at seafloor depths of between 60-80 m. The fauna associated with the MDACs structures is diverse and in stark contrast to the paucity of fauna in the rest of the site. The marine communities comprising the [1180] Annex habitat type occur over 20 km from the sea disposal site and over 30 km from the proposed elements of 3FM Project at Dublin Port. There is no possibility of LSEs as a result of habitat loss.	An open pathway of potential effect occurs between the marine areas of the proposed development and the marine habitats of the [1180] Annex habitat type, and a conservation objective target is to conserve the Codling Fault Zone MDACs community complex in a natural condition, subject to natural processes. The possibility of LSEs as a result of deterioration of water quality cannot be excluded at the screening stage.	Harbour porpoise is susceptible to the effects of elevated levels of underwater noise. Dredging, piling and the construction of various types of marine infrastructure will occur in the marine environment for more than ten years. Whilst the sources of this construction noise are located over 20 km away from the SAC boundary, for the purposes of this assessment, the same harbour porpoise community is assumed to use the waters of Lambay Island SAC, Rockabill to Dalkey Island SAC and Codling Fault Zone SAC as one region. As such, the possibility of LSEs as a result of underwater disturbance cannot be excluded at the screening stage.	The [1180] Annex habitat type is not susceptible to the effects of elevated levels of aerial noise. There is no possibility of LSEs as a result of aerial disturbance.
Harbour porpoise (Phocoena phocoena) [1351]	This SAC is over 20 km from the sea disposal site and over 30 km from the proposed elements of 3FM Project at Dublin Port. The proposed use of the licensed disposal site does not equate to habitat loss for the harbour porpoise community of the SAC outside of the SAC. The harbour porpoise uses all elements of the water column within the network of SACs and beyond their	Harbour porpoise feeds on a wide range of prey species consisting of small benthic or demersal fish such as gobies, sandeels, whiting and other gadoids and pelagic species such as herring and sprat when available. Diminution of water quality over 20.0 km from the boundary of the SAC as a result of disposal of dredged material at sea may result in a reduction in prey species, either locally or	Harbour porpoise susceptible to the effects of elevated levels of underwater noise. Dredging, piling and the construction of various types of marine infrastructure will occur in the marine environment for more than ten years. Whilst the sources of this construction noise are located over 5 km away from the SAC boundary, operations to dispose of dredged material at sea will be	Harbour porpoise is not susceptible to the effects of elevated levels of aerial noise. There is no possibility of LSEs as a result of aerial disturbance.

Qualifying Interest (QI) / Special Conservation Interest (SCI)	Potential for Likely Significant Effect (LSE)			
	Habitat Loss	Deterioration of Water Quality	Underwater Disturbance	Aerial Disturbance
	boundaries. Adding dredged material to the seabed within the licensed disposal site will not reduce the habitat available to the harbour porpoise community outside of Lambay Island SAC. There is no possibility of LSEs as a result of habitat loss.	temporarily, at a distance of 22.9 km from the SAC. For the purposes of this assessment however, the same harbour porpoise community is assumed to use the waters of Lambay Island SAC, Rockabill to Dalkey Island SAC and Codling Fault Zone SAC as one region. As such, The possibility of LSEs as a result of deterioration of water quality cannot be excluded at the screening stage.	occurring intermittently over a six year period within the SAC. disposal operations The possibility of LSEs as a result of underwater disturbance cannot be excluded at the screening stage.	

Table 4.8: Potential for Likely Significant Effects on South Dublin Bay & River Tolka Estuary SPA

Qualifying Interest (QI) / Special Conservation Interest (SCI)	Potential for Likely Significant Effect (LSE)			
	Habitat Loss	Deterioration of Water Quality	Underwater Disturbance	Aerial Disturbance
Light-bellied Brent Goose (Branta bernicla hrota) [A046]	The only elements of the proposed development encroaching into the SPA are those areas listed in Section 4.3.3.1 above. This SCI species is known to use the area immediately south of Plot O where the stormwater discharges are to be installed, as shown in the conservation objectives supporting document for South Dublin Bay & River Tolka Estuary SPA and North Bull Island SPA. Light-bellied Brent Geese feed in this area of Sandymount Strand on intertidal seagrass and algae, and when those food sources become depleted, the	As this SCI feeds on intertidal seagrass and algae within the SPA, and a hydrological connection has already been established between activities that have the potential to cause accidental pollution or result in increased levels of suspended sediments and these intertidal habitats, diminution of water quality may result in a reduction in available foraging biomass, either locally or temporarily. The possibility of LSEs as a result of deterioration of water quality cannot be excluded at the screening stage.	The [A046] SCI is not susceptible to the effects of elevated levels of underwater noise. There is no possibility of LSEs as a result of underwater disturbance.	The [A046] SCI is susceptible to the effects of elevated levels of aerial noise and the presence of plant, machinery and construction operatives that could be a stimulus for behavioural change resulting in disturbance or displacement, and it is known to occur in areas of the SPA where 3FM Project is to be constructed or operated. Outside of the SPA Light-bellied Brent Goose is known to feed on spilt agricultural products on the quays, mainly on Berths 30 to 33, in Alexandra Basin West. Establishing a Marine Logistics Hub along North Wall Quay,

Qualifying Interest (QI) / Special Conservation Interest (SCI)	Potential for Likely Significant Effect (LSE)			
	Habitat Loss	**Deterioration of Water Quality**	**Underwater Disturbance**	**Aerial Disturbance**
	SCI will then exploit *ex situ* grasslands outside of the SPA. The possibility of LSEs as a result of habitat loss cannot be excluded at the screening stage.			over 500 m from berths 30 to 33, will not result in disturbance. The possibility of LSEs as a result of aerial disturbance cannot be excluded at the screening stage.
Oystercatcher (Haematopus ostralegus) [A130]	The only elements of the proposed development encroaching into the SPA are those areas listed in Section 4.3.3.1 above. This SCI species is known to use the area immediately south of Plot O where the stormwater discharges are to be installed, as shown in the conservation objectives supporting document for South Dublin Bay & River Tolka Estuary SPA and North Bull Island SPA. Oystercatcher feeds and roosts in this area of Sandymount Strand. The possibility of LSEs as a result of habitat loss cannot be excluded at the screening stage.	As this SCI feeds on intertidal mudflats and sandflats within the SPA, and a hydrological connection has already been established between activities that have the potential to cause accidental pollution or result in increased levels of suspended sediments and these intertidal habitats, diminution of water quality may result in a reduction in available foraging biomass, either locally or temporarily. The possibility of LSEs as a result of deterioration of water quality cannot be excluded at the screening stage.	The [A130] SCI is not susceptible to the effects of elevated levels of underwater noise. There is no possibility of LSEs as a result of underwater disturbance.	The [A130] SCI is susceptible to the effects of elevated levels of aerial noise and the presence of plant, machinery and construction operatives that could be a stimulus for behavioural change resulting in disturbance or displacement, and it is known to occur in intertidal areas both within the SPA and outside of the SPA where elements of the 3FM Project are to be constructed or operated. . The possibility of LSEs as a result of aerial disturbance cannot be excluded at the screening stage.
Ringed Plover (Charadrius hiaticula) [A137]	The only elements of the proposed development encroaching into the SPA are those areas listed in Section 4.3.3.1 above. This SCI species is known to use the area immediately south of Plot O where the stormwater discharges are to be installed, as shown in the conservation objectives supporting document for South Dublin Bay & River Tolka Estuary SPA and North Bull Island SPA. Ringed plover feeds in this area of Sandymount Strand. The possibility of LSEs as a result of habitat loss cannot be excluded at the screening stage.	As this SCI feeds on intertidal mudflats and sandflats within the SPA, and a hydrological connection has already been established between activities that have the potential to cause accidental pollution or result in increased levels of suspended sediments and these intertidal habitats, diminution of water quality may result in a reduction in available foraging biomass, either locally or temporarily. The possibility of LSEs as a result of deterioration of water quality cannot be excluded at the screening stage.	The [A137] SCI is not susceptible to the effects of elevated levels of underwater noise. There is no possibility of LSEs as a result of underwater disturbance.	The [A137] SCI is susceptible to the effects of elevated levels of aerial noise and the presence of plant, machinery and construction operatives that could be a stimulus for behavioural change resulting in disturbance or displacement, and it is known to occur in intertidal areas both within the SPA and outside of the SPA where elements of the 3FM Project are to be constructed or operated. The possibility of LSEs as a result of aerial disturbance cannot be excluded at the screening stage.

Qualifying Interest (QI) / Special Conservation Interest (SCI)	Potential for Likely Significant Effect (LSE)			
	Habitat Loss	**Deterioration of Water Quality**	**Underwater Disturbance**	**Aerial Disturbance**
Knot (Calidris canutus) [A143]	The only elements of the proposed development encroaching into the SPA are those areas listed in Section 4.3.3.1 above. This SCI species is known to use the area immediately south of Plot O where the stormwater discharges are to be installed, as shown in the conservation objectives supporting document for South Dublin Bay & River Tolka Estuary SPA and North Bull Island SPA. Knot feeds in this area of Sandymount Strand. The possibility of LSEs as a result of habitat loss cannot be excluded at the screening stage.	As this SCI feeds on intertidal mudflats and sandflats within the SPA, and a hydrological connection has already been established between activities that have the potential to cause accidental pollution or result in increased levels of suspended sediments and these intertidal habitats, diminution of water quality may result in a reduction in available foraging biomass, either locally or temporarily. The possibility of LSEs as a result of deterioration of water quality cannot be excluded at the screening stage.	The [A143] SCI is not susceptible to the effects of elevated levels of underwater noise. There is no possibility of LSEs as a result of underwater disturbance.	The [A143] SCI is susceptible to the effects of elevated levels of aerial noise and the presence of plant, machinery and construction operatives that could be a stimulus for behavioural change resulting in disturbance or displacement, and it is known to occur in intertidal areas within the SPA where elements of the 3FM Project are to be constructed or operated. The possibility of LSEs as a result of aerial disturbance cannot be excluded at the screening stage.
Sanderling (Calidris alba) [A144]	The only elements of the proposed development encroaching into the SPA are those areas listed in Section 4.3.3.1 above. This SCI species is known to use the area immediately south of Plot O where the stormwater discharges are to be installed, as shown in the conservation objectives supporting document for South Dublin Bay & River Tolka Estuary SPA and North Bull Island SPA. Sanderling roosts in this area of Sandymount Strand. The possibility of LSEs as a result of habitat loss cannot be excluded at the screening stage.	As this SCI feeds on intertidal mudflats and sandflats within the SPA, and a hydrological connection has already been established between activities that have the potential to cause accidental pollution or result in increased levels of suspended sediments and these intertidal habitats, diminution of water quality may result in a reduction in available foraging biomass, either locally or temporarily. The possibility of LSEs as a result of deterioration of water quality cannot be excluded at the screening stage.	The [A144] SCI is not susceptible to the effects of elevated levels of underwater noise. There is no possibility of LSEs as a result of underwater disturbance.	The [A144] SCI is susceptible to the effects of elevated levels of aerial noise and the presence of plant, machinery and construction operatives that could be a stimulus for behavioural change resulting in disturbance or displacement, and it is known to occur in intertidal areas within the SPA where elements of the 3FM Project are to be constructed or operated. The possibility of LSEs as a result of aerial disturbance cannot be excluded at the screening stage.
Dunlin (Calidris alpina) [A149]	The only elements of the proposed development encroaching into the SPA are those areas listed in Section 4.3.3.1 above. This SCI species is known to use the area immediately south of Plot O where the stormwater discharges are to	As this SCI feeds on intertidal mudflats and sandflats within the SPA, and a hydrological connection has already been established between activities that have the potential to cause accidental pollution or result in increased levels of suspended	The [A144] SCI is not susceptible to the effects of elevated levels of underwater noise. There is no possibility of LSEs as a result of underwater disturbance.	The [A144] SCI is susceptible to the effects of elevated levels of aerial noise and the presence of plant, machinery and construction operatives that could be a stimulus for behavioural change resulting in disturbance or displacement, and it is

Qualifying Interest (QI) / Special Conservation Interest (SCI)	Potential for Likely Significant Effect (LSE)			
	Habitat Loss	**Deterioration of Water Quality**	**Underwater Disturbance**	**Aerial Disturbance**
	be installed, as shown in the conservation objectives supporting document for South Dublin Bay & River Tolka Estuary SPA and North Bull Island SPA. Dunlin feeds in this area of Sandymount Strand. The possibility of LSEs as a result of habitat loss cannot be excluded at the screening stage.	sediments and these intertidal habitats, diminution of water quality may result in a reduction in available foraging biomass, either locally or temporarily. The possibility of LSEs as a result of deterioration of water quality cannot be excluded at the screening stage.		known to occur in intertidal areas both within the SPA and outside of the SPA where elements of the 3FM Project are to be constructed or operated. The possibility of LSEs as a result of aerial disturbance cannot be excluded at the screening stage.
Bar-tailed Godwit (Limosa lapponica) [A157]	The only elements of the proposed development encroaching into the SPA are those areas listed in Section 4.3.3.1 above. This SCI species is not known to use the area immediately south of Plot O where the stormwater discharges are to be installed, as shown in the conservation objectives supporting document for South Dublin Bay & River Tolka Estuary SPA and North Bull Island SPA. The possibility of LSEs as a result of habitat loss can be excluded at the screening stage.	As this SCI feeds on intertidal mudflats and sandflats within the SPA, and a hydrological connection has already been established between activities that have the potential to cause accidental pollution or result in increased levels of suspended sediments and these intertidal habitats, diminution of water quality may result in a reduction in available foraging biomass, either locally or temporarily. The possibility of LSEs as a result of deterioration of water quality cannot be excluded at the screening stage.	The [A157] SCI is not susceptible to the effects of elevated levels of underwater noise. There is no possibility of LSEs as a result of underwater disturbance.	The [A157] SCI is susceptible to the effects of elevated levels of aerial noise and the presence of plant, machinery and construction operatives that could be a stimulus for behavioural change resulting in disturbance or displacement, and it is not known to occur in intertidal areas within the SPA or outside of the SPA where elements of the 3FM Project are to be constructed or operated. The possibility of LSEs as a result of aerial disturbance can be excluded at the screening stage.
Redshank (Tringa totanus) [A162]	The only elements of the proposed development encroaching into the SPA are those areas listed in Section 4.3.3.1 above. This SCI species is known to use the area immediately south of Plot O where the stormwater discharges are to be installed, as shown in the conservation objectives supporting document for South Dublin Bay & River Tolka Estuary SPA and North Bull Island SPA. Redshank feeds in this area of Sandymount Strand.	As this SCI feeds on intertidal mudflats and sandflats within the SPA, and a hydrological connection has already been established between activities that have the potential to cause accidental pollution or result in increased levels of suspended sediments and these intertidal habitats, diminution of water quality may result in a reduction in available foraging biomass, either locally or temporarily.	The [A162] SCI is not susceptible to the effects of elevated levels of underwater noise. There is no possibility of LSEs as a result of underwater disturbance.	The [A162] SCI is susceptible to the effects of elevated levels of aerial noise and the presence of plant, machinery and construction operatives that could be a stimulus for behavioural change resulting in disturbance or displacement, and it is known to occur in intertidal areas both within the SPA and outside of the SPA where elements of the 3FM Project are to be constructed or operated.

Qualifying Interest (QI) / Special Conservation Interest (SCI)	Potential for Likely Significant Effect (LSE)			
	Habitat Loss	**Deterioration of Water Quality**	**Underwater Disturbance**	**Aerial Disturbance**
	The possibility of LSEs as a result of habitat loss cannot be excluded at the screening stage.	The possibility of LSEs as a result of deterioration of water quality cannot be excluded at the screening stage.		The possibility of LSEs as a result of aerial disturbance cannot be excluded at the screening stage.
Black-headed Gull (Croicocephalus ridibundus) [A179]	The only elements of the proposed development encroaching into the SPA are those areas listed in Section 4.3.3.1 above. This SCI species is known to use the area immediately south of Plot O where the stormwater discharges are to be installed, as shown in the conservation objectives supporting document for South Dublin Bay & River Tolka Estuary SPA and North Bull Island SPA. Black-headed gull feeds and roosts in this area of Sandymount Strand. The possibility of LSEs as a result of habitat loss cannot be excluded at the screening stage.	As this SCI feeds on intertidal mudflats and sandflats within the SPA, and a hydrological connection has already been established between activities that have the potential to cause accidental pollution or result in increased levels of suspended sediments and these intertidal habitats, diminution of water quality may result in a reduction in available foraging biomass, either locally or temporarily. The possibility of LSEs as a result of deterioration of water quality cannot be excluded at the screening stage.	The [A179] SCI is not susceptible to the effects of elevated levels of underwater noise. There is no possibility of LSEs as a result of underwater disturbance.	The [A179] SCI is susceptible to the effects of elevated levels of aerial noise and the presence of plant, machinery and construction operatives that could be a stimulus for behavioural change resulting in disturbance or displacement, and it is known to occur in intertidal areas both within the SPA and outside of the SPA where elements of the 3FM Project are to be constructed or operated. The possibility of LSEs as a result of aerial disturbance cannot be excluded at the screening stage.
Roseate Tern (Sterna dougallii) [A192]	The only elements of the proposed development encroaching into the SPA are those areas listed in Section 4.3.3.1 above. This SCI species is not an intertidal feeder and is not known to use the area immediately south of Plot O where the stormwater discharges are to be installed. The possibility of LSEs as a result of habitat loss can be excluded at the screening stage.	As this SCI feeds in open water within the port area, in subtidal areas of the SPA, and in the wider marine environment, and a hydrological connection has already been established between activities that have the potential to cause accidental pollution or result in increased levels of suspended sediments and these subtidal marine habitats, diminution of water quality may result in a reduction in available foraging biomass, either locally or temporarily. The possibility of LSEs as a result of deterioration of water quality cannot be excluded at the screening stage.	The [A192] SCI is a surface feeder and shallow diving species, feeding opportunistically where its prey species occur and as such it remains under water for only moments at a time. The species is not susceptible to any appreciable disturbance effects of elevated levels of underwater noise. The possibility of LSEs as a result of underwater disturbance can be excluded at the screening stage.	The [A192] SCI is susceptible to the effects of elevated levels of aerial noise and the presence of plant, machinery and construction operatives that could be a stimulus for behavioural change resulting in disturbance or displacement, and it is known to occur in subtidal areas both within the SPA and outside of the SPA where elements of the 3FM Project are to be constructed or operated. The possibility of LSEs as a result of aerial disturbance cannot be excluded at the screening stage.

Qualifying Interest (QI) / Special Conservation Interest (SCI)	Potential for Likely Significant Effect (LSE)			
	Habitat Loss	**Deterioration of Water Quality**	**Underwater Disturbance**	**Aerial Disturbance**
Common Tern (Sterna hirundo) [A193]	The only elements of the proposed development encroaching into the SPA are those areas listed in Section 4.3.3.1 above. This SCI species is not an intertidal feeder and is not known to use the area immediately south of Plot O where the stormwater discharges are to be installed. The possibility of LSEs as a result of habitat loss can be excluded at the screening stage.	As this SCI feeds in open water within the port area, in subtidal areas of the SPA, and in the wider marine environment, and a hydrological connection has already been established between activities that have the potential to cause accidental pollution or result in increased levels of suspended sediments and these subtidal marine habitats, diminution of water quality may result in a reduction in available foraging biomass, either locally or temporarily. The possibility of LSEs as a result of deterioration of water quality cannot be excluded at the screening stage.	The [A193] SCI is a surface feeder and shallow diving species, feeding opportunistically where its prey species occur and as such it remains under water for only moments at a time. The species is not susceptible to any appreciable disturbance effects of elevated levels of underwater noise. The possibility of LSEs as a result of underwater disturbance can be excluded at the screening stage.	The [A193] SCI is susceptible to the effects of elevated levels of aerial noise and the presence of plant, machinery and construction operatives that could be a stimulus for behavioural change resulting in disturbance or displacement, and it is known to occur in subtidal areas both within the SPA and outside of the SPA where elements of the 3FM Project are to be constructed or operated. It additionally breeds on marine structures located between elements of the proposed development. The possibility of LSEs as a result of aerial disturbance cannot be excluded at the screening stage.
Arctic Tern (Sterna paradisaea) [A194]	The only elements of the proposed development encroaching into the SPA are those areas listed in Section 4.3.3.1 above. This SCI species is not an intertidal feeder and is not known to use the area immediately south of Plot O where the stormwater discharges are to be installed. The possibility of LSEs as a result of habitat loss can be excluded at the screening stage.	As this SCI feeds in open water within the port area, in subtidal areas of the SPA, and in the wider marine environment, and a hydrological connection has already been established between activities that have the potential to cause accidental pollution or result in increased levels of suspended sediments and these subtidal marine habitats, diminution of water quality may result in a reduction in available foraging biomass, either locally or temporarily. The possibility of LSEs as a result of deterioration of water quality cannot be excluded at the screening stage.	The [A194] SCI is a surface feeder and shallow diving species, feeding opportunistically where its prey species occur and as such it remains under water for only moments at a time. The species is not susceptible to any appreciable disturbance effects of elevated levels of underwater noise. The possibility of LSEs as a result of underwater disturbance can be excluded at the screening stage.	The [A194] SCI is susceptible to the effects of elevated levels of aerial noise and the presence of plant, machinery and construction operatives that could be a stimulus for behavioural change resulting in disturbance or displacement, and it is known to occur in subtidal areas both within the SPA and outside of the SPA where elements of the 3FM Project are to be constructed or operated. It additionally breeds on marine structures located between elements of the proposed development. The possibility of LSEs as a result of aerial disturbance cannot be excluded at the screening stage.
Wetland and Waterbirds [A999]	The only elements of the proposed development encroaching into the SPA are those areas listed in Section 4.3.3.1 above. This includes two areas	As a hydrological connection has been established between activities that have the potential to cause accidental pollution or result in increased levels of suspended	The [A999] SCI is not susceptible to the effects of elevated levels of underwater noise.	The [A999] SCI is not susceptible to the effects of elevated levels of aerial noise.

Qualifying Interest (QI) / Special Conservation Interest (SCI)	Potential for Likely Significant Effect (LSE)			
	Habitat Loss	Deterioration of Water Quality	Underwater Disturbance	Aerial Disturbance
	immediately south of Plot O where the stormwater discharges are to be installed in the intertidal wetland habitat. The possibility of LSEs as a result of habitat loss cannot be excluded at the screening stage.	sediments and the intertidal wetland habitats of the SPA, diminution of water quality may result in a reduction in available foraging biomass, either locally or temporarily, within the wetlands. The possibility of LSEs as a result of deterioration of water quality cannot be excluded at the screening stage.	There is no possibility of LSEs as a result of underwater disturbance.	There is no possibility of LSEs as a result of aerial disturbance.

Table 4.9: Potential for Likely Significant Effects on North Bull Island SPA

Qualifying Interest (QI) / Special Conservation Interest (SCI)	Potential for Likely Significant Effect (LSE)			
	Habitat Loss	Deterioration of Water Quality	Underwater Disturbance	Aerial Disturbance
Light-bellied Brent Goose (Branta bernicla hrota) [A046]	There are no elements of the proposed development encroaching into this SPA. It is separated from the site of proposed development by the Liffey channel, the Tolka Estuary and the North Bull Wall. There is no possibility of LSEs as a result of habitat loss.	As this SCI feeds on intertidal seagrass and algae within both the North Bull Island SPA and the functionally linked South Dublin Bay & River Tolka Estuary SPA, and a hydrological connection has already been established between activities that have the potential to cause accidental pollution or result in increased levels of suspended sediments and these intertidal habitats, diminution of water quality may result in a reduction in available foraging biomass, either locally or temporarily. The possibility of LSEs as a result of deterioration of water quality cannot be excluded at the screening stage.	The [A046] SCI is not susceptible to the effects of elevated levels of underwater noise. There is no possibility of LSEs as a result of underwater disturbance.	The [A046] SCI is susceptible to the effects of elevated levels of aerial noise and the presence of plant, machinery and construction operatives that could be a stimulus for behavioural change resulting in disturbance or displacement, and it is known to occur in areas of the functionally linked South Dublin Bay & River Tolka Estuary SPA where 3FM Project is to be constructed or operated. The possibility of LSEs as a result of aerial disturbance cannot be excluded at the screening stage.

Qualifying Interest (QI) / Special Conservation Interest (SCI)	Potential for Likely Significant Effect (LSE)			
	Habitat Loss	Deterioration of Water Quality	Underwater Disturbance	Aerial Disturbance
Shelduck (Tadorna tadorna) [A048]	There are no elements of the proposed development encroaching into this SPA. It is separated from the site of proposed development by the Liffey channel, the Tolka Estuary and the North Bull Wall. There is no possibility of LSEs as a result of habitat loss.	Shelducks can forage in a variety of ways from scything their bill through wet mud on exposed tidal flats, to dabbling and scything in shallow water and up-ending in deeper waters. They can therefore forage throughout the tidal cycle within both the North Bull Island SPA and the functionally linked South Dublin Bay & River Tolka Estuary SPA. As a hydrological connection has already been established between activities that have the potential to cause accidental pollution or result in increased levels of suspended sediments and these intertidal habitats, diminution of water quality may result in a reduction in available foraging biomass, either locally or temporarily. The possibility of LSEs as a result of deterioration of water quality cannot be excluded at the screening stage.	The [A048] SCI is not susceptible to the effects of elevated levels of underwater noise. There is no possibility of LSEs as a result of underwater disturbance.	The [A048] SCI is susceptible to the effects of elevated levels of aerial noise and the presence of plant, machinery and construction operatives that could be a stimulus for behavioural change resulting in disturbance or displacement, and it is known to occur in intertidal areas of the functionally linked South Dublin Bay & River Tolka Estuary SPA and outside of the SPA where 3FM Project is to be constructed or operated. The possibility of LSEs as a result of aerial disturbance cannot be excluded at the screening stage.
Teal (Anas crecca) [A052]	There are no elements of the proposed development encroaching into this SPA. It is separated from the site of proposed development by the Liffey channel, the Tolka Estuary and the North Bull Wall. There is no possibility of LSEs as a result of habitat loss.	Teal are omnivores and have a variety of foraging methods (e.g. dabbling and up-ending) within differing habitats and water depths.. They forage within the North Bull Island SPA. As a hydrological connection has already been established between activities that have the potential to cause accidental pollution or result in increased levels of suspended sediments and these intertidal habitats, diminution of water quality may result in a reduction in available foraging biomass, either locally or temporarily. The possibility of LSEs as a result of deterioration of water quality cannot be excluded at the screening stage.	The [A052] SCI is not susceptible to the effects of elevated levels of underwater noise. There is no possibility of LSEs as a result of underwater disturbance.	The [A052] SCI is susceptible to the effects of elevated levels of aerial noise and the presence of plant, machinery and construction operatives that could be a stimulus for behavioural change resulting in disturbance or displacement, but the species is not known to occur in intertidal areas where 3FM Project is to be constructed or operated. It feeds and roosts mainly in the saltmarsh habitats of North Bull Island and also at Booterstown Marsh. The possibility of LSEs as a result of aerial disturbance can be excluded at the screening stage.

Qualifying Interest (QI) / Special Conservation Interest (SCI)	Potential for Likely Significant Effect (LSE)			
	Habitat Loss	Deterioration of Water Quality	Underwater Disturbance	Aerial Disturbance
Pintail (Anas acuta) [A054]	There are no elements of the proposed development encroaching into this SPA. It is separated from the site of proposed development by the Liffey channel, the Tolka Estuary and the North Bull Wall. There is no possibility of LSEs as a result of habitat loss.	Teal are omnivores and have a variety of foraging methods. They forage within the North Bull Island SPA. As a hydrological connection has already been established between activities that have the potential to cause accidental pollution or result in increased levels of suspended sediments and these intertidal habitats, diminution of water quality may result in a reduction in available foraging biomass, either locally or temporarily. The possibility of LSEs as a result of deterioration of water quality cannot be excluded at the screening stage.	The [A054] SCI is not susceptible to the effects of elevated levels of underwater noise. There is no possibility of LSEs as a result of underwater disturbance.	The [A054] SCI is susceptible to the effects of elevated levels of aerial noise and the presence of plant, machinery and construction operatives that could be a stimulus for behavioural change resulting in disturbance or displacement, but the species is not known to occur in intertidal areas where 3FM Project is to be constructed or operated. It feeds and roosts mainly in the saltmarsh habitats of North Bull Island. The possibility of LSEs as a result of aerial disturbance can be excluded at the screening stage.
Shoveler (Anas clypeata) [A056]	There are no elements of the proposed development encroaching into this SPA. It is separated from the site of proposed development by the Liffey channel, the Tolka Estuary and the North Bull Wall. There is no possibility of LSEs as a result of habitat loss.	Shovelers are omnivorous, taking a range of items from planktonic crustaceans and small molluscs, to insects, larvae, plant material and seeds. A true dabbling duck, Shovelers feed by surface-feeding, swimming with head and neck immersed, up-ending, and less often, by shallow dives. They forage within the North Bull Island SPA. As a hydrological connection has already been established between activities that have the potential to cause accidental pollution or result in increased levels of suspended sediments and these intertidal habitats, diminution of water quality may result in a reduction in available foraging biomass, either locally or temporarily. The possibility of LSEs as a result of deterioration of water quality cannot be excluded at the screening stage.	The [A056] SCI is not susceptible to the effects of elevated levels of underwater noise. There is no possibility of LSEs as a result of underwater disturbance.	The [A056] SCI is susceptible to the effects of elevated levels of aerial noise and the presence of plant, machinery and construction operatives that could be a stimulus for behavioural change resulting in disturbance or displacement, but the species is not known to occur in intertidal areas where 3FM Project is to be constructed or operated. It feeds and roosts mainly in the saltmarsh habitats of North Bull Island. The possibility of LSEs as a result of aerial disturbance can be excluded at the screening stage.

Qualifying Interest (QI) / Special Conservation Interest (SCI)	Potential for Likely Significant Effect (LSE)			
	Habitat Loss	Deterioration of Water Quality	Underwater Disturbance	Aerial Disturbance
Oystercatcher (Haematopus ostralegus) [A130]	There are no elements of the proposed development encroaching into this SPA. It is separated from the site of proposed development by the Liffey channel, the Tolka Estuary and the North Bull Wall. There is no possibility of LSEs as a result of habitat loss.	Oystercatchers are large wading birds that forage primarily on tidal flats within both the North Bull Island SPA and the functionally linked South Dublin Bay & River Tolka Estuary SPA. As a hydrological connection has already been established between activities that have the potential to cause accidental pollution or result in increased levels of suspended sediments and these intertidal habitats, diminution of water quality may result in a reduction in available foraging biomass, either locally or temporarily. The possibility of LSEs as a result of deterioration of water quality cannot be excluded at the screening stage.	The [A130] SCI is not susceptible to the effects of elevated levels of underwater noise. There is no possibility of LSEs as a result of underwater disturbance.	The [A130] SCI is susceptible to the effects of elevated levels of aerial noise and the presence of plant, machinery and construction operatives that could be a stimulus for behavioural change resulting in disturbance or displacement, and it is known to occur in intertidal areas of the functionally linked South Dublin Bay & River Tolka Estuary SPA and outside of the SPA where elements of the 3FM Project are to be constructed or operated. The possibility of LSEs as a result of aerial disturbance cannot be excluded at the screening stage.
Ringed Plover (Charadrius hiaticula) [A137]	There are no elements of the proposed development encroaching into this SPA. It is separated from the site of proposed development by the Liffey channel, the Tolka Estuary and the North Bull Wall. There is no possibility of LSEs as a result of habitat loss.	Ringed Plovers are 'visual foragers' searching the sediment surface for the visible signs of prey, and feed in the wetland habitats within both the North Bull Island SPA and the functionally linked South Dublin Bay & River Tolka Estuary SPA. As a hydrological connection has already been established between activities that have the potential to cause accidental pollution or result in increased levels of suspended sediments and these intertidal habitats, diminution of water quality may result in a reduction in available foraging biomass, either locally or temporarily. The possibility of LSEs as a result of deterioration of water quality cannot be excluded at the screening stage.	The [A137] SCI is not susceptible to the effects of elevated levels of underwater noise. There is no possibility of LSEs as a result of underwater disturbance.	The [A137] SCI is susceptible to the effects of elevated levels of aerial noise and the presence of plant, machinery and construction operatives that could be a stimulus for behavioural change resulting in disturbance or displacement, and it is known to occur in intertidal areas of the functionally linked South Dublin Bay & River Tolka Estuary SPA and outside of the SPA where elements of the 3FM Project are to be constructed or operated. The possibility of LSEs as a result of aerial disturbance cannot be excluded at the screening stage.

Qualifying Interest (QI) / Special Conservation Interest (SCI)	Potential for Likely Significant Effect (LSE)			
	Habitat Loss	Deterioration of Water Quality	Underwater Disturbance	Aerial Disturbance
Golden Plover (Pluvialis apricaria) [A140]	There are no elements of the proposed development encroaching into this SPA. It is separated from the site of proposed development by the Liffey channel, the Tolka Estuary and the North Bull Wall. There is no possibility of LSEs as a result of habitat loss.	During winter, Golden Plovers feed primarily within agricultural grassland and arable land. Tidal flats are used more as a roosting/resting habitat and the birds tend to favour large, open tidal flats. They do forage within the North Bull Island SPA. As a hydrological connection has already been established between activities that have the potential to cause accidental pollution or result in increased levels of suspended sediments and these intertidal habitats, diminution of water quality may result in a reduction in available foraging biomass, either locally or temporarily. The possibility of LSEs as a result of deterioration of water quality cannot be excluded at the screening stage.	The [A140] SCI is not susceptible to the effects of elevated levels of underwater noise. There is no possibility of LSEs as a result of underwater disturbance.	The [A140] SCI is susceptible to the effects of elevated levels of aerial noise and the presence of plant, machinery and construction operatives that could be a stimulus for behavioural change resulting in disturbance or displacement, but the species is not known to occur in intertidal areas where 3FM Project is to be constructed or operated. It feeds and roosts mainly in the saltmarsh habitats of North Bull Island. The possibility of LSEs as a result of aerial disturbance can be excluded at the screening stage.
Grey Plover (Pluvialis squatarola) [A141]	There are no elements of the proposed development encroaching into this SPA. It is separated from the site of proposed development by the Liffey channel, the Tolka Estuary and the North Bull Wall. There is no possibility of LSEs as a result of habitat loss.	During winter, Grey Plovers mainly forage intertidally and have a characteristic mode of foraging whereby they stand motionless watching the mudflat surface before snatching a prey item (often a worm) from the sediment surface. They forage and roost within the North Bull Island SPA. As a hydrological connection has already been established between activities that have the potential to cause accidental pollution or result in increased levels of suspended sediments and these intertidal habitats, diminution of water quality may result in a reduction in available foraging biomass, either locally or temporarily.	The [A141] SCI is not susceptible to the effects of elevated levels of underwater noise. There is no possibility of LSEs as a result of underwater disturbance.	The [A141] SCI is susceptible to the effects of elevated levels of aerial noise and the presence of plant, machinery and construction operatives that could be a stimulus for behavioural change resulting in disturbance or displacement, but the species is not known to occur in intertidal areas where 3FM Project is to be constructed or operated. It feeds and roosts mainly in the saltmarsh habitats of North Bull Island. The possibility of LSEs as a result of aerial disturbance can be excluded at the screening stage.

Qualifying Interest (QI) / Special Conservation Interest (SCI)	Potential for Likely Significant Effect (LSE)			
	Habitat Loss	Deterioration of Water Quality	Underwater Disturbance	Aerial Disturbance
		The possibility of LSEs as a result of deterioration of water quality cannot be excluded at the screening stage.		
Knot (Calidris canutus) [A143]	There are no elements of the proposed development encroaching into this SPA. It is separated from the site of proposed development by the Liffey channel, the Tolka Estuary and the North Bull Wall. There is no possibility of LSEs as a result of habitat loss.	As this SCI feeds on intertidal mudflats and sandflats within both North Bull Island SPA, and the functionally linked South Dublin Bay & River Tolka Estuary SPA. As a hydrological connection has already been established between activities that have the potential to cause accidental pollution or result in increased levels of suspended sediments and these intertidal habitats, diminution of water quality may result in a reduction in available foraging biomass, either locally or temporarily. The possibility of LSEs as a result of deterioration of water quality cannot be excluded at the screening stage.	The [A143] SCI is not susceptible to the effects of elevated levels of underwater noise. There is no possibility of LSEs as a result of underwater disturbance.	The [A143] SCI is susceptible to the effects of elevated levels of aerial noise and the presence of plant, machinery and construction operatives that could be a stimulus for behavioural change resulting in disturbance or displacement, and it is known to occur in intertidal areas within the functionally linked South Dublin Bay & River Tolka Estuary SPA where elements of the 3FM Project are to be constructed or operated. The possibility of LSEs as a result of aerial disturbance cannot be excluded at the screening stage.
Dunlin (Calidris alpina) [A149]	There are no elements of the proposed development encroaching into this SPA. It is separated from the site of proposed development by the Liffey channel, the Tolka Estuary and the North Bull Wall. There is no possibility of LSEs as a result of habitat loss.	The Dunlin diet is relatively wide and this versatile species often shows a preference for muddier areas within sites. As this SCI feeds on intertidal mudflats and sandflats within both North Bull Island SPA, and the functionally linked South Dublin Bay & River Tolka Estuary SPA, and as a hydrological connection has already been established between activities that have the potential to cause accidental pollution or result in increased levels of suspended sediments and these intertidal habitats, diminution of water quality may result in a reduction in available foraging biomass, either locally or temporarily.	The [A144] SCI is not susceptible to the effects of elevated levels of underwater noise. There is no possibility of LSEs as a result of underwater disturbance.	The [A144] SCI is susceptible to the effects of elevated levels of aerial noise and the presence of plant, machinery and construction operatives that could be a stimulus for behavioural change resulting in disturbance or displacement, and it is known to occur in intertidal areas within the functionally linked South Dublin Bay & River Tolka Estuary SPA where elements of the 3FM Project are to be constructed or operated. The possibility of LSEs as a result of aerial disturbance cannot be excluded at the screening stage.

Qualifying Interest (QI) / Special Conservation Interest (SCI)	Potential for Likely Significant Effect (LSE)			
	Habitat Loss	Deterioration of Water Quality	Underwater Disturbance	Aerial Disturbance
		The possibility of LSEs as a result of deterioration of water quality cannot be excluded at the screening stage.		
Black-tailed Godwit (Limosa limosa) [A156]	There are no elements of the proposed development encroaching into this SPA. It is separated from the site of proposed development by the Liffey channel, the Tolka Estuary and the North Bull Wall. There is no possibility of LSEs as a result of habitat loss.	Black-tailed Godwits are relatively large long-billed wading birds that forage within intertidal flats for their preferred prey. As this SCI feeds on intertidal mudflats and sandflats within both North Bull Island SPA, and the functionally linked South Dublin Bay & River Tolka Estuary SPA, and as a hydrological connection has already been established between activities that have the potential to cause accidental pollution or result in increased levels of suspended sediments and these intertidal habitats, diminution of water quality may result in a reduction in available foraging biomass, either locally or temporarily. The possibility of LSEs as a result of deterioration of water quality cannot be excluded at the screening stage.	The [A156] SCI is not susceptible to the effects of elevated levels of underwater noise. There is no possibility of LSEs as a result of underwater disturbance.	The [A156] SCI is susceptible to the effects of elevated levels of aerial noise and the presence of plant, machinery and construction operatives that could be a stimulus for behavioural change resulting in disturbance or displacement, and it is known to occur in intertidal areas both within the functionally linked South Dublin Bay & River Tolka Estuary SPA and outside of the SPA where elements of the 3FM Project are to be constructed or operated. The possibility of LSEs as a result of aerial disturbance cannot be excluded at the screening stage.
Bar-tailed Godwit (Limosa lapponica) [A157]	There are no elements of the proposed development encroaching into this SPA. It is separated from the site of proposed development by the Liffey channel, the Tolka Estuary and the North Bull Wall. There is no possibility of LSEs as a result of habitat loss.	Bar-tailed Godwits are a wader species considered characteristic of coastal wetland sites dominated by sand. As this SCI feeds on intertidal mudflats and sandflats within both North Bull Island SPA, and the functionally linked South Dublin Bay & River Tolka Estuary SPA, and as a hydrological connection has already been established between activities that have the potential to cause accidental pollution or result in increased levels of suspended sediments and these intertidal habitats, diminution of water quality may result in a reduction in	The [A157] SCI is not susceptible to the effects of elevated levels of underwater noise. There is no possibility of LSEs as a result of underwater disturbance.	The [A157] SCI is susceptible to the effects of elevated levels of aerial noise and the presence of plant, machinery and construction operatives that could be a stimulus for behavioural change resulting in disturbance or displacement, but it is not known to occur in intertidal areas within the functionally linked South Dublin Bay & River Tolka Estuary SPA or outside of the SPA where elements of the 3FM Project are to be constructed or operated.

Qualifying Interest (QI) / Special Conservation Interest (SCI)	Potential for Likely Significant Effect (LSE)			
	Habitat Loss	Deterioration of Water Quality	Underwater Disturbance	Aerial Disturbance
		available foraging biomass, either locally or temporarily. The possibility of LSEs as a result of deterioration of water quality cannot be excluded at the screening stage.		The possibility of LSEs as a result of aerial disturbance can be excluded at the screening stage.
Curlew (Numenius arquata) [A160]	There are no elements of the proposed development encroaching into this SPA. It is separated from the site of proposed development by the Liffey channel, the Tolka Estuary and the North Bull Wall. There is no possibility of LSEs as a result of habitat loss.	Within intertidal areas Curlew seek out larger prey items such as crabs, large worms and bivalves but they also feed amongst damp grasslands where they take terrestrial worms. As this SCI feeds on intertidal mudflats and sandflats within both North Bull Island SPA, and the functionally linked South Dublin Bay & River Tolka Estuary SPA, and as a hydrological connection has already been established between activities that have the potential to cause accidental pollution or result in increased levels of suspended sediments and these intertidal habitats, diminution of water quality may result in a reduction in available foraging biomass, either locally or temporarily. The possibility of LSEs as a result of deterioration of water quality cannot be excluded at the screening stage.	The [A160] SCI is not susceptible to the effects of elevated levels of underwater noise. There is no possibility of LSEs as a result of underwater disturbance.	The [A160] SCI is susceptible to the effects of elevated levels of aerial noise and the presence of plant, machinery and construction operatives that could be a stimulus for behavioural change resulting in disturbance or displacement, and it is known to occur in intertidal areas both within the functionally linked South Dublin Bay & River Tolka Estuary SPA and outside of the SPA where elements of the 3FM Project are to be constructed or operated. The possibility of LSEs as a result of aerial disturbance cannot be excluded at the screening stage.
Redshank (Tringa totanus) [A162]	There are no elements of the proposed development encroaching into this SPA. It is separated from the site of proposed development by the Liffey channel, the Tolka Estuary and the North Bull Wall. There is no possibility of LSEs as a result of habitat loss.	As this SCI feeds on intertidal mudflats and sandflats within both North Bull Island SPA, and the functionally linked South Dublin Bay & River Tolka Estuary SPA, and a hydrological connection has already been established between activities that have the potential to cause accidental pollution or result in increased levels of suspended sediments and these intertidal habitats, diminution of water quality may result in a reduction in	The [A162] SCI is not susceptible to the effects of elevated levels of underwater noise. There is no possibility of LSEs as a result of underwater disturbance.	The [A162] SCI is susceptible to the effects of elevated levels of aerial noise and the presence of plant, machinery and construction operatives that could be a stimulus for behavioural change resulting in disturbance or displacement, and it is known to occur in intertidal areas both within the functionally linked South Dublin Bay & River Tolka Estuary SPA and outside of the SPA where elements of the

Qualifying Interest (QI) / Special Conservation Interest (SCI)	Potential for Likely Significant Effect (LSE)			
	Habitat Loss	Deterioration of Water Quality	Underwater Disturbance	Aerial Disturbance
		available foraging biomass, either locally or temporarily. The possibility of LSEs as a result of deterioration of water quality cannot be excluded at the screening stage.		3FM Project are to be constructed or operated. The possibility of LSEs as a result of aerial disturbance cannot be excluded at the screening stage.
Black-headed Gull (Croicocephalus ridibundus) [A179]	There are no elements of the proposed development encroaching into this SPA. It is separated from the site of proposed development by the Liffey channel, the Tolka Estuary and the North Bull Wall. There is no possibility of LSEs as a result of habitat loss.	As this SCI feeds on intertidal mudflats and sandflats within both North Bull Island SPA, and the functionally linked South Dublin Bay & River Tolka Estuary SPA, and a hydrological connection has already been established between activities that have the potential to cause accidental pollution or result in increased levels of suspended sediments and these intertidal habitats, diminution of water quality may result in a reduction in available foraging biomass, either locally or temporarily. The possibility of LSEs as a result of deterioration of water quality cannot be excluded at the screening stage.	The [A179] SCI is not susceptible to the effects of elevated levels of underwater noise. There is no possibility of LSEs as a result of underwater disturbance.	The [A179] SCI is susceptible to the effects of elevated levels of aerial noise and the presence of plant, machinery and construction operatives that could be a stimulus for behavioural change resulting in disturbance or displacement, and it is known to occur in intertidal areas both within the functionally linked South Dublin Bay & River Tolka Estuary SPA and outside of the SPA where elements of the 3FM Project are to be constructed or operated. The possibility of LSEs as a result of aerial disturbance cannot be excluded at the screening stage.
Wetland and Waterbirds [A999]	There are no elements of the proposed development encroaching into this SPA. It is separated from the site of proposed development by the Liffey channel, the Tolka Estuary and the North Bull Wall. There is no possibility of LSEs as a result of habitat loss.	As a hydrological connection has been established between activities that have the potential to cause accidental pollution or result in increased levels of suspended sediments and the intertidal wetland habitats of the SPA, diminution of water quality may result in a reduction in available foraging biomass, either locally or temporarily, within the wetlands. The possibility of LSEs as a result of deterioration of water quality cannot be excluded at the screening stage.	The [A999] SCI is not susceptible to the effects of elevated levels of underwater noise. There is no possibility of LSEs as a result of underwater disturbance.	The [A999] SCI is not susceptible to the effects of elevated levels of aerial noise. There is no possibility of LSEs as a result of aerial disturbance.

Table 4.10: Potential for Likely Significant Effects on Howth Head SAC

Qualifying Interest (QI) / Special Conservation Interest (SCI)	Potential for Likely Significant Effect (LSE)			
	Habitat Loss	Deterioration of Water Quality	Underwater Disturbance	Aerial Disturbance
Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]	The coastal cliff habitats of Howth Head SAC are located over 5 km from the site of proposed development in Dublin Port. There is no possibility of LSEs as a result of habitat loss.	Conservation objective targets for this QI focus on physical structure, geomorphological processes including groundwater regime and vegetation structure and composition. There is no pathway of effect between the proposed development and this QI habitat. There is no possibility of LSEs as a result of deterioration of water quality.	The [1230 Annex habitat type is not susceptible to the effects of elevated levels of underwater noise. There is no possibility of LSEs as a result of underwater disturbance.	The [1230] Annex habitat type is not susceptible to the effects of elevated levels of aerial noise. There is no possibility of LSEs as a result of aerial disturbance.
European dry heaths [4030]	The heathland habitats of Howth Head SAC are located over 5 km from the site of proposed development in Dublin Port. There is no possibility of LSEs as a result of habitat loss.	Conservation objective targets for this QI focus on ecosystem functioning, physical structure, and vegetation structure and composition. There is no pathway of effect between the proposed development and this QI habitat. There is no possibility of LSEs as a result of deterioration of water quality.	The [1210] Annex habitat type is not susceptible to the effects of elevated levels of underwater noise. There is no possibility of LSEs as a result of underwater disturbance.	The [1210] Annex habitat type is not susceptible to the effects of elevated levels of aerial noise. There is no possibility of LSEs as a result of aerial disturbance.

Table 4.11: Potential for Likely Significant Effects on Howth Head Coast SPA

Qualifying Interest (QI) / Special Conservation Interest (SCI)	Potential for Likely Significant Effect (LSE)			
	Habitat Loss	**Deterioration of Water Quality**	**Underwater Disturbance**	**Aerial Disturbance**
Kittiwake (Rissa tridactyla) [A188]	This SPA is located 2.6 km north of the licensed sea disposal site and 8.6 km east-northeast of the proposed development on the Poolbeg peninsula. There is no possibility of LSEs as a result of habitat loss.	Site specific conservation attributes and targets for the SCI species have not been published in the first order site specific conservation objectives for Howth Head Coast SPA. The conservation objective is simply to maintain or restore the favourable conservation condition of Kittiwake for this SPA. The species has a mean foraging range of 54.7 km (Power *et al*, 2021), and this SCI feeds in the marine environment around its Howth Head breeding colony and in the wider marine waters of the functionally linked North-West Irish Sea cSPA. As a hydrological connection has already been established between activities that have the potential to cause accidental pollution or result in increased levels of suspended sediments in the marine environment, and as it can be demonstrated that the marine waters around the port are within the foraging range of the species, diminution of water quality may result in a reduction in available foraging biomass, either locally or temporarily. The possibility of LSEs as a result of deterioration of water quality cannot be excluded at the screening stage.	The [A188] SCI is a surface feeder and shallow diving species, feeding opportunistically where its prey species occur and as such it remains under water for only moments at a time. The species is not susceptible to any appreciable disturbance effects of elevated levels of underwater noise. The possibility of LSEs as a result of underwater disturbance can be excluded at the screening stage.	The [A188] SCI is susceptible to the effects of elevated levels of aerial noise and the presence of plant, machinery and construction operatives that could be a stimulus for behavioural change resulting in disturbance or displacement, however it is not known to feed in marine areas of the lower Liffey channel where elements of the 3FM Project are to be constructed or operated, in any significant numbers. The possibility of LSEs as a result of aerial disturbance can be excluded at the screening stage.

Table 4.12: Potential for Likely Significant Effects on Dalkey Islands SPA

Qualifying Interest (QI) / Special Conservation Interest (SCI)	Potential for Likely Significant Effect (LSE)			
	Habitat Loss	Deterioration of Water Quality	Underwater Disturbance	Aerial Disturbance
Roseate Tern (Sterna dougallii) [A192]	This SPA is located 5.2 km SSW of the licensed sea disposal site and 9.4 km SE of the proposed development on the Poolbeg peninsula. The possibility of LSEs as a result of habitat loss can be excluded at the screening stage.	Site specific conservation attributes and targets for the SCI species have not been published in the first order site specific conservation objectives for Howth Head Coast SPA. The conservation objective is simply to maintain or restore the favourable conservation condition of Roseate tern for this SPA. The species has a mean foraging range of 4.1 km and a mean-max foraging range of 12.6 km (Power *et al*, 2021), and this SCI feeds in the marine environment around its Dalkey Islands breeding colony and in the wider marine waters of the functionally linked North-West Irish Sea cSPA. As a hydrological connection has already been established between activities that have the potential to cause accidental pollution or result in increased levels of suspended sediments and these subtidal marine habitats, and as it can be demonstrated that the marine waters around the port are within the foraging range of the species, diminution of water quality may result in a reduction in available foraging biomass, either locally or temporarily. The possibility of LSEs as a result of deterioration of water quality cannot be excluded at the screening stage.	The [A192] SCI is a surface feeder and shallow diving species, feeding opportunistically where its prey species occur and as such it remains under water for only moments at a time. The species is not susceptible to any appreciable disturbance effects of elevated levels of underwater noise. The possibility of LSEs as a result of underwater disturbance can be excluded at the screening stage.	The [A192] SCI is susceptible to the effects of elevated levels of aerial noise and the presence of plant, machinery and construction operatives that could be a stimulus for behavioural change resulting in disturbance or displacement, and it is known to feed in marine areas of the lower Liffey channel where elements of the 3FM Project are to be constructed or operated. The possibility of LSEs as a result of aerial disturbance cannot be excluded at the screening stage.

Qualifying Interest (QI) / Special Conservation Interest (SCI)	Potential for Likely Significant Effect (LSE)			
	Habitat Loss	**Deterioration of Water Quality**	**Underwater Disturbance**	**Aerial Disturbance**
Common Tern (Sterna hirundo) [A193]	This SPA is located 5.2 km SSW of the licensed sea disposal site and 9.4 km SE of the proposed development on the Poolbeg peninsula. The possibility of LSEs as a result of habitat loss can be excluded at the screening stage.	Site specific conservation attributes and targets for the SCI species have not been published in the first order site specific conservation objectives for Howth Head Coast SPA. The conservation objective is simply to maintain or restore the favourable conservation condition of Common tern for this SPA. The species has a mean foraging range of 6.4 km and a mean-max foraging range of 18.0 km (Power *et al*, 2021), and this SCI feeds in the marine environment around its Dalkey Islands breeding colony and in the wider marine waters of the functionally linked North-West Irish Sea cSPA. As a hydrological connection has already been established between activities that have the potential to cause accidental pollution or result in increased levels of suspended sediments and these subtidal marine habitats, and as it can be demonstrated that the marine waters around the port are within the foraging range of the species, diminution of water quality may result in a reduction in available foraging biomass, either locally or temporarily. The possibility of LSEs as a result of deterioration of water quality cannot be excluded at the screening stage.	The [A193] SCI is a surface feeder and shallow diving species, feeding opportunistically where its prey species occur and as such it remains under water for only moments at a time. The species is not susceptible to any appreciable disturbance effects of elevated levels of underwater noise. The possibility of LSEs as a result of underwater disturbance can be excluded at the screening stage.	The [A193] SCI is susceptible to the effects of elevated levels of aerial noise and the presence of plant, machinery and construction operatives that could be a stimulus for behavioural change resulting in disturbance or displacement, and it is known to feed in marine areas of the lower Liffey channel where elements of the 3FM Project are to be constructed or operated. The possibility of LSEs as a result of aerial disturbance cannot be excluded at the screening stage.
Arctic Tern (Sterna paradisaea) [A194]	This SPA is located 5.2 km SSW of the licensed sea disposal site and 9.4 km SE of the proposed development on the Poolbeg peninsula.	Site specific conservation attributes and targets for the SCI species have not been published in the first order site specific conservation objectives for Howth Head Coast SPA. The conservation objective is simply to maintain or restore the	The [A194] SCI is a surface feeder and shallow diving species, feeding opportunistically where its prey species occur and as such it remains under water for only moments at a time. The species is not susceptible to any appreciable	The [A194] SCI is susceptible to the effects of elevated levels of aerial noise and the presence of plant, machinery and construction operatives that could be a stimulus for behavioural change resulting in disturbance or displacement, and it is

Qualifying Interest (QI) / Special Conservation Interest (SCI)	Potential for Likely Significant Effect (LSE)			
	Habitat Loss	Deterioration of Water Quality	Underwater Disturbance	Aerial Disturbance
	The possibility of LSEs as a result of habitat loss can be excluded at the screening stage.	favourable conservation condition of Arctic tern for this SPA. The species has a mean foraging range of 6.1 km and a mean-max foraging range of 25.7 km (Power *et al*, 2021), and this SCI feeds in the marine environment around its Dalkey Islands breeding colony and in the wider marine waters of the functionally linked North-West Irish Sea cSPA. As a hydrological connection has already been established between activities that have the potential to cause accidental pollution or result in increased levels of suspended sediments and these subtidal marine habitats, and as it can be demonstrated that the marine waters around the port are within the foraging range of the species, diminution of water quality may result in a reduction in available foraging biomass, either locally or temporarily. The possibility of LSEs as a result of deterioration of water quality cannot be excluded at the screening stage.	disturbance effects of elevated levels of underwater noise. The possibility of LSEs as a result of underwater disturbance can be excluded at the screening stage.	known to feed in marine areas of the lower Liffey channel where elements of the 3FM Project are to be constructed or operated. The possibility of LSEs as a result of aerial disturbance cannot be excluded at the screening stage.

Table 4.13: Potential for Likely Significant Effects on North-West Irish Sea cSPA

Qualifying Interest (QI) / Special Conservation Interest (SCI)	Potential for Likely Significant Effect (LSE)			
	Habitat Loss	**Deterioration of Water Quality**	**Underwater Disturbance**	**Aerial Disturbance**
Manx Shearwater (Puffinus puffinus) [A013]	This SPA is located 700 m N of the licensed sea disposal site and 1.8 km E of the proposed development on the Poolbeg peninsula. The possibility of LSEs as a result of habitat loss can be excluded at the screening stage.	Site specific conservation attributes and targets for the SCI species include availability of habitats throughout the SPA to support the population and the foraging biomass it requires. The species has a mean foraging range of 136.1 km and a mean-max foraging range of 1,346.8 km (Power *et al*, 2021), and this SCI can occur rafting in large numbers across the expanse of the 232,000 ha North-West Irish Sea cSPA. As a hydrological connection has already been established between activities that have the potential to cause accidental pollution or result in increased levels of suspended sediments and these subtidal marine habitats, and as it can be demonstrated that the marine waters around the port are within the foraging range of the species, diminution of water quality may result in a reduction in available foraging biomass, either locally or temporarily. The possibility of LSEs as a result of deterioration of water quality cannot be excluded at the screening stage.	The [A013] SCI is a surface feeder and shallow diving species, feeding opportunistically where its prey species occur and as such it remains under water for only moments at a time. The species is not susceptible to any appreciable disturbance effects of elevated levels of underwater noise. The possibility of LSEs as a result of underwater disturbance can be excluded at the screening stage.	Site specific conservation attributes and targets for the SCI species include ensuring that disturbance does not occur at levels which impact the population size and that barriers to connectivity do not occur which would impede access to the habitats throughout the SPA. The shipping channel between Dublin Port and the deeper waters of outer Dublin Bay runs to the south of the cSPA boundary. The [A013] SCI will not be disturbed or displaced within the expanse of the 232,000 ha North-West Irish Sea cSPA by the back and forth transit and dumping operations of a dredging vessel at the licensed sea disposal site located 700 m to the south of the cSPA. Constructing and operating the proposed development does not introduce any barriers to accessing the marine waters of the cSPA. The possibility of LSEs as a result of aerial disturbance can be excluded at the screening stage.

Qualifying Interest (QI) / Special Conservation Interest (SCI)	Potential for Likely Significant Effect (LSE)			
	Habitat Loss	**Deterioration of Water Quality**	**Underwater Disturbance**	**Aerial Disturbance**
Cormorant (Phalacrocorax carbo) [A017]	This SPA is located 700 m N of the licensed sea disposal site and 1.8 km E of the proposed development on the Poolbeg peninsula. The possibility of LSEs as a result of habitat loss can be excluded at the screening stage.	Site specific conservation attributes and targets for the SCI species include availability of habitats throughout the SPA to support the population and the foraging biomass it requires. The species has a mean foraging range of 7.1 km and a mean-max foraging range of 25.6 km (Power *et al*, 2021), and this SCI feeds in the marine environment around its breeding colonies at Skerries Island SPA; Ireland's Eye SPA; and Lambay Island SPA; and in the wider marine waters of the North-West Irish Sea cSPA. As a hydrological connection has already been established between activities that have the potential to cause accidental pollution or result in increased levels of suspended sediments and these subtidal marine habitats, and as it can be demonstrated that the marine waters around the port are within the foraging range of the species, diminution of water quality may result in a reduction in available foraging biomass, either locally or temporarily. The possibility of LSEs as a result of deterioration of water quality cannot be excluded at the screening stage.	The [A017] SCI is a shallow diving species, feeding opportunistically where its prey species occur and as such it remains under water for only short periods of time. The species is not susceptible to any appreciable disturbance effects of elevated levels of underwater noise. The possibility of LSEs as a result of underwater disturbance can be excluded at the screening stage.	Site specific conservation attributes and targets for the SCI species include ensuring that disturbance does not occur at levels which impact the population size and that barriers to connectivity do not occur which would impede access to the habitats throughout the SPA. The shipping channel between Dublin Port and the deeper waters of outer Dublin Bay runs to the south of the cSPA boundary. The [A017] SCI will not be disturbed or displaced within the expanse of the 232,000 ha North-West Irish Sea cSPA by the back and forth transit and dumping operations of a dredging vessel at the licensed sea disposal site located 700 m to the south of the cSPA. Constructing and operating the proposed development does not introduce any barriers to accessing the marine waters of the cSPA. The possibility of LSEs as a result of aerial disturbance can be excluded at the screening stage.
Shag (Phalacrocorax aristotelis) [A018]	This SPA is located 700 m N of the licensed sea disposal site and 1.8 km E of the proposed development on the Poolbeg peninsula.	Site specific conservation attributes and targets for the SCI species include availability of habitats throughout the SPA to support the population and the foraging biomass it requires.	The [A018] SCI is a shallow diving species, feeding opportunistically where its prey species occur and as such it remains under water for only short periods of time. The species is not susceptible to any appreciable	Site specific conservation attributes and targets for the SCI species include ensuring that disturbance does not occur at levels which impact the population size and that barriers to connectivity do not

Qualifying Interest (QI) / Special Conservation Interest (SCI)	Potential for Likely Significant Effect (LSE)			
	Habitat Loss	**Deterioration of Water Quality**	**Underwater Disturbance**	**Aerial Disturbance**
	The possibility of LSEs as a result of habitat loss can be excluded at the screening stage.	The species has a mean foraging range of 9.2 km and a mean-max foraging range of 13.2 km (Power *et al*, 2021), and this SCI feeds in the marine environment around its breeding colonies at Skerries Island SPA and Lambay Island SPA; and in the wider marine waters of the North-West Irish Sea cSPA. A hydrological connection has been established between activities that have the potential to cause accidental pollution or result in increased levels of suspended sediments and these subtidal marine habitats, but the marine waters around the port are outside of the foraging range of the species from it's breeding colonies at Skerries Island SPA and Lambay Island SPA. As such, diminution of water quality will not likely result in a reduction in available foraging biomass, either locally or temporarily. The possibility of LSEs as a result of deterioration of water quality can be excluded at the screening stage.	disturbance effects of elevated levels of underwater noise. The possibility of LSEs as a result of underwater disturbance can be excluded at the screening stage.	occur which would impede access to the habitats throughout the SPA. The shipping channel between Dublin Port and the deeper waters of outer Dublin Bay runs to the south of the cSPA boundary. The [A018] SCI will not be disturbed or displaced within the expanse of the 232,000 ha North-West Irish Sea cSPA by the back and forth transit and dumping operations of a dredging vessel at the licensed sea disposal site located 700 m to the south of the cSPA. Constructing and operating the proposed development does not introduce any barriers to accessing the marine waters of the cSPA. The possibility of LSEs as a result of aerial disturbance can be excluded at the screening stage.
Lesser Black-backed Gull (Larus fuscus) [A183]	This SPA is located 700 m N of the licensed sea disposal site and 1.8 km E of the proposed development on the Poolbeg peninsula. The possibility of LSEs as a result of habitat loss can be excluded at the screening stage.	Site specific conservation attributes and targets for the SCI species include availability of habitats throughout the SPA to support the population and the foraging biomass it requires. The species has a mean foraging range of 43.3 km and a mean-max foraging range of 127 km (Power *et al*, 2021), and this SCI feeds in the marine environment around its breeding colony at Lambay	The [A183] SCI is a surface feeder and shallow diving species, feeding opportunistically where its prey species occur and as such it remains under water for only moments at a time. The species is not susceptible to any appreciable disturbance effects of elevated levels of underwater noise. The possibility of LSEs as a result of underwater disturbance can be excluded at the screening stage.	Site specific conservation attributes and targets for the SCI species include ensuring that disturbance does not occur at levels which impact the population size and that barriers to connectivity do not occur which would impede access to the habitats throughout the SPA. The shipping channel between Dublin Port and the deeper waters of outer Dublin Bay runs to the south of the cSPA boundary. The [A183] SCI will not be

Qualifying Interest (QI) / Special Conservation Interest (SCI)	Potential for Likely Significant Effect (LSE)			
	Habitat Loss	**Deterioration of Water Quality**	**Underwater Disturbance**	**Aerial Disturbance**
		Island SPA, and in the wider marine waters of the North-West Irish Sea cSPA. As a hydrological connection has already been established between activities that have the potential to cause accidental pollution or result in increased levels of suspended sediments and these subtidal marine habitats, and as it can be demonstrated that the marine waters around the port are within the foraging range of the species, diminution of water quality may result in a reduction in available foraging biomass, either locally or temporarily. The possibility of LSEs as a result of deterioration of water quality cannot be excluded at the screening stage.		disturbed or displaced within the expanse of the 232,000 ha North-West Irish Sea cSPA by the back and forth transit and dumping operations of a dredging vessel at the licensed sea disposal site located 700 m to the south of the cSPA. Constructing and operating the proposed development does not introduce any barriers to accessing the marine waters of the cSPA. The possibility of LSEs as a result of aerial disturbance can be excluded at the screening stage.
Roseate Tern (Sterna dougallii) [A192]	This SPA is located 700 m N of the licensed sea disposal site and 1.8 km E of the proposed development on the Poolbeg peninsula. The possibility of LSEs as a result of habitat loss can be excluded at the screening stage.	Site specific conservation attributes and targets for the SCI species include availability of habitats throughout the SPA to support the population and the foraging biomass it requires. The species has a mean foraging range of 4.1 km and a mean-max foraging range of 12.6 km (Power *et al*, 2021), and this SCI feeds in the marine environment around its coastal breeding colonies and in the wider marine waters of the North-West Irish Sea cSPA. A hydrological connection has been established between activities that have the potential to cause accidental pollution or result in increased levels of suspended sediments and these subtidal marine	The [A192] SCI is a surface feeder and shallow diving species, feeding opportunistically where its prey species occur and as such it remains under water for only moments at a time. The species is not susceptible to any appreciable disturbance effects of elevated levels of underwater noise. The possibility of LSEs as a result of underwater disturbance can be excluded at the screening stage.	Site specific conservation attributes and targets for the SCI species include ensuring that disturbance does not occur at levels which impact the population size and that barriers to connectivity do not occur which would impede access to the habitats throughout the SPA. The shipping channel between Dublin Port and the deeper waters of outer Dublin Bay runs to the south of the cSPA boundary. The [A192] SCI will not be disturbed or displaced within the expanse of the 232,000 ha North-West Irish Sea cSPA by the back and forth transit and dumping operations of a dredging vessel at the licensed sea disposal site located 700 m to the south of the cSPA. Constructing and operating the proposed

Qualifying Interest (QI) / Special Conservation Interest (SCI)	Potential for Likely Significant Effect (LSE)			
	Habitat Loss	Deterioration of Water Quality	Underwater Disturbance	Aerial Disturbance
		habitats, but the marine waters around the port are outside of the foraging range of the species from it's breeding colony at Rockabill SPA. As such, diminution of water quality will not likely result in a reduction in available foraging biomass, either locally or temporarily. The possibility of LSEs as a result of deterioration of water quality can be excluded at the screening stage.		development does not introduce any barriers to accessing the marine waters of the cSPA. The possibility of LSEs as a result of aerial disturbance can be excluded at the screening stage.
Common Tern (Sterna hirundo) [A193]	This SPA is located 700 m N of the licensed sea disposal site and 1.8 km E of the proposed development on the Poolbeg peninsula. The possibility of LSEs as a result of habitat loss can be excluded at the screening stage.	Site specific conservation attributes and targets for the SCI species include availability of habitats throughout the SPA to support the population and the foraging biomass it requires. The species has a mean foraging range of 6.4 km and a mean-max foraging range of 18.0 km (Power *et al*, 2021), and this SCI feeds in the marine environment around its coastal breeding colonies at Rockabill SPA, Dalkey Islands SPA and South Dublin Bay and River Tolka Estuary SPA and in the wider marine waters of the North-West Irish Sea cSPA. As a hydrological connection has already been established between activities that have the potential to cause accidental pollution or result in increased levels of suspended sediments and these subtidal marine habitats, and as it can be demonstrated that the marine waters around the port are within the foraging range of the species, diminution of water quality may result in a reduction in	The [A193] SCI is a surface feeder and shallow diving species, feeding opportunistically where its prey species occur and as such it remains under water for only moments at a time. The species is not susceptible to any appreciable disturbance effects of elevated levels of underwater noise. The possibility of LSEs as a result of underwater disturbance can be excluded at the screening stage.	Site specific conservation attributes and targets for the SCI species include ensuring that disturbance does not occur at levels which impact the population size and that barriers to connectivity do not occur which would impede access to the habitats throughout the SPA. The shipping channel between Dublin Port and the deeper waters of outer Dublin Bay runs to the south of the cSPA boundary. The [A193] SCI will not be disturbed or displaced within the expanse of the 232,000 ha North-West Irish Sea cSPA by the back and forth transit and dumping operations of a dredging vessel at the licensed sea disposal site located 700 m to the south of the cSPA. Constructing and operating the proposed development does not introduce any barriers to accessing the marine waters of the cSPA. The possibility of LSEs as a result of aerial disturbance can be excluded at the screening stage.

Qualifying Interest (QI) / Special Conservation Interest (SCI)	Potential for Likely Significant Effect (LSE)			
	Habitat Loss	Deterioration of Water Quality	Underwater Disturbance	Aerial Disturbance
		available foraging biomass, either locally or temporarily. The possibility of LSEs as a result of deterioration of water quality cannot be excluded at the screening stage.		
Arctic Tern (Sterna paradisaea) [A194]	This SPA is located 700 m N of the licensed sea disposal site and 1.8 km E of the proposed development on the Poolbeg peninsula. The possibility of LSEs as a result of habitat loss can be excluded at the screening stage.	Site specific conservation attributes and targets for the SCI species include availability of habitats throughout the SPA to support the population and the foraging biomass it requires. The species has a mean foraging range of 6.1 km and a mean-max foraging range of 25.7 km (Power *et al*, 2021), and this SCI feeds in the marine environment around its coastal breeding colonies at Rockabill SPA, Dalkey Islands SPA and South Dublin Bay and River Tolka Estuary SPA and in the wider marine waters of the North-West Irish Sea cSPA. As a hydrological connection has already been established between activities that have the potential to cause accidental pollution or result in increased levels of suspended sediments and these subtidal marine habitats, and as it can be demonstrated that the marine waters around the port are within the foraging range of the species, diminution of water quality may result in a reduction in available foraging biomass, either locally or temporarily. The possibility of LSEs as a result of deterioration of water quality cannot be excluded at the screening stage.	The [A194] SCI is a surface feeder and shallow diving species, feeding opportunistically where its prey species occur and as such it remains under water for only moments at a time. The species is not susceptible to any appreciable disturbance effects of elevated levels of underwater noise. The possibility of LSEs as a result of underwater disturbance can be excluded at the screening stage.	Site specific conservation attributes and targets for the SCI species include ensuring that disturbance does not occur at levels which impact the population size and that barriers to connectivity do not occur which would impede access to the habitats throughout the SPA. The shipping channel between Dublin Port and the deeper waters of outer Dublin Bay runs to the south of the cSPA boundary. The [A194] SCI will not be disturbed or displaced within the expanse of the 232,000 ha North-West Irish Sea cSPA by the back and forth transit and dumping operations of a dredging vessel at the licensed sea disposal site located 700 m to the south of the cSPA. Constructing and operating the proposed development does not introduce any barriers to accessing the marine waters of the cSPA. The possibility of LSEs as a result of aerial disturbance can be excluded at the screening stage.

Qualifying Interest (QI) / Special Conservation Interest (SCI)	Potential for Likely Significant Effect (LSE)			
	Habitat Loss	**Deterioration of Water Quality**	**Underwater Disturbance**	**Aerial Disturbance**
Little Tern (Sterna albifrons) [A195]	This SPA is located 700 m N of the licensed sea disposal site and 1.8 km E of the proposed development on the Poolbeg peninsula. The possibility of LSEs as a result of habitat loss can be excluded at the screening stage.	Site specific conservation attributes and targets for the SCI species include availability of habitats throughout the SPA to support the population and the foraging biomass it requires. The species has a mean foraging range of 3.5 km and a mean-max foraging range of 5.0 km (Power *et al*, 2021), and this SCI feeds in the marine environment around its coastal breeding colonies at Boyne Estuary SPA and The Murrough SPA, and in the wider marine waters of the North-West Irish Sea cSPA. A hydrological connection has been established between activities that have the potential to cause accidental pollution or result in increased levels of suspended sediments in these subtidal marine habitats, but the marine waters around the port are outside of the foraging range of the species from it's breeding colonies at Boyne Estuary SPA and The Murrough SPA. As such, diminution of water quality will not likely result in a reduction in available foraging biomass, either locally or temporarily. The possibility of LSEs as a result of deterioration of water quality can be excluded at the screening stage.	The [A195] SCI is a surface feeder and shallow diving species, feeding opportunistically where its prey species occur and as such it remains under water for only moments at a time. The species is not susceptible to any appreciable disturbance effects of elevated levels of underwater noise. The possibility of LSEs as a result of underwater disturbance can be excluded at the screening stage.	Site specific conservation attributes and targets for the SCI species include ensuring that disturbance does not occur at levels which impact the population size and that barriers to connectivity do not occur which would impede access to the habitats throughout the SPA. The shipping channel between Dublin Port and the deeper waters of outer Dublin Bay runs to the south of the cSPA boundary. The [A195] SCI will not be disturbed or displaced within the expanse of the 232,000 ha North-West Irish Sea cSPA by the back and forth transit and dumping operations of a dredging vessel at the licensed sea disposal site located 700 m to the south of the cSPA. Constructing and operating the proposed development does not introduce any barriers to accessing the marine waters of the cSPA. The possibility of LSEs as a result of aerial disturbance can be excluded at the screening stage.
Puffin (Fratercula arctica) [A204]	This SPA is located 700 m N of the licensed sea disposal site and 1.8 km E of the proposed development on the Poolbeg peninsula.	Site specific conservation attributes and targets for the SCI species include availability of habitats throughout the SPA to support the population and the foraging biomass it requires.	The [A204] SCI is a diving species, feeding opportunistically where its prey species occur and as such it remains under water for only short periods of time. The species is not susceptible to any	Site specific conservation attributes and targets for the SCI species include ensuring that disturbance does not occur at levels which impact the population size and that barriers to connectivity do not

Qualifying Interest (QI) / Special Conservation Interest (SCI)	Potential for Likely Significant Effect (LSE)			
	Habitat Loss	**Deterioration of Water Quality**	**Underwater Disturbance**	**Aerial Disturbance**
	The possibility of LSEs as a result of habitat loss can be excluded at the screening stage.	The species has a mean foraging range of 62.4 km and a mean-max foraging range of 137.1 km (Power *et al*, 2021), and this SCI feeds in the marine environment around its coastal breeding colonies at Lambay Island SPA and in the wider marine waters of the North-West Irish Sea cSPA. As a hydrological connection has already been established between activities that have the potential to cause accidental pollution or result in increased levels of suspended sediments and these subtidal marine habitats, and as it can be demonstrated that the marine waters around the port are within the foraging range of the species, diminution of water quality may result in a reduction in available foraging biomass, either locally or temporarily. The possibility of LSEs as a result of deterioration of water quality cannot be excluded at the screening stage.	appreciable disturbance effects of elevated levels of underwater noise. The possibility of LSEs as a result of underwater disturbance can be excluded at the screening stage.	occur which would impede access to the habitats throughout the SPA. The shipping channel between Dublin Port and the deeper waters of outer Dublin Bay runs to the south of the cSPA boundary. The [A204] SCI will not be disturbed or displaced within the expanse of the 232,000 ha North-West Irish Sea cSPA by the back and forth transit and dumping operations of a dredging vessel at the licensed sea disposal site located 700 m to the south of the cSPA. Constructing and operating the proposed development does not introduce any barriers to accessing the marine waters of the cSPA. The possibility of LSEs as a result of aerial disturbance can be excluded at the screening stage.
Red-throated Diver (Gavia stellata) [A001]	This SPA is located 700 m N of the licensed sea disposal site and 1.8 km E of the proposed development on the Poolbeg peninsula. The possibility of LSEs as a result of habitat loss can be excluded at the screening stage.	Site specific conservation attributes and targets for the SCI species include availability of habitats throughout the SPA to support the non-breeding population and the foraging biomass it requires. This species is known to occur in outer Dublin Bay in deeper marine waters (Jessopp *et al*, 2018). As a hydrological connection has already been established between activities that have the potential to cause accidental pollution or result in	The [A001] SCI is a diving species, feeding opportunistically where its prey species occur and as such it remains under water for only short periods of time. The species is not susceptible to any appreciable disturbance effects of elevated levels of underwater noise. The possibility of LSEs as a result of underwater disturbance can be excluded at the screening stage.	Site specific conservation attributes and targets for the SCI species include ensuring that disturbance does not occur at levels which impact the population size and that barriers to connectivity do not occur which would impede access to the habitats throughout the SPA. The shipping channel between Dublin Port and the deeper waters of outer Dublin Bay runs to the south of the cSPA boundary. The [A001] SCI will not be disturbed or displaced within the expanse

Qualifying Interest (QI) / Special Conservation Interest (SCI)	Potential for Likely Significant Effect (LSE)			
	Habitat Loss	Deterioration of Water Quality	Underwater Disturbance	Aerial Disturbance
		increased levels of suspended sediments and these subtidal marine habitats, and as it can be demonstrated that the species will make use of marine waters in outer Dublin Bay where sea disposal operations are to occur, diminution of water quality may result in a reduction in available foraging biomass, either locally or temporarily. The possibility of LSEs as a result of deterioration of water quality cannot be excluded at the screening stage.		of the 232,000 ha North-West Irish Sea cSPA by the back and forth transit and dumping operations of a dredging vessel at the licensed sea disposal site located 700 m to the south of the cSPA. Constructing and operating the proposed development does not introduce any barriers to accessing the marine waters of the cSPA. The possibility of LSEs as a result of aerial disturbance can be excluded at the screening stage.
Great Northern Diver (Gavia immer) [A003]	This SPA is located 700 m N of the licensed sea disposal site and 1.8 km E of the proposed development on the Poolbeg peninsula. The possibility of LSEs as a result of habitat loss can be excluded at the screening stage.	Site specific conservation attributes and targets for the SCI species include availability of habitats throughout the SPA to support the non-breeding population and the foraging biomass it requires. This species is known to occur in outer Dublin Bay in deeper marine waters (Jessopp *et al*, 2018). As a hydrological connection has already been established between activities that have the potential to cause accidental pollution or result in increased levels of suspended sediments and these subtidal marine habitats, and as it can be demonstrated that the species will make use of marine waters in outer Dublin Bay where sea disposal operations are to occur, diminution of water quality may result in a reduction in available foraging biomass, either locally or temporarily.	The [A003] SCI is a diving species, feeding opportunistically where its prey species occur and as such it remains under water for only short periods of time. The species is not susceptible to any appreciable disturbance effects of elevated levels of underwater noise. The possibility of LSEs as a result of underwater disturbance can be excluded at the screening stage.	Site specific conservation attributes and targets for the SCI species include ensuring that disturbance does not occur at levels which impact the population size and that barriers to connectivity do not occur which would impede access to the habitats throughout the SPA. The shipping channel between Dublin Port and the deeper waters of outer Dublin Bay runs to the south of the cSPA boundary. The [A003] SCI will not be disturbed or displaced within the expanse of the 232,000 ha North-West Irish Sea cSPA by the back and forth transit and dumping operations of a dredging vessel at the licensed sea disposal site located 700 m to the south of the cSPA. Constructing and operating the proposed development does not introduce any barriers to accessing the marine waters of the cSPA.

Qualifying Interest (QI) / Special Conservation Interest (SCI)	Potential for Likely Significant Effect (LSE)			
	Habitat Loss	Deterioration of Water Quality	Underwater Disturbance	Aerial Disturbance
		The possibility of LSEs as a result of deterioration of water quality cannot be excluded at the screening stage.		The possibility of LSEs as a result of aerial disturbance can be excluded at the screening stage.
Common Scoter (Melanitta nigra) [A065]	This SPA is located 700 m N of the licensed sea disposal site and 1.8 km E of the proposed development on the Poolbeg peninsula. The possibility of LSEs as a result of habitat loss can be excluded at the screening stage.	Site specific conservation attributes and targets for the SCI species include availability of habitats throughout the SPA to support the non-breeding population and the foraging biomass it requires. This species is known to occur in outer Dublin Bay in deeper marine waters (Jessopp *et al*, 2018). As a hydrological connection has already been established between activities that have the potential to cause accidental pollution or result in increased levels of suspended sediments and these subtidal marine habitats, and as it can be demonstrated that the species will make use of marine waters in outer Dublin Bay where sea disposal operations are to occur, diminution of water quality may result in a reduction in available foraging biomass, either locally or temporarily. The possibility of LSEs as a result of deterioration of water quality cannot be excluded at the screening stage.	The [A065] SCI is a diving species, feeding opportunistically where its prey species occur and as such it remains under water for only short periods of time. The species is not susceptible to any appreciable disturbance effects of elevated levels of underwater noise. The possibility of LSEs as a result of underwater disturbance can be excluded at the screening stage.	Site specific conservation attributes and targets for the SCI species include ensuring that disturbance does not occur at levels which impact the population size and that barriers to connectivity do not occur which would impede access to the habitats throughout the SPA. The shipping channel between Dublin Port and the deeper waters of outer Dublin Bay runs to the south of the cSPA boundary. The [A065] SCI will not be disturbed or displaced within the expanse of the 232,000 ha North-West Irish Sea cSPA by the back and forth transit and dumping operations of a dredging vessel at the licensed sea disposal site located 700 m to the south of the cSPA. Constructing and operating the proposed development does not introduce any barriers to accessing the marine waters of the cSPA. The possibility of LSEs as a result of aerial disturbance can be excluded at the screening stage.
Black-headed Gull (Chroicocephalus ridibundus) [A179]	This SPA is located 700 m N of the licensed sea disposal site and 1.8 km E of the proposed development on the Poolbeg peninsula.	Site specific conservation attributes and targets for the SCI species include availability of habitats throughout the SPA to support the non-breeding population and the foraging biomass it requires.	The [A179] SCI is a surface feeder and shallow diving species, feeding opportunistically where its prey species occur and as such it remains under water for only moments at a time. The species is not susceptible to any appreciable	Site specific conservation attributes and targets for the SCI species include ensuring that disturbance does not occur at levels which impact the population size and that barriers to connectivity do not

Qualifying Interest (QI) / Special Conservation Interest (SCI)	Potential for Likely Significant Effect (LSE)			
	Habitat Loss	**Deterioration of Water Quality**	**Underwater Disturbance**	**Aerial Disturbance**
	The possibility of LSEs as a result of habitat loss can be excluded at the screening stage.	This species is known to occur in outer Dublin Bay in deeper marine waters (Jessopp *et al*, 2018). As a hydrological connection has already been established between activities that have the potential to cause accidental pollution or result in increased levels of suspended sediments and these subtidal marine habitats, and as it can be demonstrated that the species will make use of marine waters in outer Dublin Bay where sea disposal operations are to occur, diminution of water quality may result in a reduction in available foraging biomass, either locally or temporarily. The possibility of LSEs as a result of deterioration of water quality cannot be excluded at the screening stage.	disturbance effects of elevated levels of underwater noise. The possibility of LSEs as a result of underwater disturbance can be excluded at the screening stage.	occur which would impede access to the habitats throughout the SPA. The shipping channel between Dublin Port and the deeper waters of outer Dublin Bay runs to the south of the cSPA boundary. The [A179] SCI will not be disturbed or displaced within the expanse of the 232,000 ha North-West Irish Sea cSPA by the back and forth transit and dumping operations of a dredging vessel at the licensed sea disposal site located 700 m to the south of the cSPA. Constructing and operating the proposed development does not introduce any barriers to accessing the marine waters of the cSPA. The possibility of LSEs as a result of aerial disturbance can be excluded at the screening stage.
Common Gull (Larus canus) [A182]	This SPA is located 700 m N of the licensed sea disposal site and 1.8 km E of the proposed development on the Poolbeg peninsula. The possibility of LSEs as a result of habitat loss can be excluded at the screening stage.	Site specific conservation attributes and targets for the SCI species include availability of habitats throughout the SPA to support the non-breeding population and the foraging biomass it requires. This species is known to occur in outer Dublin Bay in deeper marine waters (Jessopp *et al*, 2018). As a hydrological connection has already been established between activities that have the potential to cause accidental pollution or result in increased levels of suspended sediments of these subtidal marine habitats, and as it can be demonstrated that the species will make use of marine waters in outer	The [A182] SCI is a surface feeder and shallow diving species, feeding opportunistically where its prey species occur and as such it remains under water for only moments at a time. The species is not susceptible to any appreciable disturbance effects of elevated levels of underwater noise. The possibility of LSEs as a result of underwater disturbance can be excluded at the screening stage.	Site specific conservation attributes and targets for the SCI species include ensuring that disturbance does not occur at levels which impact the population size and that barriers to connectivity do not occur which would impede access to the habitats throughout the SPA. The shipping channel between Dublin Port and the deeper waters of outer Dublin Bay runs to the south of the cSPA boundary. The [A182] SCI will not be disturbed or displaced within the expanse of the 232,000 ha North-West Irish Sea cSPA by the back and forth transit and dumping operations of a dredging vessel at the licensed sea disposal site located

Qualifying Interest (QI) / Special Conservation Interest (SCI)	Potential for Likely Significant Effect (LSE)			
	Habitat Loss	**Deterioration of Water Quality**	**Underwater Disturbance**	**Aerial Disturbance**
		Dublin Bay where sea disposal operations are to occur, diminution of water quality may result in a reduction in available foraging biomass, either locally or temporarily. The possibility of LSEs as a result of deterioration of water quality cannot be excluded at the screening stage.		700 m to the south of the cSPA. Constructing and operating the proposed development does not introduce any barriers to accessing the marine waters of the cSPA. The possibility of LSEs as a result of aerial disturbance can be excluded at the screening stage.
Great Black-backed Gull (Larus marinus) [A187]	This SPA is located 700 m N of the licensed sea disposal site and 1.8 km E of the proposed development on the Poolbeg peninsula. The possibility of LSEs as a result of habitat loss can be excluded at the screening stage.	Site specific conservation attributes and targets for the SCI species include availability of habitats throughout the SPA to support the non-breeding population and the foraging biomass it requires. This species is known to occur in outer Dublin Bay in deeper marine waters (Jessopp *et al*, 2018). As a hydrological connection has already been established between activities that have the potential to cause accidental pollution or result in increased levels of suspended sediments of these subtidal marine habitats, and as it can be demonstrated that the species will make use of marine waters in outer Dublin Bay where sea disposal operations are to occur, diminution of water quality may result in a reduction in available foraging biomass, either locally or temporarily. The possibility of LSEs as a result of deterioration of water quality cannot be excluded at the screening stage.	The [A187] SCI is a surface feeder and shallow diving species, feeding opportunistically where its prey species occur and as such it remains under water for only moments at a time. The species is not susceptible to any appreciable disturbance effects of elevated levels of underwater noise. The possibility of LSEs as a result of underwater disturbance can be excluded at the screening stage.	Site specific conservation attributes and targets for the SCI species include ensuring that disturbance does not occur at levels which impact the population size and that barriers to connectivity do not occur which would impede access to the habitats throughout the SPA. The shipping channel between Dublin Port and the deeper waters of outer Dublin Bay runs to the south of the cSPA boundary. The [A187] SCI will not be disturbed or displaced within the expanse of the 232,000 ha North-West Irish Sea cSPA by the back and forth transit and dumping operations of a dredging vessel at the licensed sea disposal site located 700 m to the south of the cSPA. Constructing and operating the proposed development does not introduce any barriers to accessing the marine waters of the cSPA. The possibility of LSEs as a result of aerial disturbance can be excluded at the screening stage.

Qualifying Interest (QI) / Special Conservation Interest (SCI)	Potential for Likely Significant Effect (LSE)			
	Habitat Loss	**Deterioration of Water Quality**	**Underwater Disturbance**	**Aerial Disturbance**
Little Gull (Hydrocoloeus minutus) [A862]	This SPA is located 700 m N of the licensed sea disposal site and 1.8 km E of the proposed development on the Poolbeg peninsula. The possibility of LSEs as a result of habitat loss can be excluded at the screening stage.	Site specific conservation attributes and targets for the SCI species include availability of habitats throughout the SPA to support the non-breeding population and the foraging biomass it requires. This species is known to occur in outer Dublin Bay in deeper marine waters (Jessopp *et al*, 2018). As a hydrological connection has already been established between activities that have the potential to cause accidental pollution or result in increased levels of suspended sediments of these subtidal marine habitats, and as it can be demonstrated that the species will make use of marine waters in outer Dublin Bay where sea disposal operations are to occur, diminution of water quality may result in a reduction in available foraging biomass, either locally or temporarily. The possibility of LSEs as a result of deterioration of water quality cannot be excluded at the screening stage.	The [A862] SCI is a surface feeder and shallow diving species, feeding opportunistically where its prey species occur and as such it remains under water for only moments at a time. The species is not susceptible to any appreciable disturbance effects of elevated levels of underwater noise. The possibility of LSEs as a result of underwater disturbance can be excluded at the screening stage.	Site specific conservation attributes and targets for the SCI species include ensuring that disturbance does not occur at levels which impact the population size and that barriers to connectivity do not occur which would impede access to the habitats throughout the SPA. The shipping channel between Dublin Port and the deeper waters of outer Dublin Bay runs to the south of the cSPA boundary. The [A862] SCI will not be disturbed or displaced within the expanse of the 232,000 ha North-West Irish Sea cSPA by the back and forth transit and dumping operations of a dredging vessel at the licensed sea disposal site located 700 m to the south of the cSPA. Constructing and operating the proposed development does not introduce any barriers to accessing the marine waters of the cSPA. The possibility of LSEs as a result of aerial disturbance can be excluded at the screening stage.
Fulmar (Fulmarus glacialis) [A009]	This SPA is located 700 m N of the licensed sea disposal site and 1.8 km E of the proposed development on the Poolbeg peninsula. The possibility of LSEs as a result of habitat loss can be excluded at the screening stage.	Site specific conservation attributes and targets for the SCI species include availability of habitats throughout the SPA to support the population and the foraging biomass it requires. This species is not known to occur in Dublin Bay in significant numbers, occurring instead in deeper offshore waters in the Irish Sea, but records occur for outer Dublin Bay in the wider area around where disposal of dredge material	The [A009] SCI is a surface feeder and shallow diving species, feeding opportunistically where its prey species occur and as such it remains under water for only short periods of time. The species is not susceptible to any appreciable disturbance effects of elevated levels of underwater noise. The possibility of LSEs as a result of underwater disturbance can be excluded at the screening stage.	Site specific conservation attributes and targets for the SCI species include ensuring that disturbance does not occur at levels which impact the population size and that barriers to connectivity do not occur which would impede access to the habitats throughout the SPA. The shipping channel between Dublin Port and the deeper waters of outer Dublin Bay runs to the south of the cSPA boundary. The [A009] SCI will not be

Qualifying Interest (QI) / Special Conservation Interest (SCI)	Potential for Likely Significant Effect (LSE)			
	Habitat Loss	Deterioration of Water Quality	Underwater Disturbance	Aerial Disturbance
		operations will occur (Jessopp *et al*, 2018). As a hydrological connection has been established between activities that have the potential to cause accidental pollution or result in increased levels of suspended sediments of these subtidal marine habitats, and as it can be demonstrated that the species will make use of marine waters in outer Dublin Bay where sea disposal operations are to occur, diminution of water quality may result in a reduction in available foraging biomass, either locally or temporarily. The possibility of LSEs as a result of deterioration of water quality cannot be excluded at the screening stage.		disturbed or displaced within the expanse of the 232,000 ha North-West Irish Sea cSPA by the back and forth transit and dumping operations of a dredging vessel at the licensed sea disposal site located 700 m to the south of the cSPA. Constructing and operating the proposed development does not introduce any barriers to accessing the marine waters of the cSPA. The possibility of LSEs as a result of aerial disturbance can be excluded at the screening stage.
Herring Gull (Larus argentatus) [A184]	This SPA is located 700 m N of the licensed sea disposal site and 1.8 km E of the proposed development on the Poolbeg peninsula. The possibility of LSEs as a result of habitat loss can be excluded at the screening stage.	Site specific conservation attributes and targets for the SCI species include availability of habitats throughout the SPA to support the non-breeding population and the foraging biomass it requires. This species is known to occur in both shallower and deeper marine waters along the east coast including Dublin Bay (Jessopp *et al*, 2018). As a hydrological connection has already been established between activities that have the potential to cause accidental pollution or result in increased levels of suspended sediments of these subtidal marine habitats, and as it can be demonstrated that the species will make use of marine waters in outer Dublin Bay where sea disposal operations are to occur, diminution of water quality may result in a reduction in	The [A184] SCI is a surface feeder and shallow diving species, feeding opportunistically where its prey species occur and as such it remains under water for only moments at a time. The species is not susceptible to any appreciable disturbance effects of elevated levels of underwater noise. The possibility of LSEs as a result of underwater disturbance can be excluded at the screening stage.	Site specific conservation attributes and targets for the SCI species include ensuring that disturbance does not occur at levels which impact the population size and that barriers to connectivity do not occur which would impede access to the habitats throughout the SPA. The shipping channel between Dublin Port and the deeper waters of outer Dublin Bay runs to the south of the cSPA boundary. The [A184] SCI will not be disturbed or displaced within the expanse of the 232,000 ha North-West Irish Sea cSPA by the back and forth transit and dumping operations of a dredging vessel at the licensed sea disposal site located 700 m to the south of the cSPA. Constructing and operating the proposed development does not introduce any

Qualifying Interest (QI) / Special Conservation Interest (SCI)	Potential for Likely Significant Effect (LSE)			
	Habitat Loss	Deterioration of Water Quality	Underwater Disturbance	Aerial Disturbance
		available foraging biomass, either locally or temporarily. The possibility of LSEs as a result of deterioration of water quality cannot be excluded at the screening stage.		barriers to accessing the marine waters of the cSPA. The possibility of LSEs as a result of aerial disturbance can be excluded at the screening stage.
Kittiwake (Rissa tridactyla) [A188]	This SPA is located 700 m N of the licensed sea disposal site and 1.8 km E of the proposed development on the Poolbeg peninsula. The possibility of LSEs as a result of habitat loss can be excluded at the screening stage.	Site specific conservation attributes and targets for the SCI species include availability of habitats throughout the SPA to support the non-breeding population and the foraging biomass it requires. This species is known to occur in both shallower and deeper marine waters along the east coast including Dublin Bay (Jessopp *et al*, 2018). As a hydrological connection has already been established between activities that have the potential to cause accidental pollution or result in increased levels of suspended sediments of these subtidal marine habitats, and as it can be demonstrated that the species will make use of marine waters in outer Dublin Bay where sea disposal operations are to occur, diminution of water quality may result in a reduction in available foraging biomass, either locally or temporarily. The possibility of LSEs as a result of deterioration of water quality cannot be excluded at the screening stage.	The [A188] SCI is a surface feeder and shallow diving species, feeding opportunistically where its prey species occur and as such it remains under water for only moments at a time. The species is not susceptible to any appreciable disturbance effects of elevated levels of underwater noise. The possibility of LSEs as a result of underwater disturbance can be excluded at the screening stage.	Site specific conservation attributes and targets for the SCI species include ensuring that disturbance does not occur at levels which impact the population size and that barriers to connectivity do not occur which would impede access to the habitats throughout the SPA. The shipping channel between Dublin Port and the deeper waters of outer Dublin Bay runs to the south of the cSPA boundary. The [A188] SCI will not be disturbed or displaced within the expanse of the 232,000 ha North-West Irish Sea cSPA by the back and forth transit and dumping operations of a dredging vessel at the licensed sea disposal site located 700 m to the south of the cSPA. Constructing and operating the proposed development does not introduce any barriers to accessing the marine waters of the cSPA. The possibility of LSEs as a result of aerial disturbance can be excluded at the screening stage.

Qualifying Interest (QI) / Special Conservation Interest (SCI)	Potential for Likely Significant Effect (LSE)			
	Habitat Loss	**Deterioration of Water Quality**	**Underwater Disturbance**	**Aerial Disturbance**
Guillemot (Uria aalge) [A199]	This SPA is located 700 m N of the licensed sea disposal site and 1.8 km E of the proposed development on the Poolbeg peninsula. The possibility of LSEs as a result of habitat loss can be excluded at the screening stage.	Site specific conservation attributes and targets for the SCI species include availability of habitats throughout the SPA to support the non-breeding population and the foraging biomass it requires. This species is known to occur in both shallower and deeper marine waters along the east coast including Dublin Bay (Jessopp *et al*, 2018). As a hydrological connection has already been established between activities that have the potential to cause accidental pollution or result in increased levels of suspended sediments of these subtidal marine habitats, and as it can be demonstrated that the species will make use of marine waters in outer Dublin Bay where sea disposal operations are to occur, diminution of water quality may result in a reduction in available foraging biomass, either locally or temporarily. The possibility of LSEs as a result of deterioration of water quality cannot be excluded at the screening stage.	The [A199] SCI is a diving species, feeding opportunistically where its prey species occur and as such it remains under water for only short periods of time. The species is not susceptible to any appreciable disturbance effects of elevated levels of underwater noise. The possibility of LSEs as a result of underwater disturbance can be excluded at the screening stage.	Site specific conservation attributes and targets for the SCI species include ensuring that disturbance does not occur at levels which impact the population size and that barriers to connectivity do not occur which would impede access to the habitats throughout the SPA. The shipping channel between Dublin Port and the deeper waters of outer Dublin Bay runs to the south of the cSPA boundary. The [A199] SCI will not be disturbed or displaced within the expanse of the 232,000 ha North-West Irish Sea cSPA by the back and forth transit and dumping operations of a dredging vessel at the licensed sea disposal site located 700 m to the south of the cSPA. Constructing and operating the proposed development does not introduce any barriers to accessing the marine waters of the cSPA. The possibility of LSEs as a result of aerial disturbance can be excluded at the screening stage.
Razorbill (Alca torda) [A200]	This SPA is located 700 m N of the licensed sea disposal site and 1.8 km E of the proposed development on the Poolbeg peninsula. The possibility of LSEs as a result of habitat loss can be excluded at the screening stage.	Site specific conservation attributes and targets for the SCI species include availability of habitats throughout the SPA to support the non-breeding population and the foraging biomass it requires. This species is known to occur in both shallower and deeper marine waters along the east coast including Dublin Bay (Jessopp *et al*, 2018). As a hydrological	The [A199] SCI is a diving species, feeding opportunistically where its prey species occur and as such it remains under water for only short periods of time. The species is not susceptible to any appreciable disturbance effects of elevated levels of underwater noise. The possibility of LSEs as a result of underwater disturbance can be excluded at the screening stage.	Site specific conservation attributes and targets for the SCI species include ensuring that disturbance does not occur at levels which impact the population size and that barriers to connectivity do not occur which would impede access to the habitats throughout the SPA. The shipping channel between Dublin Port and the deeper waters of outer Dublin Bay runs to the south of the cSPA

Qualifying Interest (QI) / Special Conservation Interest (SCI)	Potential for Likely Significant Effect (LSE)			
	Habitat Loss	Deterioration of Water Quality	Underwater Disturbance	Aerial Disturbance
		connection has already been established between activities that have the potential to cause accidental pollution or result in increased levels of suspended sediments of these subtidal marine habitats, and as it can be demonstrated that the species will make use of marine waters in outer Dublin Bay where sea disposal operations are to occur, diminution of water quality may result in a reduction in available foraging biomass, either locally or temporarily. The possibility of LSEs as a result of deterioration of water quality cannot be excluded at the screening stage.		boundary. The [A199] SCI will not be disturbed or displaced within the expanse of the 232,000 ha North-West Irish Sea cSPA by the back and forth transit and dumping operations of a dredging vessel at the licensed sea disposal site located 700 m to the south of the cSPA. Constructing and operating the proposed development does not introduce any barriers to accessing the marine waters of the cSPA. The possibility of LSEs as a result of aerial disturbance can be excluded at the screening stage.

4.5 Summary of Screening Appraisal of Project Assessment (alone)

A site-by-site appraisal of the construction and operation of the proposed development alone under four principal impact pathway themes has concluded that for certain sites and certain QIs and SCIs of those sites, the possibility of likely significant effects cannot be excluded at the screening stage.

Table 4.14 summarises the outcome of the screening appraisal contained in **Table 4.3** through to **Table 4.13**.

Table 4.14: Screening Appraisal Summary Table of Project Assessment (Alone)

Site Name	QI / SCI	Can LSEs be excluded at the screening stage ?			
		Habitat Loss	Deterioration of Water Quality	Underwater Disturbance	Aerial Disturbance
North Dublin Bay SAC	Mudflats and sandflats not covered by seawater at low tide [1140]	YES	NO	YES	YES
	Annual vegetation of drift lines [1210]	YES	YES	YES	YES
	Salicornia and other annuals colonizing mud and sand [1310]	YES	YES	YES	YES
	Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330]	YES	YES	YES	YES
	Petalophyllum ralfsii [1395]	YES	YES	YES	YES
	Mediterranean salt meadows (Juncetalia maritimi) [1410]	YES	YES	YES	YES
	Embryonic shifting dunes [2110]	YES	YES	YES	YES
	Shifting dunes along the shoreline with Ammophila arenaria ("white dunes") [2120]	YES	YES	YES	YES
	*Fixed coastal dunes with herbaceous vegetation (“grey dunes”) [2130]	YES	YES	YES	YES
	Humid dune slacks [2190]	YES	YES	YES	YES
South Dublin Bay SAC	Mudflats and sandflats not covered by seawater at low tide [1140]	NO	NO	YES	YES
	Annual vegetation of drift lines [1210]	NO	NO	YES	YES
	Salicornia and other annuals colonizing mud and sand [1310]	YES	YES	YES	YES
	Embryonic shifting dunes [2110]	YES	YES	YES	YES
Rockabill to Dalkey Island SAC	Reefs [1170]	YES	NO	YES	YES
	Harbour porpoise (Phocoena phocoena) [1351]	YES	NO	NO	YES

Site Name	QI / SCI	Can LSEs be excluded at the screening stage ?			
		Habitat Loss	Deterioration of Water Quality	Underwater Disturbance	Aerial Disturbance
Lambay Island SAC	Reefs [1170]	YES	NO	YES	YES
	Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]	YES	YES	YES	YES
	Halichoerus grypus (Grey Seal) [1364]	YES	NO	NO	YES
	Phoca vitulina (Harbour Seal) [1365]	YES	NO	NO	YES
	Harbour porpoise (Phocoena phocoena) [1351]	YES	NO	NO	YES
Codling Fault Zone SAC	Submarine structures made by leaking gases [1180]	YES	NO	YES	YES
	Harbour porpoise (Phocoena phocoena) [1351]	YES	NO	NO	YES
South Dublin Bay & River Tolka Estuary SPA	Light-bellied Brent Goose (Branta bernicla hrota) [A046]	NO	NO	YES	NO
	Oystercatcher (Haematopus ostralegus) [A130]	NO	NO	YES	NO
	Ringed Plover (Charadrius hiaticula) [A137]	NO	NO	YES	NO
	Knot (Calidris canutus) [A143]	NO	NO	YES	NO
	Sanderling (Calidris alba) [A144]	NO	NO	YES	NO
	Dunlin (Calidris alpina) [A149]	NO	NO	YES	NO
	Bar-tailed Godwit (Limosa lapponica) [A157]	YES	NO	YES	YES
	Redshank (Tringa etanus) [A162]	NO	NO	YES	NO
	Black-headed Gull (Croicocephalus ridibundus) [A179]	NO	NO	YES	NO
	Roseate Tern (Sterna dougallii) [A192]	YES	NO	YES	NO
	Common Tern (Sterna hirundo) [A193]	YES	NO	YES	NO

Site Name	QI / SCI	Can LSEs be excluded at the screening stage ?			
		Habitat Loss	Deterioration of Water Quality	Underwater Disturbance	Aerial Disturbance
	Arctic Tern (Sterna paradisaea) [A194]	YES	NO	YES	NO
	Wetland and Waterbirds [A999]	NO	NO	YES	YES
North Bull Island SPA	Light-bellied Brent Goose (*Branta bernicla hrota*) [A046]	YES	NO	YES	NO
	Shelduck (Tadorna tadorna) [A048]	YES	NO	YES	NO
	Teal (Anas crecca) [A052]	YES	NO	YES	YES
	Pintail (Anas acuta) [A054]	YES	NO	YES	YES
	Shoveler (Anas clypeata) [A056]	YES	NO	YES	YES
	Oystercatcher (Haematopus ostralegus) [A130]	YES	NO	YES	NO
	Ringed Plover (Charadrius hiaticula) [A137]	YES	NO	YES	NO
	Golden Plover (Pluvialis apricaria) [A140]	YES	NO	YES	YES
	Grey Plover (Pluvialis squatarola) [A141]	YES	NO	YES	YES
	Knot (Calidris canutus) [A143]	YES	NO	YES	NO
	Dunlin (Calidris alpina) [A149]	YES	NO	YES	NO
	Black-tailed Godwit (Limosa limosa) [A156]	YES	NO	YES	NO
	Bar-tailed Godwit (Limosa lapponica) [A157]	YES	NO	YES	YES
	Curlew (Numenius arquata) [A160]	YES	NO	YES	NO
	Redshank (Tringa totanus) [A162]	YES	NO	YES	NO
	Black-headed Gull (Croicocephalus ridibundus) [A179]	YES	NO	YES	NO

Site Name	QI / SCI	Can LSEs be excluded at the screening stage ?			
		Habitat Loss	Deterioration of Water Quality	Underwater Disturbance	Aerial Disturbance
	Wetland and Waterbirds [A999]	YES	NO	YES	YES
Howth Head SAC	Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]	YES	YES	YES	YES
	European dry heaths [4030]	YES	YES	YES	YES
Howth Head Coast SPA	Kittiwake (Rissa tridactyla) [A188]	YES	NO	YES	YES
Dalkey Islands SPA	Roseate Tern (Sterna dougallii) [A192]	YES	NO	YES	NO
	Common Tern (Sterna hirundo) [A193]	YES	NO	YES	NO
	Arctic Tern (Sterna paradisaea) [A194]	YES	NO	YES	NO
North-West Irish Sea SPA	Manx Shearwater (Puffinus puffinus) [A013]	YES	NO	YES	YES
	Cormorant (Phalacrocorax carbo) [A017]	YES	NO	YES	YES
	Shag (Phalacrocorax aristotelis) [A018]	YES	YES	YES	YES
	Lesser Black-backed Gull (Larus fuscus) [A183	YES	NO	YES	YES
	Roseate Tern (Sterna dougallii) [A192]	YES	YES	YES	YES
	Common Tern (Sterna hirundo) [A193]	YES	NO	YES	YES
	Arctic Tern (Sterna paradisaea) [A194]	YES	NO	YES	YES
	Little Tern (Sterna albifrons) [A195]	YES	YES	YES	YES
	Puffin (Fratercula arctica) [A204]	YES	NO	YES	YES
	Red-throated Diver (Gavia stellata) [A001]	YES	NO	YES	YES
	Great Northern Diver (Gavia immer) [A003]	YES	NO	YES	YES

Site Name	QI / SCI	Can LSEs be excluded at the screening stage ?			
		Habitat Loss	Deterioration of Water Quality	Underwater Disturbance	Aerial Disturbance
	Common Scoter (Melanitta nigra) [A065]	YES	NO	YES	YES
	Black-headed Gull (Chroicocephalus ridibundus) [A179]	YES	NO	YES	YES
	Common Gull (Larus canus) [A182]	YES	NO	YES	YES
	Great Black-backed Gull (Larus marinus) [A187]	YES	NO	YES	YES
	Little Gull (Hydrocoloeus minutus) [A862]	YES	NO	YES	YES
	Fulmar (Fulmarus glacialis) [A009]	YES	NO	YES	YES
	Herring Gull (Larus argentatus) [A184]	YES	NO	YES	YES
	Kittiwake (Rissa tridactyla) [A188]	YES	NO	YES	YES
	Guillemot (Uria aalge) [A199]	YES	NO	YES	YES
	Razorbill (Alca torda) [A200]	YES	NO	YES	YES

4.6 In-combination Effects

Article 6(3) of the Habitats Directive and Irish national law requires that the project be assessed both alone and also in combination with other plans or projects. The significance of any identified combined effects of the proposed development and other past, present or reasonably foreseeable future plans or projects must also be evaluated. On this basis, a range of other projects were considered in terms of their potential to have in-combination effects with the proposed capital dredging project. Those projects include:

Dublin Port Company Projects

- Alexandra Basin Redevelopment (ABR) Project - (Strategic Infrastructure) - Ref. PL29N.PA0034 (ABP), S0024-01 (EPA), FS005699 (Foreshore)
- Masterplan 2 (MP2) Project - (Strategic Infrastructure) - Ref. PL29N.304888 (ABP), S0024-02 (EPA), FS006893 (Foreshore)
- Dublin Port 2022 - 2029 Maintenance Dredging Programme – Ref: S0004-03 (EPA); FS007132 (Foreshore)
- Dublin Harbour Capital Dredging - Ref: S0033-01 (EPA); FS007164 (Foreshore), application made Aug 2021, not yet determined

Developments in the Surrounding Area

- Ringsend Wastewater Treatment Plant – Reg Ref. PL29S.301798
- ESB Cooling Water Channel Remediation Works
- Poolbeg West Strategic Development Zone (SDZ) – Ref: ZD29S.ZD2013 and former Irish Glass Bottle Site Ref: PWSDZ3270/19)

4.6.1 Alexandra Basin Redevelopment (ABR) Project

DPC was granted planning permission subject to conditions (ABP Reg. Ref. PL29N.PA0034) in July 2015 for the redevelopment of Alexandra Basin, Berths 52 and 53 and dredging of the channel of the River Liffey together with associated works in Dublin Port. Elements of the proposed development can be summarised as follows:

Alexandra Basin West:

- The infilling of graving Dock No. 2 having an area of 6,055sq.m;
- The excavation and restoration of historic Graving Dock No. 1;
- The demolition of the bulk jetty having an area of 3,200sq.m;
- A section of North Wall Quay extension having an area of 21,700sq.m;
- Extension of Alexandra Quay West of 130m in length;
- New 273 m long Ro-Ro jetty and provision of three Ro-Ro ramps; and
- The dredging of: 470,000sq.m of contaminated material to a depth of -10.0m Chart Datum (CD) over an area of 194,000sq.m within the redeveloped Alexandra Basin and its remediation.

Berth 52 and 53:

- The demolition of existing berths 52 and 53;

- Jetty at Berth 52 having an area of 500sq.m;
- Concrete Dolphin at Berth 53 having an area of 500sq.m;
- The construction of:
    - A new river berth at Berths 52/53, 300m long;
    - New 75 m mooring jetty at new river berth;
    - New 40 m long mooring jetty to extend existing berth 49, 50m long;
- The infilling of the Terminal 5 Ro-Ro basin, an area of 45,650sq.m;
- Raising of existing levels by 1.4 m over an area of 95,000sq.m; and
- Dredging of new river berth to -10.0m CD.

Liffey Channel:

- Construction of a marina protection structure to a height of +7.0m CD and a length of 220m on the south side of the river channel.
- Dredging of the shipping channel to a depth of -10m CD from a point 55m to the east of the East link bridge, to a location in the vicinity of Dublin Bay, a total distance of 10,320m.

Measures intended to avoid or reduce the harmful effects of the proposed development on the sites concerned were proposed and conditioned to the permission, and a comprehensive monitoring campaign validated the assessment predictions at the time of development consent.

The ABR Project is now substantially complete, and all marine infrastructure construction and dredging activities producing suspended sediments and underwater noise have been completed.

Likely significant cumulative or in-combination effects of the proposed 3FM Project and the ABR Project cannot occur.

4.6.2 MP2 Project

DPC was granted planning permission subject to conditions (ABP Reg. Ref. ABP-304888-19) in July 2020 for the redevelopment of lands to the north of the River Liffey in Dublin Port including Alexandra Basin, Berths 52 and 53 and dredging of the channel of the River Liffey together with associated works in Dublin Port. Elements of the proposed development can be summarised as follows:

- Construction of a new Ro-Ro jetty (Berth 53) for ferries up to 240m in length on an alignment north of the Port's fairway and south and parallel to the boundary of the South Dublin Bay & River Tolka SPA (004024).
- A reorientation of the already consented Berth 52 (ABP Ref. 29N.PA0034). Berth 52 is also designed to accommodate ferries up to 240m in length. The works will also comprise an amendment to the consented open dolphin structure (ABP Ref. 29N.PA0034) to create a closed berthing face at the eastern end of Berth 49.
- Elsewhere within the ABR Project, the extension of the existing Berth 49 is already consented to also make this berth capable of accommodating ferries up to 240m in length. The combination of the ABR Project with the MP2 Project will therefore deliver three river berths all capable of accommodating ferries up to 240m in length].
- A lengthening of an existing river berth (50A) to provide the Container Freight Terminal with additional capacity to handle larger container ships. These works will include the infilling of the basin east of the now virtually redundant Oil Berth 4 on the Eastern Oil Jetty. These works will

also include dredging to a standard depth of -11.0m CD which is a proposed amendment to the channel dredging as permitted under the ABR Project (ABP Ref. 29N.PA0034).

- As part of the infilling of Oil Berth 4, it is proposed to redevelop Oil Berth 3 as a future deep-water container berth (standard depth of -13.0m CD) for the Container Freight Terminal. This will facilitate the change of use of the berth from petroleum importation to container handling when the throughput of petroleum products through Dublin Port declines as a result of national policies to decarbonise the economy.
- The dredging of a berthing pocket to a standard depth of -13.0m CD at Oil Berth 3 will require stabilisation of the existing quay wall at Jetty Road. It is not proposed to use this quay wall for the berthing of vessels.
- Dredging at the proposed Berth 53 and channel widening to a standard depth of -10.0m CD which is a proposed amendment to the channel dredging as permitted under the ABR Project (ABP Ref. 29N.PA0034).
- Consolidation of passenger terminal buildings, demolition of redundant structures and buildings, and removal of connecting roads to increase the area of land for the transit storage of Ro-Ro freight units as a Unified Ferry Terminal (UFT). Works include reorganisation of access roads; two proposed check-in areas comprising a total of 14 check lanes; proposed set down and parking area for the existing Terminal 1 building; proposed pedestrian underpass to access the existing Terminal 1 building; three proposed toilet blocks and a proposed ESB Substation. These works will comprise amendments to consented developments with planning reference numbers 3084/16 & 3638/18, and the ABR Project (ABP Ref. 29N.PA0034).
- A heritage zone adjacent to Berth 53 and the Unified Ferry Terminal set down area. This will comprise an alteration to consented development planning reference 3084/16.

The AA Screening Report and NIS prepared for MP2 Project screened in likely significant water quality effects upon North Dublin Bay cSAC; South Dublin Bay cSAC; Rockabill to Dalkey Island SAC; North Bull Island SPA; and South Dublin Bay & Tolka Estuary SPA. The NIS also screened in likely significant disturbance effects upon North Bull Island SPA; and South Dublin Bay & Tolka Estuary SPA

Measures intended to avoid or reduce the harmful effects of the proposed development on the sites concerned were proposed. Adverse effects upon the integrity of all sites assessed will not occur as a result.

MP2 Project is a 15 year permission. DPC has programmed the sequence of construction of MP2 Project to advance the construction of Berth 52, Berth 53 and the Unified Ferry Terminal ahead of the original programme in order to meet the post Brexit priority demands of national port infrastructure, as follows –

- Construction of Berth 52, Berth 53, the Unified Ferry Terminal and Channel Widening commencing in 2024; and
- Construction of Oil Berth 3, infill of Oil Berth 4 and Berth 50A commencing in 2028.

Dredging associated with MP2 Project commenced in 2023. Construction phase of marine elements of MP2 Project are anticipated to be ongoing until approximately midway through the proposed 15-year 3FM Project construction programme. Marine and landside activities with the potential to result in accidental pollution, release of suspended sediments and disturbance may be occurring on both sides of the Liffey Channel concurrently.

DPC has confirmed that capital dredging for their MP2 and 3FM Projects will be undertaken sequentially, that is, only one dredger will operate at any given time. However, given that the dredging and disposal activities associated with both projects could occur back-to-back, there is potential for

likely significant in-combination water quality and habitat deterioration effects on the Annex I habitat Mudflats and sandflats not covered by seawater at low tide in North Dublin Bay SAC, South Dublin Bay SAC, the Annex I reef habitat of Rockabill to Dalkey Island SAC, Annex I leaking gas structures of Codling Fault Zone SAC and the wetland habitats of South Dublin Bay & River Tolka Estuary SPA and North Bull Island SPA for 3FM Project and MP2 Project.

MP2 Project piling activities on the North Port at Berth 50A and Oil Berth 3 which is scheduled to commence in 2028. Plot N piling for 3FM Project is also scheduled to commence in 2028. There is the potential for cumulative underwater noise to arise, and this could be significant if high energy piling is being undertaken on both sides of the Liffey channel at the same time.

There is potential for likely significant in-combination underwater noise effects on the Harbour porpoise community of Rockabill to Dalkey Island SAC, Lambay Island SAC and Codling Fault Zone SAC; and on the harbour seal and grey seal populations of Lambay Island SAC in relation to underwater noise for 3FM Project and MP2 Project.

4.6.3 Dublin Port Company. Maintenance Dredging Programme (2022-2029)

Dublin Port Company (DPC) need to carry out regular maintenance dredging of the navigation channel, basins and berthing pockets in order to maintain their advertised charted depths and hence provide safe navigation for vessels to and from the Port. A Dumping at Sea Permit issued from the EPA in October 2022 (S0004-03).

The loading of dredged material will be restricted to those areas of the navigation channel, basins and berthing pockets which contain sediments which are suitable for disposal at sea (Class 1: uncontaminated, no biological effects likely). Confirmation of the suitability of the dredged sediments for disposal at sea was made through a programme of sediment chemistry sampling and analysis and eco-toxicological testing. It is proposed to dispose of the dredged sediments at the existing licenced offshore disposal site located at the entrance to Dublin Bay to the west of the Burford Bank, 6.75 km from the lighthouse at the end of the Great South Wall.

The maximum amount of material to be dredged is 300,000 m^3 per annum and it consists mostly of silt and sand with elements of clay, gravel and cobbles. Dredging will be carried out by a trailer suction hopper dredger and support vessels. It is proposed to undertake the maintenance dredging and disposal at sea operations within the period April to September each year between 2022 and 2029. An additional closed period will operate within the inner Liffey channel upstream of Berth 49, including the main channel and channel side berths but not including the basins between 1st April and 14th May to protect migrating Atlantic salmon smolts and River lamprey. The dredging campaign within each of these periods is expected to last approximately 4-6 weeks, depending on weather conditions.

These works have been subject to appraisal under the Habitats Directive. Subject to the implementation of mitigation measures in respect of the proposed maintenance dredging and associated dumping it is not envisaged that the maintenance dredging programme alone will give rise to any adverse impacts upon the integrity of any European site. Furthermore, maintenance dredging under this EPA Permit will take place in the summer months only, while dredging and disposal associated with the proposed 3FM Project will take place within the autumn/winter months only. This avoids the potential for both dredging/dumping campaigns being undertaken at the same time.

It was demonstrated in the appropriate assessment of the Maintenance Dredging project that effects of turbidity and increased suspended sediments does not remain in the water column for more than a short period of time as tidal cycles and currents disperse sediments to background levels quickly.

When the timing of dredging and dumping for the proposed 3FM Project capital dredging and its associated vessel movements and underwater sound produced, is considered in combination with the

Maintenance Dredging Programme, the result is that the same magnitudes of underwater noise are predicted, but they will continue to occur across the year in combination (i.e. in all months) rather than during the winter period only, as will occur with the proposed 3FM Project capital dredging alone. The temporal scale of these effects is increased.

The magnitude of effect that the dredging and dumping activities will have on the harbour porpoise community of Rockabill to Dalkey Island SAC, Lambay Island SAC and Codling Fault Zone SAC; and on the harbour seal and grey seal populations of Lambay Island SAC, is predicted to remain the same in combination as it is as a result of the proposed 3FM Project capital dredging alone. Given the measures to be applied to the maintenance dredging activities which are intended to avoid or reduce this effect on the marine mammals, and the minimal impacts predicted to arise as a result of the proposed works, the extended temporal duration is not significant.

Dredging and disposal campaigns for maintenance dredging projects and capital dredging projects do not occur in the same season. Considering the conclusion of the assessment for sediment plumes associated with the appropriate assessment of the maintenance dredging project and the fact that elevated sediment plumes do not persist beyond a tidal cycle immediately after the activities are undertaken, no additional effects occur cumulatively or in combination in this regard.

Likely significant cumulative or in-combination effects of the proposed 3FM Project capital dredging and the Dublin Port maintenance dredging programme 2022-2029 can be excluded beyond scientific doubt.

4.6.4 Dublin Harbour Capital Dredging Project

The Dublin Harbour Capital Dredging Project brings forward for consent key elements of the capital dredging works required to create the required depth of the navigation channel, basins and berthing pockets as set out in the Dublin Port Masterplan 2040, reviewed 2018. The works proposed in the Dublin Harbour Capital Dredging Project are shown in **Figure 4.4** and comprise a number of elements:

- Deepening the navigation channel between North Wall Quay Extension and the Western Oil Jetty, including riverside Berth 35;
- Deepening of Alexandra Basin East and deepening/widening of berths;
- Deepening of the Oil Basin and widening of berths;
- Deepening of the Ferryport Basin;
- Deepening of riverside Berth 52;
- Widening the South Port (Berths 42 - 47) berths, and
- Removal of ridge between the navigation channel and the Poolbeg Oil Jetty (Berth 48).

The loading of dredged material will be restricted to those areas of the navigation channel, basins and berthing pockets which contain sediments which are suitable for disposal at sea (Class 1: uncontaminated, no biological effects likely). Confirmation of the suitability of the dredged sediments for disposal at sea was made through a programme of sediment chemistry sampling and analysis and eco-toxicological testing. It is proposed to dispose of the dredged sediments at the existing licenced offshore disposal site located at the entrance to Dublin Bay to the west of the Burford Bank, 6.75 km from the lighthouse at the end of the Great South Wall.

The total estimated dredge volume is estimated to be 500,000 m^3 and includes a siltation tolerance/ contingency to account for material which has settled in Dublin Harbour in the period between successive maintenance dredging campaigns and the commencement of the capital dredging campaign. The material to be dredged comprises clays, silts, sands and gravels with occasional cobbles. No dredging of rock is required. The proposed capital dredging works will be restricted to the

winter period (October – March) over an eight year period (estimated at the time of application to be between October 2023 – March 2030 and subject to the grant of a Foreshore Licence and Dumping at Sea Permit), but the consents have not yet been granted and so works are not scheduled to commence until late 2025.

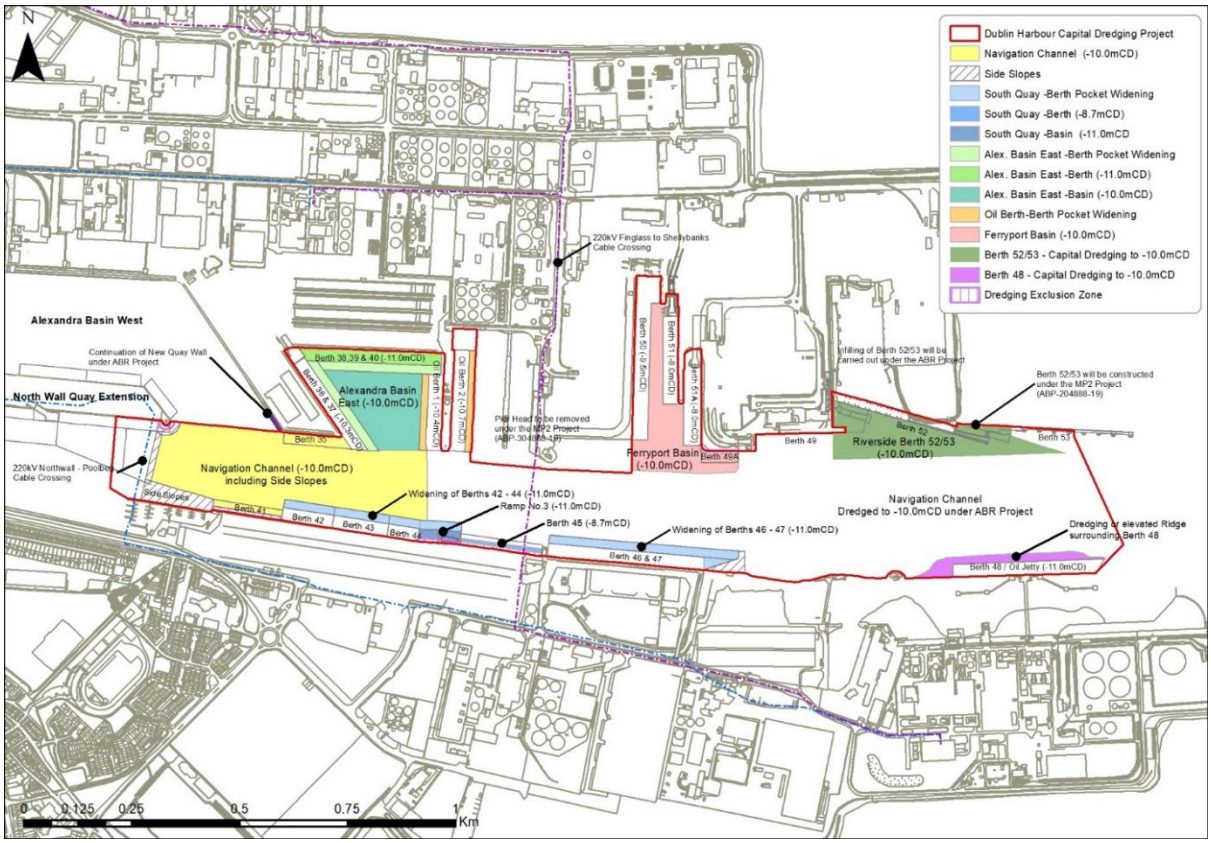


Figure 4.4: Main elements of the Dublin Harbour Capital Dredging Project

Capital dredging campaigns associated with the Dublin Harbour Capital Dredging Project are scheduled to occur over the same winter periods as capital dredging campaign required under the MP2 Project and also some dredging campaigns of 3FM Project.

DPC has confirmed that capital dredging for its Dublin Harbour Capital Dredging Project and 3FM Project will be undertaken sequentially, that is, only one dredger will operate at any given time. However, given that the dredging and disposal activities associated with both projects could occur back-to-back, there is potential for likely significant in-combination water quality and habitat deterioration effects on the Annex I habitat Mudflats and sandflats not covered by seawater at low tide in North Dublin Bay SAC, South Dublin Bay SAC, the Annex I reef habitat of Rockabill to Dalkey Island SAC, Annex I leaking gas structures of Codling Fault Zone SAC and the wetland habitats of South Dublin Bay & River Tolka Estuary SPA and North Bull Island SPA for 3FM Project and MP2 Project.

4.6.5 Ringsend Wastewater Treatment Plant

Uisce Éireann submitted a planning application for strategic infrastructure development to An Bord Pleanála (Ref. PL29S.301798) seeking permission to further progress the upgrade of the Ringsend Wastewater Treatment Plant (WwTP). The application seeks permission for works required to facilitate the use of Aerobic Granular Sludge (AGS) technology, to omit the previously permitted long sea outfall tunnel and to upgrade the sludge treatment facilities at Ringsend, Dublin 4, and to provide for a Regional Biosolids Storage Facility in Newtown, Dublin 11. The proposed development at Ringsend is on the

south bank of the River Liffey. The application was granted permission in April 2019 and a wastewater discharge licence issued form the EPA in May 2024 (D0034-02) to discharge treated wastewater up to a capacity of 2.4 million p.e (population equivalent).

A project website (https://www.ringsendwwtpupgrade.ie/environmental-documents/) exists and contains a screening for appropriate assessment and NIS. These documents were reviewed. Likely significant effects on the following European sites could not be excluded at the screening stage:

- South Dublin Bay and River Tolka Estuary SPA
- South Dublin Bay SAC
- North Bull Island SPA
- North Dublin Bay SAC
- Howth Head Coast SPA
- Dalkey Islands SPA
- Rockabill to Dalkey Island SAC

Further evaluation and analysis as part of a Stage 2 assessment predicted that:

- water quality in Inner Dublin Bay will be enhanced because of a reduction in nutrient load once the proposed development is operational.
- it is unlikely that the food resource of waterbirds in the Tolka Estuary will be negatively affected
- reductions in nutrients in the receiving waters resulting from the proposed development will not have any impacts on fish populations in Dublin Bay
- disturbance and displacement of certain qualifying SPA feature species during construction may occur
- accidental spillage of hazardous substances resulting in water quality deterioration of the Liffey Channel and hydrologically connected areas during construction may occur
- significant dust deposition on the grasslands to the south of the site that form part of the South Dublin Bay and River Tolka Estuary SPA may occur

The Ringsend WwTP Upgrade project is located on the Poolbeg peninsula, approximately 200 m north of the coastal path at Irishtown Nature Park and approximately 250 m south of the berth faces of the lower Liffey channel. The scale and nature of the proposed works to the WwTP are such that they will be sufficient spatially separated from key elements of 3FM Project to prevent any significant in-combination visual or noise disturbance on SPA feature species at construction stage.

Given that operation of the Ringsend WwTP is projected to overlap with construction phase of 3FM project, there is potential for likely significant in-combination water quality and habitat deterioration effects on the Annex I habitat Mudflats and sandflats not covered by seawater at low tide in North Dublin Bay SAC, South Dublin Bay SAC, the Annex I reef habitat of Rockabill to Dalkey Island SAC, Annex I leaking gas structures of Codling Fault Zone SAC and the wetland habitats of South Dublin Bay & River Tolka Estuary SPA and North Bull Island SPA for 3FM Project and the Ringsend WwTP project.

4.6.6 ESB Cooling Water Channel Remediation Works

The Primary Wastewater Discharge from Ringsend WwTP flows out the ESB Poolbeg Cooling Water Channel (CWC) and Uisce Éireann proposes to undertake a programme of remedial works to repair and replace approximately 200 m of sheet piling that forms one side of the CWC, which has been

eroding over many decades. The remedial works are being brought forward by Uisce Éireann independent of 3FM Project, but they are currently anticipated to occur after piling at Plot N commences (at the western end of the proposed wharf). The proposed 3FM wharf at Plot N in this area has been designed to offset the CWC to allow it to continue to function for ESB and Uisce Éireann independently of proposed infrastructure at Plot N. Plot N has proposed an open piled solution to allow tidal flow and retention of benthic habitats under the proposed wharf. The weir at the end of the CWC shall be retained but the weir walkway above it shall be removed to facilitate the new NORA Jetty.

Marine piling at Plot N and construction of the new wharf, in addition to construction of the new NORA Jetty and removal of the weir walkway will disturb and displace any waterbirds that currently feed and/or roost in intertidal areas at the end of the CWC at the base of the GSW. Remedial works to the CWC will also likely displace waterbirds using the intertidal areas at the end of the CWC. Birds will be displaced into other intertidal areas of the South Dublin Bay & River Tolka Estuary SPA and/or North Bull Island SPA to feed.

There is potential for likely significant in-combination effects in relation to *ex-situ* disturbance and displacement of SCI waterbirds of South Dublin Bay & River Tolka Estuary SPA and North Bull Island SPA outside of the SPA network for 3FM Project and the proposed ESB Cooling Water Channel Remediation Works. There is also potential for likely significant in-combination effects in relation to *ex-situ* habitat loss of wetland habitat used by SCI waterbirds of South Dublin Bay & River Tolka Estuary SPA and North Bull Island SPA outside of the SPA network for 3FM Project and the proposed ESB Cooling Water Channel Remediation Works.

4.6.7 Poolbeg West SDZ & Former Irish Glass Bottle Site

In 2016 parts of the Dublin Docklands' area at North Lotts and Grand Canal Dock were designated as a strategic development zone (SDZ). In 2017 Dublin City Council (DCC) decided by resolution to make the Poolbeg West Planning Scheme. Planning permission for mixed use residential development by Becbay Ltd & Fabrizia Developments Ltd was approved in 2019. In addition to 3,500 residential units, its uses will include leisure, community, educational and commercial facilities.

In relation to aerial noise and disturbance, the permission granted is for streets, transportation, water services and utilities infrastructure; public realm and public amenity spaces; and temporary landscaping of a school site, to facilitate future development as provided for under the approved Poolbeg West SDZ Planning Scheme. The planning permission does not in and of itself introduce large scale and high density new residential development into an area adjacent to the SPA wetland habitats of South Dublin Bay & River Tolka Estuary SPA. It is intended under the Poolbeg West SDZ Planning Scheme that future planning applications will be submitted for phases of residential development within the SDZ. Those future planning applications are required to assess the impact of additional visitor numbers and any associated disturbance or displacement pressures on the overwintering waterbirds of Dublin Bay cumulatively with already permitted development or submitted applications for development consent.

In relation to potential water quality issues and cumulative impact, the primary consideration is wastewater discharges from the SDZ. Wastewater discharges from occupied development arising from planning permissions granted downstream of the adopted SDZ will be treated at Ringsend WwTP, considered previously in section 4.6.5. The SDZ itself does include for installation of water services which could introduce pollution pathways into Dublin Bay. Looking further ahead also, operation of the Ringsend WwTP is projected to overlap with construction phase of 3FM project, and as such there is potential for likely significant in-combination water quality and habitat deterioration effects on the Annex I habitat Mudflats and sandflats not covered by seawater at low tide in North Dublin Bay SAC, South Dublin Bay SAC, the Annex I reef habitat of Rockabill to Dalkey Island SAC, Annex I leaking gas structures of Codling Fault Zone SAC and the wetland habitats of South Dublin Bay & River Tolka Estuary SPA and North Bull Island SPA for 3FM Project and Poolbeg West SDZ and developing out of

the former Irish Glass Bottle site.Summary of Screening Appraisal of Project Assessment (alone and in combination)

A site-by-site appraisal of the construction and operation of the proposed development alone under four principal impact pathway themes (in Section 4.4) has concluded that for certain sites and certain QIs and SCIs of those sites, the possibility of likely significant effects cannot be excluded at the screening stage. An in-combination appraisal then followed (in Section 4.6)

Table 4.15 summarises the outcome of the screening appraisal of both the project alone and also in combination with other relevant projects.

Table 4.15: Screening Appraisal Summary Table of Project Assessment (Alone and In-combination)

Site Name	QI / SCI	Can LSEs be excluded at the screening stage ?				
		Habitat Loss	Deterioration of Water Quality	Underwater Disturbance	Aerial Disturbance	In combination
North Dublin Bay SAC	Mudflats and sandflats not covered by seawater at low tide [1140]	YES	NO	YES	YES	NO
	Annual vegetation of drift lines [1210]	YES	YES	YES	YES	YES
	Salicornia and other annuals colonizing mud and sand [1310]	YES	YES	YES	YES	YES
	Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330]	YES	YES	YES	YES	YES
	Petalophyllum ralfsii [1395]	YES	YES	YES	YES	YES
	Mediterranean salt meadows (Juncetalia maritimi) [1410]	YES	YES	YES	YES	YES
	Embryonic shifting dunes [2110]	YES	YES	YES	YES	YES
	Shifting dunes along the shoreline with Ammophila arenaria ("white dunes") [2120]	YES	YES	YES	YES	YES
	*Fixed coastal dunes with herbaceous vegetation (“grey dunes”) [2130]	YES	YES	YES	YES	YES
	Humid dune slacks [2190]	YES	YES	YES	YES	YES
South Dublin Bay SAC	Mudflats and sandflats not covered by seawater at low tide [1140]	NO	NO	YES	YES	NO
	Annual vegetation of drift lines [1210]	NO	NO	YES	YES	YES
	Salicornia and other annuals colonizing mud and sand [1310]	YES	YES	YES	YES	YES
	Embryonic shifting dunes [2110]	YES	YES	YES	YES	YES
Rockabill to Dalkey Island SAC	Reefs [1170]	YES	NO	YES	YES	NO
	Harbour porpoise (Phocoena phocoena) [1351]	YES	NO	NO	YES	NO

Site Name	QI / SCI	Can LSEs be excluded at the screening stage ?				
		Habitat Loss	Deterioration of Water Quality	Underwater Disturbance	Aerial Disturbance	In combination
Lambay Island SAC	Reefs [1170]	YES	NO	YES	YES	NO
	Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]	YES	YES	YES	YES	YES
	Halichoerus grypus (Grey Seal) [1364]	YES	NO	NO	YES	NO
	Phoca vitulina (Harbour Seal) [1365]	YES	NO	NO	YES	NO
	Harbour porpoise (Phocoena phocoena) [1351]	YES	NO	NO	YES	NO
Codling Fault Zone SAC	Submarine structures made by leaking gases [1180]	YES	NO	YES	YES	NO
	Harbour porpoise (Phocoena phocoena) [1351]	YES	NO	NO	YES	NO
South Dublin Bay & River Tolka Estuary SPA	Light-bellied Brent Goose (Branta bernicla hrota) [A046]	NO	NO	YES	NO	NO
	Oystercatcher (Haematopus ostralegus) [A130]	NO	NO	YES	NO	NO
	Ringed Plover (Charadrius hiaticula) [A137]	NO	NO	YES	NO	NO
	Knot (Calidris canutus) [A143]	NO	NO	YES	NO	NO
	Sanderling (Calidris alba) [A144]	NO	NO	YES	NO	NO
	Dunlin (Calidris alpina) [A149]	NO	NO	YES	NO	NO
	Bar-tailed Godwit (Limosa lapponica) [A157]	YES	NO	YES	YES	YES
	Redshank (Tringa etanus) [A162]	NO	NO	YES	NO	NO
	Black-headed Gull (Croicocephalus ridibundus) [A179]	NO	NO	YES	NO	NO
	Roseate Tern (Sterna dougallii) [A192]	YES	NO	YES	NO	NO
	Common Tern (Sterna hirundo) [A193]	YES	NO	YES	NO	NO

Site Name	QI / SCI	Can LSEs be excluded at the screening stage ?				
		Habitat Loss	Deterioration of Water Quality	Underwater Disturbance	Aerial Disturbance	In combination
	Arctic Tern (Sterna paradisaea) [A194]	YES	NO	YES	NO	NO
	Wetland and Waterbirds [A999]	NO	NO	YES	YES	NO
North Bull Island SPA	Light-bellied Brent Goose (*Branta bernicla hrota*) [A046]	YES	NO	YES	NO	NO
	Shelduck (Tadorna tadorna) [A048]	YES	NO	YES	NO	NO
	Teal (Anas crecca) [A052]	YES	NO	YES	YES	YES
	Pintail (Anas acuta) [A054]	YES	NO	YES	YES	YES
	Shoveler (Anas clypeata) [A056]	YES	NO	YES	YES	YES
	Oystercatcher (Haematopus ostralegus) [A130]	YES	NO	YES	NO	NO
	Ringed Plover (Charadrius hiaticula) [A137]	YES	NO	YES	NO	NO
	Golden Plover (Pluvialis apricaria) [A140]	YES	NO	YES	YES	YES
	Grey Plover (Pluvialis squatarola) [A141]	YES	NO	YES	YES	YES
	Knot (Calidris canutus) [A143]	YES	NO	YES	NO	NO
	Dunlin (Calidris alpina) [A149]	YES	NO	YES	NO	NO
	Black-tailed Godwit (Limosa limosa) [A156]	YES	NO	YES	NO	NO
	Bar-tailed Godwit (Limosa lapponica) [A157]	YES	NO	YES	YES	YES
	Curlew (Numenius arquata) [A160]	YES	NO	YES	NO	NO
	Redshank (Tringa totanus) [A162]	YES	NO	YES	NO	NO
	Black-headed Gull (Croicocephalus ridibundus) [A179]	YES	NO	YES	NO	NO

Site Name	QI / SCI	Can LSEs be excluded at the screening stage ?				
		Habitat Loss	Deterioration of Water Quality	Underwater Disturbance	Aerial Disturbance	In combination
	Wetland and Waterbirds [A999]	YES	NO	YES	YES	NO
Howth Head SAC	Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]	YES	YES	YES	YES	YES
	European dry heaths [4030]	YES	YES	YES	YES	YES
Howth Head Coast SPA	Kittiwake (Rissa tridactyla) [A188]	YES	NO	YES	YES	YES
Dalkey Islands SPA	Roseate Tern (Sterna dougallii) [A192]	YES	NO	YES	NO	YES
	Common Tern (Sterna hirundo) [A193]	YES	NO	YES	NO	YES
	Arctic Tern (Sterna paradisaea) [A194]	YES	NO	YES	NO	YES
North-West Irish Sea SPA	Manx Shearwater (Puffinus puffinus) [A013]	YES	NO	YES	YES	YES
	Cormorant (Phalacrocorax carbo) [A017]	YES	NO	YES	YES	YES
	Shag (Phalacrocorax aristotelis) [A018]	YES	YES	YES	YES	YES
	Lesser Black-backed Gull (Larus fuscus) [A183	YES	NO	YES	YES	YES
	Roseate Tern (Sterna dougallii) [A192]	YES	YES	YES	YES	YES
	Common Tern (Sterna hirundo) [A193]	YES	NO	YES	YES	YES
	Arctic Tern (Sterna paradisaea) [A194]	YES	NO	YES	YES	YES
	Little Tern (Sterna albifrons) [A195]	YES	YES	YES	YES	YES
	Puffin (Fratercula arctica) [A204]	YES	NO	YES	YES	YES
	Red-throated Diver (Gavia stellata) [A001]	YES	NO	YES	YES	YES

Site Name	QI / SCI	Can LSEs be excluded at the screening stage ?				
		Habitat Loss	Deterioration of Water Quality	Underwater Disturbance	Aerial Disturbance	In combination
	Great Northern Diver (Gavia immer) [A003]	YES	NO	YES	YES	YES
	Common Scoter (Melanitta nigra) [A065]	YES	NO	YES	YES	YES
	Black-headed Gull (Chroicocephalus ridibundus) [A179]	YES	NO	YES	YES	YES
	Common Gull (Larus canus) [A182]	YES	NO	YES	YES	YES
	Great Black-backed Gull (Larus marinus) [A187]	YES	NO	YES	YES	YES
	Little Gull (Hydrocoloeus minutus) [A862]	YES	NO	YES	YES	YES
	Fulmar (Fulmarus glacialis) [A009]	YES	NO	YES	YES	YES
	Herring Gull (Larus argentatus) [A184]	YES	NO	YES	YES	YES
	Kittiwake (Rissa tridactyla) [A188]	YES	NO	YES	YES	YES
	Guillemot (Uria aalge) [A199]	YES	NO	YES	YES	YES
	Razorbill (Alca torda) [A200]	YES	NO	YES	YES	YES

4.7 Conclusion of the Screening Appraisal

The Screening Appraisal was completed in compliance with EU and Irish law and the relevant European Commission and national guidelines to determine whether or not Likely Significant Effects on any European site could be excluded as a result of the proposed development. From the findings of the Screening appraisal, the possibility of Likely Significant Effects upon the European sites considered in the appraisal is summarised below.

4.7.1 Special Areas of Conservation

4.7.1.1 Howth Head SAC

The possibility of likely significant **Habitat Loss** effects can be excluded for this European site, even without consideration of mitigation measures.

The possibility of likely significant **Water Quality and Habitat Deterioration** effects can be excluded for this European site, even without consideration of mitigation measures.

The possibility of likely significant **Underwater Noise and Disturbance** effects can be excluded for this European site, even without consideration of mitigation measures.

The possibility of likely significant **Aerial Noise and Visual Disturbance** effects can be excluded for this European site, even without consideration of mitigation measures.

It can be excluded, on the basis of objective information, that the proposed development, individually and in combination with other plans or project, will have a significant effect on this European site.

4.7.1.2 North Dublin Bay SAC

The possibility of likely significant **Habitat Loss** effects can be excluded for this European site, even without consideration of mitigation measures.

The possibility of likely significant **Water Quality and Habitat Deterioration** effects cannot be excluded for the following qualifying interests of this European site without further evaluation and analysis, or the application of mitigation measures:

- Mudflats and sandflats not covered by seawater at low tide [1140]

The possibility of likely significant **Underwater Noise and Disturbance** effects can be excluded for this European site, even without consideration of mitigation measures.

The possibility of likely significant **Aerial Noise and Visual Disturbance** effects can be excluded for this European site, even without consideration of mitigation measures.

It cannot be excluded, on the basis of objective information, that the proposed development, individually and in combination with other plans or project, will have a significant effect on this European site.

4.7.1.3 South Dublin Bay SAC

The possibility of likely significant **Habitat Loss** effects cannot be excluded for the following qualifying interests of this European site without further evaluation and analysis, or the application of mitigation measures:

- Mudflats and sandflats not covered by seawater at low tide [1140]
- Annual vegetation of drift lines [1210]

The possibility of likely significant **Water Quality and Habitat Deterioration** effects cannot be excluded for the following qualifying interests of this European site without further evaluation and analysis, or the application of mitigation measures:

- Mudflats and sandflats not covered by seawater at low tide [1140]
- Annual vegetation of drift lines [1210]

The possibility of likely significant **Underwater Noise and Disturbance** effects can be excluded for this European site, even without consideration of mitigation measures.

The possibility of likely significant **Aerial Noise and Visual Disturbance** effects can be excluded for this European site, even without consideration of mitigation measures.

It cannot be excluded, on the basis of objective information, that the proposed development, individually and in combination with other plans or project, will have a significant effect on this European site.

4.7.1.4 Rockabill to Dalkey Island SAC

The possibility of likely significant **Habitat Loss** effects can be excluded for this European site, even without consideration of mitigation measures.

The possibility of likely significant **Water Quality and Habitat Deterioration** effects cannot be excluded for the following qualifying interests of this European site without further evaluation and analysis, or the application of mitigation measures:

- Reefs [1170]
- Harbour porpoise (Phocoena phocoena) [1351]

The possibility of likely significant **Underwater Noise and Disturbance** effects cannot be excluded for the following qualifying interests of this European site without further evaluation and analysis, or the application of mitigation measures:

- Harbour porpoise (Phocoena phocoena) [1351]

The possibility of likely significant **Aerial Noise and Visual Disturbance** effects can be excluded for this European site, even without consideration of mitigation measures.

It cannot be excluded, on the basis of objective information, that the proposed development, individually and in combination with other plans or project, will have a significant effect on this European site.

4.7.1.5 Lambay Island SAC

The possibility of likely significant **Habitat Loss** effects can be excluded for this European site, even without consideration of mitigation measures.

The possibility of likely significant **Water Quality and Habitat Deterioration** effects cannot be excluded for the following qualifying interests of this European site without further evaluation and analysis, or the application of mitigation measures:

- Reefs [1170]
- Harbour porpoise (Phocoena phocoena) [1351]
- Halichoerus grypus (Grey Seal) [1364]
- Phoca vitulina (Harbour Seal) [1365]

The possibility of likely significant **Underwater Noise and Disturbance** effects cannot be excluded for the following qualifying interests of this European site without further evaluation and analysis, or the application of mitigation measures:

- Harbour porpoise (Phocoena phocoena) [1351]
- Halichoerus grypus (Grey Seal) [1364]
- Phoca vitulina (Harbour Seal) [1365]

The possibility of likely significant **Aerial Noise and Visual Disturbance** effects can be excluded for this European site, even without consideration of mitigation measures.

It cannot be excluded, on the basis of objective information, that the proposed development, individually and in combination with other plans or project, will have a significant effect on this European site.

4.7.1.6 Codling Fault Zone SAC

The possibility of likely significant **Habitat Loss** effects can be excluded for this European site, even without consideration of mitigation measures.

The possibility of likely significant **Water Quality and Habitat Deterioration** effects cannot be excluded for the following qualifying interests of this European site without further evaluation and analysis, or the application of mitigation measures:

- Submarine structures made by leaking gases [1180]

The possibility of likely significant **Underwater Noise and Disturbance** effects cannot be excluded for the following qualifying interests of this European site without further evaluation and analysis, or the application of mitigation measures:

- Harbour porpoise (Phocoena phocoena) [1351]

The possibility of likely significant **Aerial Noise and Visual Disturbance** effects can be excluded for this European site, even without consideration of mitigation measures.

It cannot be excluded, on the basis of objective information, that the proposed development, individually and in combination with other plans or project, will have a significant effect on this European site.

4.7.2 Special Protection Areas

4.7.2.1 South Dublin Bay & River Tolka Estuary SPA

The possibility of likely significant **Habitat Loss** effects cannot be excluded for the following special conservation interests of this European site without further evaluation and analysis, or the application of mitigation measures:

- Light-bellied Brent Goose (Branta bernicla hrota) [A046]
- Oystercatcher (Haematopus ostralegus) [A130]
- Ringed Plover (Charadrius hiaticula) [A137]
- Knot (Calidris canutus) [A143]
- Sanderling (Calidris alba) [A144]
- Dunlin (Calidris alpina) [A149]
- Redshank (Tringa etanus) [A162]
- Black-headed Gull (Croicocephalus ridibundus) [A179]
- Wetland and Waterbirds [A999]

The possibility of likely significant **Water Quality and Habitat Deterioration** effects cannot be excluded for the following special conservation interests of this European site without further evaluation and analysis, or the application of mitigation measures:

- Light-bellied Brent Goose (Branta bernicla hrota) [A046]
- Oystercatcher (Haematopus ostralegus) [A130]
- Ringed Plover (Charadrius hiaticula) [A137]
- Knot (Calidris canutus) [A143]
- Sanderling (Calidris alba) [A144]
- Dunlin (Calidris alpina) [A149]
- Bar-tailed Godwit (Limosa lapponica) [A157]
- Redshank (Tringa etanus) [A162]
- Black-headed Gull (Croicocephalus ridibundus) [A179]
- Roseate Tern (Sterna dougallii) [A192]
- Common Tern (Sterna hirundo) [A193]
- Arctic Tern (Sterna paradisaea) [A194]
- Wetland and Waterbirds [A999]

The possibility of likely significant **Underwater Noise and Disturbance** effects can be excluded for this European site, even without consideration of mitigation measures.

The possibility of likely significant **Aerial Noise and Visual Disturbance** effects cannot be excluded for the following special conservation interests of this European site without further evaluation and analysis, or the application of mitigation measures:

- Light-bellied Brent Goose (Branta bernicla hrota) [A046]
- Oystercatcher (Haematopus ostralegus) [A130]
- Ringed Plover (Charadrius hiaticula) [A137]
- Knot (Calidris canutus) [A143]
- Sanderling (Calidris alba) [A144]
- Dunlin (Calidris alpina) [A149]
- Redshank (Tringa totanus) [A162]
- Black-headed Gull (Croicocephalus ridibundus) [A179]
- Roseate Tern (Sterna dougallii) [A192]
- Common Tern (Sterna hirundo) [A193]
- Arctic Tern (Sterna paradisaea) [A194]

It cannot be excluded, on the basis of objective information, that the proposed development, individually and in combination with other plans or project, will have a significant effect on this European site.

4.7.2.2 North Bull Island SPA

The possibility of likely significant **Habitat Loss** effects can be excluded for this European site, even without consideration of mitigation measures.

The possibility of likely significant **Water Quality and Habitat Deterioration** effects cannot be excluded for the following special conservation interests of this European site without further evaluation and analysis, or the application of mitigation measures:

- Light-bellied Brent Goose (Branta bernicla hrota) [A046]
- Shelduck (Tadorna tadorna) [A048]
- Teal (Anas crecca) [A052]
- Pintail (Anas acuta) [A054]
- Shoveler (Anas clypeata) [A056]
- Oystercatcher (Haematopus ostralegus) [A130]
- Ringed Plover (Charadrius hiaticula) [A137]
- Golden Plover (Pluvialis apricaria) [A140]
- Grey Plover (Pluvialis squatarola) [A141]

- Knot (Calidris canutus) [A143]
- Dunlin (Calidris alpina) [A149]
- Black-tailed Godwit (Limosa limosa) [A156]
- Bar-tailed Godwit (Limosa lapponica) [A157]
- Curlew (Numenius arquata) [A160]
- Redshank (Tringa totanus) [A162]
- Black-headed Gull (Croicocephalus ridibundus) [A179]
- Wetland and Waterbirds [A999]

The possibility of likely significant **Underwater Noise and Disturbance** effects can be excluded for this European site, even without consideration of mitigation measures.

The possibility of likely significant **Aerial Noise and Visual Disturbance** effects cannot be excluded for the following special conservation interests of this European site without further evaluation and analysis, or the application of mitigation measures:

- Light-bellied Brent Goose (Branta bernicla hrota) [A046]
- Shelduck (Tadorna tadorna) [A048]
- Oystercatcher (Haematopus ostralegus) [A130]
- Ringed Plover (Charadrius hiaticula) [A137]
- Knot (Calidris canutus) [A143]
- Dunlin (Calidris alpina) [A149]
- Black-tailed Godwit (Limosa limosa) [A156]
- Curlew (Numenius arquata) [A160]
- Redshank (Tringa totanus) [A162]
- Black-headed Gull (Croicocephalus ridibundus) [A179]

It cannot be excluded, on the basis of objective information, that the proposed development, individually and in combination with other plans or project, will have a significant effect on this European site.

4.7.2.3 Howth Head Coast SPA

The possibility of likely significant **Habitat Loss** effects can be excluded for this European site, even without consideration of mitigation measures.

The possibility of likely significant **Water Quality and Habitat Deterioration** effects cannot be excluded for the following special conservation interests of this European site without further evaluation and analysis, or the application of mitigation measures:

- Kittiwake (Rissa tridactyla) [A188]

The possibility of likely significant **Underwater Noise and Disturbance** effects can be excluded for this European site, even without consideration of mitigation measures.

The possibility of likely significant **Aerial Noise and Visual Disturbance** effects can be excluded for this European site, even without consideration of mitigation measures.

It cannot be excluded, on the basis of objective information, that the proposed development, individually and in combination with other plans or project, will have a significant effect on this European site.

4.7.2.4 Dalkey Islands SPA

The possibility of likely significant **Habitat Loss** effects can be excluded for this European site, even without consideration of mitigation measures.

The possibility of likely significant **Water Quality and Habitat Deterioration** effects cannot be excluded for the following special conservation interests of this European site without further evaluation and analysis, or the application of mitigation measures:

- Roseate Tern (Sterna dougallii) [A192]
- Common Tern (Sterna hirundo) [A193]
- Arctic Tern (Sterna paradisaea) [A194]

The possibility of likely significant **Underwater Noise and Disturbance** effects can be excluded for this European site, even without consideration of mitigation measures.

The possibility of likely significant **Aerial Noise and Visual Disturbance** effects cannot be excluded for the following special conservation interests of this European site without further evaluation and analysis, or the application of mitigation measures:

- Roseate Tern (Sterna dougallii) [A192]
- Common Tern (Sterna hirundo) [A193]
- Arctic Tern (Sterna paradisaea) [A194]

It cannot be excluded, on the basis of objective information, that the proposed development, individually and in combination with other plans or project, will have a significant effect on this European site.

4.7.2.5 North-West Irish Sea cSPA

The possibility of likely significant **Habitat Loss** effects can be excluded for this European site, even without consideration of mitigation measures.

The possibility of likely significant **Water Quality and Habitat Deterioration** effects cannot be excluded for the following special conservation interests of this European site without further evaluation and analysis, or the application of mitigation measures:

- Manx Shearwater (Puffinus puffinus) [A013]
- Cormorant (Phalacrocorax carbo) [A017]
- Lesser Black-backed Gull (Larus fuscus) [A183

- Common Tern (Sterna hirundo) [A193]
- Arctic Tern (Sterna paradisaea) [A194]
- Puffin (Fratercula arctica) [A204]
- Red-throated Diver (Gavia stellata) [A001]
- Great Northern Diver (Gavia immer) [A003]
- Common Scoter (Melanitta nigra) [A065]
- Black-headed Gull (Chroicocephalus ridibundus) [A179]
- Common Gull (Larus canus) [A182]
- Great Black-backed Gull (Larus marinus) [A187]
- Little Gull (Hydrocoloeus minutus) [A862]
- Fulmar (Fulmarus glacialis) [A009]
- Herring Gull (Larus argentatus) [A184]
- Kittiwake (Rissa tridactyla) [A188]
- Guillemot (Uria aalge) [A199]
- Razorbill (Alca torda) [A200]

The possibility of likely significant **Underwater Noise and Disturbance** effects can be excluded for this European site, even without consideration of mitigation measures.

The possibility of likely significant **Aerial Noise and Visual Disturbance** effects can be excluded for this European site, even without consideration of mitigation measures.

It cannot be excluded, on the basis of objective information, that the proposed development, individually and in combination with other plans or project, will have a significant effect on this European site.

APPENDIX A: 3FM CONSTRUCTION SEQUENCING

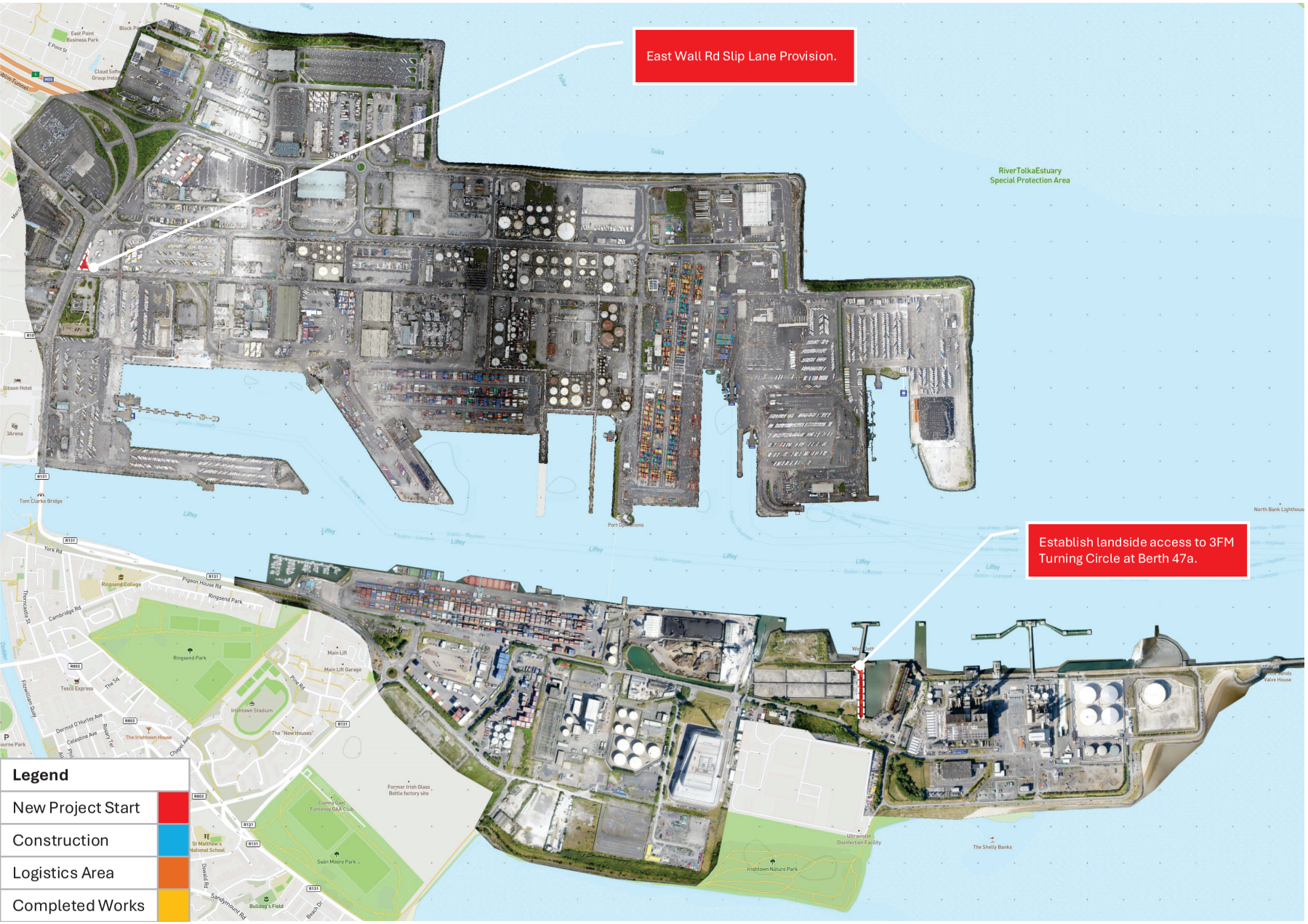
3FM High Level Programme to accompany sequence drawings

3FM Project — Bringing Dublin Port To 2040

	3FM Consent Period																													
	2026		2027		2028		2029		2030		2031		2032		2033		2034		2035		2036		2037		2038		2039		2040	
	YR 01		YR 02		YR 03		YR 04		YR 05		YR 06		YR 07		YR 08		YR 09		YR 10		YR 11		YR 12		YR 13		YR 14		YR 15	
Initial Design / Procurement																														
3FM Project Float																														
Turning Circle																														
New Nora / ESB Jetty																														
Area N Piled Deck Container Terminal																														
Area N Dredge																														
SPAR / Marina - Dredge																														
Maritime Village Phase 1 (East)																														
Maritime Village Phase 2 (West)																														
Area K - New RORO Terminal																														
SPAR - Northern Approach																														
SPAR - Southern Approach Viaduct																														
SPAR - Lifting Bridge																														
Area O - Green Buffer																														
Area O - 3FM Logistics Area																														
Area O - RORO Yard																														
Decants etc / Risks																														
Area L - 3Fm Logistics Area																														
Area L - LOLO Yard																														
Decants etc / Risks																														
Port Park																														
Coal Quay Marine Logistics																														
NWQ Marine Logistics																														
East Wall Rd Slip Lane																														
T10 Link Rd Extension																														
Promenade Rd / Bond Drive Junction																														
Tolka Quay Rd / Bond Drive Junction																														

Legend

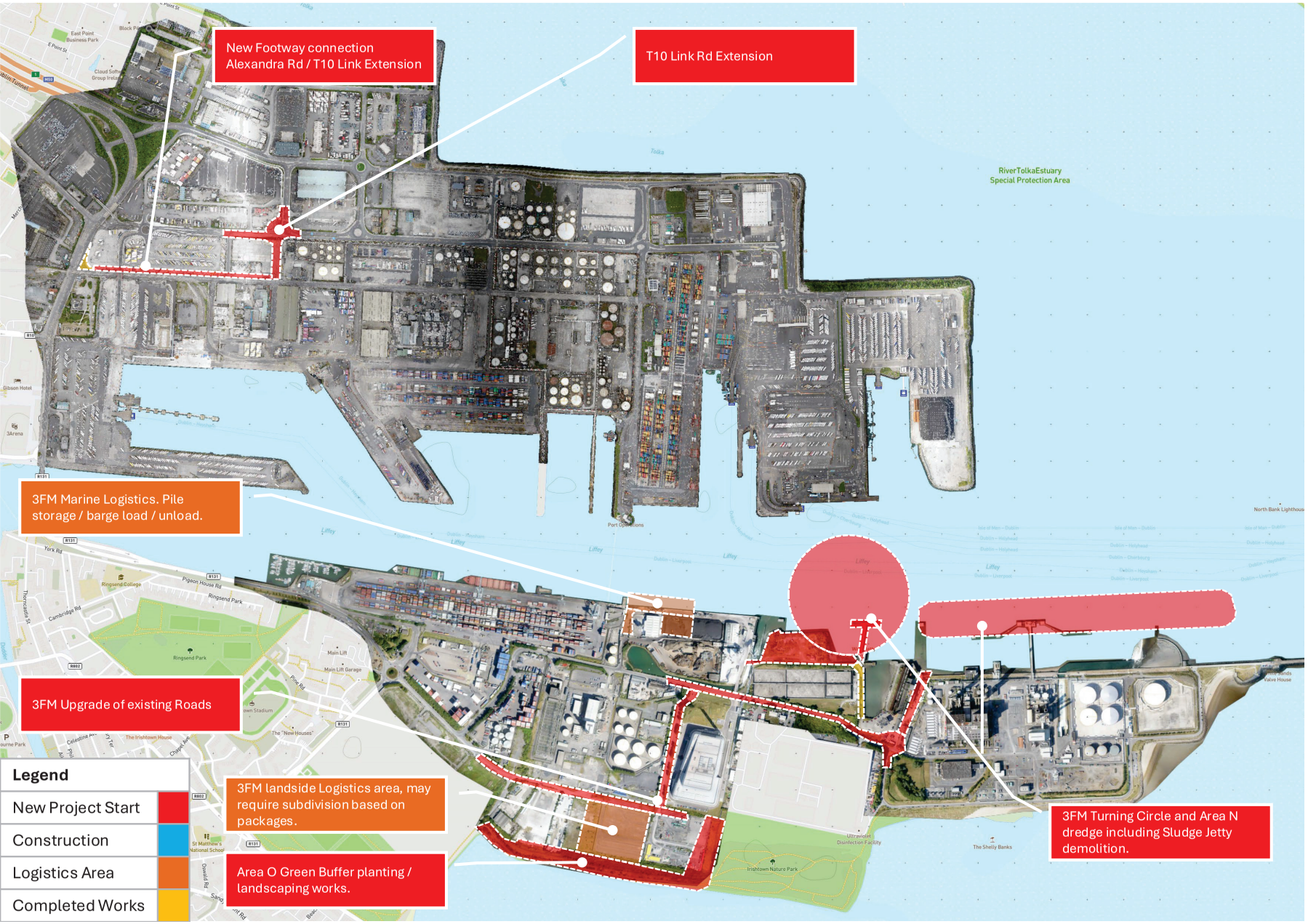
Initial Design / Procurement	Construction	Logistics Area	Decants etc. / Risks	Project Float



COMHLACHT CHALAFORT ÁTHA CLIATH
DUBLIN PORT COMPANY

2026/27

3FM Pre-construction Phase.



COMHLACHT CHALAFORT ÁTHA CLIATH
DUBLIN PORT COMPANY

2028

3FM Construction commences.

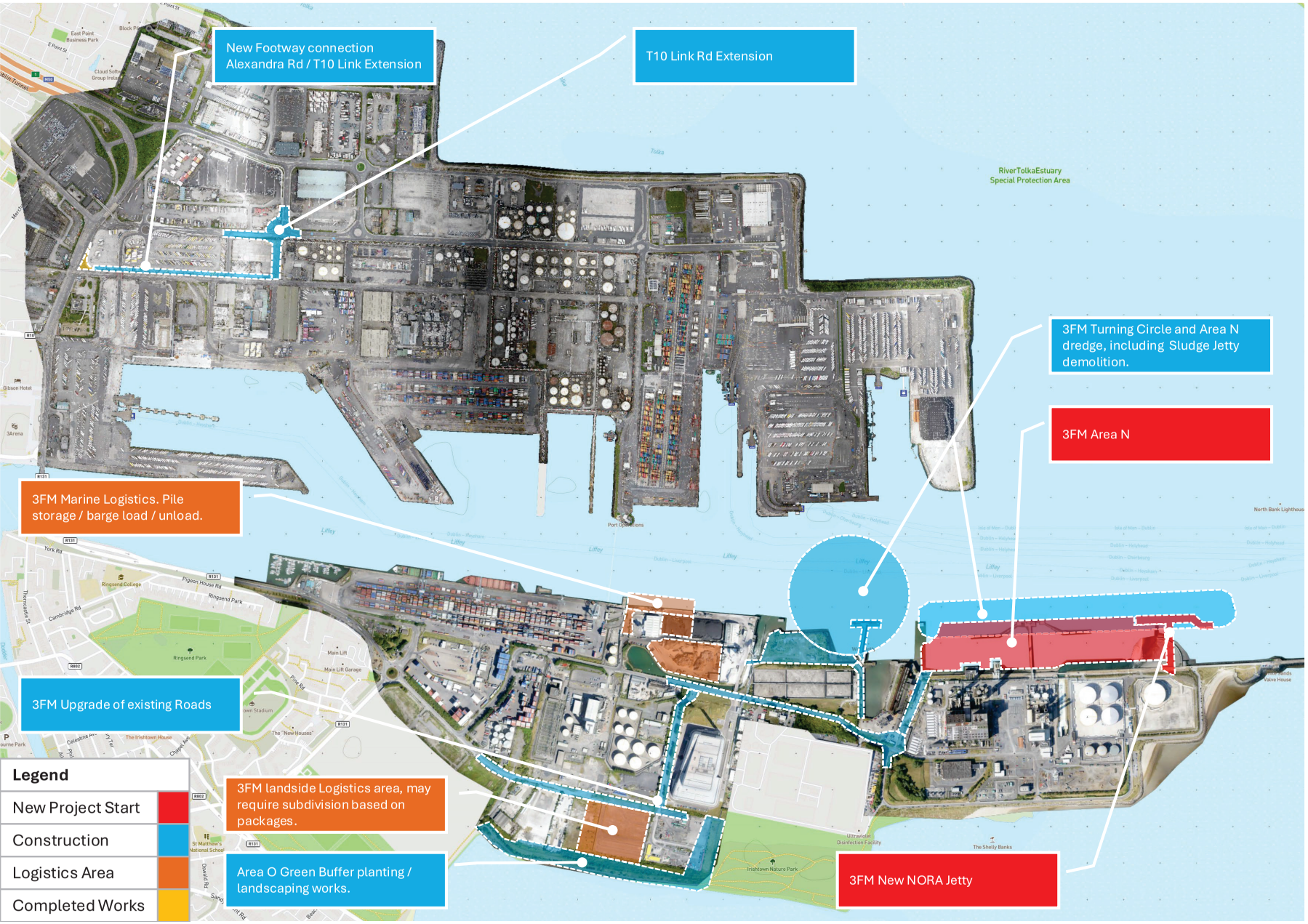
T10 Link Rd Extension, previously consented – (not part of 3FM), construction start.

Initial 3FM works include upgrades to local road network and creation of turning circle.

Phased dredging of Area N and Turning Circle.

Partial possession of Coal Quay required to facilitate Marine Logistics.

Area O used for 3FM logistics; buffer zone planting progressed.



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DUBLIN PORT COMPANY

2029

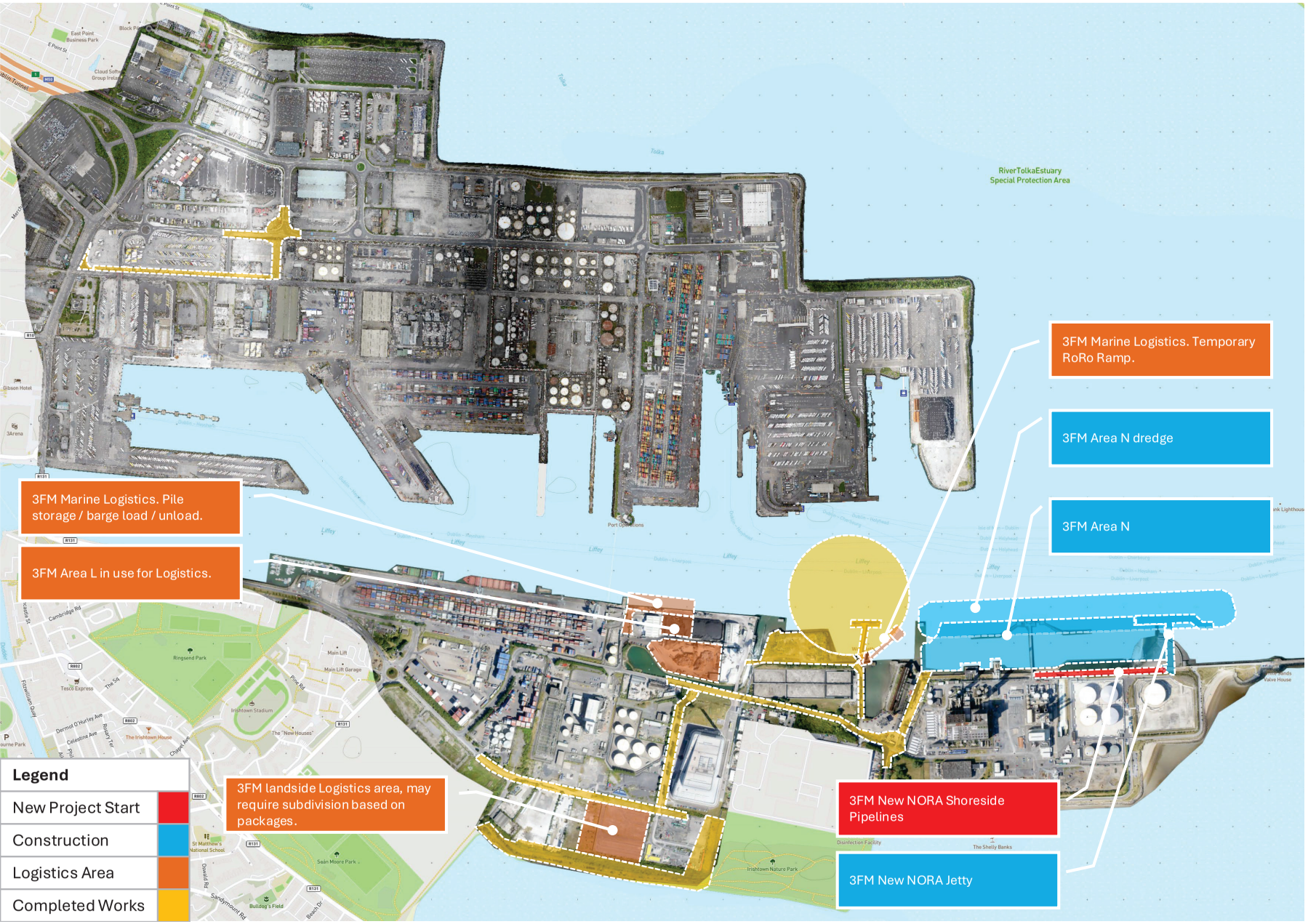
Area N piling commences. Focus on establishing bridge connection to land in the west and works to provide new oil jetty in the east.

Area N construction will provide facilities for MTL volumes to relocate.

Sludge Jetty demolition continues.

Work commences on new NORA Jetty

Existing Jetty maintained in operation, working arrangements to be agreed.



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DUBLIN PORT COMPANY

2030/31

Area N continues.

Turning Circle completes.

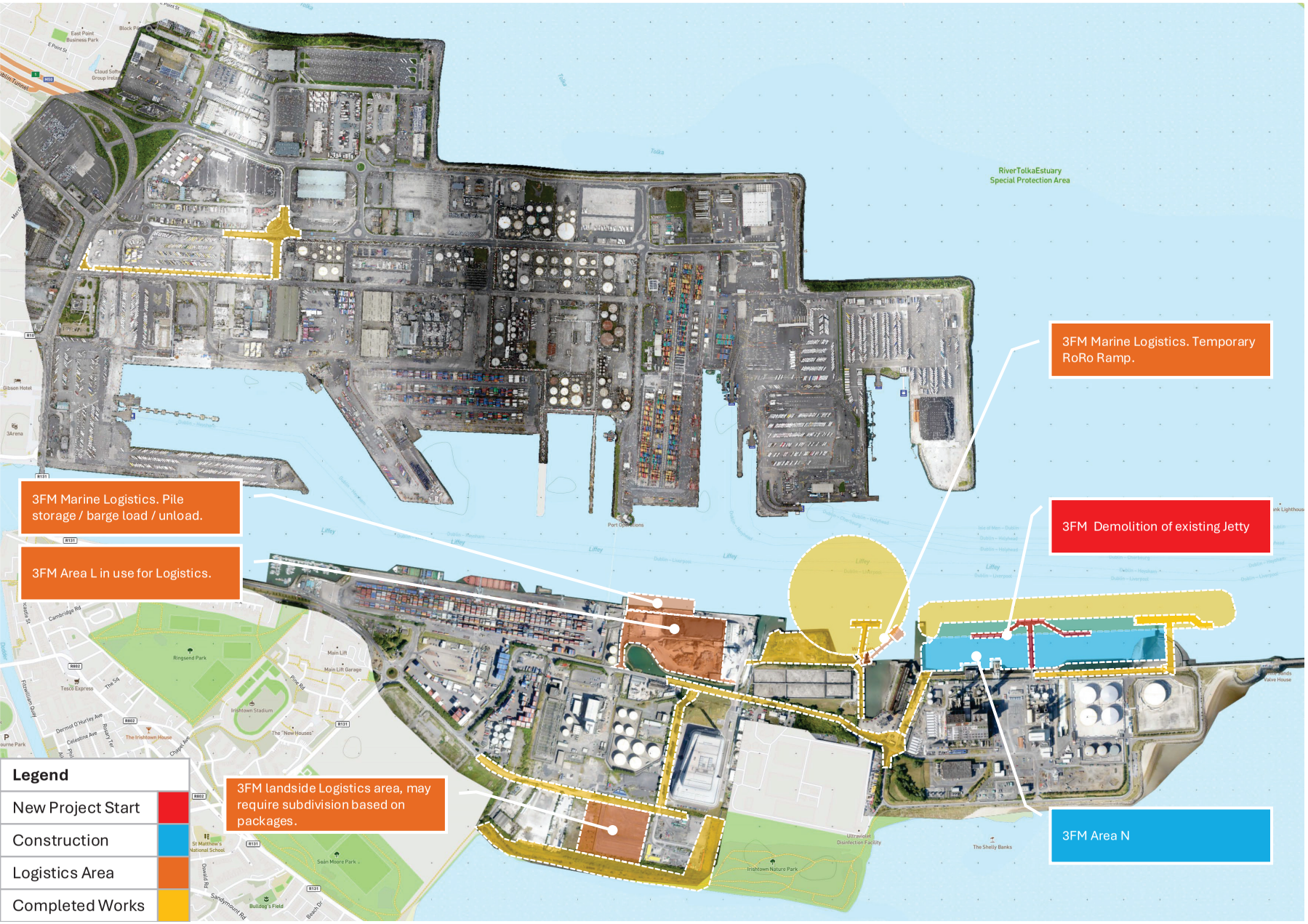
Sludge Jetty demolition completes.

Temporary RoRo ramp installed.

NORA Jetty continues / existing Jetty remains in operation.

Shoreside Pipeline diversion works commence for new NORA Jetty.

Area O green buffer completes.

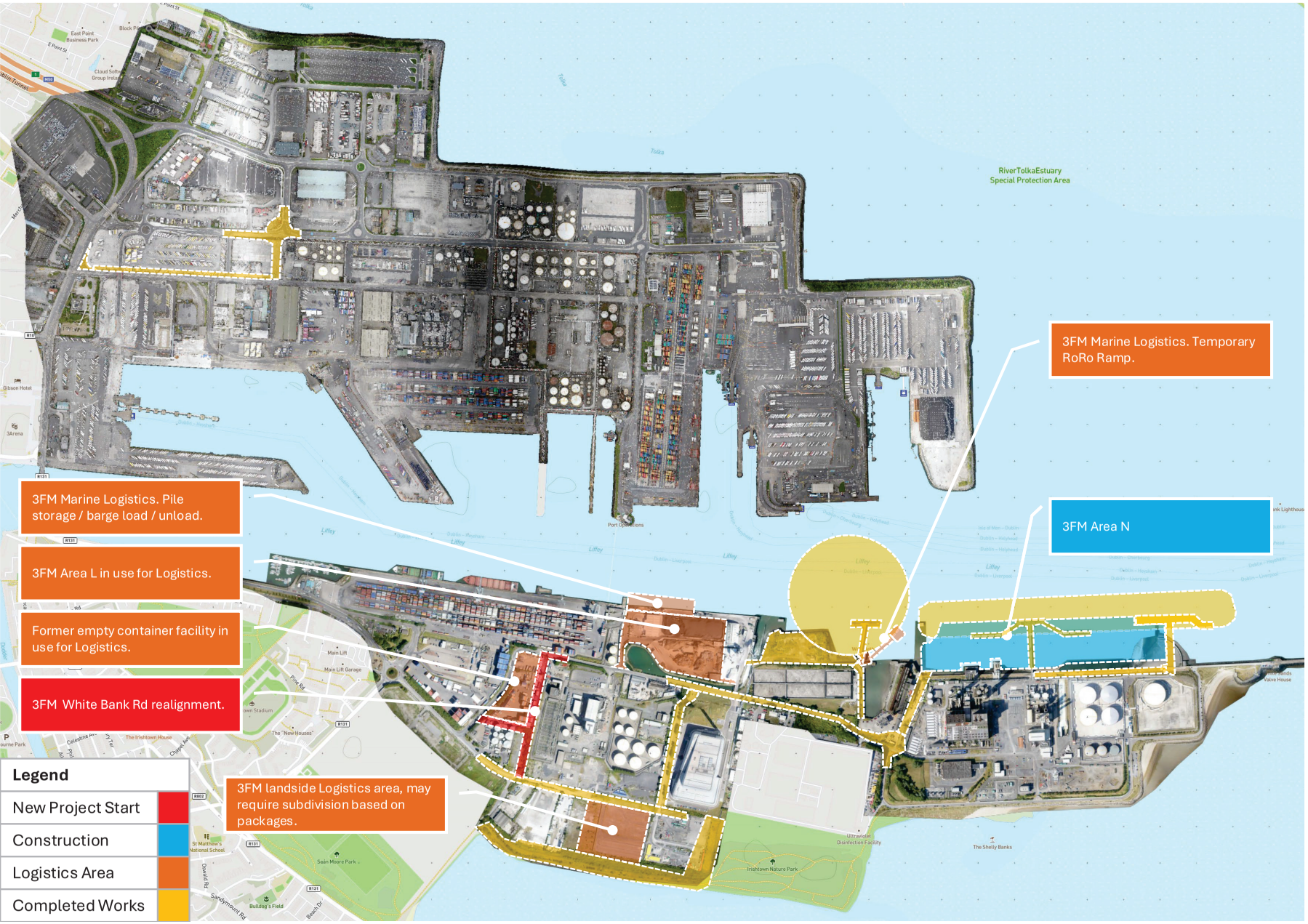


COMHLACHT CHALAFORT ÁTHA CLIATH
DUBLIN PORT COMPANY

2032

Area N continues.

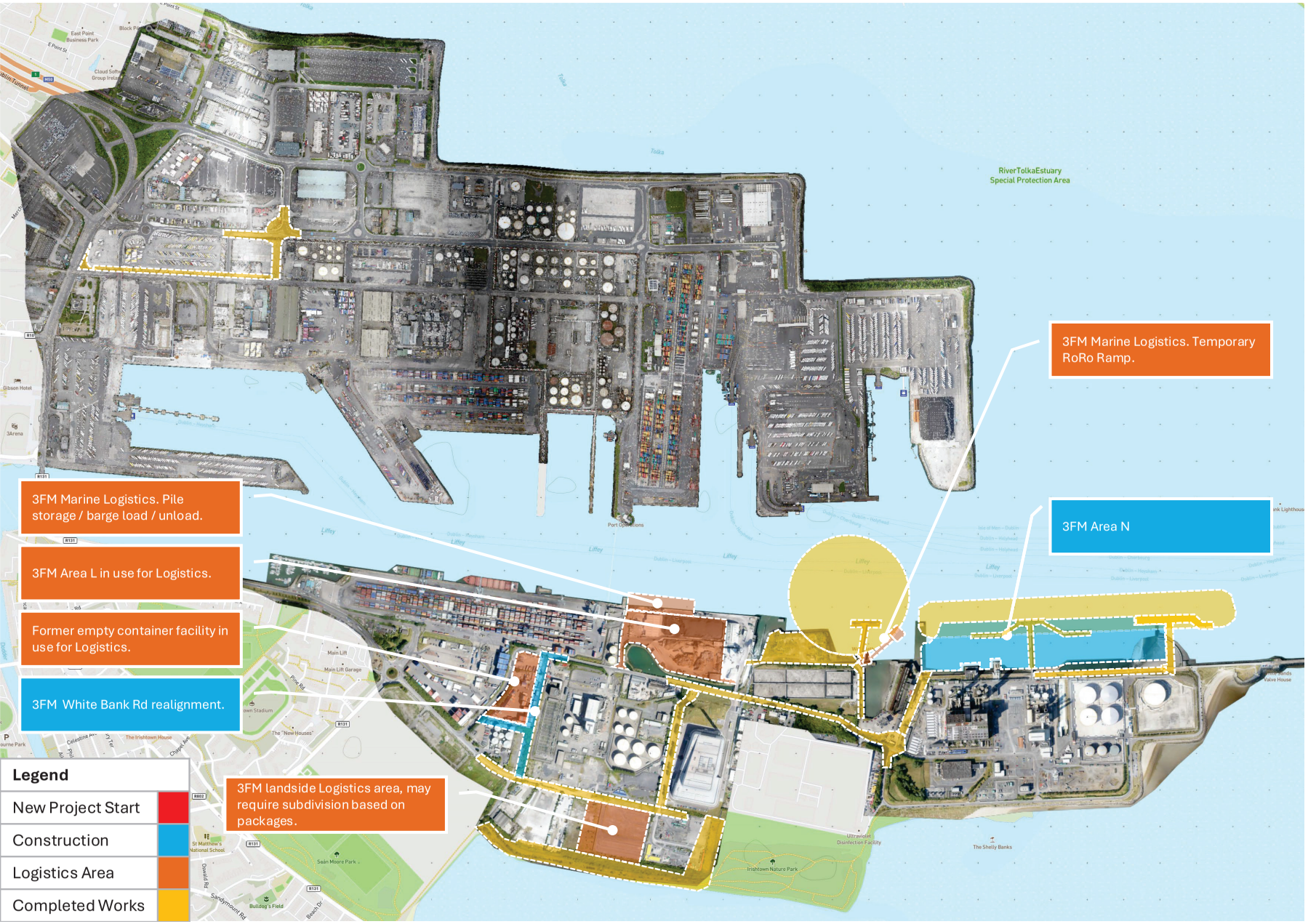
Area L taken for 3FM logistics.



COMHLACHT CHALAFORT ÁTHA CLIATH
DUBLIN PORT COMPANY

2033

White Bank Rd realignment allows for inclusion of current Empty Container facility location, into future Area K.



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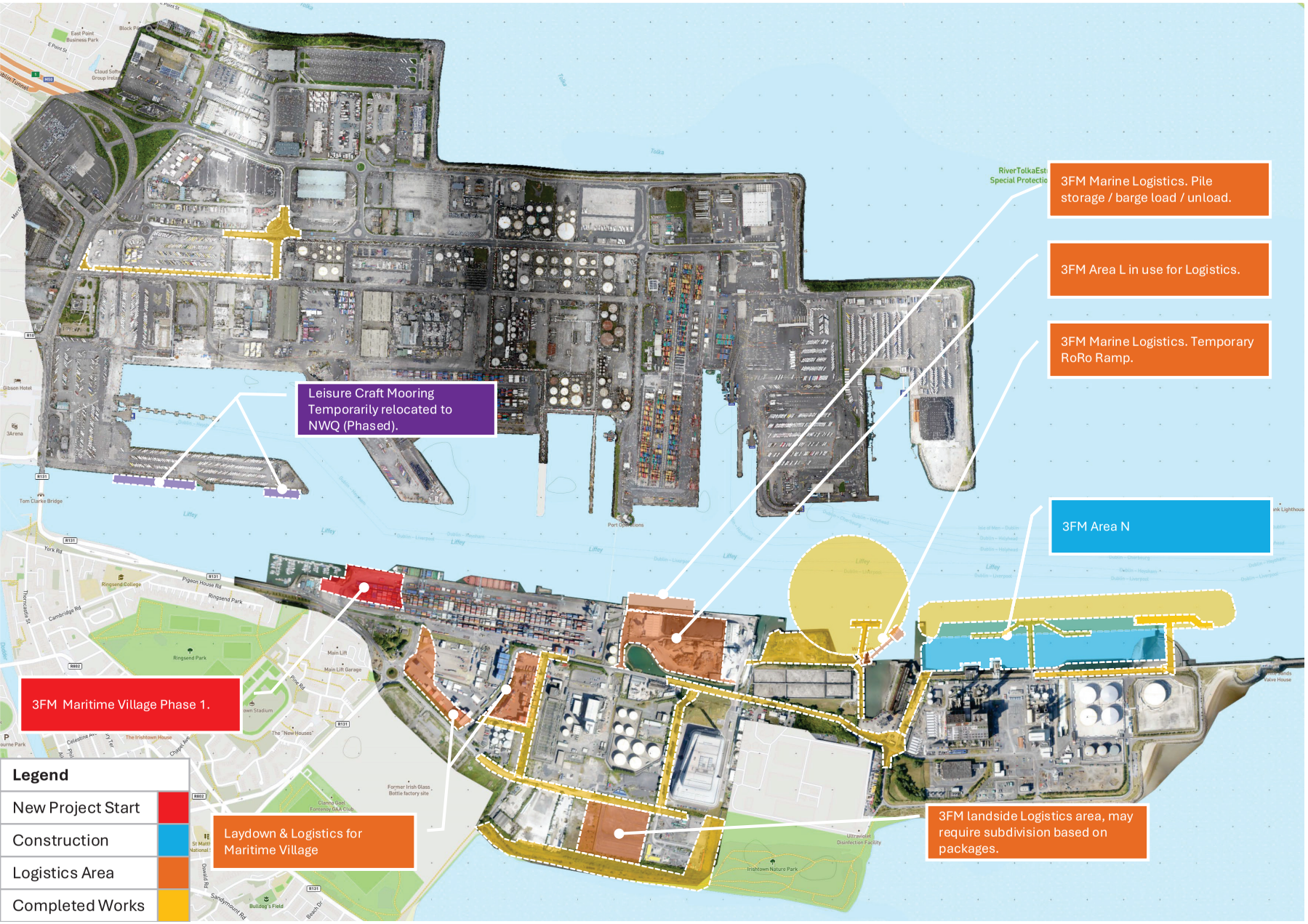
DUBLIN PORT COMPANY

2034

Area N continues.

Crane rails and deck completion while Operator equipment assembly commences on completed deck.

White Bank Rd realignment continues.

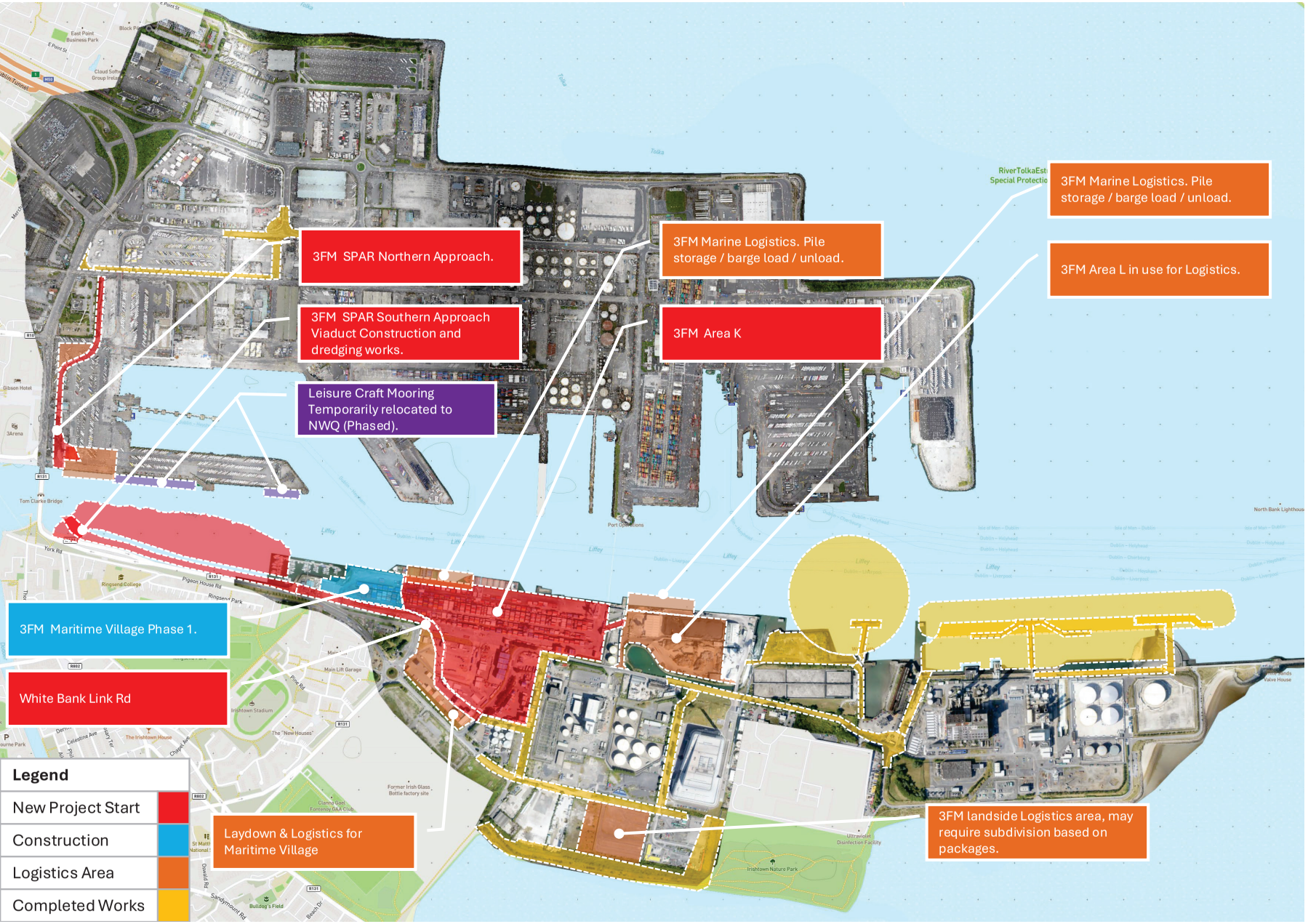


COMHLACHT CHALAFORT ÁTHA CLIATH
DUBLIN PORT COMPANY

2035

Partial decant of MTL volumes can commence, providing site to commence Maritime Village.

Area N Operator equipment assembly & commissioning continues on sections of completed deck.



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DUBLIN PORT COMPANY

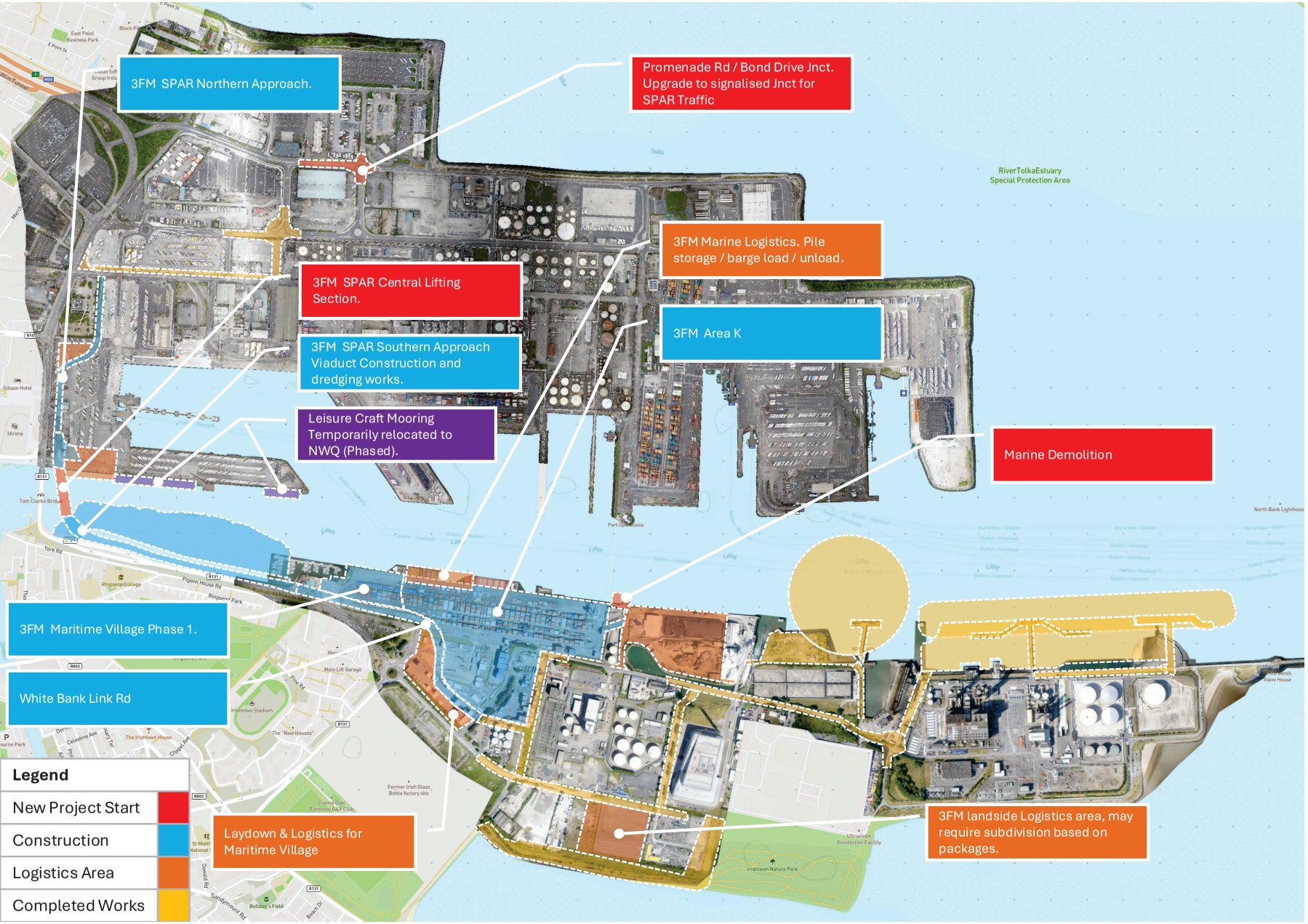
2036

MTL volume decant complete.

Area K and SPAR commence.

Access to existing Poolbeg slipway and clubhouses maintained.

Swing berths are decanted to NWQ, allowing dredging and viaduct construction to commence.



COMHLACHT CHALAFORT ÁTHA CLIATH
DUBLIN PORT COMPANY

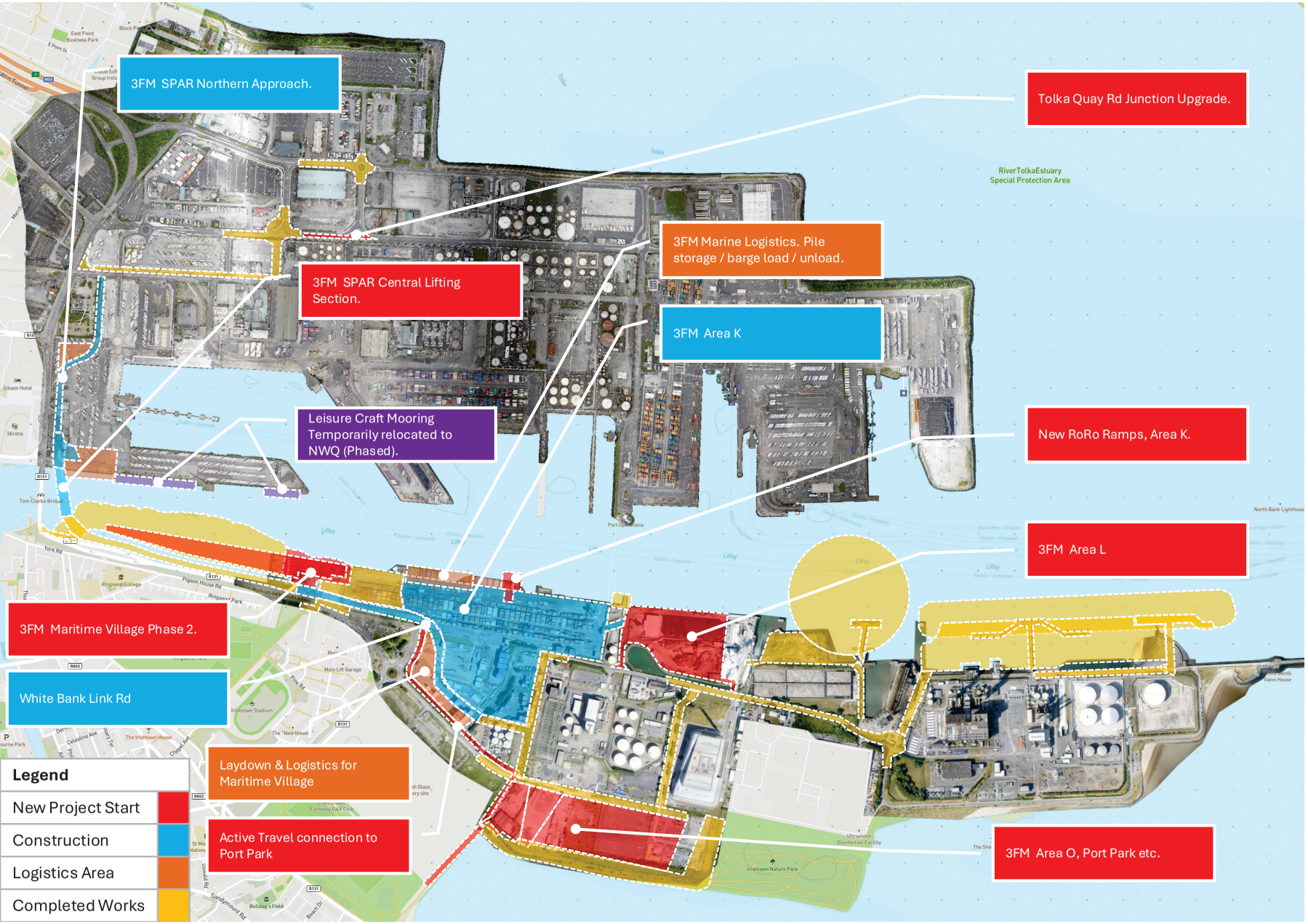
2037

SPAR construction continues.

Area K construction continues.

Maritime Village Phase 1 continues.

Upgrades to the Junction of Promenade Rd / Bond Drive.



COMHLACHT CHALAFORT ÁTHA CLIATH
DUBLIN PORT COMPANY

2038

Maritime Village Phase 2 commences.

Existing Poolbeg clubhouses and slipway relocated to Phase 1 completed works.

SPAR construction continues.

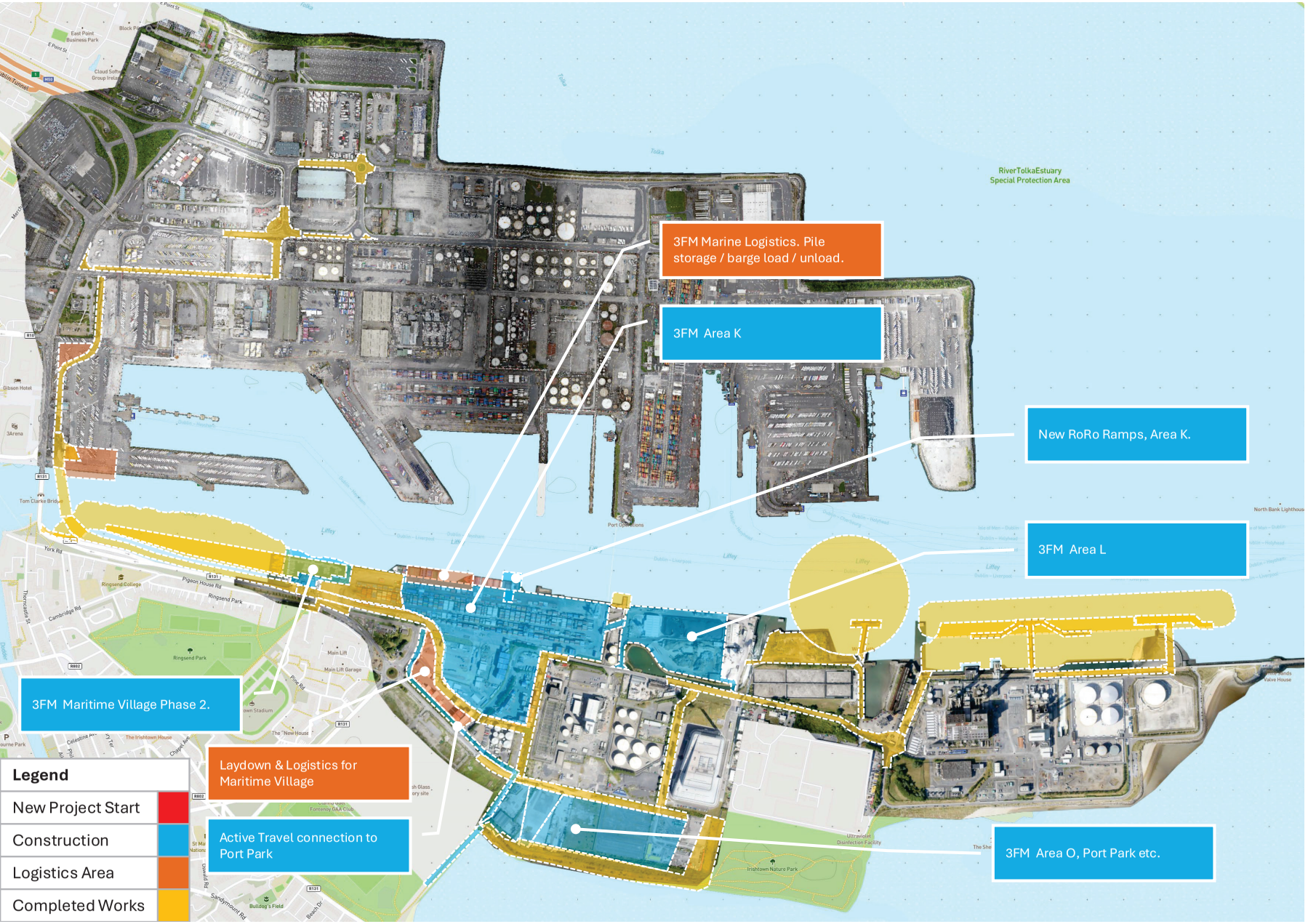
Area K construction continues.

Area L commences.

Active Travel connection to Port Park commences.

Area O / Port Park commence.

Tolka Quar Rd / Bond Drive Junction Works.

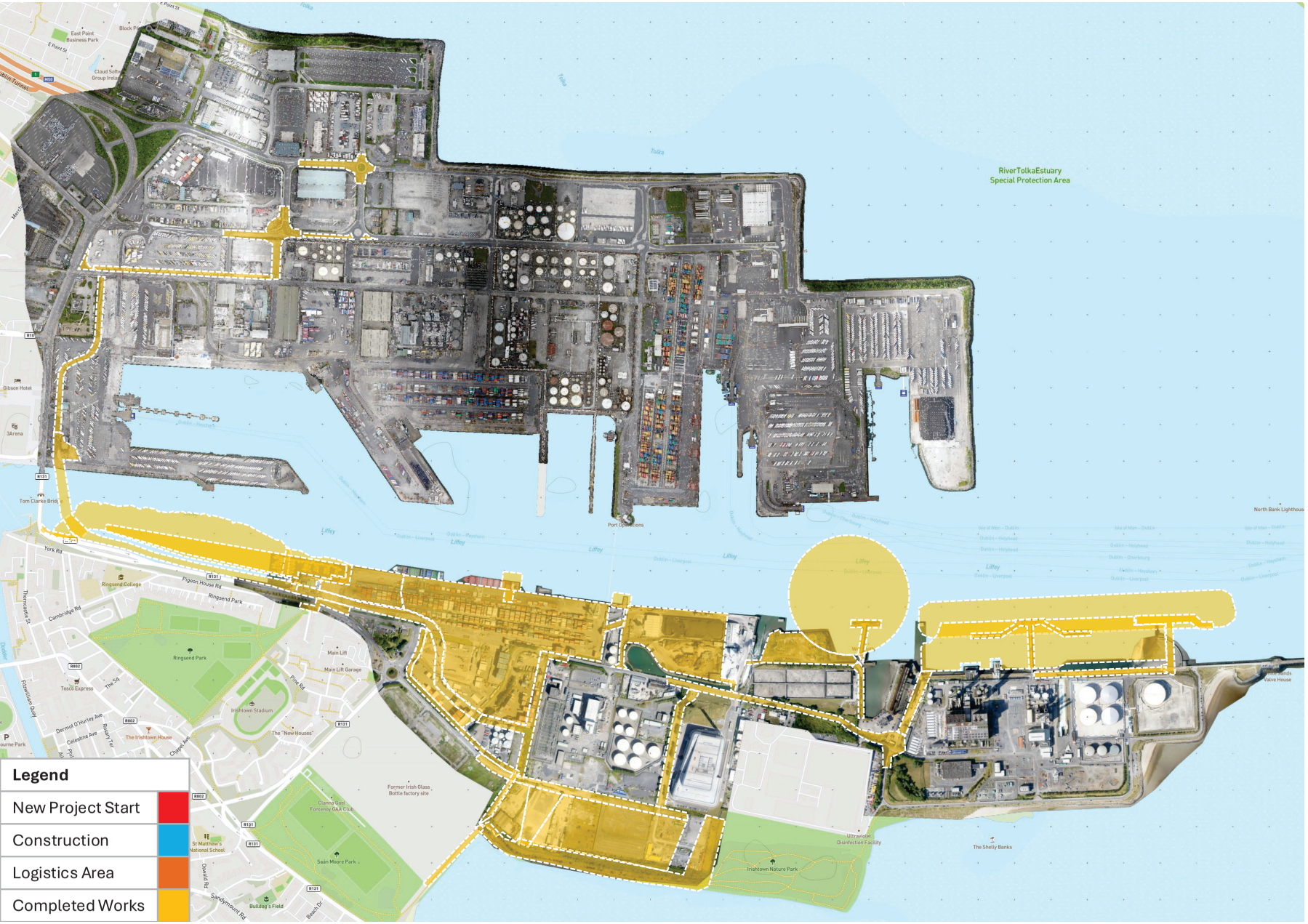


COMHLACHT CHALAFORT ÁTHA CLIATH
DUBLIN PORT COMPANY

2039

New SPAR Opens.

Final year of 3FM construction.



COMHLACHT CHALAFORT ÁTHA CLIATH
DUBLIN PORT COMPANY

2040

3FM Consent expires.

Masterplan Complete.