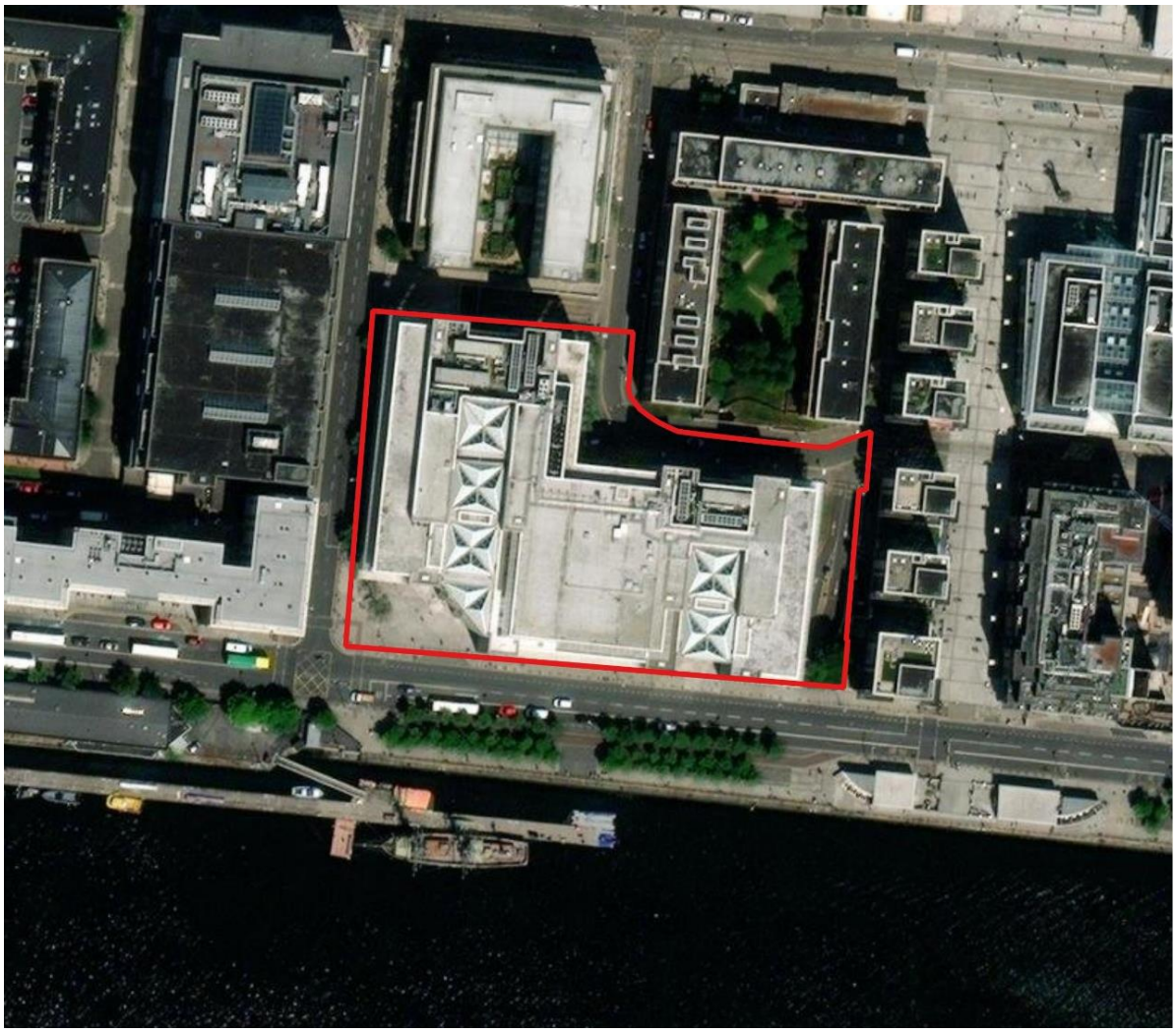
ALTEMAR
Marine & Environmental Consultancy

Appropriate Assessment Screening & Natura Impact Statement- Information for a Stage 1 (AA Screening) and Stage 2 (Natura Impact Statement) AA for a Proposed Development at 1 North Wall Quay, Dublin 1.



19th February 2024

Prepared by: Bryan Deegan (MCIEEM) of Altemar Ltd.
On behalf of: NWQ Devco Ltd

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Document Control Sheet			
Project	Appropriate Assessment Screening and Natura Impact Statement – Information for a Stage 1 (AA Screening) and Stage 2 (Natura Impact Statement) AA for a proposed development at 1 North Wall Quay, Dublin 1.		
Report	Appropriate Assessment Screening & Natura Impact Statement		
Date	19th February 2024		
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Introduction

The following Appropriate Assessment (AA) (Screening Stage) has been prepared by **Altemar Ltd.** at the request of NWQ Devco Ltd for a proposed commercial development at 1 North Wall Quay, Dublin 1.

An Appropriate Assessment is an assessment of the potential effects of a proposed project or plan, on its own, or in combination with other plans or projects, on one or more Natura 2000 sites. Natura 2000 sites are those sites designated as Special Areas of Conservation (SAC) or Special Protection Areas (SPA).

The AA Screening stage examines the likely significant effects of a plan or project, either on its own, or in combination with other plans and projects, upon a Natura 2000 site and considers whether, on the basis of objective scientific evidence, it can be concluded that there are not likely to be significant effects on any European site, in view of best scientific knowledge and the conservation objectives of the relevant European sites.

The Natura Impact Statement examines whether the plan or project, either alone, or in combination with other plans and projects, in the view of best scientific knowledge and in view of the sites' conservation objectives, will adversely affect the integrity of the European sites.

Altemar Ltd.

Since its inception in 2001, Altemar has been delivering ecological and environmental services to a broad range of clients. Operational areas include: residential; infrastructural; renewable; oil & gas; private industry; Local Authorities; EC projects; and, State/semi-State Departments. Bryan Deegan, the managing director of Altemar, is an Environmental Scientist and Marine Biologist with 30 years' experience working in Irish terrestrial and aquatic environments, providing services to the State, Semi-State and industry. He is currently contracted to Inland Fisheries Ireland as the sole "External Expert" to environmentally assess internal and external projects. He is also chair of an internal IFI working group on environmental assessment. Bryan Deegan (MCIEEM) holds a MSc in Environmental Science, BSc (Hons.) in Applied Marine Biology, NCEA National Diploma in Applied Aquatic Science and a NCEA National Certificate in Science (Aquaculture). Bryan Deegan carried out all elements of this Appropriate Assessment Screening.

Background to the Appropriate Assessment

The Habitats Directive 92/43/EEC (together with the Birds Directive (2009/1477/EC)) forms the cornerstone of Europe's nature conservation policy. The Habitats Directive protects over 1000 animals and plant species and over 200 "habitat types" which are of European importance. In the Habitats Directive, Articles 3 to 9 provide the legislative means to protect habitats and species of European Community interest through the establishment and conservation of an EU-wide network of conservation sites (NATURA, 2000). These are Special Areas of Conservation (SACs) designated under the Habitats Directive and Special Protection Areas (SPAs) designated under the Birds Directive, Article 6(3) and 6(4) of the Habitats Directive set out the decision-making tests for plans and projects likely to affect European sites (Annex 1.1). Article 6(3) establishes the requirement for Appropriate Assessment:

"Any plan or project not directly connected with or necessary to the management of the [NATURA 2000] site but likely to have a significant effect thereon, either individually or in combination with other plans and projects, shall be subjected to appropriate assessment of its implications for the site in view of the site's conservation objectives. In light of the conclusions of the assessment of the implication for the site and subject to the provisions of paragraph 4, the component 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."

As outlined in "Managing European sites, The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC" (European Commission, 21 November 2018) *"The purpose of the appropriate assessment is to assess the implications of the plan or project in respect of the site's conservation objectives, either individually or in combination with other plans or projects. The conclusions should enable the competent authorities to ascertain whether the plan or project will adversely affect the integrity of the site concerned. The focus of the appropriate assessment is therefore specifically on the species and/or the habitats for which the European site is designated."*

As outlined in the EC guidance document on Article 6(4) (January 2007)[1]:

"Appropriate assessments of the implications of the plan or project for the site concerned must precede its approval and take into account the cumulative effects which result from the combination of that plan or project with other plans or projects in view of the site's conservation objectives. This implies that all aspects of the plan or project which can, either individually or in combination with other plans or projects, affect those objectives must be identified in the light of the best scientific knowledge in the field.

Assessment procedures of plans or projects likely to affect European sites should guarantee full consideration of all elements contributing to the site integrity and to the overall coherence of the network, both in the definition of the baseline conditions and in the stages leading to identification of potential impacts, mitigation measures and residual impacts. These determine what has to be compensated, both in quality and quantity. Regardless of whether the provisions of Article 6(3) are delivered following existing environmental impact assessment procedures or other specific methods, it must be ensured that:

- *Article 6(3) assessment results allow full traceability of the decisions eventually made, including the selection of alternatives and any imperative reasons of overriding public interest.*
- *The assessment should include all elements contributing to the site's integrity and to the overall coherence of the network as defined in the site's conservation objectives and Standard Data Form, and be based on best available scientific knowledge in the field. The information required should be updated and could include the following issues:*
    - *Structure and function, and the respective role of the site's ecological assets;*
    - *Area, representativity and conservation status of the priority and nonpriority habitats in the site;*
    - *Population size, degree of isolation, ecotype, genetic pool, age class structure, and conservation status of species under Annex II of the Habitats Directive or Annex I of the Birds Directive present in the site;*
    - *Role of the site within the biographical region and in the coherence of the European network; and,*
    - *Any other ecological assets and functions identified in the site.*
- *It should include a comprehensive identification of all the potential impacts of the plan or project likely to be significant on the site, taking into account cumulative impacts and other impacts likely to arise as a result of the combined action of the plan or project under assessment and other plans or projects.*
- *The assessment under Article 6(3) applies the best available techniques and methods, to estimate the extent of the effects of the plan or project on the biological integrity of the site(s) likely to be damaged.*
- *The assessment provides for the incorporation of the most effective mitigation measures into the plan or project concerned, in order to avoid, reduce or even cancel the negative impacts on the site.*
- *The characterisation of the biological integrity and the impact assessment should be based on the best possible indicators specific to the European assets which must also be useful to monitor the plan or project implementation."*

[1] European Commission. (2007).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;

Stages of the Appropriate Assessment

This Appropriate Assessment screening and Natura Impact Statement was undertaken in accordance with the European Commission Methodological Guidance on the provision of Article 6(3) and 6(4) of the 'Habitats' Directive 92/43/EEC (EC, 2001), Part XAB of the Planning and Development Act 2000, as amended, in addition to the December 2009 publication from the Department of Environment, Heritage and Local Government; 'Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities' and the European Communities (Birds and Natural Habitats) Regulations 2011. In order to comply with the above Guidelines and legislation, the Appropriate Assessment process has been structured as follows:

1) Screening stage:
   - Description of plan or project, and local site or plan area characteristics;
   - Identification of relevant European sites, and compilation of information on their qualifying interests and conservation objectives
   - Identification and description of individual in combination effects likely to result from the proposed project;
   - Assessment of the likely significance of the effects identified above. Exclusion of sites where it can be objectively concluded that there will be no likely significant effects; and,
     Conclusions
2) Appropriate Assessment (Natura Impact Statement):
   - Description of the European sites that will be considered further;
   - Identification and description of potential adverse impacts on the conservation objectives of these sites likely to occur from the project or plan; and,
   - Mitigation Measures that will be implemented to avoid, reduce or remedy any such potential adverse impacts
   - Assessment as to whether, following the implementation of the proposed mitigation measures, it can be concluded, beyond all reasonable scientific doubt, that there will be no adverse impact on the integrity of the relevant European Site in light of its conservation objectives"
   - Conclusions.

If it can be demonstrated during the AA screening phase (Stage 1), that the proposed project will not have a significant effect, whether alone or in combination with other plans or projects, on the conservation objectives of a Natura 2000 site, then no further AA (Stage 2) will be required. It is important to note that there is a requirement to apply a precautionary approach to AA screening. Therefore, where effects are possible, certain or unknown at the screening stage, AA will be required.

In addition, it should be noted that Article 6(3) of the Habitats Directive must be interpreted as meaning that, in order to determine whether it is necessary to carry out, subsequently, an AA of the implications, for a site concerned, of a plan or project, it is not appropriate, at the screening stage, to take account of the measures intended to avoid or reduce the harmful effects of the plan or project on that site.

Stage 1 Screening Assessment

Management of the Site

The plan or project is not directly connected with, or necessary to the management of European sites.

Description of the Proposed Project

The proposed development provides for the demolition of the existing building and construction of a new building ranging in height from 9 no. to 17 no. storeys over lower ground floor and double basement comprising of office accommodation, arts/community/cultural uses and a retail/café/restaurant unit. Office accommodation is provided from lower ground floor to 15th floor level, arts/community/cultural uses are provided at lower ground, ground, 1st and 16th floor level with a retail/café/restaurant unit at ground floor level. Landscaped terraces are located at 8th, 9th, 10th, 11th, 15th, 16th floor level with winter terraces located at 4th, 6th and 9th floor level. Provision of a new landscaped street to the east of the building to include external arts/community/cultural uses. The double basement comprises 30 no. car parking spaces, 923 no. bicycle parking spaces and 6 no. motorbike spaces as well as shower/changing facilities and plantroom.

The site outline, site location, site plan and building elevations are shown in Figures 1-4.

Landscape

The landscape strategy for the proposed development has been prepared by Cameo and Partners. The ground floor general arrangement plan, landscape masterplan and landscape tree plan are shown in Figures 5 - 7.

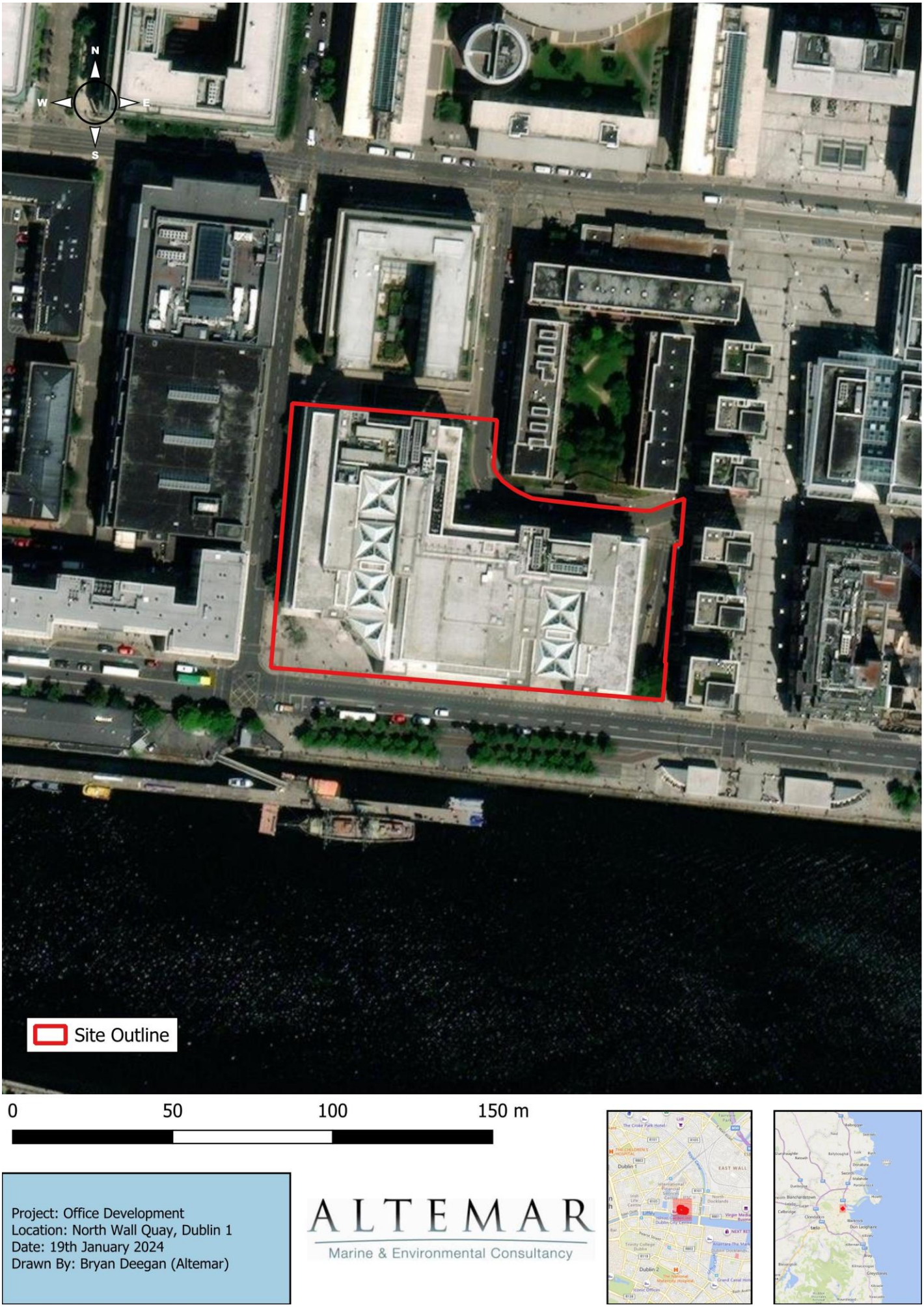


Figure 1. *Site outline*

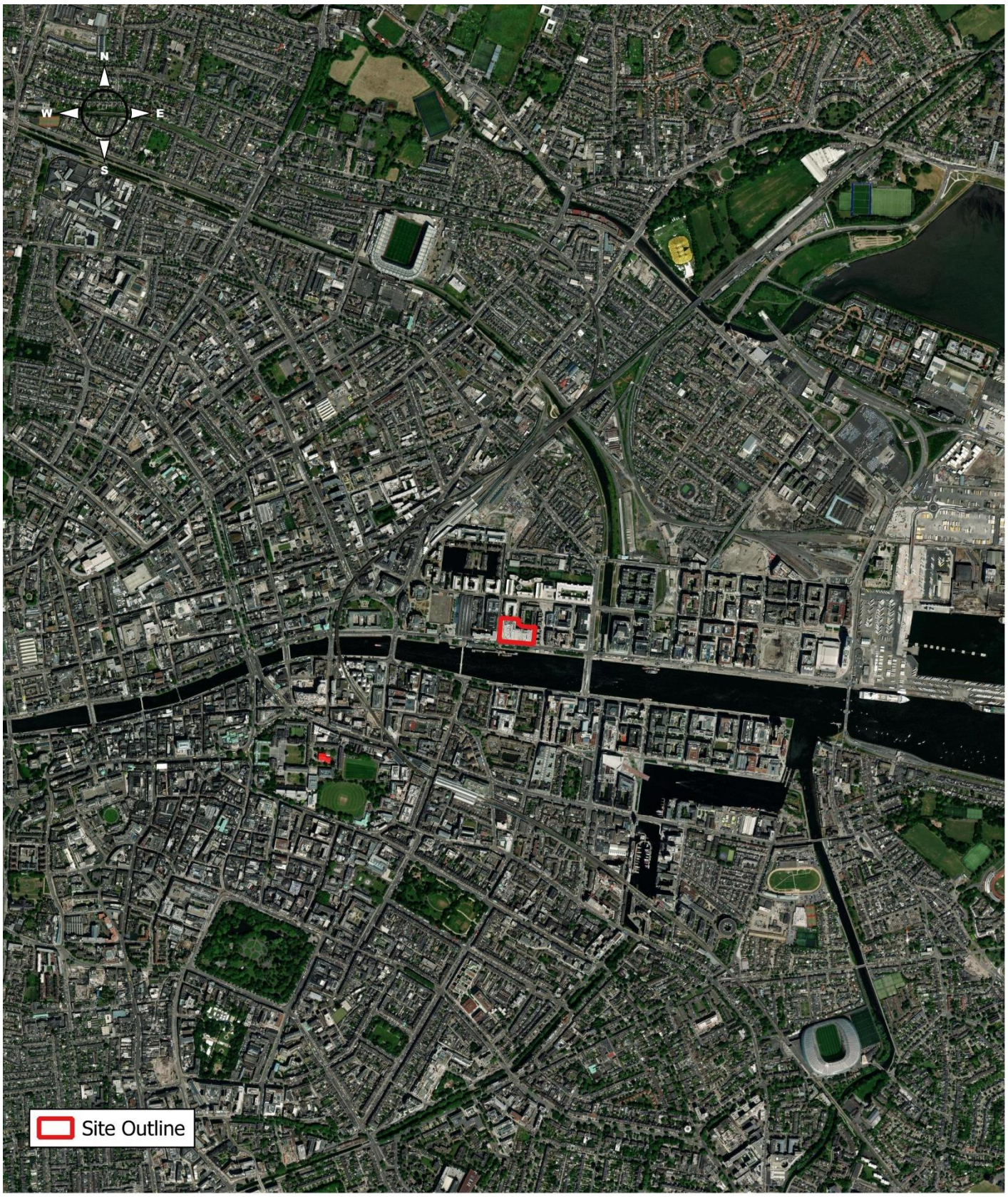


Figure 2. *Site location*

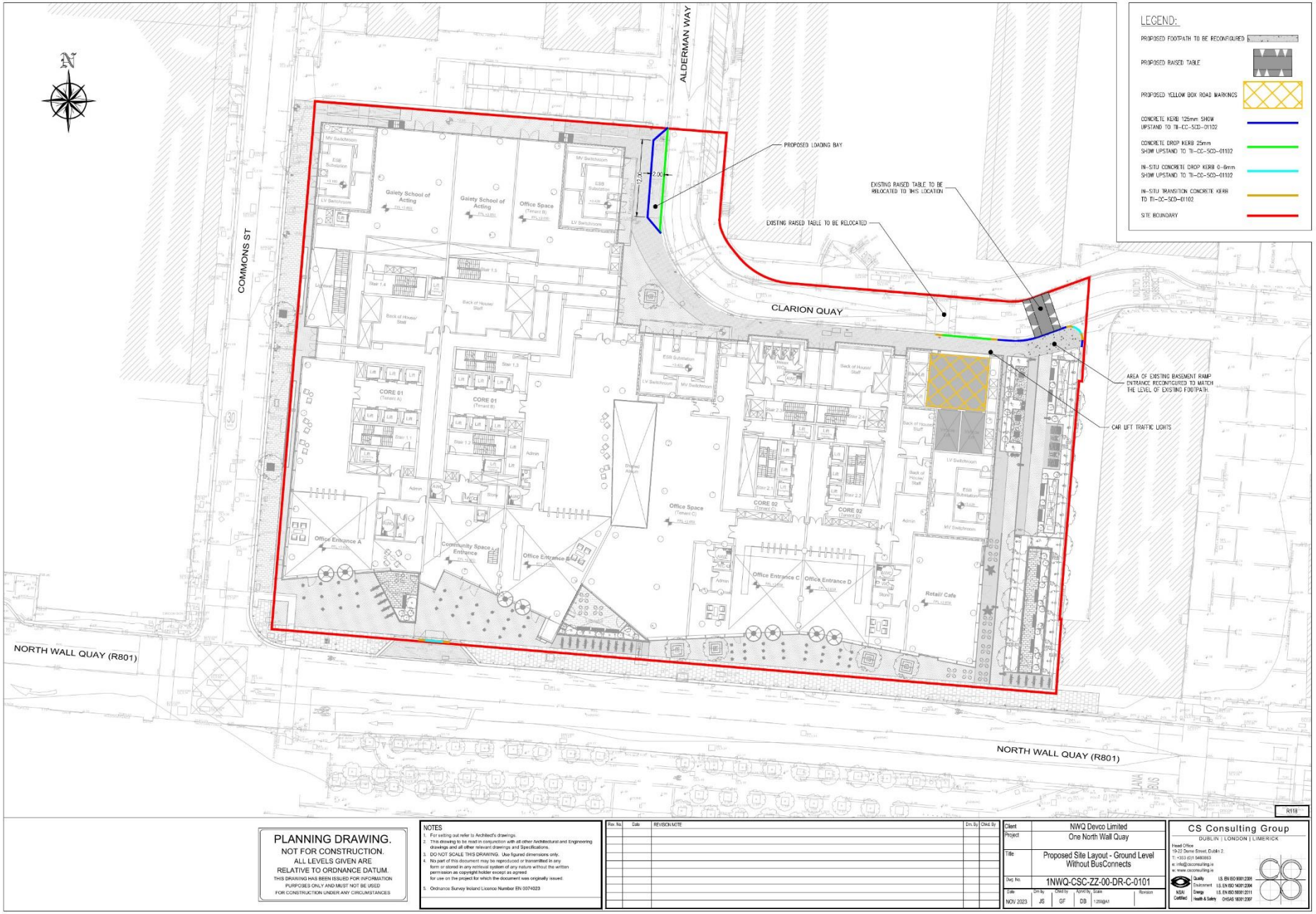


Figure 3. *Proposed site layout – ground level*

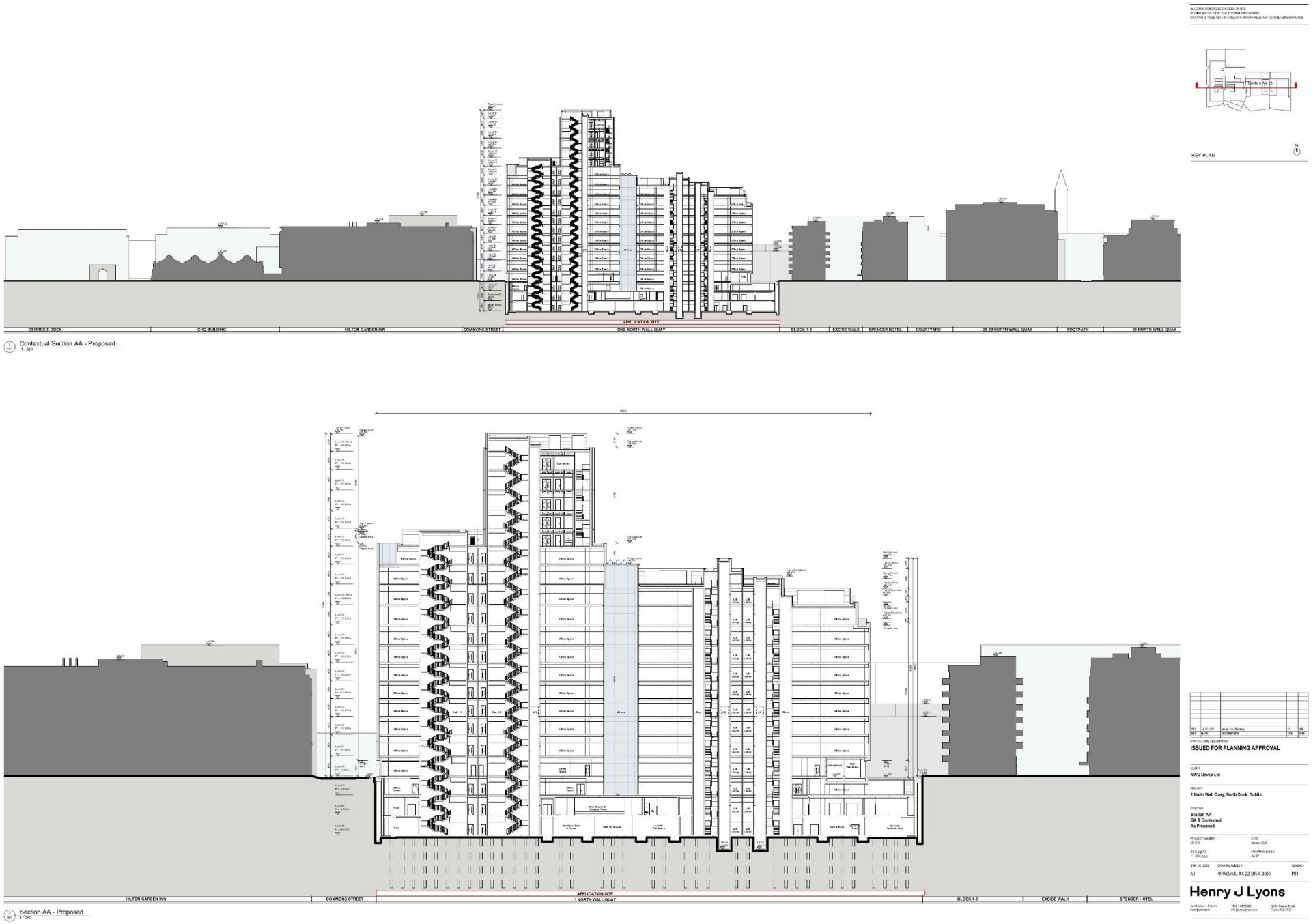


Figure 4. *Section AA Contextual Elevations*

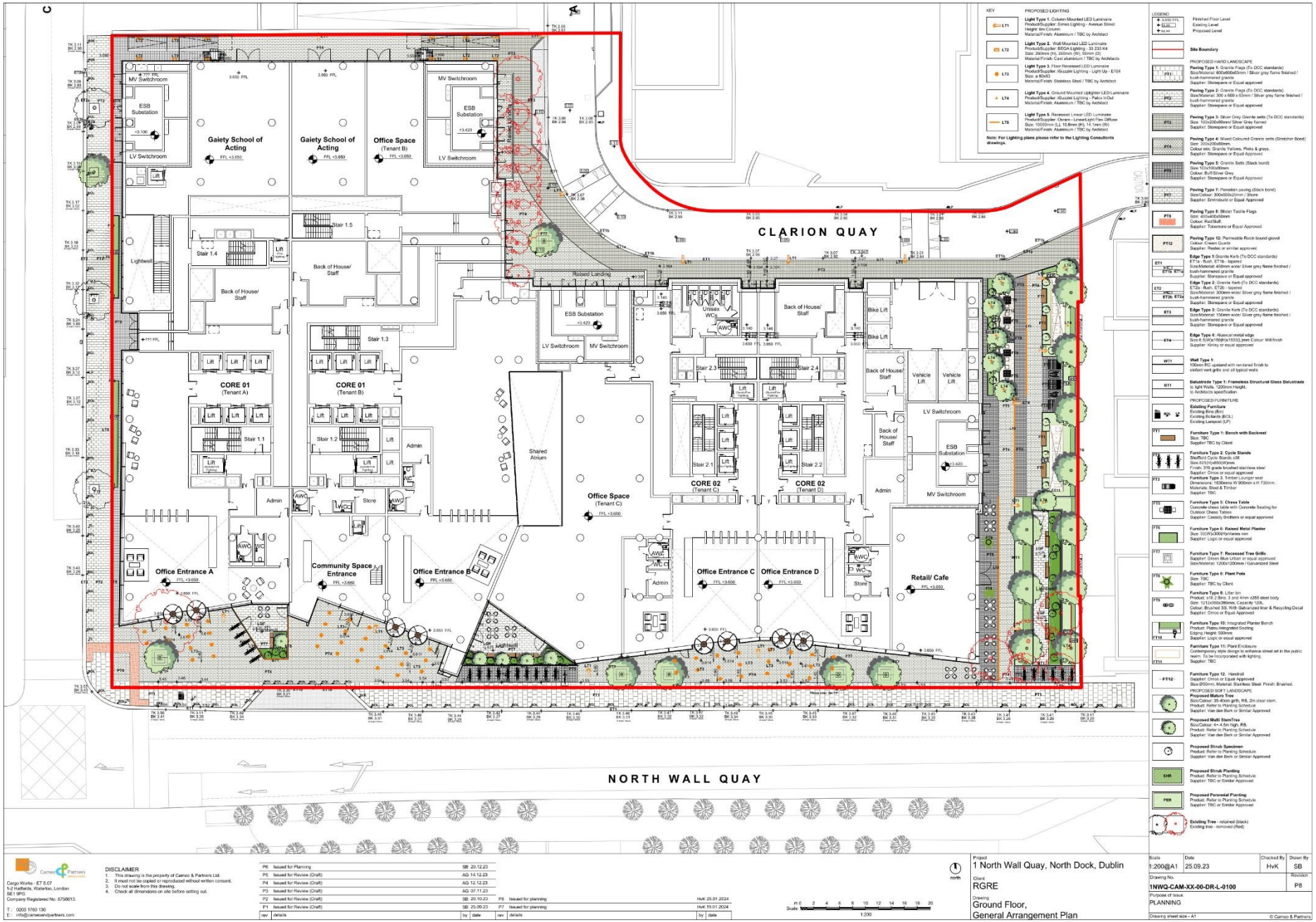


Figure 5. *Ground floor general arrangement plan*

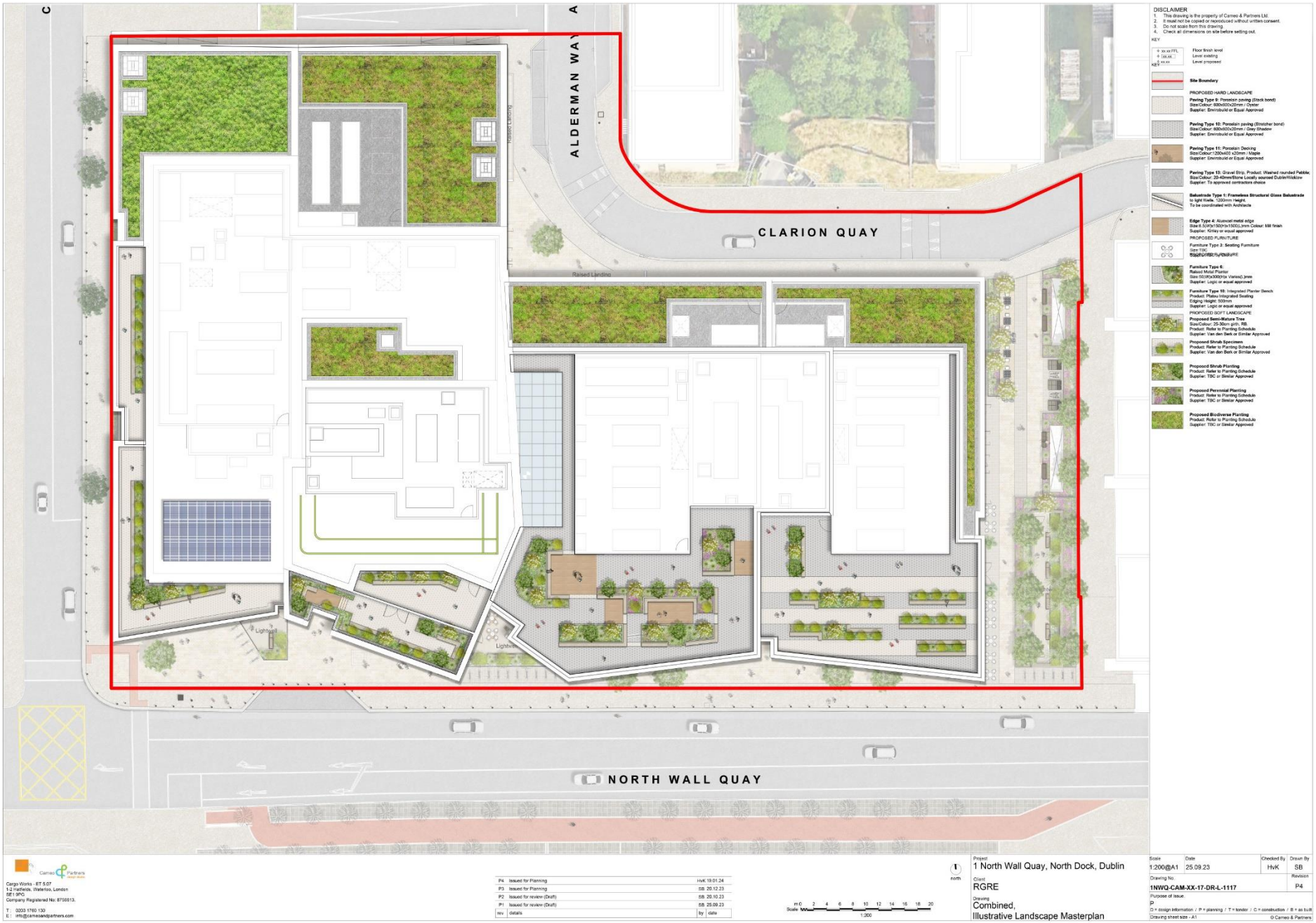


Figure 6. *Landscape masterplan*

LANDSCAPE ANALYSIS

EXISTING TREES

The proposed development will necessitate the removal of 16 existing trees within the site

The range of species include Pear (Pyrus calleryana Chanticleer), Pin Oak (Quercus palustris) & Persian Ironwood (Parrotia persica)

The Lime trees along Common Street within the public footpath are unaffected

Number of trees to be removed: 16

Number of new proposed trees: 24 (at ground floor)

1. Tilia euchlora
2. Pyrus calleryana Chanticleer
3. Quercus palustris
4. Parrotia persica

See Page 14 for proposed tree species

Existing trees to be removed

Existing Trees to be retained

Proposed new trees

Figure 7. *Landscape tree plan*

Outline Construction Management Plan

An Outline Construction Management Plan has been prepared by CS Consulting to accompany this planning application. It outlines the following in relation to the proposed development:

'Existing Land Use and Site Characteristics
The development site is brownfield and is occupied by an existing office building (the Citigroup headquarters), which shall be demolished as part of the proposed development but which is presently still in full use. The River Liffey is located approx. 25m south of the development site.

SITE MANAGEMENT
Site Establishment

The contractor once appointed shall provide all necessary accommodation, material handling and secure storage for its operations.

Subject to a successful grant of planning, it is intended for the works to commence in Q1 2025. The proposed development is anticipated to be constructed over a 48-month period.

ENVIRONMENTAL CONSIDERATIONS
The Contractor will establish guidelines and controls for all activities that may impact on the surrounding environment for the duration of the works, including air, water, land, natural resources, flora, fauna, humans, and their interrelation.
The project is to be developed to enable to all personnel with the means to understand their responsibilities and to meet the Contractor's statutory, contractual, and procedural obligations relating to environmental management.

For each activity, the environmental aspects and associated actual and potential impacts are to be identified as they relate to the following environmental elements:
- *emissions to air*
- *releases to water*
- *releases to land*
- *use of raw materials & natural resources*
- *use of energy*
- *waste and by-products*
- *community & neighbours*
- *flora & fauna*
- *heritage & cultural.*

Stormwater and Wastewater Management
The purpose of these procedures is to ensure that storm water and wastewater runoff is managed and that there is no off-site environment impact caused by overland storm water flows.

The project environmental management plan will be developed in detail to include:
- *silt control on the roads*
- *discharge water from dewatering systems*
- *diversion of clean water*
- *treatment and disposal of wastewater from general clean-up of tools and equipment*
- *spills control*
- *silt trapping and oil interception (to be considered where surface water run-off may enter watercourse)*
- *refuelling of machinery off-site or at a designated bunded refuelling area.*

Noise
The Contractor shall implement measures to eliminate and reduce noise levels where possible. Potential sources of noise due to works on site include:
- *Operation of plant and machinery*

- *Vehicle movements*
- *Demolition of existing structures*
- *Construction of new structures*
- *Loading, unloading, and distribution of materials*

All construction activities shall be carried out in compliance with the recommendations of BS 5228 (Noise Control on Construction and Open Sites – Part 1) and comply with BS 6187 (Code of Practice for Demolition).

Air Quality and Dust Monitoring
Dust prevention measures shall be included for control of any site airborne particulate pollution. The Contractor shall continuously monitor levels of dust and airborne particulate matter (PM10 and PM2.5) in the vicinity of the site throughout demolition and construction works, in accordance with planning conditions, and records shall be kept of such monitoring for review by the Planning Authority.

Harmful Materials
Harmful material will be stored on site for use in connection with the construction works only. These materials will be stored in a controlled manner. Where on-site storage facilities are used, there will be a bunded filling area using double bunded steel tank at a minimum.

Protection of Watercourses
The following measures will be employed to protect surface water in the receiving environment during demolition and construction, and to prevent its contamination by direct run-off or by infiltration from the development site. These have been developed in accordance with best practice guidance from Inland Fisheries Ireland (2016). (See mitigation measures – Table 7)

Vibration
The Contractor will be required to carry out their works such that the effect of vibration on the adjacent buildings and surroundings is minimised, and that no damage to these results from construction activity on site. Potential sources of significant vibration include:
- *Reduced level excavation and/or rock breaking.*
- *Other construction activities on site involving the use of heavy machinery.*

The Contractor will be required to comply with the requirements of the planning permission for any vibration limits for the works. The Local Authority, Engineer, Client, and/or Contractor are to establish background vibration levels prior to the commencement of works. A vibration monitoring system is to be put in place prior to any works taking place and will be maintained in continuous operation throughout demolition and construction works on site. This system is to raise an alarm if an agreed limit is exceeded, at which time the working methods are to be adjusted so as to reduce the vibration generated. Monitoring locations will be selected within the site, close to its boundaries, such that the recorded vibration levels shall always be higher than those experienced outside the site.

Construction Traffic Routes
Heavy Goods Vehicle traffic (vehicles 3.5t or over) to and from the construction site shall comprise primarily 3-axle and 4-axle lorries for the removal of construction waste and the delivery of large structural elements or plant. All HGV construction traffic to and from the site will follow a designated route, ensuring that heavy construction vehicles avoid sensitive streets to the greatest extent possible and travel as little as possible within the city centre. Subject to final agreement between the lead Contractor and DCC (as part of the Contractor's final Construction Traffic Management Plan), this designated route will require heavy construction vehicles travelling to and from the site to arrive and depart from/to the M50 motorway (Dublin Tunnel) via the north quays.

Vehicle Movements During Construction
The major construction items include excavation, construction, and fit out. Heavy Goods Vehicle (HGV) construction traffic to and from the site shall reach a peak during reduced level excavation, which will require the removal of spoil from the site. The final programming and scheduling of such material transfer shall be

determined by the lead Contractor appointed to the project. Under a 'worst-case' scenario, however, it is possible that up to 4no. such HGV trips may be made to the site each hour (one HGV arrival and one HGV departure every 15 minutes). This would equate to total traffic movements of 18 Passenger Car Units (PCU) in each of the background peak hours.
In addition to HGV traffic, periodic deliveries of materials to site shall be made by Light Goods Vehicles. To the extent possible, these shall be scheduled to take place outside of the background peak traffic hours. Such trips are also unlikely to occur frequently during the stages of construction that require bulk excavation; LGV trips are therefore unlikely to occur in significant numbers at the same time as HGV trips take place. For the purposes of estimating a worst-case construction traffic generation scenario, however, 6no. LGV arrivals and 6no. LGV departures (total traffic movements of 12 PCU) are assumed in each of the background peak hours.

PROVISIONS FOR CONSTRUCTION

6.1 Hoarding, Set-up of Site, and Access/Egress Points

The site area will be enclosed with hoarding, details of which are to be agreed with DCC. Hoarding panels will be maintained and kept clean for the duration of the project.

6.2 Removal of Services

Prior to any works a utility survey will be carried out to identify existing services. All services on site will be disconnected, diverted or removed as agreed with service providers.

6.3 Demolition

Refer to Demolition Method Statement document separate to this document which accompanies the planning application.

6.4 Excavation

This development will involve excavation and removal of material from site for foundations, and regrading of the site profile. It is not envisaged that rock will be encountered during the excavation works.
The appointed Contractor will engage with the project archaeologist prior to the commencement of excavation on site. Excavation will be carried out under the supervision of the project archaeologist.

Site Service Installations

Drainage, power, and water service connections will be installed to serve the proposed development.

6.6 Construction Stage

Following on from demolition, site clearance and bulk-excavations, foundations will be laid, and the external buildings envelope and roof constructed.
The building frames will be constructed with reinforced concrete floor slabs and concrete columns to level 12 and structural steel above this level.
Works to the façade will commence following partial completion of the external envelope. Once the buildings are weather sealed, the internal fit out and completion works will take place.

6.7 Superstructure

The construction of the superstructure shall involve a coordinated sequencing of activities, and various construction methodologies could be adopted to deliver the Contract. As noted, the construction methodology and therefore the programme of the construction activities will be dictated by the Contractor. The following outlines a general construction sequence for the superstructure.

Buildings Structure:

- *Installation of any temporary works which needs to be verified as part of detail design*
- *Site clearance & demolition including install/removal of below ground services.*
- *Excavation/fill and construction of the basement levels and foundations, to support the new vertical structure.*
- *Construction of new vertical structure and horizontal structure to form floor slabs and core structures in a sequential manner, with integration of the new elements (as required) into the existing structure.*

Envelope / Cladding:

- *Commencement of envelope works to ground floor when structure has progressed to approximately Level 2/3, with suitable temporary openings in the façade left for ease of transport of construction material.*
- *Advancing of external leaf two or three levels behind the structure.*

6.7.3 Mechanical & Electrical fit-out:
- *First fix will commence at each level behind structure*
- *This will be followed by the second fix and the final connections*

6.7.4 General fit-out:
- *Initial installation of stud work when cladding is complete, and floor is weather tight.*
- *Installation of equipment and associated connection to services.*
- *Completion of finishes.*

6.7.5 Commissioning:
- *The final commissioning period will commence during fit-out.*

The above is an indicative construction sequence. The final sequence will be dictated by the Contractor. The Contractor must issue a detailed construction programme outlining the various stages prior to commencement of works.'

Summary of the Works

As can be seen from the information provided above, the works involve the demolition of existing structures on site including the Citigroup headquarters building which is still in use, excavation of basement levels and the construction of a new development on site. Based on the information outlined in the Outline Construction Management Plan and the supporting information in the accompanying EIAR, the nature of construction including demolition and deep excavation works proximate to the River Liffey which is a direct pathway to Natura 2000 sites at Dublin Bay, a robust approach to Appropriate Assessment is required. The proposed project will require a robust series of mitigation measures to prevent impacts on the River Liffey and significant effects on downstream Natura 2000 sites.

Surface Water Management Plan

A Surface Water Management Plan was prepared by CS Consulting for the proposed project. The following is noted in the Surface Water Management Plan:

Ground Investigation
'*It is not practical to carry out a site investigation at the development site at this stage, as the site is currently occupied by an existing building. However, it is proposed to carry out a full site investigation to confirm baseline conditions and provide a factual site investigation report when the existing building has been demolished.*'

Construction Phase Wastewater Discharge Licence
'*The lead Contractor will be required to secure a Trade Effluent Licence from Uisce Éireann, permitting the discharge of pumped groundwater to the public drainage network*.'

Drainage

An Engineering Services Report has been prepared by CS Consulting to accompany this planning application. It outlines the following in relation to the proposed development:

'FOUL DRAINAGE

2.1 Existing Foul Drainage Infrastructure

Uisce Éireann records indicate that the following relevant existing foul and combined sewers are in place surrounding the development site:

- *A 225mm diameter concrete foul sewer in Clarion Quay, running westward and then northward at the development site's north-eastern boundary.*
- *A 375mm diameter vitrified clay combined sewer running east to west in North Wall Quay, along the development site's southern boundary, which turns north at the junction of North Wall Quay and Commons Street and continues to flow northward along the development's western boundary.*

The foul sewer in Clarion Quay joins a 375mm diameter foul sewer flowing east to west in Mayor Street Lower, which in turn joins the combined sewer in North Wall Quay. This discharges to the Mayor Street Wastewater Pumping Station (WwPS), from which all effluent ultimately reaches the Ringsend Wastewater Treatment Plant (WwTP).

The Ringsend WwTP presently has a peak hydraulic capacity of 959,040 m^3/day and has a current annual maximum hydraulic loading of 854,201 m^3/day. However, the plant currently has an 'as constructed' organic capacity of 1,640,000 PE (Population Equivalent) but is under a peak load of 2,207,592 PE. The plant is therefore able to process the volume of wastewater that it currently receives, but is not able to treat all effluent to the required standard before discharge. An intensive programme of improvement works by Uisce Éireann is currently underway to increase the Ringsend WwTP's organic treatment capacity.

Proposed Foul Drainage Arrangements

It is proposed to discharge all foul effluent from the proposed development's ground floor and upper storeys by gravity to the existing 375mm combined sewer on Commons Street, as recommended by Uisce Éireann in its Confirmation of Feasibility.

The last private manhole within the site shall be in accordance with DCC and Uisce Éireann requirements and accessible for maintenance purposes.

All water drained from the development's basement levels, shall drain to 2no. internal pumping chambers at the lower basement level (-2 level).

From these, it shall be pumped via 2no. rising mains to the development's stand-off manhole at the ground level, and subsequently discharged by gravity into the existing 375mm combined sewer on Commons Street.

An oil separator shall be installed prior to the inlet of the internal pumping chamber that collects runoff from the internal car parking areas.

Uisce Éireann Liaison

A Pre-Connection Enquiry (PCE) was submitted to Uisce Éireann on the basis of an office development on the subject site, with a design population of 4,923 people. A Confirmation of Feasibility (CoF) was subsequently received in response, stating that connection of such a development to the public wastewater network would be feasible subject to the following:

- *Connection to be made into the 375 CO on Commons Street.*
- *Mayor St. Pumping Station (PS) to be upgraded (flow rate to be increased).*
- *Completion of an Uisce Éireann Project: Diversion of the existing rising main (RM) from the PS up to the existing 375mm gravity sever on Spencer Dock.*
- *Extension of the new RM for approx. 200m up to the existing 1000mm Brick sewer or upgrade of the 375mm sewer.*

Existing Surface Water Drainage Infrastructure

Uisce Éireann drainage and supply records (corroborated by topographical survey) indicate that the following existing dedicated surface water drainage infrastructure elements are in place surrounding the development site:

- *A concrete stormwater sewer (between 525mm and 600mm in diameter) in Clarion Quay, at the development site's north-eastern boundary.*
- *A 375mm diameter vitrified clay stormwater sewer running east to west in North Wall Quay, along the development site's southern boundary.*
- *A brick stormwater sewer (between 1820mm and 2030mm in diameter) running north to south in Commons Street.*

The stormwater sewer running east to west in North Wall Quay discharges to the brick stormwater sewer running north to south in Commons Street, which then outfalls to the River Liffey. The stormwater sewer in Clarion Quay discharges to a 1700mm diameter stormwater sewer running west to east in Mayor Street Lower; this ultimately outfalls to either the River Liffey or the Royal Canal, in proximity to the Samuel Beckett Bridge.

Proposed Surface Water Drainage Design

Proposed surface water drainage arrangements

The existing office building on the development site has surface water drainage connections to the stormwater sewers in Clarion Quay and Commons Street. It is proposed to retain these and use them for the proposed development; these comprise 3no. connections to the stormwater sewer in Clarion Quay and 3no. connections to the stormwater sewer in Commons Street.

The proposed stormwater drainage arrangements have been designed in accordance with Part H of the Building Regulations 2010, the Greater Dublin Regional Code of Practice for Drainage Works (Version 6), and the Greater Dublin Strategic Drainage Study (GDSDS).

The stormwater drainage design has also taken consideration of high tide events, due to the site's proximity to the River Liffey and Dublin Bay Area.'

The proposed drainage plans are demonstrated in Figures 8, 9 and 11.

Site-Specific Flood Risk Assessment

A Site-Specific Flood Risk Assessment Report has been prepared by CS Consulting to accompany this planning application. It concludes with the following:

'• The development site historically has no recorded flood events, as noted in the OPW's historical flood maps.

• Predicted flood hazard mapping for fluvial flood events shows that the development site is at low risk of flooding from this source.

• Predicted flood hazard mapping for tidal and pluvial flood events show that the development site is at moderate risk of flooding from these sources. It is proposed to provide demountable flood barriers at the entrance of the proposed development to mitigate the risk to an acceptable degree.

• The development's basement shall be constructed to withstand groundwater ingress, mitigating the risk of flooding from this source.

• The permitted development shall have a storm water attenuation system to address a 1-in-100-year extreme storm event, increased by 30% for predicted climate change effects. This shall significantly reduce the volume of storm water leaving the site during extreme storms, which in turn shall have the effect of reducing the loading on the existing public drainage system and reducing the risk of flooding on neighbouring sites due to runoff from the development site.

The proposed development is deemed to be suitable for the site location, as historical and potential flood routes have been reviewed and the likelihood of the development being subject to flooding is low, given the implementation of the mitigation measures described.'

The flood exceedance and overland flow paths are demonstrated in Figure 10.

Figure 8. *Proposed drainage layout – ground level*

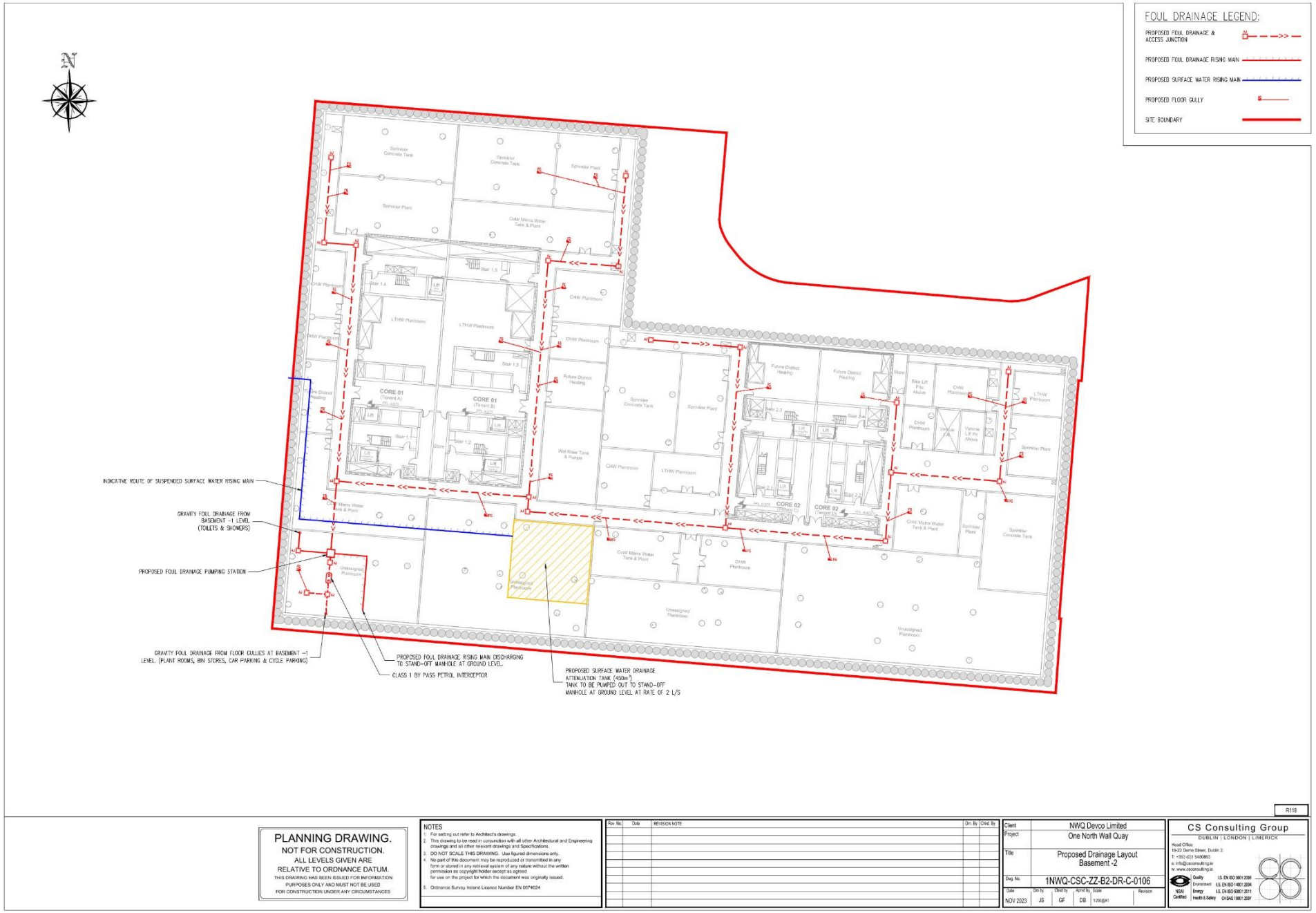


Figure 9. *Proposed drainage layout – Basement*

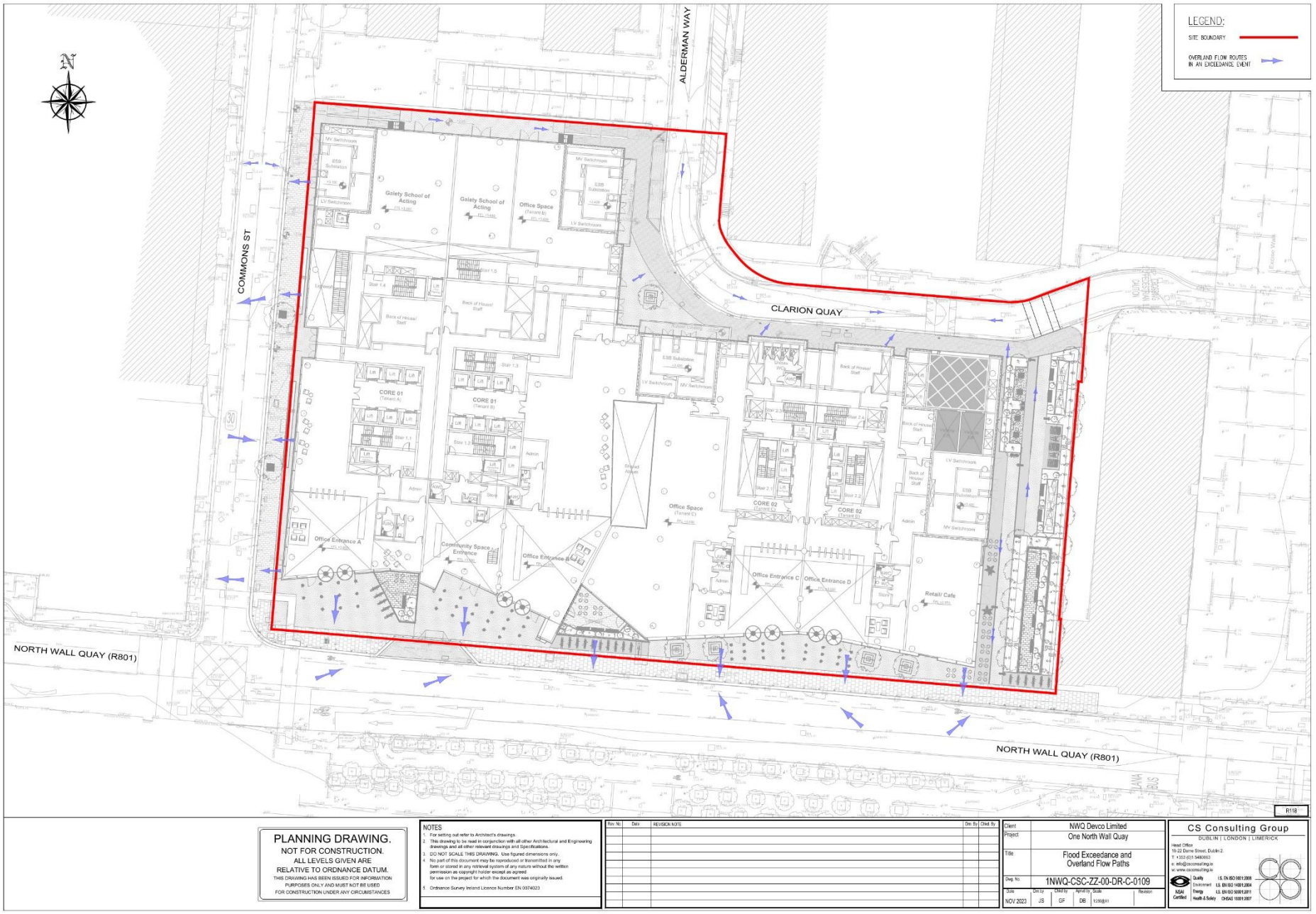


Figure 10. *Flood exceedance and overland flow paths*

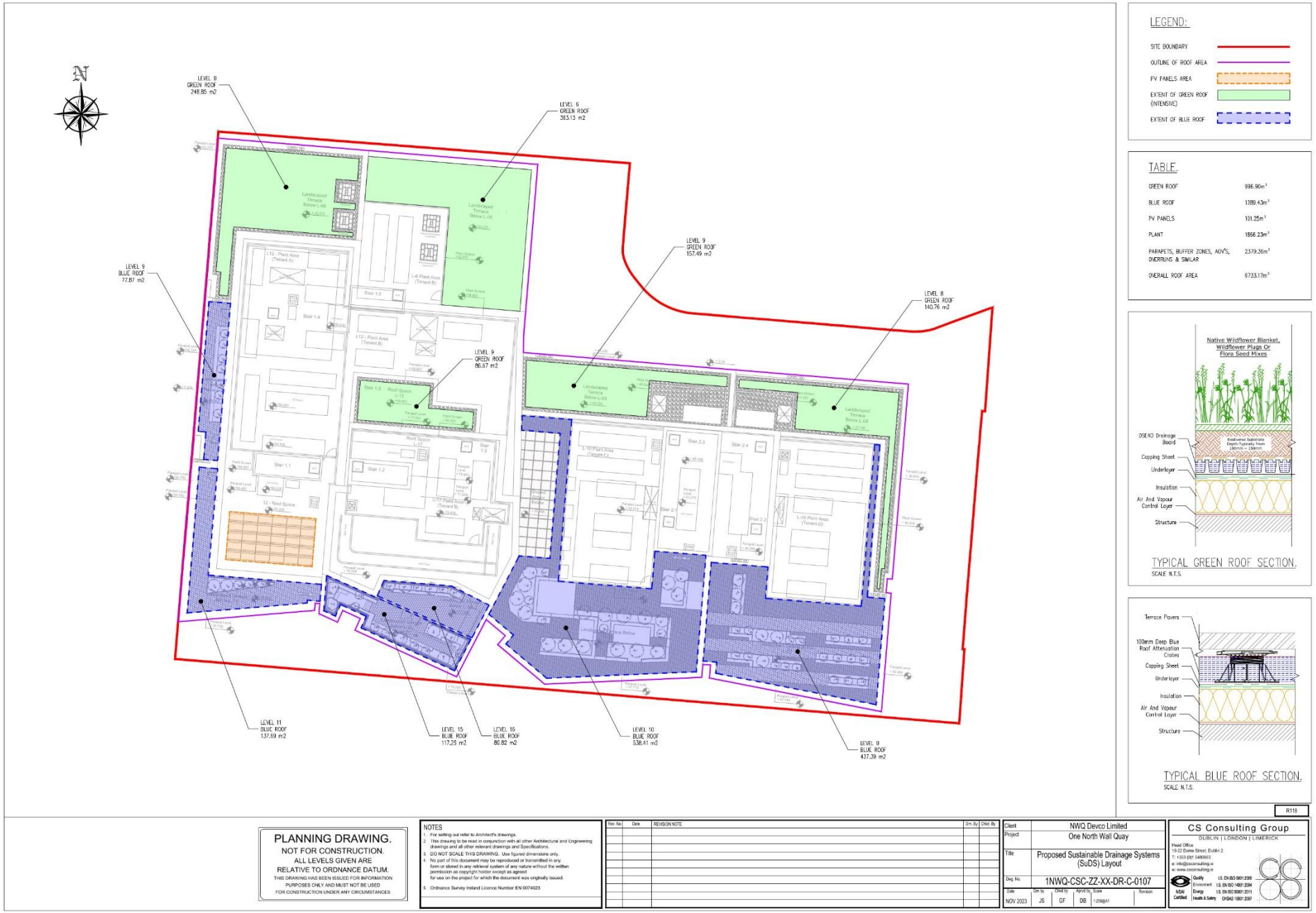


Figure 11. *Proposed SuDs measures*

Identification of Relevant European Sites

The proposed development site is not within a European site. As outlined in Office of the Planning Regulator (2021) "*The zone of influence of a proposed development is the geographical area over which it could affect the receiving environment in a way that could have significant effects on the Qualifying Interests of a European site. This should be established on a case-by-case basis using the Source- Pathway-Receptor framework and not by arbitrary distances (such as 15 km)*."

A key factor in the consideration as to whether a particular European site is likely to be affected by the proposed development is its distance from the development location. It is generally, but not necessarily, the case that the greater the distance from the plan or project the smaller the likelihood of impacts. In this case, the nearest European site to the proposed development is South Dublin Bay and River Tolka Estuary SPA (1.5 km). The proposed development site is brownfield and is occupied by an existing occupied office building (the Citigroup headquarters) located within Dublin Docklands, approximately 25m from the River Liffey. This building and all other hardstanding structures within the site boundary shall be demolished as part of the proposed development. Excavation of the basement is also required. During construction there is potential for dust and surface water to enter the River Liffey. It is considered that there is a direct pathway to the River Liffey during construction. In addition, during construction surface water management will involve the pumping of surface water and ground water if encountered from the site to public sewers.

Foul water from the proposed development will be directed to the existing 375mm combined sewer on Commons Street where it will ultimately flow to Ringsend WwTP for treatment under licence. In the absence of mitigation, no significant effects on the qualifying interests of Natura 2000 sites are foreseen via foul water drainage. The existing office building on the development site has surface water drainage connections to the stormwater sewers in Clarion Quay and Commons Street. It is proposed to retain these and use them for the proposed development. There is therefore an indirect hydrological pathway between the subject site and Natura 2000 sites in Dublin Bay via surface water drainage to the River Liffey during the operational phase of development.

Given the nature of the proposed demolition and site clearance works and the close proximity of the River Liffey, out of an abundance of caution it is considered that the ZOI of the proposed project includes the site outline, the River Liffey and Natura 2000 sites located within Dublin Bay. In the absence of mitigation, there is the potential for dust and surface water runoff to enter the River Liffey with the potential for downstream impacts on Natura 2000 sites located within Dublin Bay, namely South Dublin Bay SAC, North Dublin Bay SAC, South Dublin Bay and River Tolka Estuary SPA, North Bull Island SPA and North-West Irish Sea SPA.

In the interest of carrying out a thorough assessment in line with both the Habitats Directive, and the precautionary principle, the assessment area was expanded to include designated sites within 15km of the proposed development site, and sites beyond 15km with the potential for a hydrological connection. This was done in the interest of ensuring that any pathways, however indirect or remote, were considered. All Natura 2000 sites within 15km, and beyond 15km with the potential for a hydrological pathway are listed in Table 1. The qualifying interests, and the potential impact of the development on each European site and qualifying interest, are screened in/out in Table 2. SPA's and SAC's within 15km are seen in Figures 12 & 13. Watercourses, waterbodies, SACs and SPAs within 5km are demonstrated in Figures 14-16.

Table 1. Proximity to designated sites of conservation importance

Site Code	NATURA 2000 Site	Distance
Special Areas of Conservation		
IE000210	South Dublin Bay SAC	2.5 km
IE000206	North Dublin Bay SAC	4.4 km
IE000199	Baldoyle Bay SAC	9.4 km
IE000202	Howth Head SAC	10.1 km
IE003000	Rockabill to Dalkey Island SAC	10.3 km
IE000205	Malahide Estuary SAC	12.5 km
IE002122	Wicklow Mountains SAC	12.5 km
IE001209	Glenasmole Valley SAC	13 km
IE002193	Ireland's Eye SAC	13.3 km
Special Protection Areas		
IE004024	South Dublin Bay and River Tolka Estuary SPA	1.5 km
IE004006	North Bull Island SPA	4.4 km
IE004236	North-West Irish Sea SPA	6.3 km
IE004016	Baldoyle Bay SPA	9.6 km
IE004172	Dalkey Islands SPA	12.5 km
IE000205	Malahide Estuary SPA	12.5 km
IE004113	Howth Head Coast SPA	12.7 km
IE004040	Wicklow Mountains SPA	12.7 km
IE004117	Ireland's Eye SPA	13 km

Table 2. Initial screening of Natura 2000 sites within 15km and Natura 2000 sites further than 15km with potential of hydrological connection to the proposed development

Natura Code	Name	Screened In/Out	Details/Reason
Special Areas of Conservation			
IE0000210	South Dublin Bay SAC	**IN**	**Conservation Objectives** The maintenance of habitats and species within Natura 2000 sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level. **Qualifying Interests** Mudflats and sandflats not covered by seawater at low tide [1140] Annual vegetation of drift lines [1210] Salicornia and other annuals colonising mud and sand [1310] Embryonic shifting dunes [2110] **Potential Impact** The development site is located within an urban area 2.5 km from the South Dublin Bay SAC (Figure 12). Given the nature of the proposed works, and the proximity of the subject site to the River Liffey (25m), it is considered that there is a direct hydrological pathway to this SAC. In the absence of mitigation, there is the potential for dust and surface water runoff to enter the River Liffey with the potential for downstream impacts on the qualifying interests of this SAC. Extensive mitigation measures are required to ensure that dust and contaminated surface water runoff does not enter the River Liffey.

Natura Code	Name	Screened In/Out	Details/Reason
			In a strict application of the precautionary principle, it has been concluded that significant effects on the South Dublin Bay SAC are likely, in the absence of mitigation measures, from the proposed works primarily as a result of the direct hydrological connection to the SAC from the proposed project, which involves demolition works in close proximity (25m) to the River Liffey. During operation, there is also an indirect hydrological pathway to this SAC via surface water drainage to the River Liffey. Mitigation measures will need to be in place to prevent silt, hazardous materials and petrochemicals entering the River Liffey, which has a direct pathway to this SAC. For these reasons (mitigation measures are required in relation surface water and a direct pathway), it is necessary to proceed to a NIS on the effects of the project on this site in view of its conservation objectives. **Significant effects are likely - Natura Impact Statement Required**
IE0000206	North Dublin Bay SAC	**IN**	**Conservation Objectives** The maintenance of habitats and species within Natura 2000 sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level. **Qualifying Interests** Mudflats and sandflats not covered by seawater at low tide [1140] Annual vegetation of drift lines [1210] Salicornia and other annuals colonising mud and sand [1310] Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) [1330] Mediterranean salt meadows (*Juncetalia maritimi*) [1410] Embryonic shifting dunes [2110] Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes) [2120] Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130] Humid dune slacks [2190] Petalwort (*Petalophyllum ralfsii*) [1395] **Potential Impact** The proposed works are located within an urban area 4.4 km from North Dublin Bay SAC (Figure 12). Given the nature of the proposed works, and the proximity of the subject site to the River Liffey (25m), it is considered that there is a direct hydrological pathway to this SAC. In the absence of mitigation, there is the potential for dust and surface water runoff to enter the River Liffey with the potential for downstream impacts on the qualifying interests of this SAC. Extensive mitigation measures are required to

Natura Code	Name	Screened In/Out	Details/Reason
			ensure that dust and contaminated surface water runoff does not enter the River Liffey. In a strict application of the precautionary principle, it has been concluded that significant effects on the North Dublin Bay SAC are likely, in the absence of mitigation measures, from the proposed works primarily as a result of the direct hydrological connection to the SAC from the proposed project, which involves demolition works in close proximity (25m) to the River Liffey. During operation, there is also an indirect hydrological pathway to this SAC via surface water drainage to the River Liffey. Mitigation measures will need to be in place to prevent silt, hazardous materials and petrochemicals entering the River Liffey, which has a direct pathway to this SAC. For these reasons (mitigation measures are required in relation surface water and a direct pathway), it is necessary to proceed to a NIS on the effects of the project on this site in view of its conservation objectives. **Significant effects are likely - Natura Impact Statement Required**
IE0000199	Baldoyle Bay SAC	**OUT**	**Conservation Objectives** The maintenance of habitats and species within Natura 2000 sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level. **Qualifying Interests** Mudflats and sandflats not covered by seawater at low tide [1140] Salicornia and other annuals colonising mud and sand [1310] Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) [1330] Mediterranean salt meadows (*Juncetalia maritimi*) [1410] **Potential Impact** The proposed development site is located in an urban environment 9.4 km from this SAC (Figure 12). There is no direct hydrological pathway from the proposed development site to the SAC. Out of an abundance of caution, it is considered that there is a remote indirect hydrological pathway to this SAC via dust and surface water runoff. Given the proximity of the proposed works site to the River Liffey (25m), there is the potential for silt, hazardous materials or pollutants to enter the marine environment. During operation, there is also an indirect hydrological pathway to this SAC via surface water drainage to the River Liffey.

Natura Code	Name	Screened In/Out	Details/Reason
			However, given the distance to this SAC (min. 9.4km) across a substantial marine environment, in the absence of mitigation measures, any silt or pollutants will settle, be dispersed, or diluted within the marine environment. No significant impacts on the qualifying interests of this SAC are foreseen. No potential impact is foreseen. There is no direct pathway from this site to the SAC. The construction and operation of the proposed development will not impact on the conservation interests of the site. **No significant effects likely**
IE0000202	Howth Head SAC	**OUT**	**Conservation Objectives** The maintenance of habitats and species within Natura 2000 sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level. **Qualifying Interests** Vegetated sea cliffs of the Atlantic and Baltic coasts [1230] European dry heaths [4030] **Potential Impact** The proposed development site is located within an urban area 10.1 km from this SAC (Figure 12). There is no direct hydrological pathway from the proposed development site to the SAC. Out of an abundance of caution, it is considered that there is a remote indirect hydrological pathway to this SAC via dust and surface water runoff. Given the proximity of the proposed works site to the River Liffey (25m), there is the potential for silt, hazardous materials or pollutants to enter the marine environment. During operation, there is also an indirect hydrological pathway to this SAC via surface water drainage to the River Liffey. However, given the distance to this SAC (min. 10.1 km) across a substantial marine environment, and the fact that the qualifying interests are terrestrial habitats, in the absence of mitigation measures, any silt or pollutants will settle, be dispersed, or diluted within the marine environment. No significant impacts on the qualifying interests of this SAC are foreseen. No potential impact is foreseen. There is no direct pathway from this site to the SAC. The construction and operation of the proposed development will not impact on the conservation interests of the site. **No significant effects likely**
IE0003000	Rockabill to Dalkey Island SAC	**OUT**	**Conservation Objectives** The maintenance of habitats and species within Natura 2000 sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level.

Natura Code	Name	Screened In/Out	Details/Reason
			Qualifying Interests Reefs [1170] Harbour Porpoise (*Phocoena phocoena*) [1351] **Potential Impact** The development site is located within an urban area 10.3 km from this SAC (Figure 12). There is no direct hydrological pathway from the proposed development site to the SAC. Out of an abundance of caution, it is considered that there is a remote indirect hydrological pathway to this SAC via dust and surface water runoff. Given the proximity of the proposed works site to the River Liffey (25m), there is the potential for silt, hazardous materials or pollutants to enter the marine environment. During operation, there is also an indirect hydrological pathway to this SAC via surface water drainage to the River Liffey. However, given the distance to this SAC (min. 10.3 km), in the absence of mitigation measures, any silt or pollutants will settle, be dispersed, or diluted within the marine environment. The River Liffey in the vicinity of the works is tidal and would contain a significant portion of freshwater. In addition the site is proximate to a working port with large vessel activity and significant underwater noise. However, should Harbour Porpoise (*Phocoena phocoena*) be in the vicinity of the River Liffey during accidental contaminated surface water discharge or dust, this is a highly mobile species and would avoid water that has been impacted by surface water contamination. No significant impacts on the qualifying interests of this SAC are foreseen. No potential impact is foreseen. Due to the extensive dilution within the marine environment in Dublin Bay there is no direct pathway from this site to the SAC. The construction and operation of the proposed development will not impact on the conservation interests of the site. **No significant effects likely**
IE0002122	Wicklow Mountains SAC	**OUT**	**Conservation Objectives** The maintenance of habitats and species within Natura 2000 sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level. **Qualifying Interests** Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*) [3110] Natural dystrophic lakes and ponds [3160] Northern Atlantic wet heaths with *Erica tetralix* [4010] European dry heaths [4030] Alpine and Boreal heaths [4060] Calaminarian grasslands of the *Violetalia calaminariae* [6130] Species-rich Nardus grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe) [6230]

Natura Code	Name	Screened In/Out	Details/Reason
			Blanket bogs (* if active bog) [7130] Siliceous scree of the montane to snow levels (*Androsacetalia alpinae* and *Galeopsietalia ladani*) [8110] Calcareous rocky slopes with chasmophytic vegetation [8210] Siliceous rocky slopes with chasmophytic vegetation [8220] Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0] Otter (*Lutra lutra*) [1355] **Potential Impact** The proposed development site is located in an urban environment 12.5 km from this SAC (Figure 12). No potential impact is foreseen. There is no direct or indirect pathway from the proposed development site to the SAC. The construction and operation of the proposed development will not impact on the conservation interests of the site. **No significant effects likely**
IE0001209	Glenasmole Valley SAC	**OUT**	**Conservation Objectives** To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected. **Qualifying Interests** Semi-Natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*) (* important orchid sites) [6210] Molinia meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*) [6410] Petrifying springs with tufa formation (*Cratoneurion*) [7220] **Potential Impact** The proposed development site is located within an urban environment 13 km from this SAC. No potential impact is foreseen. There is no direct or indirect pathway from the proposed development site to the SAC. The construction and operation of the proposed development will not impact on the conservation interests of the site. **No significant effects likely**
IE0000205	Malahide Estuary SAC	**OUT**	**Conservation Objectives** The maintenance of habitats and species within Natura 2000 sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level. **Qualifying Interests** Mudflats and sandflats not covered by seawater at low tide [1140] Salicornia and other annuals colonising mud and sand [1310] Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) [1330] Mediterranean salt meadows (*Juncetalia maritimi*) [1410]

Natura Code	Name	Screened In/Out	Details/Reason
			Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes) [2120] Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130] **Potential Impact** The proposed development site is located within an urban environment 12.5 km from this SAC (Figure 12). There is no direct hydrological pathway from the proposed development site to the SAC. Out of an abundance of caution, it is considered that there is an indirect hydrological pathway to this SAC via dust and surface water runoff. Given the proximity of the proposed works site to the River Liffey (25m), there is the potential for silt or pollutants to enter the marine environment. During operation, there is also an indirect hydrological pathway to this SAC via surface water drainage to the River Liffey. However, given the distance to this SAC (min. 12.5km) across a substantial marine environment, and in the absence of mitigation measures, any silt or pollutants will settle, be dispersed, or diluted within the marine environment. No significant impacts on the qualifying interests of this SAC are foreseen. No potential impact is foreseen. There is no direct pathway from this site to the SAC. The construction and operation of the proposed development will not impact on the conservation interests of the site. **No significant effects likely**
IE0002193	Ireland's Eye SAC	**OUT**	**Conservation Objectives** The maintenance of habitats and species within Natura 2000 sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level. **Qualifying Interests** Perennial vegetation of stony banks [1220] Vegetated sea cliffs of the Atlantic and Baltic coasts [1230] **Potential Impact** The proposed development site is located in an urban environment 13.3 km from this SAC (Figure 12). There is no direct hydrological pathway from the proposed development site to the SAC. Out of an abundance of caution, it is considered that there is an indirect hydrological pathway to this SAC via dust and surface water runoff. Given the proximity of the proposed works site to the River Liffey (25m), there is the potential for silt or pollutants to enter the marine environment. During operation, there is also an indirect hydrological pathway to this SAC via surface water drainage to the River Liffey.

Natura Code	Name	Screened In/Out	Details/Reason
			However, given the distance to this SAC (min. 13.3 km) across a substantial marine environment, and in the absence of mitigation measures, any silt or pollutants will settle, be dispersed, or diluted within the marine environment. No significant impacts on the qualifying interests of this SAC are foreseen. No potential impact is foreseen. There is no direct pathway from this site to the SAC. The construction and operation of the proposed development will not impact on the conservation interests of the site. **No significant effects likely**
Special Protection Areas			
IE0004024	South Dublin Bay and River Tolka Estuary SPA	**IN**	**Conservation Objectives** The maintenance of habitats and species within Natura 2000 sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level. **Qualifying Interests** Light-bellied Brent Goose (*Branta bernicla hrota*) [A046] Oystercatcher (*Haematopus ostralegus*) [A130] Ringed Plover (*Charadrius hiaticula*) [A137] Grey Plover (*Pluvialis squatarola*) [A141] Knot (*Calidris canutus*) [A143] Sanderling (*Calidris alba*) [A144] Dunlin (*Calidris alpina*) [A149] Bar-tailed Godwit (*Limosa lapponica*) [A157] Redshank (*Tringa totanus*) [A162] Black-headed Gull (*Chroicocephalus ridibundus*) [A179] Roseate Tern (*Sterna dougallii*) [A192] Common Tern (*Sterna hirundo*) [A193] Arctic Tern (*Sterna paradisaea*) [A194] Wetland and Waterbirds [A999] **Potential Impact** The development is on a brownfield site is located within an urban area 1.5 km from the South Dublin Bay and River Tolka Estuary SPA (Figure 13). Given the nature of the proposed works, and the proximity of the subject site to the River Liffey (25m), it is considered that there is a direct hydrological pathway to this SPA. In the absence of mitigation, there is the potential for dust and contaminated surface water runoff to enter the River Liffey with the potential for downstream impacts on the qualifying interests of this SPA. Extensive mitigation measures are required to ensure that dust and surface water runoff does not enter the River Liffey. The works will be carried out within an extensive urban environment with existing disturbance and traffic noise impacts in addition to a busy working port with vessel activity. Noise from the works would not be seen to be significant 1.5km from the site within a highly disturbed urban environment.

Natura Code	Name	Screened In/Out	Details/Reason
			The proposed development is located with a dense urban environment with buildings of a similar height e.g. Capital Dock (22 floors), EXO building (17 floors), Millenium Tower (16 floors), Liberty Hall (17 floors) and Alto Vetro (16 floors). The integration of bird friendly design has been taken into account in the form of the external "fins" on the building. These form clear and distinct visual vertical markers for birds. As a result, the building would be clearly visible to birds both during construction and operation. During operation, there is also an indirect hydrological pathway to this SPA via surface water drainage to the River Liffey. In a strict application of the precautionary principle, it has been concluded that significant effects on the South Dublin Bay and River Tolka Estuary SPA are likely, in the absence of mitigation measures, from the proposed works primarily as a result of the direct hydrological connection to the SPA from the proposed project, which involves demolition works in close proximity (25m) to the River Liffey. Mitigation measures will need to be in place to prevent silt and petrochemicals entering the River Liffey, which has a direct pathway to this SPA. For these reasons (mitigation measures are required in relation surface water and a direct pathway), it is necessary to proceed to a NIS on the effects of the project on this site in view of its conservation objectives. **Significant effects are likely - Natura Impact Statement Required**
IE0004006	North Bull Island SPA	**IN**	**Conservation Objectives** The maintenance of habitats and species within Natura 2000 sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level. **Qualifying Interests** 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] Golden Plover (*Pluvialis apricaria*) [A140] Grey Plover (*Pluvialis squatarola*) [A141] Knot (*Calidris canutus*) [A143] Sanderling (*Calidris alba*) [A144] Dunlin (*Calidris alpina*) [A149] Black-tailed Godwit (*Limosa limosa*) [A156] Bar-tailed Godwit (*Limosa lapponica*) [A157] Curlew (*Numenius arquata*) [A160] Redshank (*Tringa totanus*) [A162] Turnstone (*Arenaria interpres*) [A169] Black-headed Gull (*Chroicocephalus ridibundus*) [A179]

Natura Code	Name	Screened In/Out	Details/Reason
			Wetland and Waterbirds [A999] **Potential Impact** The proposed works are located within an urban area 4.4 km from the North Bull Island SPA (Figure 13). Given the nature of the proposed works, and the proximity of the subject site to the River Liffey (25m), it is considered that there is a direct hydrological pathway to this SPA. In the absence of mitigation, there is the potential for dust, hazardous materials and surface water runoff to enter the River Liffey with the potential for downstream impacts on the qualifying interests of this SPA. Extensive mitigation measures are required to ensure that dust and contaminated surface water runoff does not enter the River Liffey. The works will be carried out within an extensive urban environment with existing disturbance and traffic noise impacts in addition to a busy working port with vessel activity. Noise from the works would not be seen to be significant 4.4km from the site within a highly disturbed urban environment. The proposed development is located with a dense urban environment with buildings of a similar height e.g. Capital Dock (22 floors), EXO building (17 floors), Millenium Tower (16 floors), Liberty Hall (17 floors) and Alto Vetro (16 floors). The integration of bird friendly design has been taken into account in the form of the external "fins" on the building. These form clear and distinct visual vertical markers for birds. As a result, the building would be clearly visible to birds both during construction and operation. During operation, there is also an indirect hydrological pathway to this SPA via surface water drainage to the River Liffey. During operation, there is also an indirect hydrological pathway to this SPA via surface water drainage to the River Liffey. In a strict application of the precautionary principle, it has been concluded that significant effects on the North Bull Island SPA are likely, in the absence of mitigation measures, from the proposed works primarily as a result of the direct hydrological connection to the SPA from the proposed project, which involves demolition works in close proximity (25m) to the River Liffey. Mitigation measures will need to be in place to prevent silt and petrochemicals entering the River Liffey, which has a direct pathway to this SPA. For these reasons (mitigation measures are required in relation surface water and a direct pathway), it is necessary to proceed to a NIS on the effects of the project on this site in view of its conservation objectives.

Natura Code	Name	Screened In/Out	Details/Reason
			Significant effects are likely - Natura Impact Statement Required
IE004236	North-West Irish Sea SPA	**IN**	**Conservation Objectives** The maintenance of habitats and species within Natura 2000 sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level. **Qualifying Interests** Red-throated Diver (*Gavia stellata*) [A001] Great Northern Diver (*Gavia immer*) [A003] Fulmar (*Fulmarus glacialis*) [A009] Manx Shearwater (*Puffinus puffinus*) [A013] Cormorant (*Phalacrocorax carbo*) [A017] Shag (*Phalacrocorax aristotelis*) [A018] Common Scoter (*Melanitta nigra*) [A065] Little Gull (*Larus minutus*) [A177] Black-headed Gull (*Chroicocephalus ridibundus*) [A179] Common Gull (*Larus canus*) [A182] Lesser Black-backed Gull (*Larus fuscus*) [A183] Herring Gull (*Larus argentatus*) [A184] Great Black-backed Gull (*Larus marinus*) [A187] Kittiwake (*Rissa tridactyla*) [A188] Roseate Tern (*Sterna dougallii*) [A192] Common Tern (*Sterna hirundo*) [A193] Arctic Tern (*Sterna paradisaea*) [A194] Little Tern (*Sterna albifrons*) [A195] Guillemot (*Uria aalge*) [A199] Razorbill (*Alca torda*) [A200] Puffin (*Fratercula arctica*) [A204] **Potential Impact** The proposed works are located within an urban area 6.3 km from the North-West Irish Sea SPA (Figure 13). Given the nature of the proposed works, and the proximity of the subject site to the River Liffey (25m), it is considered that there is a direct hydrological pathway to this SPA. In the absence of mitigation, there is the potential for dust, hazardous materials and surface water runoff to enter the River Liffey with the potential for downstream impacts on the qualifying interests of this SPA. Extensive mitigation measures are required to ensure that dust and contaminated surface water runoff does not enter the River Liffey. In a strict application of the precautionary principle, it has been concluded that significant effects on this SPA are likely, in the absence of mitigation measures, from the proposed works primarily as a result of the direct hydrological connection to the SPA from the proposed project, which involves demolition works in close proximity (25m) to the River Liffey.

Natura Code	Name	Screened In/Out	Details/Reason
			The works will be carried out within an extensive urban environment with existing disturbance and traffic noise impacts in addition to a busy working port with vessel activity. Noise from the works would not be seen to be significant 6.3km from the site within a highly disturbed urban environment. The proposed development is located with a dense urban environment with buildings of a similar height e.g. Capital Dock (22 floors), EXO building (17 floors), Millenium Tower (16 floors), Liberty Hall (17 floors) and Alto Vetro (16 floors). The integration of bird friendly design has been taken into account in the form of the external "fins" on the building. These form clear and distinct visual vertical markers for birds. As a result, the building would be clearly visible to birds both during construction and operation. During operation, there is also an indirect hydrological pathway to this SPA via surface water drainage to the River Liffey. During operation, there is also an indirect hydrological pathway to this SPA via surface water drainage to the River Liffey. Mitigation measures will need to be in place to prevent silt and petrochemicals entering the River Liffey, which has a direct pathway to this SPA. For these reasons (mitigation measures are required in relation surface water and a direct pathway), it is necessary to proceed to a NIS on the effects of the project on this site in view of its conservation objectives. **Significant effects are likely - Natura Impact Statement Required**
IE0004016	Baldoyle Bay SPA	**OUT**	**Conservation Objectives** The maintenance of habitats and species within Natura 2000 sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level. **Qualifying Interests** Light-bellied Brent Goose (*Branta bernicla hrota*) [A046] Shelduck (*Tadorna tadorna*) [A048] Ringed Plover (*Charadrius hiaticula*) [A137] Golden Plover (*Pluvialis apricaria*) [A140] Grey Plover (*Pluvialis squatarola*) [A141] Bar-tailed Godwit (*Limosa lapponica*) [A157] Wetland and Waterbirds [A999] **Potential Impact** The proposed development site is located within an urban environment 9.6 km from this SPA (Figure 13). There is no direct hydrological pathway from the proposed development to this SPA. During construction and operation, out of an abundance of caution, it is considered that there is an indirect hydrological

Natura Code	Name	Screened In/Out	Details/Reason
			pathway to this SPA via dust and surface water runoff. Given the proximity of the proposed works site to the River Liffey (25m), there is the potential for silt or pollutants to enter the marine environment. However, given the distance to this SPA (min. 9.6 km) across a substantial marine environment, in the absence of mitigation measures, any silt or pollutants will settle, be dispersed, or diluted within the marine environment. No significant impacts on the qualifying interests of this SPA are foreseen. The works will be carried out within an extensive urban environment with existing disturbance and traffic noise impacts in addition to a busy working port with vessel activity. Noise from the works would not be seen to be significant 9.6km from the site within a highly disturbed urban environment. The proposed development is located with a dense urban environment with buildings of a similar height e.g. Capital Dock (22 floors), EXO building (17 floors), Millenium Tower (16 floors), Liberty Hall (17 floors) and Alto Vetro (16 floors). The integration of bird friendly design has been taken into account in the form of the external "fins" on the building. These form clear and distinct visual vertical markers for birds. As a result, the building would be clearly visible to birds both during construction and operation. During operation, there is also an indirect hydrological pathway to this SPA via surface water drainage to the River Liffey. No potential impact is foreseen. There is no direct pathway from this site to the SPA. The construction and operation of the proposed development will not impact on the conservation interests of the site. **No significant effects likely**
IE0004040	Wicklow Mountains SPA	**OUT**	**Conservation Objectives** To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA. **Qualifying Interests** Merlin (*Falco columbarius*) [A098] Peregrine (*Falco peregrinus*) [A103] **Potential Impact** The proposed development site is located within an urban environment 12.7 km from this SPA. No potential impact is foreseen. There is no direct or indirect hydrological pathway from the proposed development site to the SPA. The construction and operation of the proposed development will not impact on the conservation interests of the site. **No significant effects likely**
IE0004025	Malahide Estuary SPA	**OUT**	**Conservation Objectives** The maintenance of habitats and species within Natura 2000 sites at favourable conservation condition will contribute to

Natura Code	Name	Screened In/Out	Details/Reason
			the overall maintenance of favourable conservation status of those habitats and species at a national level. **Qualifying Interests** Great Crested Grebe (*Podiceps cristatus*) [A005] Light-bellied Brent Goose (*Branta bernicla hrota*) [A046] Shelduck (*Tadorna tadorna*) [A048] Pintail (*Anas acuta*) [A054] Goldeneye (*Bucephala clangula*) [A067] Red-breasted Merganser (*Mergus serrator*) [A069] Oystercatcher (*Haematopus ostralegus*) [A130] 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] Redshank (*Tringa totanus*) [A162] Wetland and Waterbirds [A999] **Potential Impact** The proposed development site is located within an urban environment 12.5 km from this SPA (Figure 13). There is no direct hydrological pathway from the proposed development to this SPA. During construction and operation, out of an abundance of caution, it is considered that there is an indirect hydrological pathway to this SPA via dust and surface water runoff. Given the proximity of the proposed works site to the River Liffey (25m), there is the potential for silt or pollutants to enter the marine environment. However, given the distance to this SPA (min. 12.5 km) across a substantial marine environment and in the absence of mitigation measures, any silt or pollutants will settle, be dispersed, or diluted within the marine environment. No significant impacts on the qualifying interests of this SPA are foreseen. The works will be carried out within an extensive urban environment with existing disturbance and traffic noise impacts in addition to a busy working port with vessel activity. Noise from the works would not be seen to be significant 12.5 km from the site within a highly disturbed urban environment. The proposed development is located with a dense urban environment with buildings of a similar height e.g. Capital Dock (22 floors), EXO building (17 floors), Millenium Tower (16 floors), Liberty Hall (17 floors) and Alto Vetro (16 floors). The integration of bird friendly design has been taken into account in the form of the external “fins” on the building. These form clear and distinct visual vertical markers for birds. As a result, the building would be clearly visible to birds both during construction and operation. During operation, there is also an indirect hydrological pathway to this SPA via surface water drainage to the River Liffey.

Natura Code	Name	Screened In/Out	Details/Reason
			No potential impact is foreseen. There is no direct pathway from this site to the SPA. The construction and operation of the proposed development will not impact on the conservation interests of the site. **No significant effects likely**
IE0004172	Dalkey Islands SPA	**OUT**	**Conservation Objectives** To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA. **Qualifying Interests** Roseate Tern (*Sterna dougallii*) [A192] Common Tern (*Sterna hirundo*) [A193] Arctic Tern (*Sterna paradisaea*) [A194] **Potential Impact** The proposed development site is located within an urban environment 12.5 km from this SPA (Figure 13). There is no direct hydrological pathway from the proposed development to this SPA. Out of an abundance of caution, it is considered that there is an indirect hydrological pathway to this SPA via dust and surface water runoff. Given the proximity of the proposed works site to the River Liffey (25m), there is the potential for silt or pollutants to enter the marine environment. However, given the distance to this SPA (min. 12.8 km) across a substantial marine environment, and in the absence of mitigation measures, any silt or pollutants will settle, be dispersed, or diluted within the marine environment. No significant impacts on the qualifying interests of this SPA are foreseen. The works will be carried out within an extensive urban environment with existing disturbance and traffic noise impacts in addition to a busy working port with vessel activity. Noise from the works would not be seen to be significant 12.5 km from the site within a highly disturbed urban environment. No potential impact is foreseen. There is no direct pathway from this site to the SPA. The construction and operation of the proposed development will not impact on the conservation interests of the site. **No significant effects likely**
IE0004117	Ireland's Eye SPA	**OUT**	**Conservation Objectives** To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA. **Qualifying Interests** Cormorant (*Phalacrocorax carbo*) [A017] Herring Gull (*Larus argentatus*) [A184] Kittiwake (*Rissa tridactyla*) [A188] Guillemot (*Uria aalge*) [A199] Razorbill (*Alca torda*) [A200]

Natura Code	Name	Screened In/Out	Details/Reason
			Potential Impact The proposed development site is located within an urban environment 13 km from this SPA. There is no direct hydrological pathway from the proposed development to this SPA. Out of an abundance of caution, it is considered that there is an indirect hydrological pathway to this SPA via dust and surface water runoff. Given the proximity of the proposed works site to the River Liffey (25m), there is the potential for silt or pollutants to enter the marine environment. However, given the distance to this SPA (min. 13 km) across a substantial marine environment, and in the absence of mitigation measures, any silt or pollutants will settle, be dispersed, or diluted within the marine environment. No significant impacts on the qualifying interests of this SPA are foreseen. The works will be carried out within an extensive urban environment with existing disturbance and traffic noise impacts in addition to a busy working port with vessel activity. Noise from the works would not be seen to be significant 13km from the site within a highly disturbed urban environment. The proposed development is located with a dense urban environment with buildings of a similar height e.g. Capital Dock (22 floors), EXO building (17 floors), Millenium Tower (16 floors), Liberty Hall (17 floors) and Alto Vetro (16 floors). The integration of bird friendly design has been taken into account in the form of the external "fins" on the building. These form clear and distinct visual vertical markers for birds. As a result, the building would be clearly visible to birds both during construction and operation. During operation, there is also an indirect hydrological pathway to this SPA via surface water drainage to the River Liffey. No potential impact is foreseen. There is no direct pathway from this site to the SPA. The construction and operation of the proposed development will not impact on the conservation interests of the site. **No significant effects likely**
IE004113	Howth Head Coast SPA	**OUT**	**Conservation Objectives** To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA. **Qualifying Interests** Kittiwake (*Rissa tridactyla*) [A188] **Potential Impact** The proposed development site is located within an urban environment 12.7 km from this SPA (Figure 13). There is no direct hydrological pathway from the proposed development to this SPA. Out of an abundance of caution, it is considered that there is an indirect hydrological pathway to this SPA via

Natura Code	Name	Screened In/Out	Details/Reason
			dust and surface water runoff. Given the proximity of the proposed works site to the River Liffey (25m), there is the potential for silt or pollutants to enter the marine environment. However, given the distance to this SPA (min. 12.7 km) across a substantial marine environment, and in the absence of mitigation measures, any silt or pollutants will settle, be dispersed, or diluted within the marine environment. No significant impacts on the qualifying interests of this SPA are foreseen. The works will be carried out within an extensive urban environment with existing disturbance and traffic noise impacts in addition to a busy working port with vessel activity. Noise from the works would not be seen to be significant 12.7km from the site within a highly disturbed urban environment. No potential impact is foreseen. There is no direct pathway from this site to the SPA. The construction and operation of the proposed development will not impact on the conservation interests of the site. **No significant effects likely**

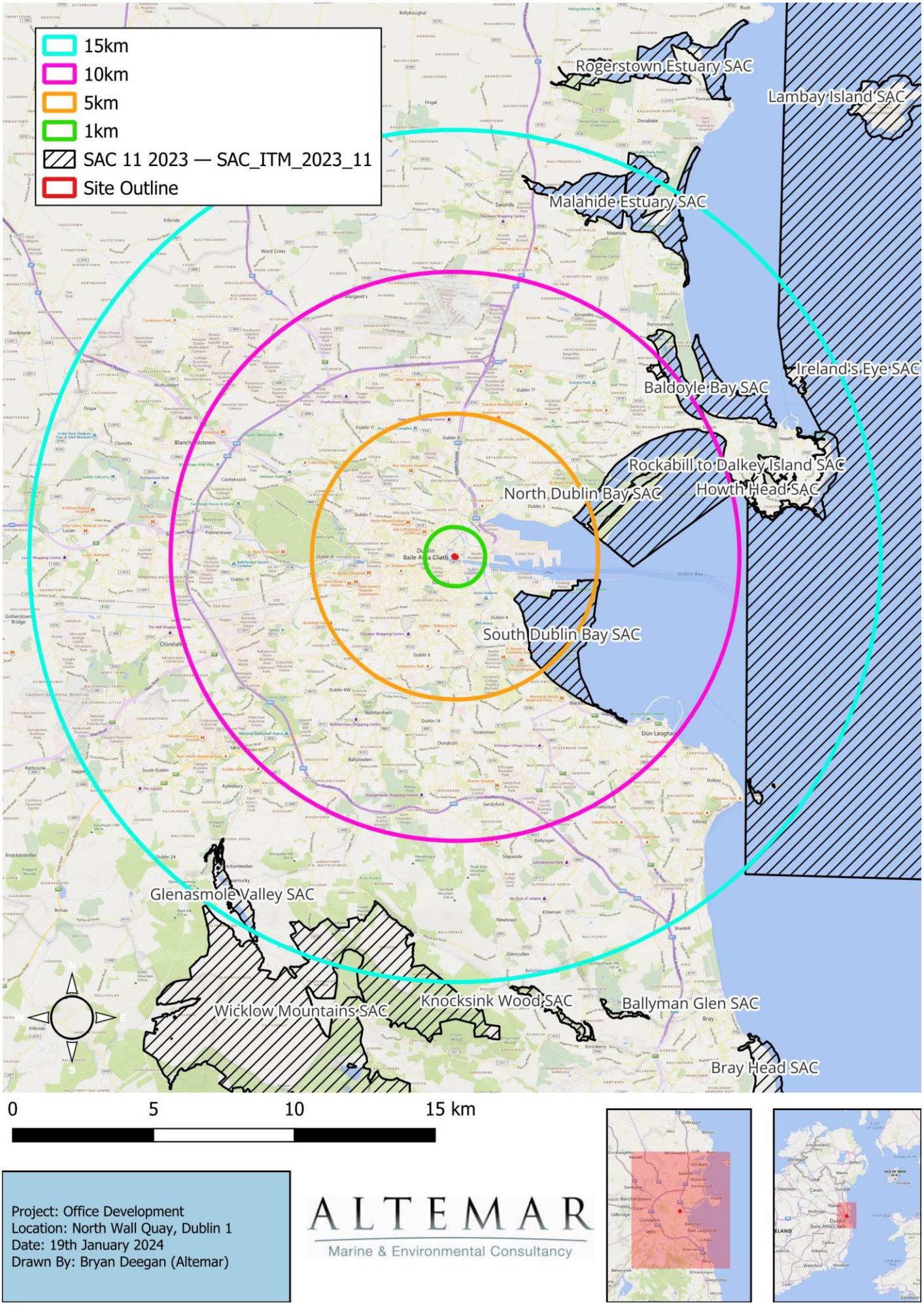


Figure 12. *SACs within 15km of the subject site*

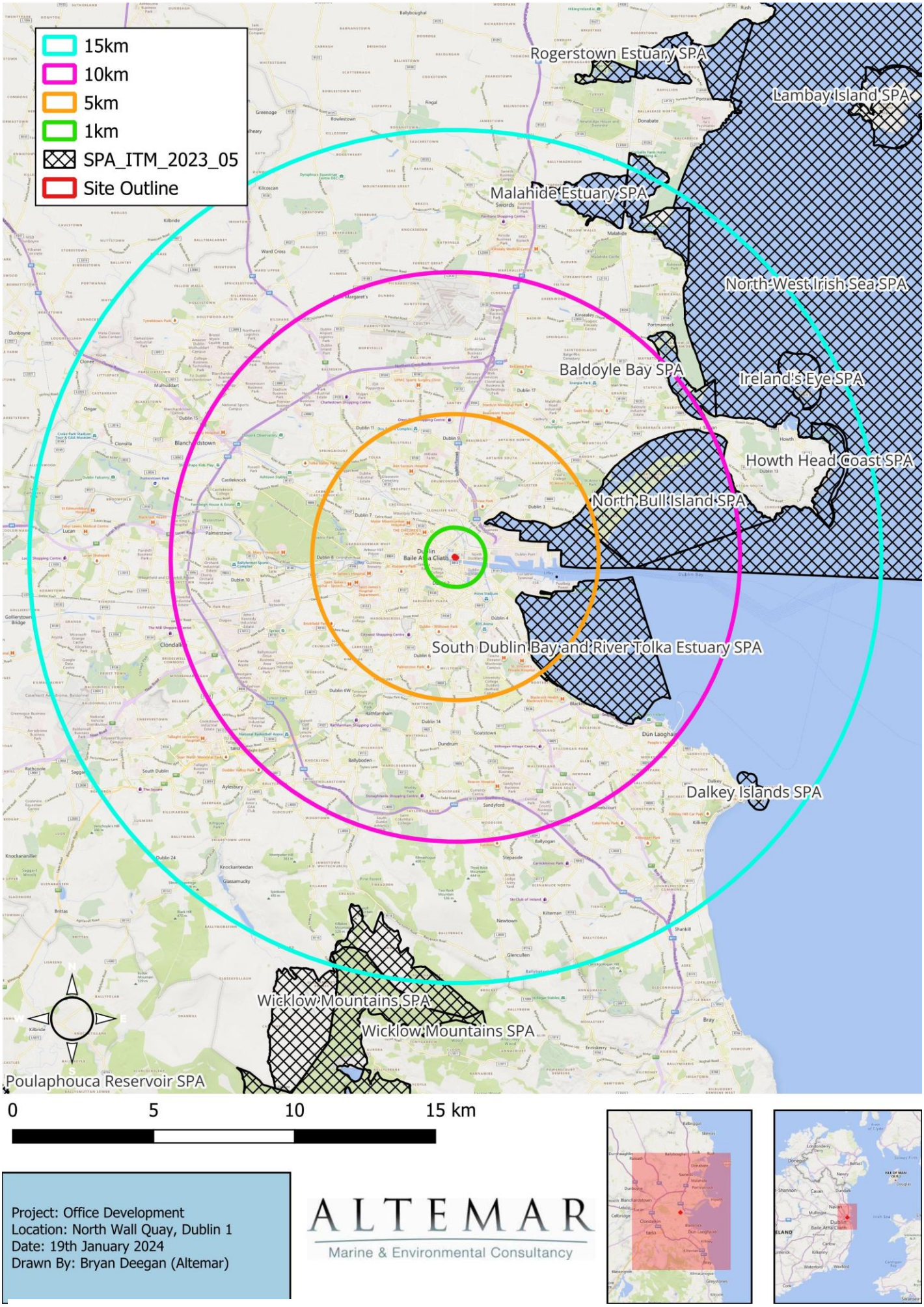


Figure 13. *SPAs within 15km of the subject site*

Figure 14. *Watercourses within 1km of the subject site*

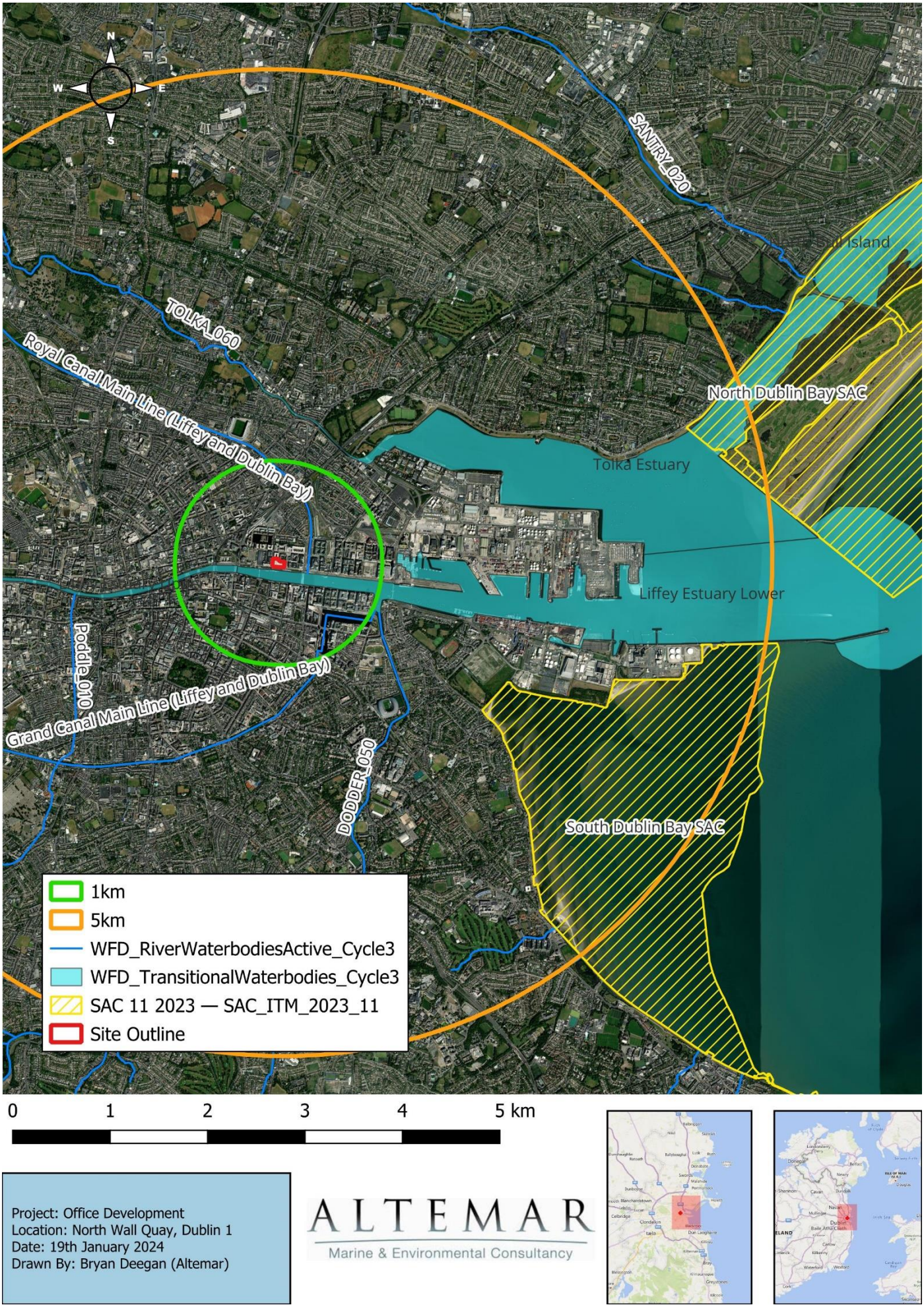


Figure 15. *Watercourses and SACs close to the subject site*

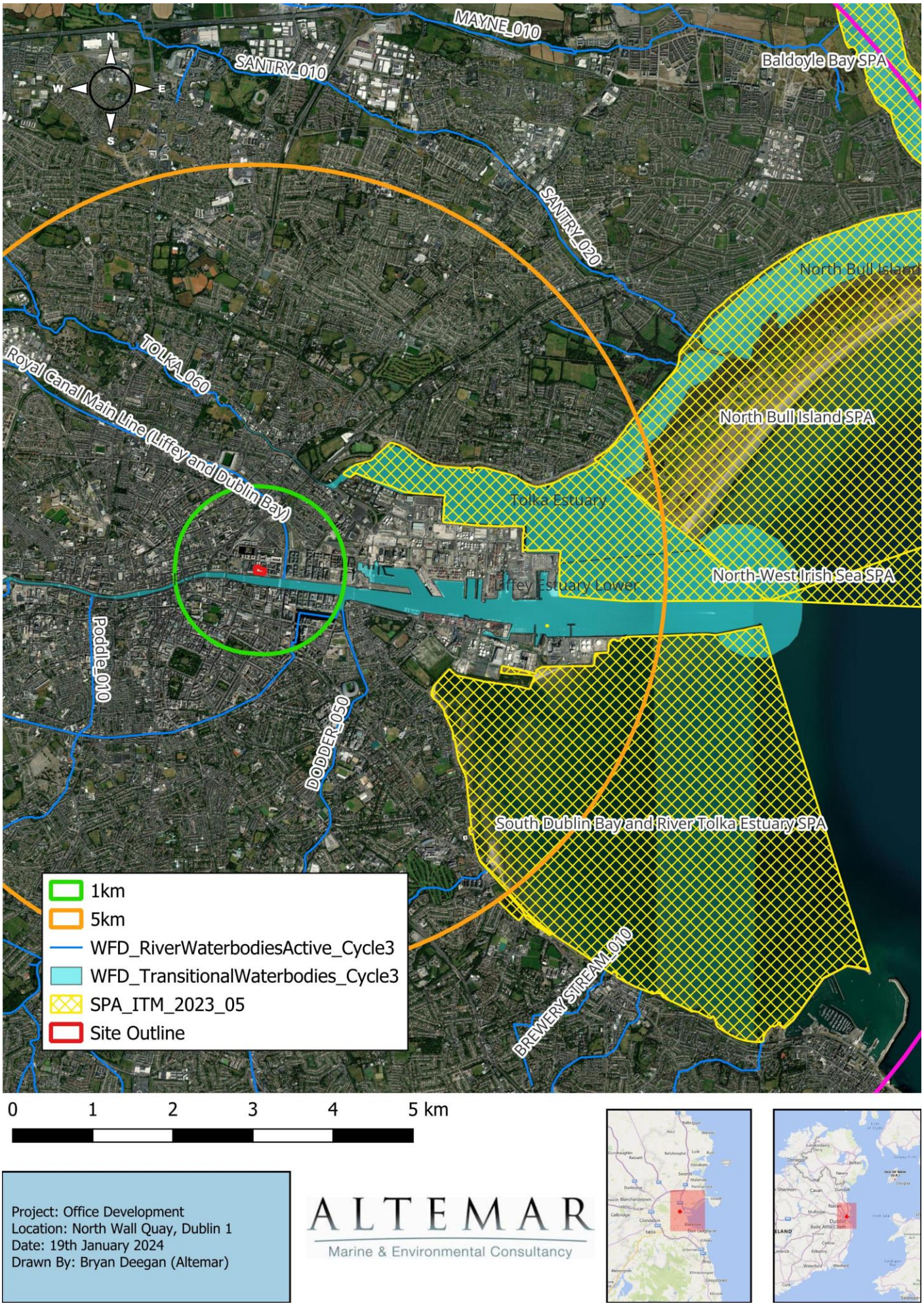


Figure 16. *Watercourses and SPAs close to the subject site*

In-Combination Effects

There are several proposed developments located in the area immediately surrounding the subject site. The following is a list of planning applications in close proximity to the subject site as identified on the Department of Housing, Local Government and Heritage's 'National Planning Application Database' portal[2],:

Table 3. In-combination effects considered

Ref. No.	Address	Proposal
3136/21	New Century House, Mayor Street Lower, IFSC, Dublin 1, D01 K8N7	Planning permission for development on a site of 0.34 ha at New Century House, Mayor Street Lower, IFSC, Dublin 1, D01 K8N7. The site is bound by Mayor Street Lower to the north, Citi Bank building fronting North Wall Quay to the south, and Clarion Quay apartment development to the east and Commons Street to the west. The proposed development comprises of the following: - Provision of 2 no. metal sign boards to the bank branch facade of the northern and eastern elevations; - Increase in width (c.475mm) and illumination of permitted totem sign; - Provision of double doors to replace single entrance door of the bank branch; - Installation of ATM on the northern elevation of the bank branch; - Provision of canopy sign with illuminated uplighting to the permitted office building.
2084/19	The Spencer Hotel, North Wall Quay, I.F.S.C., Dublin 1	The development will consist of a number of building lighting measures to the North Wall Quay (south facing) elevation and to the Excise Walk (west facing) elevation of the hotel building. These include: Narrow beam downlights (4 no.) at ground floor level on the south elevation (North Wall Quay); Narrow beam uplights (6 no.) located above the ground floor level on the south elevation (North Wall Quay); Linear narrow beam lighting at ground floor on the south elevation (North Wall Quay); LED neon flex lighting at 1st-5th floor levels on the south elevation (North Wall Quay) and west elevation (Excise Walk); All of the proposed lighting is to be colour changeable.
4202/21	25-28, North Wall Quay, Dublin 1, D01 H104	Planning permission for development on a site of c. 0.3973 ha. The site is bounded by North Wall Quay to the south and Alderman Way to the north. The proposed development is to amend planning permission granted by Dublin City Council Reg. Ref. 3245/20 to provide for the following: • Alteration of the roof profile (overall maximum height of 35.5m, was previously 38.9m); • Relocation of the main lifts and alteration of stair cores, resulting in an increase of the shoulder height of the building, enlarging the atrium and opening up the floor space; • Redesign of the elevations, to include extension of the southern elevation fronting onto North Wall Quay • Extension of the existing building by 1.5m to the north and 1.8m to the east; • Provision of additional door on the western elevation; • Relocation of 1 no. door on northern elevation; • Provision of screen to the northwest corner of the building to create storage area; • Change in finish to the stair cores on the rear elevation; • Provision of accessible landscaped terraces at 7th storey on southern elevation, and on 8th storey on southern and northern elevation; • Amendments to the ground floor layout to provide for the enlargement of the entrance to the building, relocation and expansion of reception and lobby area, staff welfare facilities, courtyard, uncovered storage area with 12 no. cycle parking spaces, substation, switch room and platform for access and the associated loss of 2 no. parking spaces at ground floor for access, loading area and goods lift' • Amendments to basement level to provide for a reconfiguration of the floor layout resulting in a reduction from 69 no. to 64 no. spaces, provision of 8 no. motorbike spaces, increase from 177 no. cycle parking spaces to 200 no spaces, reconfiguration of staff welfare facilities, plant rooms and store rooms, lifts and stair cores continue into basement. Access to basement will remain unchanged; • Provision of 1 no. 'A&L Goodbody' entrance sign comprising of stainless steel internally illuminated individually mounted lettering to the south elevation and 1 no. 'A&L Goodbody' façade sign at 7th storey on the southern elevation in the eastern corner comprising of Perspex lettering with LED Light tape backing; • Alterations to the hard and soft landscaping, SUDs drainage, PV Panels, provision of plant and screening at roof level and plant at basement level, green roofs and all other

[2] https://housinggovie.maps.arcgis.com/apps/webappviewer/index.html?id=9cf2a09799d74d8e9316a3d3a4d3a8de

Ref. No.	Address	Proposal
		associated site development works necessary to facilitate the development. The proposed development will result in an increase in gross floor area from 17,357 sqm (excluding basement of 3,708 sqm) to 18,131 sqm (excluding basement of 3,708 sqm).
4022/22	5-6 Georges Dock, Dublin 1	Planning permission for the development will consist of the removal of 3 car parking spaces at ground floor level and construction of a new stand alone single storey shower block accessed from the rear car park entrance to the building. The structure will contain 2 new male shower rooms, 2 female shower rooms and one disabled WC and shower room and a drying room. The entrance to the shower rooms will have an overhead canopy and planter box with integrated external lighting.
4881/22	Unit 2 Gandon House, Custom House Square, Mayor Street Lower, I.F.S.C., Dublin 1	The development will consist of: (a) the change of use from coffee shop use to restaurant use, (b) the removal of existing fascia signage while maintaining the existing signage zone, (c) all associated site works.
4096/23	The Forum, 1 Commons Street, Dublin 1, D01 Y048	Planning permission for development on a site at No. 1 Commons Street, Dublin 1, D01 Y048 (which is a 2 no. storey office at the fourth and fifth floor levels, accessible via a ground floor reception area at Commons Street, with office floors located above the 4 no. storey commercial car park - IFSC Carpark, Commons Street, Dublin 1, D01 DA34). The site is bounded to the north by the Exchange, Georges Dock, an office block; to the east by Commons Street; to the south by the Hilton Garden Inn Hotel, Custom House Quay; and to the west by Exchange Place. The development will consist of alterations to the front (east), rear (west) elevations in respect of the reception and office frontages from ground to roof levels (with no change to the floor area of the existing office floor plate). The development will consist of demolition of existing cladding and provision of new glazing and metal clad vertical columns and horizontal beams with integrated backlit business identification signage at reception facade at ground floor level to third floor level on Commons Street; removal of existing cladding and provision of new glazing and metal clad vertical columns and horizontal beams at fourth and fifth floor levels on Commons Street and Exchange Place; changes to the materials and finishes of the fourth floor level and fifth floor level balconies on Commons Street and Exchange Place; replacement of existing atrium rooflights with glazed atrium rooflights and all associated site development works.
4946/22	The Exchange, I.F.S.C., George's Dock, Dublin 1	The development will consist of the installation of roof-mounted solar photovoltaic panels to include all ancillary works and services.
3290/23	10/11 Exchange Place, I.F.S.C., Dublin 1, D01 N4X6	Permission is sought for the a change of use from existing medical centre (class 8a) on the ground floor and existing commercial offices (class 3) on the first to third floors to a mixed-use of commercials offices (class 3) / medical use (class 8a; Health Centre or Clinic) on ground to third floors. The proposed development includes all ancillary works necessary to facilitate the development.
3500/19	The CHQ Building, George's Dock, Dublin 1	PROTECTED STRUCTURE: Planning permission for development at the western mezzanine level of the CHQ Building, George's Dock, Dublin 1, D01 R9YO. The CHQ Building is a registered protected structure (RPS No. 2094). The development will consist of the change of use of the northern part of the western mezzanine from 'events/exhibition/research space' to office use. The works will incorporate the enclosure of the northern part of the western mezzanine and its connection to the eastern mezzanine by the implementation of a 2.1 metre partition glazing along the eastern edge and full height partition to the northern edge and southern edge of the mezzanine. A total of 3 no. plant and ventilation pods will be installed along with a standalone plant room. Existing smoke vent openings at roof level will be amended for the purposes of ventilation. Alterations will be made at ground floor level of units 13 and 21 to implement fire escape stairs. New accommodation access stairs and entrance to the mall will be also implemented at ground floor level at unit 31, with existing fire escape stairs at unit 32 widened. Bicycle parking will be provided at the eastern elevation. The area subject to the change of use totals c. 884 sqm.

Following an analysis of development proposals proximate to the subject site, it is considered that in combination effects with other existing and proposed developments in proximity to the application area would be unlikely, neutral, not significant and localised. It is concluded that no significant effects on Natura 2000 sites are likely as a result of the proposed development in combination with other projects. No in combination effects are foreseen.

No projects in the vicinity of the proposed development would be seen to have a significant in combination effect on Natura 2000 sites.

Conclusions

An initial screening of the proposed works, using the precautionary principle (without the use of any mitigation measures) and the Source/Pathway/Receptor links between the proposed works and Natura 2000 sites with the potential to result in significant effects on the conservation objectives and qualifying interests of the Natura 2000 sites was carried out in Table 1. Based on best scientific knowledge and objective information and assessment, the possibility of significant effects caused by the proposed project was excluded for the following Natura 2000 sites:

Special Areas of Conservation

(000199) Baldoyle Bay SAC
(003000) Rockabill to Dalkey Island SAC
(000202) Howth Head SAC
(002122) Wicklow Mountains SAC
(001209) Glenasmole Valley SAC
(000205) Malahide Estuary SAC
(002193) Ireland's Eye SAC
(000725) Knocksink Wood SAC
(000713) Ballyman Glen SAC

Special Protection Areas

(004016) Baldoyle Bay SPA
(004172) Dalkey Islands SPA
(004040) Wicklow Mountains SPA
(004113) Howth Head SPA
(004117) Ireland's Eye SPA
(004025) Malahide Estuary SPA

Given the nature of the proposed construction and demolition works and the distance between the subject site to the nearest watercourse (25m to River Liffey), it is considered that the potential ZOI of the proposed works extends beyond the site outline to include the River Liffey and Natura 2000 sites located within Dublin Bay. In the absence of mitigation measures, there is the potential for petrochemicals or silt laden material to enter the marine environment at South Dublin Bay SAC, South Dublin Bay and River Tolka Estuary SPA, North Dublin Bay SAC, North Bull Island SPA and North-West Irish Sea SPA during construction and operation.

Acting on a strictly precautionary basis, NIS is required in respect of the effects of the project on South Dublin Bay SAC, North Dublin Bay SAC, South Dublin Bay and River Tolka Estuary SPA, North Bull Island SPA and North-West Irish Sea SPA because it cannot be excluded on the basis of best objective scientific information following screening, in the absence of control or mitigation measures in relation to pollution (silt, dust, potential contamination and runoff) during construction and operation, that the plan or project, individually and/or in combination with other plans or projects, will have a significant effect on the named European Site/s.

An NIS or Stage 2 Appropriate Assessment is not required for the effects of the project on all other listed Natura sites above because it can be excluded based on the best objective scientific information following screening that the plan or project, individually and/or in combination with other plans or projects, will have a significant effect on the European Site/s.

NIS is required for South Dublin Bay SAC, North Dublin Bay SAC, South Dublin Bay and River Tolka Estuary SPA, North Bull Island SPA and North-West Irish Sea SPA.

Stage 2: Natura Impact Statement

A Natura Impact Statement (NIS) is Stage 2 of the Appropriate Assessment process. In the case of the proposed construction, demolition and site clearance works at 1 North Wall Quay, Dublin 1, acting on a strictly precautionary basis, an NIS is required in respect of the effects of the project on South Dublin Bay SAC, North Dublin Bay SAC, South Dublin Bay and River Tolka Estuary SPA, North Bull Island SPA AND North-West Irish Sea SPA (due to the potential for contaminated surface water, dust or silt laden material to enter the River Liffey and marine environment downstream of the works), because it cannot be excluded on the basis of best objective scientific information, in the absence of control or mitigation measures, following screening that the plan or project, individually and/or in combination with other plans or projects, will have a significant effect on the named European Site/s.

A Stage 2 Appropriate Assessment or NIS is not required for the effects of the project on all other listed Natura sites within, and sites beyond, 15km because, it can be excluded, on the basis of the best objective scientific information following screening, that the plan or project, individually and/or in combination with other plans or projects, will have not a significant effect on the European Site/s.

The NIS evaluates the potential for direct, indirect effects, alone or in combination with other plans and projects having taken into account the use of mitigation measures. The NIS is informed by the accompanying EIAR including biodiversity chapter, and the proposed mitigation measures that are outlined in the Outline Construction Waste Management Plan & Waste Management Plan to reduce the potential effects of the proposed project on species/habitats of conservation importance and the surrounding environment.

A further review of the Conservation Objectives and qualifying interests is necessary to determine if significant effects are likely to impact the identified Natura 2000 sites.

South Dublin Bay SAC (Site code: 000210)

As outlined in the South Dublin Bay SAC Site Synopsis[3] (NPWS, version date 10.12.2015):

'*This site lies south of the River Liffey in Co. Dublin, and extends from the South Wall to the west pier at Dun Laoghaire. It is an intertidal site with extensive areas of sand and mudflats. The sediments are predominantly sands but grade to sandy muds near the shore at Merrion Gates. The main channel which drains the area is Cockle Lake.*

The site is a Special Area of Conservation (SAC) selected for the following habitats and/or species listed on Annex I / II of the E.U. Habitats Directive (= priority; numbers in brackets are Natura 2000 codes):*

[1140] Tidal Mudflats and Sandflats
[1210] Annual vegetation of drift lines
[1310] Salicornia and other annuals colonising mud and sand
[2110] Embryonic shifting dunes

The bed of Dward Eelgrass (Zostera noltii) found below Merrion Gates is the largest stand on the east coast. Green algae (Enteromorpha spp. and Ulva lactuca) are distributed throughout the area at a low density. Fucoid algae occur on the rocky shore in the Maretimo to Dún Laoghaire area. Species include Fucus spiralis, F. vesiculosus, F. serratus, Ascophyllum nodosum and Pelvetia canaliculata.

Several small, sandy beaches with incipient dune formation occur in the northern and western sectors of the site, notably at Poolbeg, Irishtown and Merrion/ Booterstown. The formation at Booterstown is very recent. Drift line vegetation occurs in association with the embryonic and incipient fore dunes. Typically drift lines occur in a band approximately 5 m wide, though at Booterstown this zone is wider in places. The habitat occurs just above the High Water Mark and below the area of embryonic dune. Species present are Sea Rocket (Cakile maritima), Frosted Orache (Atriplex laciniata), Spear-leaved Orache (A. prostrata), Prickly Saltwort (Salsola kali) and Fat Hen (Chenopodium album). Also occurring is Sea Sandwort (Honkenya peploides), Sea Beet (Beta vulgaris subsp. maritima) and Annual Sea-blite (Suaeda maritima). A small area of pioneer saltmarsh now occurs in the lee of an embryonic sand dune just north of Booterstown Station. This early stage of saltmarsh development is here characterised by the presence of pioneer stands of glassworts (Salicornia spp.) occurring below an area of drift

[3] https://www.npws.ie/sites/default/files/protected-sites/synopsis/SY000210.pdf

line vegetation. As this is of very recent origin, it covers a small area but ample areas of substrate and shelter are available for the further development of this habitat.

Lugworm (Arenicola marina), Cockles (Cerastoderma edule) and annelids and other bivalves are frequent throughout the site. The small gastropod Hydrobia ulvae occurs on the muddy sands off Merrion Gates.

South Dublin Bay is an important site for waterfowl. Although birds regularly commute between the south bay and the north bay, recent studies have shown that certain populations which occur in the south bay spend most of their time there. The principal species are Oystercatcher (1215), Ringed Plover (120), Sanderling (344), Dunlin (2628) and Redshank (356) (average winter peaks 1996/97 and 1997/98). Up to 100 Turnstones are usual in the south bay during winter. Brent Goose regularly occur in numbers of international importance (average peak 299). Bar-tailed Godwit (565), a species listed on Annex I of the E.U. Birds Directive, also occur.

Large numbers of gulls roost in South Dublin Bay, e.g. 4,500 Black-headed Gulls in February 1990; 500 Common Gulls in February 1991. It is also an important tern roost in the autumn, regularly holding 2000-3000 terns including Roseate Terns, a species listed on Annex I of the E.U. Birds Directive. South Dublin Bay is largely protected as a Special Protection Area.

At low tide the inner parts of the south bay are used for amenity purposes. Baitdigging is a regular activity on the sandy flats. At high tide some areas have windsurfing and jet-skiing.

This site is a fine example of a coastal system, with extensive sand and mudflats, and incipient dune formations. South Dublin Bay is also an internationally important bird site.'

The Natura 2000 Standard Data Form (2020)[4] states that:

'*This intertidal site extends from the South Wall at Dublin Port to the West Pier at Dun Laoghaire, a distance of c. 5 km. At their widest, the intertidal flats extend for almost 3 km. The seaward boundary is marked by the low tide mark, while the landward boundary is now almost entirely artificially embanked. Several permanent channels exist, the largest being Cockle Lake. A small sandy beach occurs at Merrion Gates, while some bedrock shore occurs near Dun Laoghaire. A number of small streams and drains flow into the site. The proximity of the site to Dublin City results in it being a very popular recreational area. It is also important for educational and research purposes.*

Site possesses a fine and fairly extensive example of intertidal flats. Sediment type is predominantly sand, with muddy sands in the more sheltered areas. A typical macro-invertebrate fauna exists. Has the largest stand of Zostera on the east coast. Supports part of the important wintering waterfowl populations of Dublin Bay. Regularly has an internationally population of Branta bernicila horta, plus nationally important numbers of at least a further 6 species, including Limosa lapponica. Regular autumn roosting ground for significant numbers of Sterna terns, including S. dougallii. The scientific interests of the site have been well documented.'

As outlined in the Conservation objectives supporting document[5] (NPWS, 2013), it is an objective:

'*To maintain the favourable conservation condition of Mudflats and sandflats not covered by seawater at low tide in South Dublin Bay SAC, which is defined by the following list of attributes and targets.''*

Target 1: *''The permanent habitat area is stable or increasing, subject to natural processes.''*

Target 2: *''Maintain the extent of the Zostera-dominated community, subject to natural processes.''*

Target 3: *''Conserve the high quality of the Zostera-dominated community, subject to natural processes.''*

Target 4: *''Conserve the following community type in a natural condition: Fine sands with Angulus tenuis community complex.'*

[4] https://www.npws.ie/sites/default/files/protected-sites/natura2000/NF000210.pdf

[5] https://www.npws.ie/sites/default/files/publications/pdf/000210_South%20Dublin%20Bay%20SAC%20Marine%20Supporting%20Doc_V1.pdf

Figure 1. Extent of Mudflats and sandflats not covered by seawater at low tide in South Dublin Bay SAC

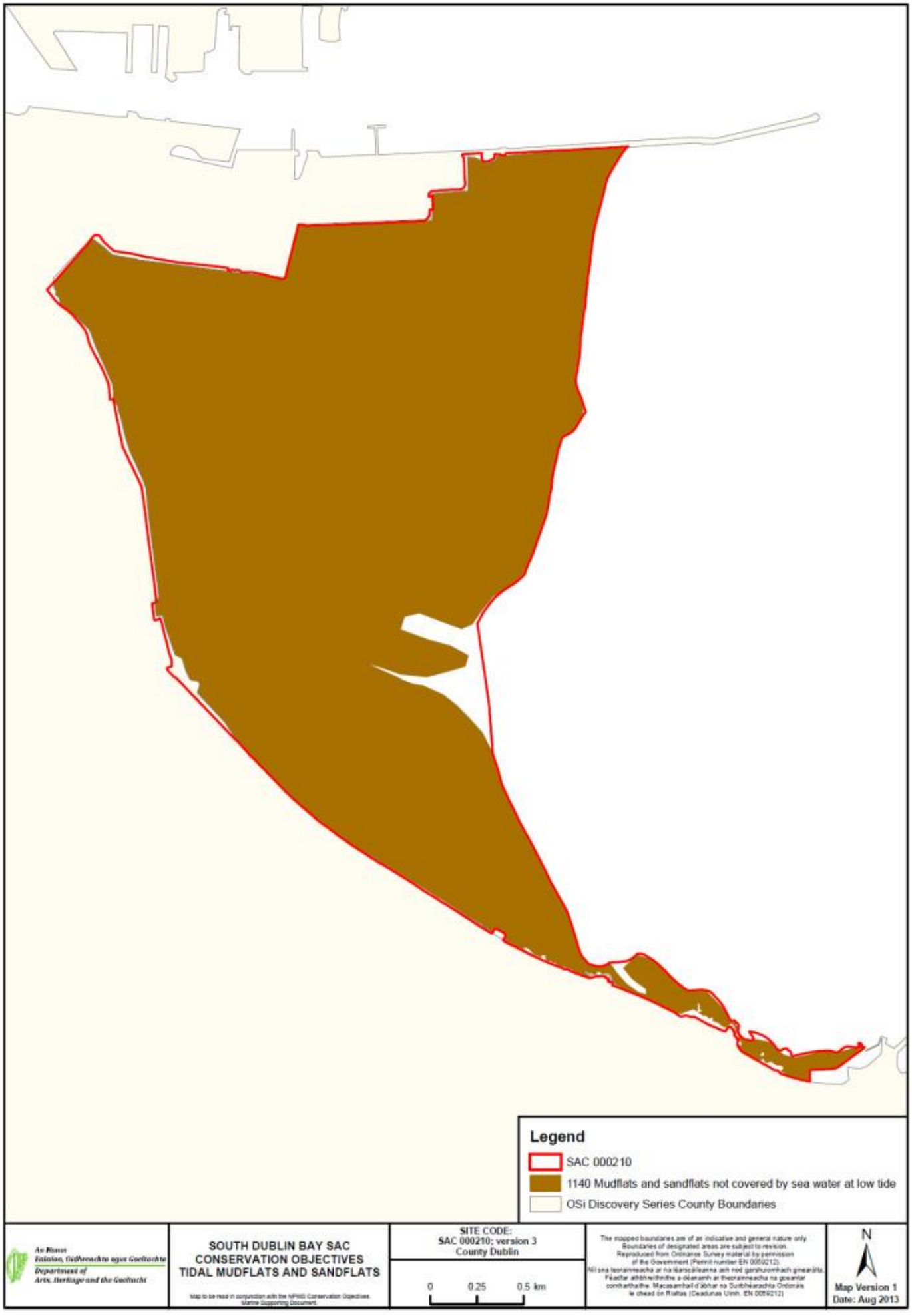
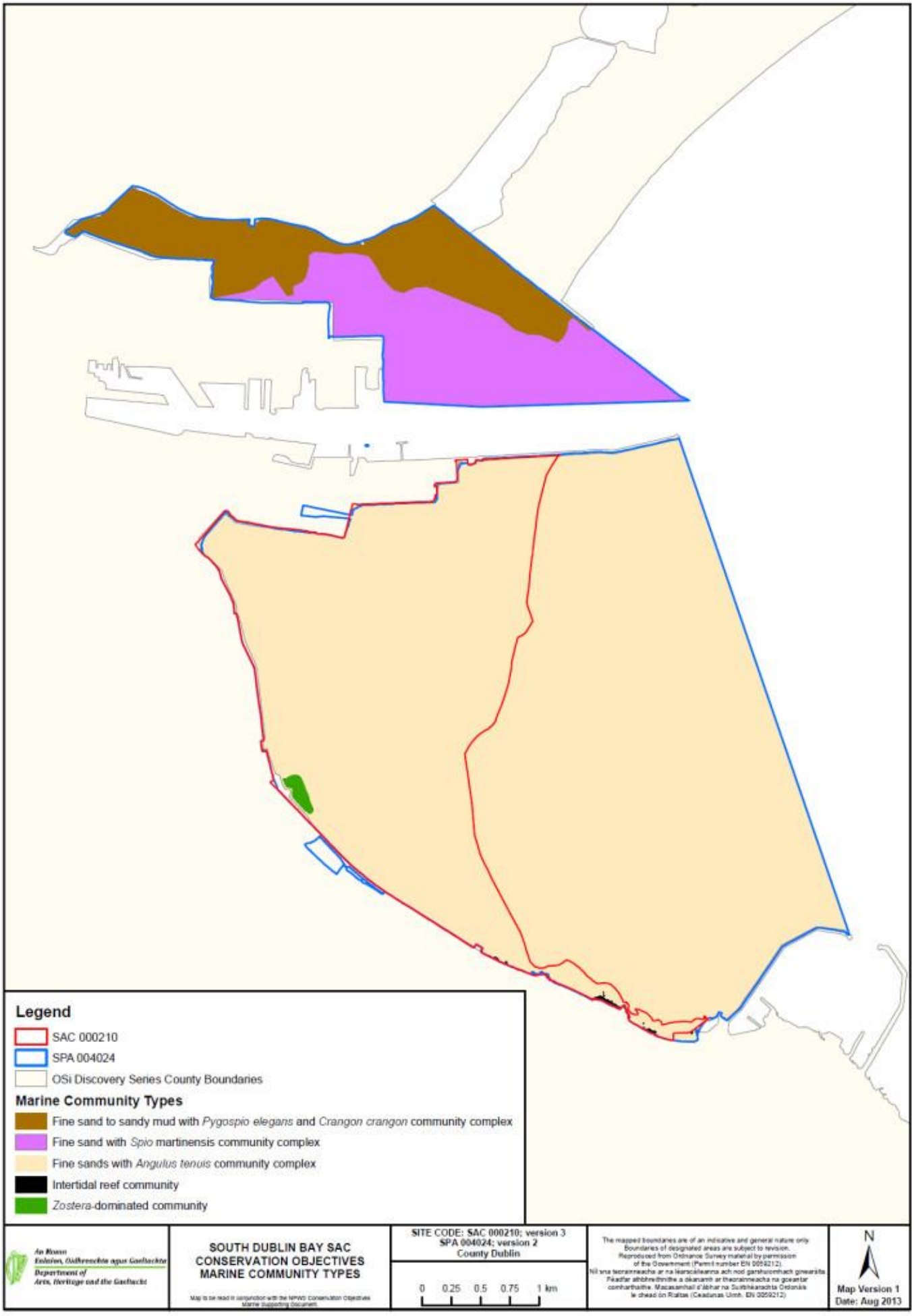


Figure 2. Distribution of community types in South Dublin Bay SAC



North Dublin Bay SAC (Site code: 000206)

As outlined in the North Dublin Bay SAC Site Synopsis[6] (NPWS, version date 12.08.2013):

'*This site covers the inner part of north Dublin Bay, the seaward boundary extending from the Bull Wall lighthouse across to the Martello Tower at Howth Head. The North Bull Island is the focal point of this site.*

The site is a Special Area of Conservation (SAC) selected for the following habitats and/or species listed on Annex I / II of the E.U. Habitats Directive (= priority; numbers in brackets are Natura 2000 codes):*

[1140] Tidal Mudflats and Sandflats
[1210] Annual Vegetation of Drift Lines
[1310] Salicornia Mud
[1330] Atlantic Salt Meadows
[1410] Mediterranean Salt Meadows
[2110] Embryonic Shifting Dunes
[2120] Marram Dunes (White Dunes)
*[2130] Fixed Dunes (Grey Dunes)**
[2190] Humid Dune Slacks
[1395] Petalwort (Petalophyllum ralfsii)

North Bull Island is a sandy spit which formed after the building of the South Wall and Bull Wall in the 18th and 19th centuries. It now extends for about 5 km in length and is up to 1 km wide in places. A well-developed and dynamic dune system stretches along the seaward side of the island. Various types of dunes occur, from fixed dune grassland to pioneer communities on foredunes. Marram Grass (Ammophila arenaria) is dominant on the outer dune ridges, with Lyme-grass (Leymus arenarius) and Sand Couch (Elymus farctus) on the foredunes. Behind the first dune ridge, plant diversity increases with the appearance of such species as Wild Pansy (Viola tricolor), Kidney Vetch (Anthyllis vulneraria), Common Bird's-foot-trefoil (Lotus corniculatus), Common Restharrow (Ononis repens), Yellow-rattle (Rhinanthus minor) and Pyramidal Orchid (Anacamptis pyramidalis). In these grassy areas and slacks, the scarce Bee Orchid (Ophrys apifera) occurs.

About 1 km from the tip of the island, a large dune slack with a rich flora occurs, usually referred to as the 'Alder Marsh' because of the presence of Alder trees (Alnus glutinosa). The water table is very near the surface and is only slightly brackish. Saltmarsh Rush (Juncus maritimus) is the dominant species, with Meadowsweet (Filipendula ulmaria) and Devil's-bit Scabious (Succisa pratensis) being frequent. The orchid flora is notable and includes Marsh Helleborine (Epipactis palustris), Common Twayblade (Listera ovata), Autumn Lady's-tresses (Spiranthes spiralis) and Marsh Orchids (Dactylorhiza spp.).

Saltmarsh extends along the length of the landward side of the island. The edge of the marsh is marked by an eroding edge which varies from 20 cm to 60 cm high. The marsh can be zoned into different levels according to the vegetation types present. On the lower marsh, Glasswort (Salicornia europaea), Common Saltmarsh-grass (Puccinellia maritima), Annual Sea-blite (Suaeda maritima) and Greater Sea-spurrey (Spergularia media) are the main species. Higher up in the middle marsh Sea Plantain (Plantago maritima), Sea Aster (Aster tripolium), Sea Arrowgrass (Triglochin maritima) and Thrift (Armeria maritima) appear. Above the mark of the normal high tide, species such as Common Scurvygrass (Cochlearia officinalis) and Sea Milkwort (Glaux maritima) are found, while on the extreme upper marsh, the rushes Juncus maritimus and J. gerardi are dominant. Towards the tip of the island, the saltmarsh grades naturally into fixed dune vegetation.

The habitat 'annual vegetation of drift lines' is found in places, along the length of Dollymount Strand, with species such as Sea Rocket (Cakile maritima), Oraches (Atriplex spp.) and Prickly Saltwort (Salsola kali).

The island shelters two intertidal lagoons which are divided by a solid causeway. The sediments of the lagoons are mainly sands with a small and varying mixture of silt and clay. The north lagoon has an area known as the "Salicornia flat", which is dominated by Salicornia dolichostachya, a pioneer glasswort species, and covers about 25 ha. Beaked Tasselweed (Ruppia maritima) occurs in this area, along with some Narrow-leaved Eelgrass (Zostera angustifolia). Dwarf Eelgrass (Z. noltii) also occurs in Sutton Creek. Common Cordgrass (Spartina

[6] https://www.npws.ie/sites/default/files/protected-sites/synopsis/SY000206.pdf

anglica) occurs in places but its growth is controlled by management. Green algal mats (Enteromorpha spp., Ulva lactuca) cover large areas of the flats during summer. These sediments have a rich macrofauna, with high densities of Lugworms (Arenicola marina) in parts of the north lagoon. Mussels (Mytilus edulis) occur in places, along with bivalves such as Cerastoderma edule, Macoma balthica and Scrobicularia plana. The small gastropod Hydrobia ulvae occurs in high densities in places, while the crustaceans Corophium volutator and Carcinus maenas are common. The sediments on the seaward side of North Bull Island are mostly sands. The site extends below the low spring tide mark to include an area of the sublittoral zone.

Three rare plant species which are legally protected under the Flora (Protection) Order, 1999 have been recorded on the North Bull Island. These are Lesser Centaury (Centaurium pulchellum), Red Hemp-nettle (Galeopsis angustifolia) and Meadow Saxifrage (Saxifraga granulata). Two further species listed as threatened in the Red Data Book, Wild Clary/Sage (Salvia verbenaca) and Spring Vetch (Vicia lathyroides), have also been recorded. A rare liverwort, Petalophyllum ralfsii, was first recorded from the North Bull Island in 1874 and has recently been confirmed as still present. This species is of high conservation value as it is listed on Annex II of the E.U. Habitats Directive. The North Bull is the only known extant site for the species in Ireland away from the western seaboard.

North Dublin Bay is of international importance for waterfowl. During the 1994/95 to 1996/97 period the following species occurred in internationally important numbers (figures are average maxima): Brent Goose 2,333; Knot 4,423; Bar-tailed Godwit 1,586. A further 14 species occurred in nationally important concentrations - Shelduck 1505; Wigeon 1,166; Teal 1,512; Pintail 334; Shoveler 239; Oystercatcher 2,190; Ringed Plover 346; Grey Plover 816; Sanderling 357; Dunlin 6,238; Black-tailed Godwit 156; Curlew 1,193; Turnstone 197 and Redshank 1,175. Some of these species frequent South Dublin Bay and the River Tolka Estuary for feeding and/or roosting purposes (mostly Brent Goose, Oystercatcher, Ringed Plover, Sanderling and Dunlin).

The tip of the North Bull Island is a traditional nesting site for Little Tern. A high total of 88 pairs nested in 1987. However, nesting attempts have not been successful since the early 1990s. Ringed Plover, Shelduck, Mallard, Skylark, Meadow Pipit and Stonechat also nest. A well-known population of Irish Hare is resident on the island

The invertebrates of the North Bull Island have been studied and the island has been shown to contain at least seven species of regional or national importance in Ireland (from the Orders Diptera, Hymenoptera and Hemiptera).

The main land uses of this site are amenity activities and nature conservation. The North Bull Island is the main recreational beach in Co. Dublin and is used throughout the year. Much of the land surface of the island is taken up by two golf courses. Two separate Statutory Nature Reserves cover much of the island east of the Bull Wall and the surrrounding intertidal flats. The site is used regularly for educational purposes. North Bull Island has been designated a Special Protection Area under the E.U. Birds Directive and it is also a statutory Wildfowl Sanctuary, a Ramsar Convention site, a Biogenetic Reserve, a Biosphere Reserve and a Special Area Amenity Order site.

This site is an excellent example of a coastal site with all the main habitats represented. The site holds good examples of nine habitats that are listed on Annex I of the E.U. Habitats Directive; one of these is listed with priority status. Several of the wintering bird species have populations of international importance, while some of the invertebrates are of national importance. The site contains a numbers of rare and scarce plants including some which are legally protected. Its proximity to the capital city makes North Dublin Bay an excellent site for educational studies and research.'

The Natura 2000 Standard Data Form (2020)[7] states that:

'*The North Bull Island sand spit is a relatively recent depositional feature, formed as a result of improvements to Dublin Port during the 18th and 19th centuries. It is almost 5km long and 1km wide and runs parallel to the coast between Clontarf and Sutton. The sediment which forms the island is predominantly glacial in origin and siliceous in nature. Between the island and the mainland there occurs two sheltered intertidal areas which are separated by a solid causeway constructed in 1964. The seaward side of the island has a fine sandy beach. A substantial area of shallow marine water is included in the site. The interior of the island is excluded from the site as it has*

[7] https://www.npws.ie/sites/default/files/protected-sites/natura2000/NF000206.pdf

been converted to golf courses. The proximity of the North Bull Island to Dublin City results in it being a very popular recreational area. It is also very important for educational and research purposes. Nature conservation is a main landuse within the site.

Site possesses an excellent diversity of coastal habitats. The North Bull Island dune system is one of the most important systems on the east coast and is one of the few in Ireland that is actively accreting. It possesses extensive and mostly good quality examples of embryonic, shifting marram and fixed dunes, as well as excellent examples of humid dune slacks. Both Atlantic and Mediterranean salt marshes are well represented and a particularly good marsh zonation is shown. The salt marshes grade into mudflats and sandflats, some of which are dominated by annual Salicornia species. Petalophyllum ralfsii occurs at its only known station away from the western seaboard. The site has five Red Data Book vascular plant species and four Red Data Book bryophyte species. This is one of the most important sites for wintering waterfowl in Ireland, with internationally important populations of Branta bernicla horta, Calidris canutus and Limosa lapponica, plus nationally important numbers of a further 14 species. 20% of the national total of Pluvialis squatarola occurs here. Formerly it had important colony of Sterna albifrons. North Dublin Bay is nationally important for three insect species. The scientific interests of the site have been well documented and future prospects are good owing to the various designations assigned to site.'

As outlined in the Conservation objectives supporting document (NPWS, 2013):

'*North Dublin Bay SAC (site code: 206) is designated for a range of coastal habitats, including mudflats and salt flats, saltmarsh and sand dunes. The following eight coastal habitats are included in the qualifying interests for the site (* denotes a priority habitat):*

- *Salicornia and other annuals colonising mud and sand (1310)*
- *Atlantic salt meadows (Glauco-Puccinellietalia maritimae) (ASM) (1330)*
- *Mediterranean salt meadows (Juncetaliea maritimi) (MSM) (1410)*
- *Annual vegetation of drift lines (1210)*
- *Embryonic shifting dunes (2110)*
- *Shifting dunes along the shoreline with Ammophila arenaria (white dunes) (2120)*
- *Fixed coastal dunes with herbaceous vegetation (grey dunes) (2130)**
- *Humid dune slacks (2190)*

The first three are saltmarsh habitats and the last five are associated with sand dune systems, although all eight of these habitats are found in close association with each other (McCorry, 2007; Ryle et al., 2009; Delaney et al., 2013).

This backing document sets out the conservation objectives for the eight coastal habitats listed above in North Dublin Bay SAC, which are defined by a list of parameters, attributes and targets. The main parameters are (a) Range (b) Area and (c) Structure and Functions, the last of which is broken down into a number of attributes, including physical structure, vegetation structure and vegetation composition.

The targets set for the saltmarsh habitats are based primarily on the results of the Saltmarsh Monitoring Project (SMP) (McCorry, 2007; McCorry & Ryle, 2009) and this document should be read in conjunction with those reports.'


Legend
North Dublin Bay SAC 000206
1140 Mudflats and sandflats not covered by sea water at low tide
OSi Discovery Series County Boundaries
An Roinn
Ealaíon, Oidhreachta agus Gaeltachta
Department of
Arts, Heritage and the Gaeltacht
MAP 3:
NORTH DUBLIN BAY SAC
CONSERVATION OBJECTIVES
TIDAL MUDFLATS AND SANDFLATS
Map to be read in conjunction with the NPWS Conservation Objectives Document.
SITE CODE:
SAC 000206; version 3.
CO. DUBLIN
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0.5
1 km
The mapped boundaries are of an indicative and general nature only. Boundaries of designated areas are subject to revision. Reproduced from Ordnance Survey material by permission of the Government (Permit number EN 0059212).
Nil sna teorainneacha ar na léarscáileanna ach nod garshuiomhach ginearálta. Féadfar athbhreithnithe a déanamh ar theorainneacha na gceantar comharthaithe. Macasamhail d'ábhar na Suirbhéarachta Ordonáis le chead ón Rialtas (Ceadunas Uimh. EN 0059212).
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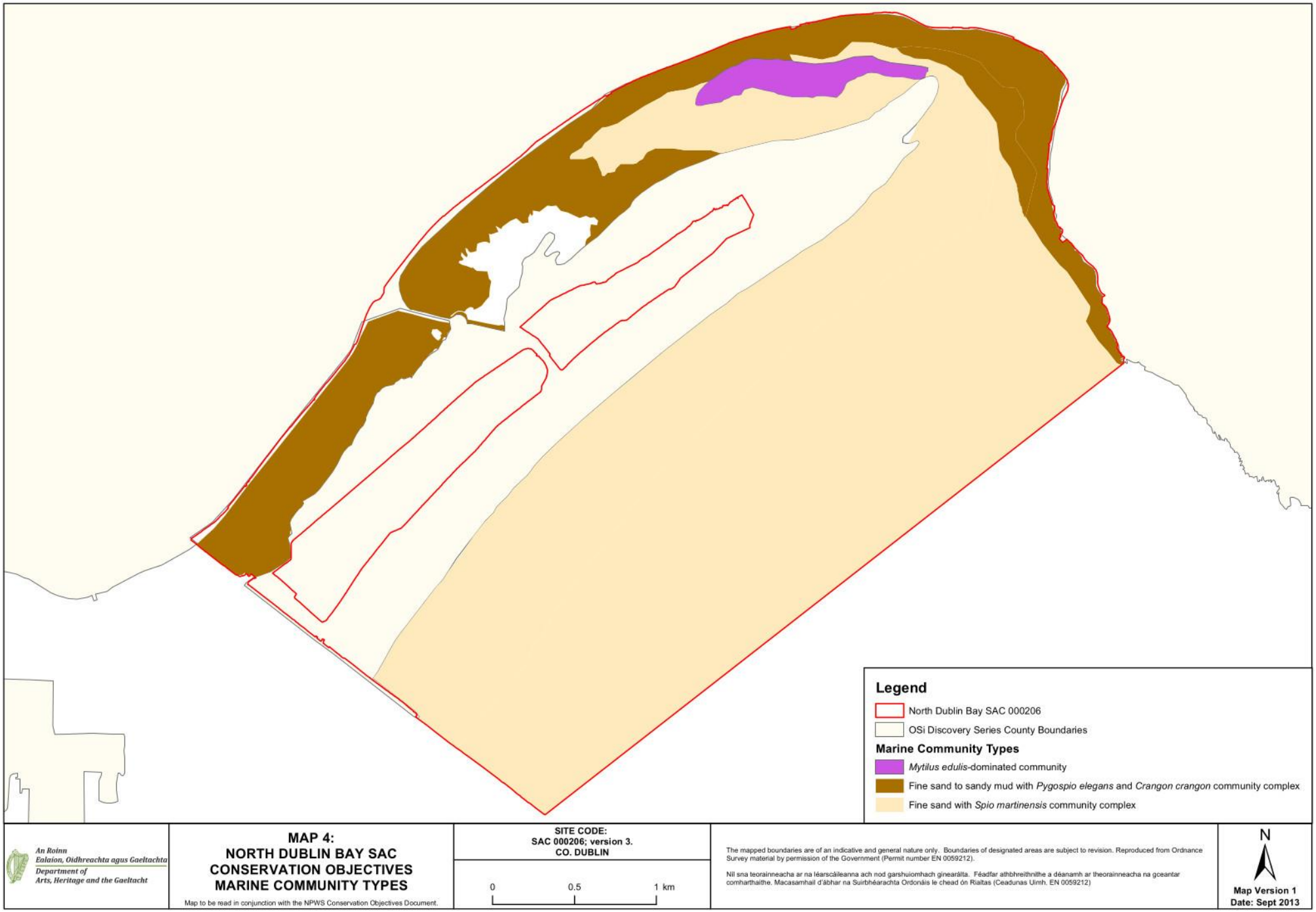
Map Version 1
Date: Sept 2013



An Roinn Ealaíon, Oidhreachta agus Gaeltachta
Department of Arts, Heritage and the Gaeltacht

MAP 4:
NORTH DUBLIN BAY SAC
CONSERVATION OBJECTIVES
MARINE COMMUNITY TYPES

Map to be read in conjunction with the NPWS Conservation Objectives Document.

SITE CODE:
SAC 000206; version 3.
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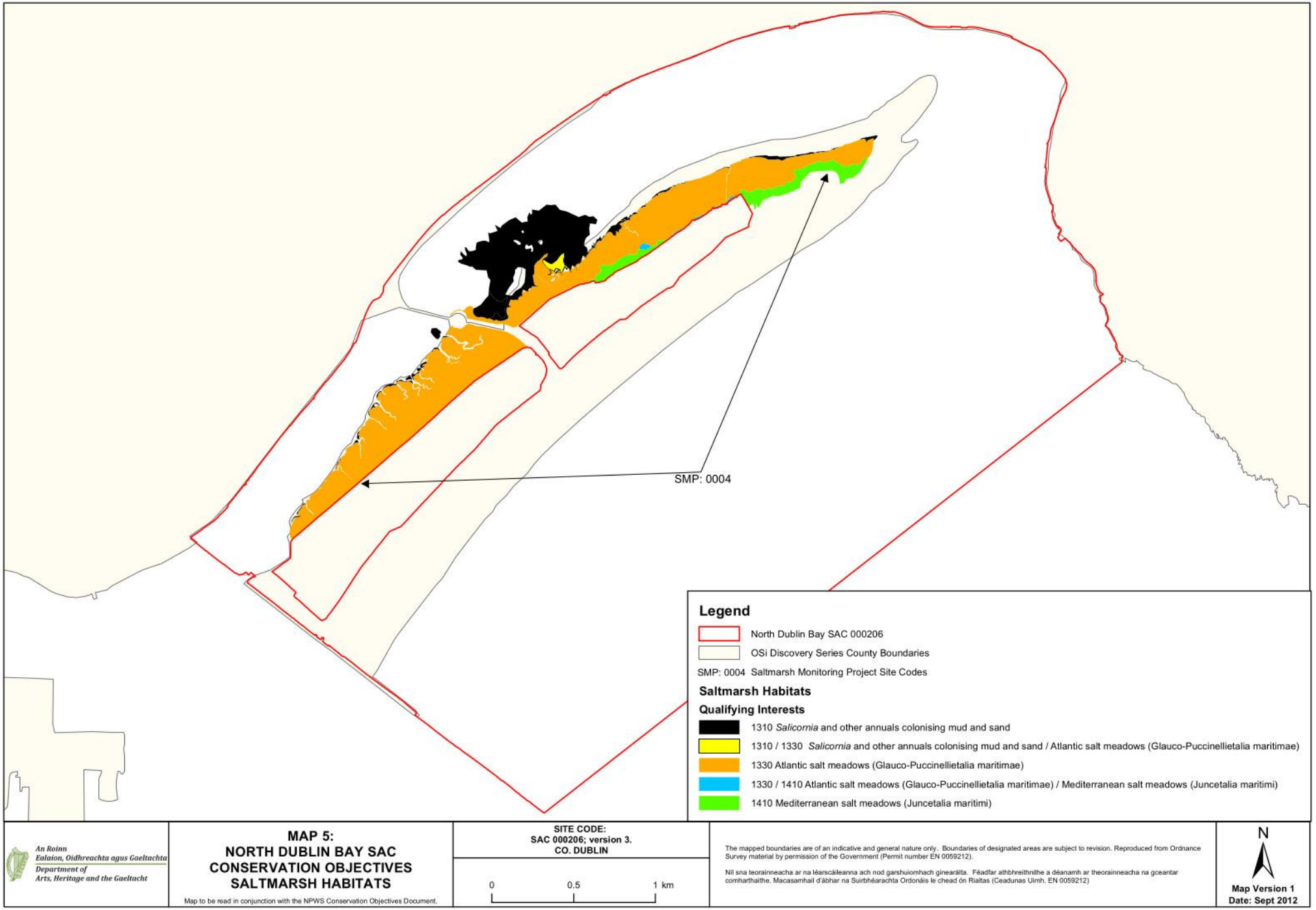
Map Version 1
Date: Sept 2013


SMP: 0004
Legend
North Dublin Bay SAC 000206
OSi Discovery Series County Boundaries
SMP: 0004 Saltmarsh Monitoring Project Site Codes
Saltmarsh Habitats
Qualifying Interests
1310 Salicornia and other annuals colonising mud and sand
1310 / 1330 Salicornia and other annuals colonising mud and sand / Atlantic salt meadows (Glauco-Puccinellietalia maritimae)
1330 Atlantic salt meadows (Glauco-Puccinellietalia maritimae)
1330 / 1410 Atlantic salt meadows (Glauco-Puccinellietalia maritimae) / Mediterranean salt meadows (Juncetalia maritimi)
1410 Mediterranean salt meadows (Juncetalia maritimi)
An Roinn Ealaíon, Oidhreachta agus Gaeltachta
Department of Arts, Heritage and the Gaeltacht
MAP 5:
NORTH DUBLIN BAY SAC
CONSERVATION OBJECTIVES
SALTMARSH HABITATS
Map to be read in conjunction with the NPWS Conservation Objectives Document.
SITE CODE:
SAC 000206; version 3.
CO. DUBLIN
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1 km
The mapped boundaries are of an indicative and general nature only. Boundaries of designated areas are subject to revision. Reproduced from Ordnance Survey material by permission of the Government (Permit number EN 0059212).
Nil sna teorainneacha ar na léarscáileanna ach nod garshuiomhach ginearálta. Féadfar athbhreithnithe a dhéanamh ar theorainneacha na gceantar comharthaithe. Macasamhail d'ábhar na Suirbhéarachta Ordonáis le chead ón Rialtas (Ceadunas Uimh. EN 0059212)
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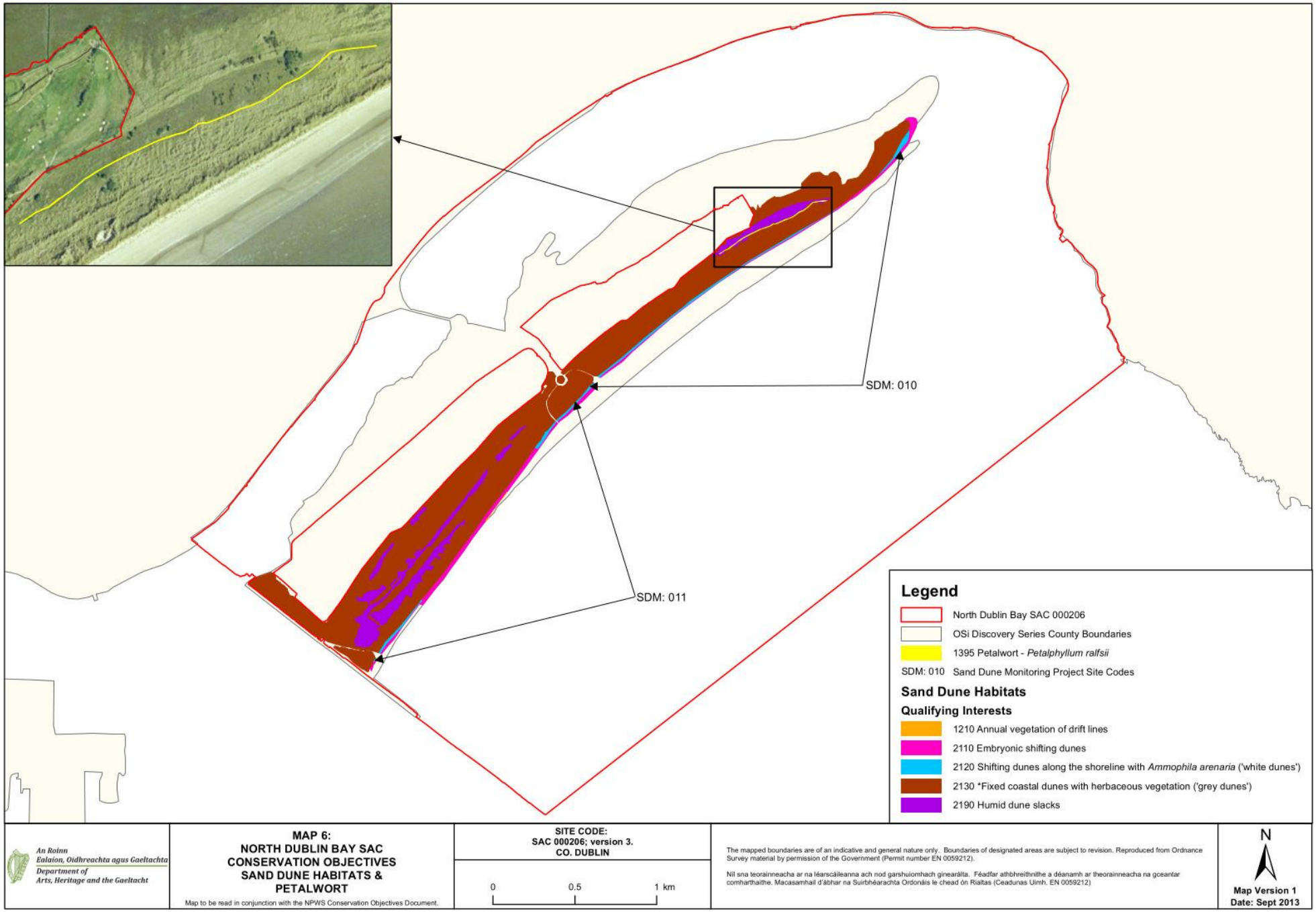
Map Version 1
Date: Sept 2012


SDM: 010
SDM: 011
Legend
North Dublin Bay SAC 000206
OSi Discovery Series County Boundaries
1395 Petalwort - Petalphyllum ralfsii
SDM: 010 Sand Dune Monitoring Project Site Codes
Sand Dune Habitats
Qualifying Interests
1210 Annual vegetation of drift lines
2110 Embryonic shifting dunes
2120 Shifting dunes along the shoreline with Ammophila arenaria ('white dunes')
2130 *Fixed coastal dunes with herbaceous vegetation ('grey dunes')
2190 Humid dune slacks
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Department of Arts, Heritage and the Gaeltacht
MAP 6:
NORTH DUBLIN BAY SAC
CONSERVATION OBJECTIVES
SAND DUNE HABITATS &
PETALWORT
Map to be read in conjunction with the NPWS Conservation Objectives Document.
SITE CODE:
SAC 000206; version 3.
CO. DUBLIN
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0.5
1 km
The mapped boundaries are of an indicative and general nature only. Boundaries of designated areas are subject to revision. Reproduced from Ordnance Survey material by permission of the Government (Permit number EN 0059212).
Nil sna teorainneacha ar na léarscáileanna ach nod garshuíomhach ginearálta. Féadfar athbhreithnithe a déanamh ar theorainneacha na gceantar comharthaithe. Macasamhail d'ábhar na Suirbhéarachta Ordonáis le chead ón Rialtas (Ceadunas Uimh. EN 0059212)
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Map Version 1
Date: Sept 2013

South Dublin Bay and River Tolka (Site code: 004024)

As outlined in the South Dublin Bay SAC Site Synopsis[8]. (NPWS, version date 30.05.2015):

'*The South Dublin Bay and River Tolka Estuary SPA comprises a substantial part of Dublin Bay. It includes the intertidal area between the River Liffey and Dun Laoghaire, and the estuary of the River Tolka to the north of the River Liffey, as well as Booterstown Marsh. A portion of the shallow marine waters of the bay is also included.*

In the south bay, the intertidal flats extend for almost 3 km at their widest. The sediments are predominantly well-aerated sands. Several permanent channels exist, the largest being Cockle Lake. A small sandy beach occurs at Merrion Gates, while some bedrock shore occurs near Dun Laoghaire. The landward boundary is now almost entirely artificially embanked. There is a bed of Dwarf Eelgrass (Zostera noltii) below Merrion Gates which is the largest stand on the east coast. Green algae (Ulva spp.) are distributed throughout the area at a low density. The macroinvertebrate fauna is well-developed, and is characterised by annelids such as Lugworm (Arenicola marina), Nephthys spp. and Sand Mason (Lanice conchilega), and bivalves, especially Cockle (Cerastoderma edule) and Baltic Tellin (Macoma balthica). The small gastropod Spire Shell (Hydrobia ulvae) occurs on the muddy sands off Merrion Gates, along with the crustacean Corophium volutator. Sediments in the Tolka Estuary vary from soft thixotrophic muds with a high organic content in the inner estuary to exposed, well-aerated sands off the Bull Wall. The site includes Booterstown Marsh, an enclosed area of saltmarsh and muds that is cut off from the sea by the Dublin/Wexford railway line, being linked only by a channel to the east, the Nutley stream. Sea water incursions into the marsh occur along this stream at high tide. An area of grassland at Poolbeg, north of Irishtown Nature Park, is also included in the site.

The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: Light-bellied Brent Goose, Oystercatcher, Ringed Plover, Grey Plover, Knot, Sanderling, Dunlin, Bar-tailed Godwit, Redshank, Black-headed Gull, Roseate Tern, Common Tern and Arctic Tern. The E.U. Birds Directive pays particular attention to wetlands, and as these form part of the SPA, the site and its associated waterbirds are of special conservation interest for Wetland & Waterbirds.

The site is an important site for wintering waterfowl, being an integral part of the internationally important Dublin Bay complex – all counts for wintering waterbirds are five year mean peaks for the period 1995/96 to 1999/2000. Although birds regularly commute between the south bay and the north bay, recent studies have shown that certain populations which occur in the south bay spend most of their time there. An internationally important population of Light-bellied Brent Goose (368) occurs regularly and newly arrived birds in the autumn feed on the Eelgrass bed at Merrion. At the time of designation the site supported nationally important numbers of a further nine species: Oystercatcher (1,145), Ringed Plover (161), Grey Plover (45), Knot (548), Sanderling (321), Dunlin (1,923), Bar-tailed Godwit (766), Redshank (260) and Black-headed Gull (3,040). Other species occurring in smaller numbers include Great Crested Grebe (21), Curlew (127) and Turnstone (52). Little Egret, a species which has recently colonised Ireland, also occurs at this site.

South Dublin Bay is a significant site for wintering gulls, with a nationally important population of Black-headed Gull, but also Common Gull (330) and Herring Gull (348). Mediterranean Gull is also recorded from here, occurring through much of the year, but especially in late winter/spring and again in late summer into winter.

Both Common Tern and Arctic Tern breed in Dublin Docks, on a man-made mooring structure known as the E.S.B. dolphin – this is included within the site. Small numbers of Common Tern and Arctic Tern were recorded nesting on this dolphin in the 1980s. A survey in 1995 recorded nationally important numbers of Common Tern nesting here (52 pairs). The breeding population of Common Tern at this site has increased, with 216 pairs recorded in 2000. This increase was largely due to the ongoing management of the site for breeding terns. More recent data highlights this site as one of the most important Common Tern sites in the country with over 400 pairs recorded here in 2007.

South Dublin Bay is an important staging/passage site for a number of tern species in the autumn (mostly late July to September). The origin of many of the birds is likely to be the Dublin breeding sites (Rockabill and the

[8] https://www.npws.ie/sites/default/files/protected-sites/synopsis/SY004024.pdf

Dublin Docks) though numbers suggest that the site is also used by birds from other sites, perhaps outside the state. This site is selected for designation for its autumn tern populations: Roseate Tern (2,000 in 1999), Common Tern (5,000 in 1999) and Arctic Tern (20,000 in 1996).

The South Dublin Bay and River Tolka Estuary SPA is of ornithological importance as it supports an internationally important population of Light-bellied Brent Goose and nationally important populations of a further nine wintering species. Furthermore, the site supports a nationally important colony of breeding Common Tern and is an internationally important passage/staging site for three tern species. It is of note that four of the species that regularly occur at this site are listed on Annex I of the E.U. Birds Directive, i.e. Bar-tailed Godwit, Common Tern, Arctic Tern and Roseate Tern. Sandymount Strand/Tolka Estuary is also a Ramsar Convention site.'

The Natura 2000 Standard Data Form (2020)[9] states that:

'*This site comprises a substantial part of Dublin Bay. It includes virtually all of the intertidal area in the south bay, as well as much of the Tolka Estuary to the north of the River Liffey. A portion of the shallow bay waters is also included. In the south bay, the intertidal flats extend for almost 3 km at their widest. The sediments are predominantly well-aerated sands. The sands support the largest stand of Zostera noltii on the East Coast. Several permanent channels exist, the largest being Cockle Lake. A small sandy beach occurs at Merrion Gates, while some bedrock shore occurs near Dun Laoghaire. The landward boundary is now almost entirely artificially embanked. Sediments in the Tolka Estuary vary from soft thixotrophic muds with a high organic content in the inner estuary to exposed, well aerated sands off the Bull Wall. The proximity of the site to Dublin City results in it being a very popular recreational area. It is also important for educational and research purposes.*

The site possesses extensive intertidal flats which support wintering waterfowl which are part of the overall Dublin Bay population. It regularly has an internationally important population of Branta bernicla hrota, which feeds on Zostera noltii in the autumn. It has nationally important numbers of a further 6 species: Haematopus ostralegus, Charadrius hiaticula, Calidris canutus, Calidris alba, Calidris alpina and Limosa lapponica. It is an important site for wintering gulls, especially Larus ridibundus and Larus canus. South Dublin Bay is the premier site in Ireland for Larus melanocephalus, with up to 20 birds present at times. Is a regular autumn roosting ground for significant numbers of terns, including Sterna dougallii, S. hirundo and S. paradisaea.'

According to the conservation Objectives Supporting Document[10] (NPWS 2014) for the South Dublin Bay and River Tolka Estuary SPA:

'*The overarching Conservation Objective for North Bull Island Special Protection Area, and for South Dublin Bay and River Tolka Estuary Special Protection Area, is to ensure that waterbird populations and their wetland habitats are maintained at, or restored to, favourable conservation condition. This includes, as an integral part, the need to avoid deterioration of habitats and significant disturbance; thereby ensuring the persistence of site integrity.*

The site should contribute to the maintenance and improvement where necessary, of the overall favourable status of the national resource of waterbird species, and continuation of their long-term survival across their natural range.

Conservation Objectives for North Bull Island Special Protection Area, and for South Dublin Bay and River Tolka Estuary Special Protection Area, based on the principles of favourable conservation status, are described below and summarised in Table 3.1. Note that these objectives should be read and interpreted in the context of information and advice provided in additional sections of this report.

Objective 1: To maintain the favourable conservation condition of the non-breeding waterbird Special Conservation Interest species listed for North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA.

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[9] https://www.npws.ie/sites/default/files/protected-sites/natura2000/NF004024.pdf

[10] *Note that 'population' refers to site population (numbers wintering at the site) rather than the species biogeographic population.*
https://www.npws.ie/sites/default/files/publications/pdf/South%20Dublin%20Bay%20and%20River%20Tolka%20Estuary%20SPA%20(004024)%20Conservation%20objectives%20supporting%20document%20-%20[Version%201].pdf

This objective is defined by the following attributes and targets:

- *To be favourable, the long term population trend for each waterbird Special Conservation Interest species should be stable or increasing[11]. Waterbird populations are deemed to be unfavourable when they have declined by 25% or more, as assessed by the most recent population trend analysis.*
- *To be favourable, there should be no significant decrease in the range, timing or intensity of use of areas by the waterbird species of Special Conservation Interest, other than that occurring from natural patterns of variation.*

Factors that can adversely effect the achievement of Objective 1 include:

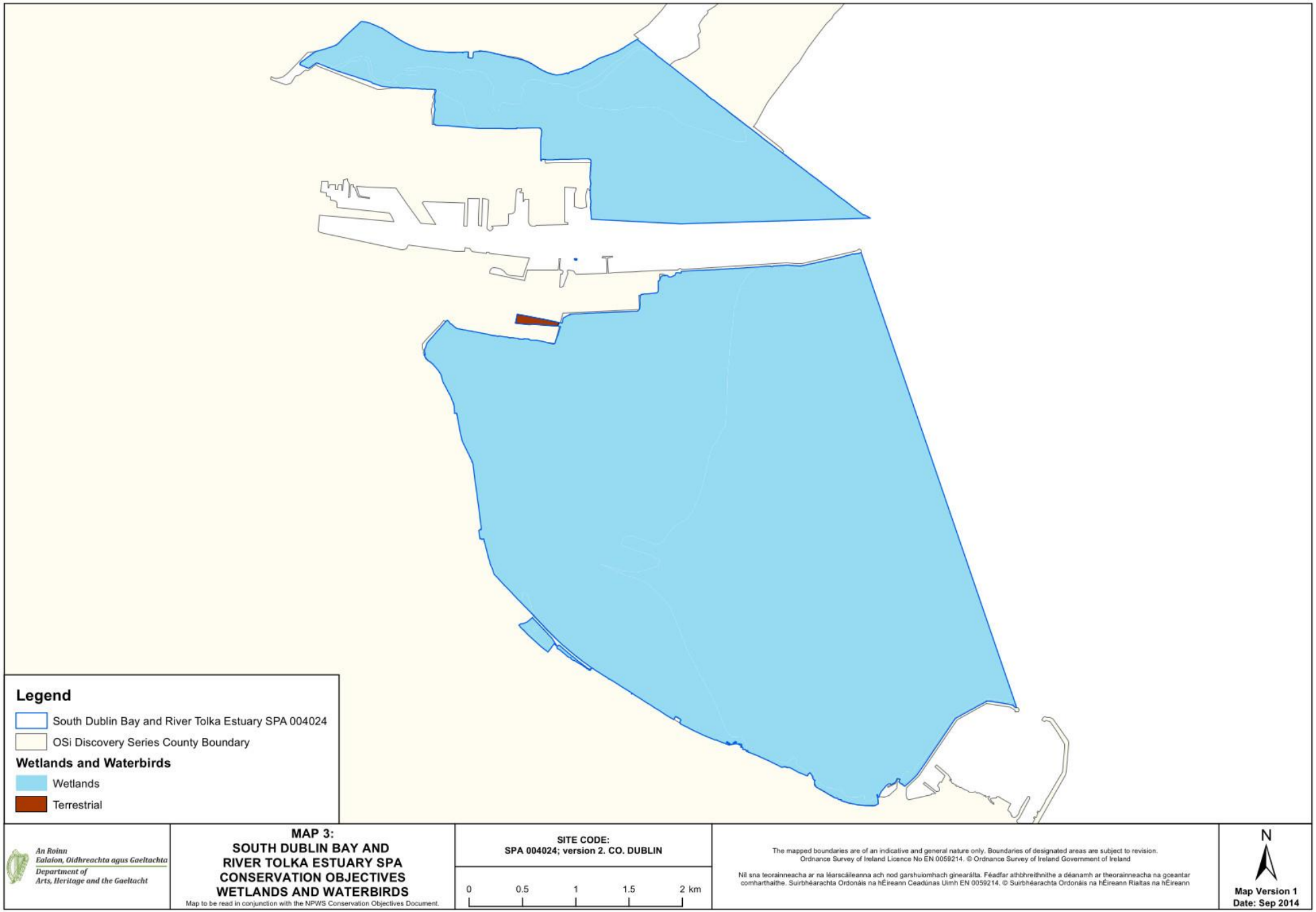
- *Habitat modification: activities that modify discreet areas or the overall habitat(s) within the SPA in terms of how one or more of the listed species use the site (e.g. as a feeding resource) could result in the displacement of these species from areas within the SPA and/or a reduction in their numbers (for further discussion on this topic please refer to Section 5.4).*
- *Disturbance: anthropogenic disturbance that occurs in or near the site and is either singular or cumulative in nature could result in the displacement of one or more of the listed waterbird species from areas within the SPA, and/or a reduction in their numbers (for further discussion on this topic please refer to Section 5.4).*
- *Ex-situ factors: several of the listed waterbird species may at times use habitats situated within the immediate hinterland of the SPA or in areas ecologically connected to it. The reliance on these habitats will vary from species to species and from site to site. Significant habitat change or increased levels of disturbance within these areas could result in the displacement of one or more of the listed waterbird species from areas within the SPA, and/or a reduction in their numbers (for further information on this topic please refer to Section 5.2).*

Objective 2. To maintain the favourable conservation condition of the wetland habitat at North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA as a resource for the regularly-occurring migratory waterbirds that utilise these areas.

This objective is defined by the following attributes and targets:

- *To be favourable, the permanent area occupied by the wetland habitat should be stable and not significantly less than the area of 3,904 ha, other than that occurring from natural patterns of variation.*

This objective seeks to maintain the permanent extent of the wetland habitats that are contained within the boundary of these two SPAs, and which constitute an important resource for regularly-occurring migratory waterbirds (note that the total designated area also contains some non-wetland habitat).



An Roinn Ealaíon, Oidhreachta agus Gaeltachta
Department of Arts, Heritage and the Gaeltacht

MAP 3:
SOUTH DUBLIN BAY AND RIVER TOLKA ESTUARY SPA
CONSERVATION OBJECTIVES
WETLANDS AND WATERBIRDS
Map to be read in conjunction with the NPWS Conservation Objectives Document.

SITE CODE:
SPA 004024; version 2. CO. DUBLIN

0 0.5 1 1.5 2 km

N

Map Version 1
Date: Sep 2014

North Bull Island SPA (Site code: 004006)

As outlined in the North Bull Island SPA Site Synopsis[12] (NPWS, version date 25.03.2014)

'*This site covers all of the inner part of north Dublin Bay, with the seaward boundary extending from the Bull Wall lighthouse across to Drumleck Point at Howth Head. The North Bull Island sand spit is a relatively recent depositional feature, formed as a result of improvements to Dublin Port during the 18th and 19th centuries. It is almost 5 km long and 1 km wide and runs parallel to the coast between Clontarf and Sutton. Part of the interior of the island has been converted to golf courses.*

Saltmarsh extends along the length of the landward side of the island and provides the main roost site for wintering birds in Dublin Bay. The island shelters two intertidal lagoons which are divided by a solid causeway. These lagoons provide the main feeding grounds for the wintering waterfowl. The sediments of the lagoons are mainly sands with a small and varying mixture of silt and clay. Green algal mats (Ulva spp.) are a feature of the flats during summer. These sediments have a rich macro-invertebrate fauna, with high densities of Lugworm (Arenicola marina) and Ragworm (Hediste diversicolor).

The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: Light-bellied Brent Goose, Shelduck, Teal, Pintail, Shoveler, Oystercatcher, Golden Plover, Grey Plover, Knot, Sanderling, Dunlin, Black-tailed Godwit, Bar-tailed Godwit, Curlew, Redshank, Turnstone and Black-headed Gull. The site is also of special conservation interest for holding an assemblage of over 20,000 wintering waterbirds. The E.U. Birds Directive pays particular attention to wetlands and, as these form part of this SPA, the site and its associated waterbirds are of special conservation interest for Wetland & Waterbirds.

The North Bull Island SPA is of international importance for waterfowl on the basis that it regularly supports in excess of 20,000 waterfowl. The site supports internationally important populations of three species, Light-bellied Brent Goose (1,548), Black-tailed Godwit (367) and Bar-tailed Godwit (1,529) - all figures are mean peaks for the five winters between 1995/96 and 1999/2000. The site is one of the most important in the country for Light-bellied Brent Goose. A further 14 species have populations of national importance – Shelduck (1,259), Teal (953), Pintail (233), Shoveler (141), Oystercatcher (1,784), Grey Plover (517), Golden Plover (2,033), Knot (2,837), Sanderling (141), Dunlin (4,146), Curlew (937), Redshank (1,431), Turnstone (157) and Black-headed Gull (2,196). The populations of Pintail and Knot are of particular note as they comprise 14% and 10% respectively of the all-Ireland population totals. Other species that occur regularly in winter include Grey Heron, Little Egret, Cormorant, Wigeon, Goldeneye, Red-breasted Merganser, Ringed Plover and Greenshank. Gulls are a feature of the site during winter and, along with the nationally important population of Black-headed Gull (2,196), other species that occur include Common Gull (332) and Herring Gull (331). While some of the birds also frequent South Dublin Bay and the River Tolka Estuary for feeding and/or roosting purposes, the majority remain within the site for much of the winter. The wintering bird populations have been monitored more or less continuously since the late 1960s and the site is now surveyed each winter as part of the larger Dublin Bay complex.

The North Bull Island SPA is a regular site for passage waders, especially Ruff, Curlew Sandpiper and Spotted Redshank. These are mostly observed in single figures in autumn but occasionally in spring or winter.

The site formerly had an important colony of Little Tern but breeding has not occurred in recent years. Several pairs of Ringed Plover breed, along with Shelduck in some years. Breeding passerines include Skylark, Meadow Pipit, Stonechat and Reed Bunting. The island is a regular wintering site for Short-eared Owl, with up to 5 present in some winters.

The North Bull Island SPA is an excellent example of an estuarine complex and is one of the top sites in Ireland for wintering waterfowl. It is of international importance on account of both the total number of waterfowl and the individual populations of Light-bellied Brent Goose, Black-tailed Godwit and Bar-tailed Godwit that use it. Also of significance is the regular presence of several species that are listed on Annex I of the E.U. Birds Directive,

[12] https://www.npws.ie/sites/default/files/protected-sites/synopsis/SY004006.pdf

notably Golden Plover and Bar-tailed Godwit, but also Ruff and Short-eared Owl. North Bull Island is a Ramsar Convention site, and part of the North Bull Island SPA is a Statutory Nature Reserve and a Wildfowl Sanctuary.'

The Natura 2000 Standard Data Form (2020)[13] states that:

'*The North Bull Island sand spit is a relatively recent depositional feature, formed as a result of improvements to Dublin Port during the 18th and 19th centuries. It is almost 5km long and 1km wide and runs parallel to the coast between Clontarf and Sutton. The sediment which forms the island is predominantly glacial in origin and siliceous in nature. A well-developed dune system runs the length of the island, with good examples of embryonic, shifting marram and fixed dunes, as well as excellent examples of humid dune slacks. Extensive salt marshes also occur. Between the island and the mainland occur two sheltered intertidal areas which are separated by a solid causeway constructed in 1964. The seaward side of the island has a fine sandy beach. A substantial area of shallow marine water is included in the site. Part of the interior of the island has been converted to golf courses. The proximity of the North Bull Island to Dublin City results in it being a very popular recreational area. It is also very important for educational and research purposes. Nature conservation is a main landuse within the site.*

The site is among the top ten sites for wintering waterfowl in the country. It supports internationally important populations of Branta bernicila hrota and Limosa lapponica and is the top site in the country for both of these species. A further 14 species have populations of national importance, with particular notable numbers of Tadorna tadorna (8.5% of national total), Anas acuta (11.6% of national total), Pluvialis squatarola (6.9% of national total), Calidris canutus (10.5% of national total). North Bull Island SPA is a regular site for passage waders such as Philomachus pugnax, Calidris ferruginea and Tringa erythropus. The site supports Asio flammeus in winter. Formerly the site had an important colony of Sterna albifrons but breeding has not occurred in recent years. The site provides both feeding and roosting areas for the waterfowl species. Habitat quality for most of the estuarine habitats is very good. The site has a population of the rare Petalophyllum ralfsii which is the only known station away from the western seaboard as well as five Red Data Book vascular plant species and four bryophyte species. It is nationally important for three insect species. Wintering bird populations have been monitored more or less continuously since the late 1960s, and the other scientific interests of the site have also been well documented. Future prospects are good owing to various designations assigned to site.'

The North Bull Island SPA Conservation Objectives Supporting Document[14] (NPWS, 2014) states the following:

'*North Bull Island lies roughly parallel to the shore and is a low-lying sandy spit, about 4.85 km long and 0.70 km wide (McCorry & Ryle, 2009a). It is a relatively recent geomorphological feature having emerged as a result of the build up of sediment over the last 200 years following the construction of the South and North Bull walls during the 18th and 19th centuries. The North Bull Wall marks the southern boundary of the island and is connected to the mainland by a wooden bridge. The island is actively accreting (Ryle et al. 2009a). A sandy beach, Dollymount Strand, occurs on the seaward side of the island and intertidal mudflats occur on the inner (mainland side) fringed by saltmarsh. A causeway built in 1965 provides the main access to the island and divides the intertidal flats into two areas known as the North and South Bull lagoons. Both of these are covered completely by most tides and are drained by permanent channels; the southern lagoon fills and empties beneath Bull Bridge, while water in the northern lagoon is channelled in and out through Sutton Creek (Harris, 1977). These lagoons provide the main feeding grounds for the wintering waterfowl while the fringing saltmarsh provides the main roost site for wintering birds in Dublin Bay. Macroalgal mats of filamentous Ulva spp. (formerly Enteromorpha spp.) 1 are prevalent.*

North Bull Island is one of the finest sand dune systems in Ireland and is internationally important in terms of conservation value (McCorry & Ryle, 2009a). It has several high quality examples of rare and threatened coastal habitats and a wealth of biodiversity, which includes several habitats and species listed in Annexes I and II of the EU Habitats Directive. As a consequence, North Bull Island is afforded several other nature conservation

[13] https://www.npws.ie/sites/default/files/protected-sites/natura2000/NF004006.pdf

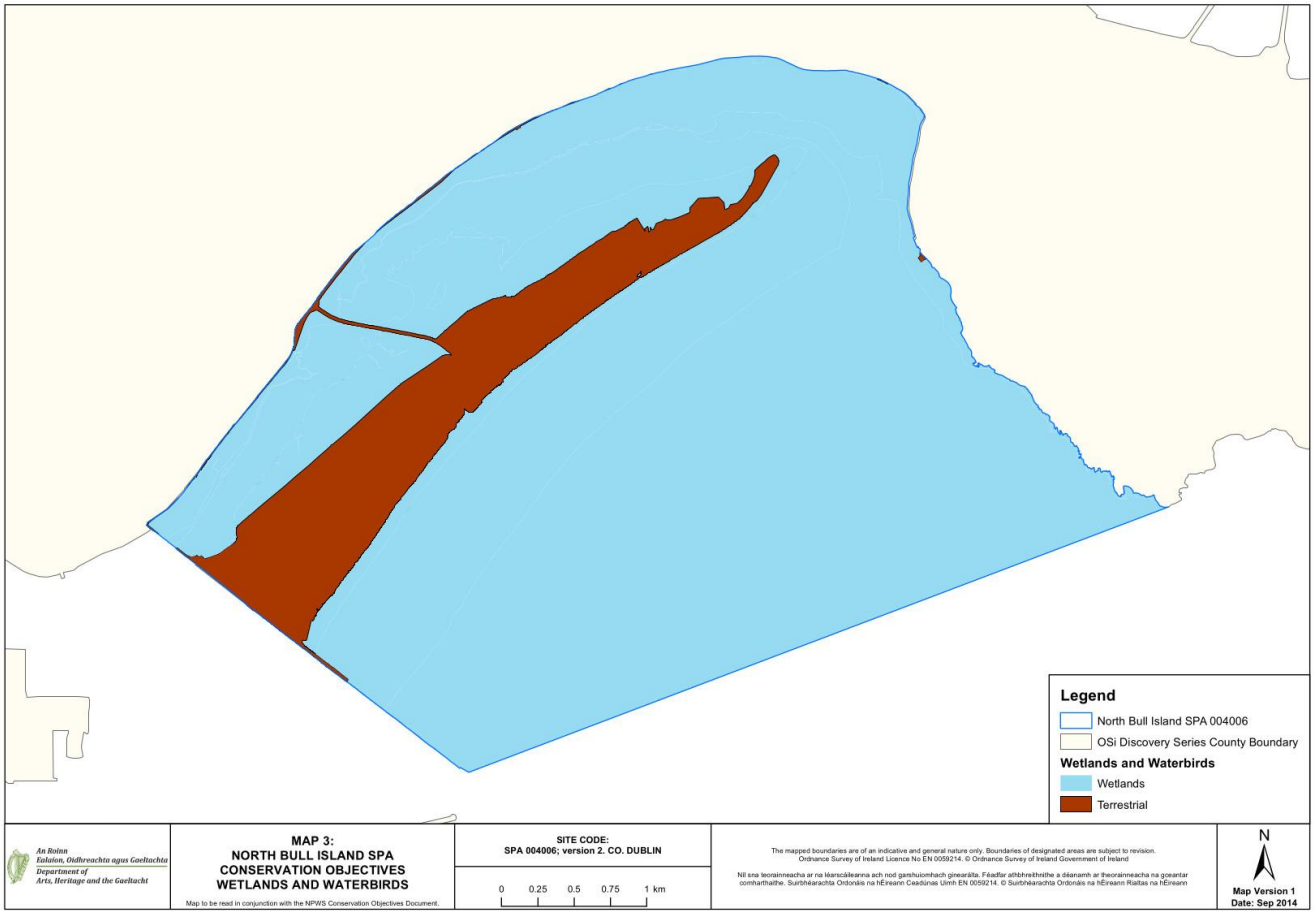
[14] https://www.npws.ie/sites/default/files/publications/pdf/North%20Bull%20Island%20SPA%20(004006)%20Conservation%20objectives%20supporting%20document%20-%20[Version%201].pdf

designations alongside its status as a Special Protection Area. It was designated as an official bird sanctuary under the Wild Bird Protection Act, 1931, the first bird sanctuary in Ireland (McCorry & Ryle, 2009a), and was established as a National Nature Reserve in 1988 (two parts covered by S.I. 231 and S. I. 232 of 1988). The site has been designated as part of a Special Area of Conservation (North Dublin Bay SAC - NPWS site code 000206). North Bull Island is also a Biogenetic Reserve (Council of Europe) and a UNESCO World Biosphere Reserve.'

The following objectives have been identified:

'Objective 1: *To maintain the favourable conservation condition of the non-breeding waterbird Special Conservation Interest species listed for North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA*

Objective 2: *To maintain the favourable conservation condition of the wetland habitat at North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA as a resource for the regularly-occurring migratory waterbirds that utilise these areas.'*



North-West Irish Sea SPA (Site code: 004236)

As outlined in the North-West Irish Sea cSPA Site Synopsis[15] (NPWS Version date: 17.7.2023)

'The North-west Irish Sea cSPA constitutes an important resource for marine birds. The estuaries and bays that open into it along with connecting coastal stretches of intertidal and shallow subtidal habitats, provide safe feeding and roosting habitats for waterbirds throughout the winter and migration periods. These areas, along with more pelagic marine waters further offshore, provide additional supporting habitats (for foraging and other maintenance behaviours) for those seabirds that breed at colonies on the north-west Irish Sea's islands and coastal headlands. These marine areas are also important for seabirds outside the breeding period.

This SPA extends offshore along the coasts of counties Louth, Meath and Dublin, and is approximately 2,333km2 in area. This SPA is ecologically connected to several existing SPAs in this area.

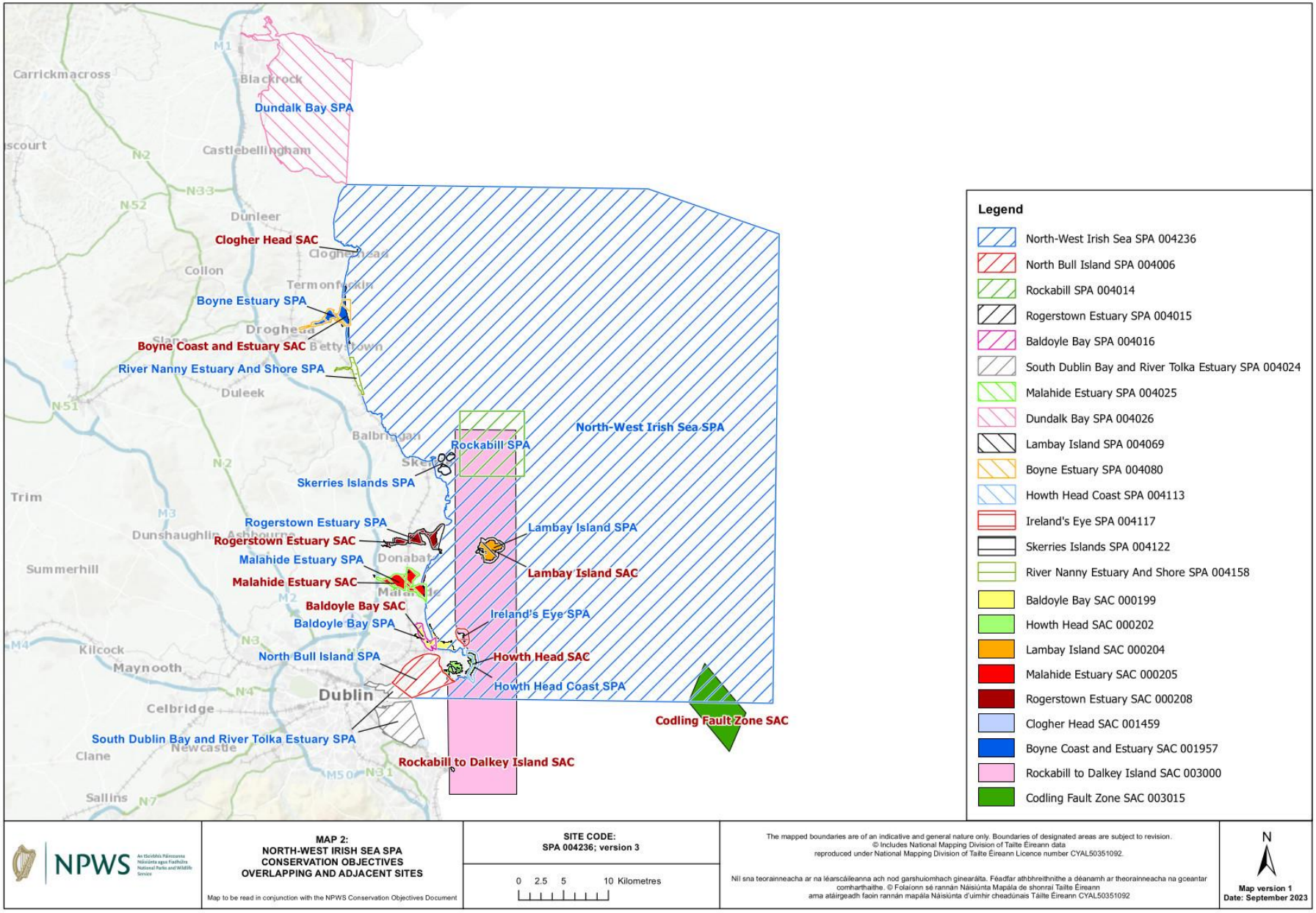
The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: Common Scoter, Red-throated Diver, Great Northern Diver, Fulmar, Manx Shearwater, Shag, Cormorant, Little Gull, Kittiwake, Black-headed Gull, Common Gull, Lesser Black-backed Gull, Herring Gull, Great Black-backed Gull, Little Tern, Roseate Tern, Common Tern, Arctic Tern, Puffin, Razorbill and Guillemot.

The breeding seabird species listed for those SPAs, which abut the North-West Irish Sea SPA are: Fulmar (Lambay Island SPA); Cormorant (Skerries Island SPA; Ireland's Eye SPA; Lambay Island SPA); Shag (Skerries Island SPA; Lambay Island SPA); Lesser Black-backed Gull (Lambay Island SPA); Herring Gull (Skerries Island SPA; Ireland's Eye SPA; Lambay Island SPA); Kittiwake (Lambay Island SPA; Ireland's Eye SPA; Howth Head SPA); Roseate Tern (Rockabill SPA); Common Tern (Rockabill SPA;); Arctic Tern (Rockabill SPA); Little Tern (Boyne Estuary SPA); Guillemot (Lambay Island SPA, Ireland's Eye SPA); Razorbill (Lambay Island SPA, Ireland's Eye SPA); and Puffin (Lambay Island SPA). The Common Tern population that is listed for the nearby South Dublin Bay and River Tolka Estuary SPA is also likely to use this SPA as a foraging resource.

Informed by two surveys of the western Irish Sea region in 2016 an estimated 120,232 and 34,626 individual marine birds occurred in this SPA during autumn and winter respectively. Those marine bird species whose estimated abundances equalled or exceeded 1% of the total estimated size of the winter assemblage are: Red-throated Diver (538), Fulmar (506), Little Gull (391), Kittiwake (944), Black-headed Gull (508), Common Gull (2,866), Herring Gull (6,893), Great Black-backed Gull (2,096), Razorbill (4,638) and Guillemot (13,914).

The estimated 2016 summer abundance of Manx Shearwater in the North West Irish Sea SPA is 13,010 and is of international importance. The estimated 2016 autumn and winter abundances of Great Northern Diver in the North West Irish Sea SPA is 248 and 230 respectively and are of international importance. The estimated abundances of Common Scoter over parts of this SPA can reach significant numbers (e.g. 14,567 in December 2018) which is also of international importance.

[15] https://www.npws.ie/sites/default/files/protected-sites/synopsis/SY004236.pdf


Dundalk Bay SPA
Clogher Head SAC
Boyne Estuary SPA
Boyne Coast and Estuary SAC
River Nanny Estuary And Shore SPA
North-West Irish Sea SPA
Rockabill SPA
Skerries Islands SPA
Rogerstown Estuary SPA
Rogerstown Estuary SAC
Malahide Estuary SPA
Malahide Estuary SAC
Baldoyle Bay SAC
Baldoyle Bay SPA
North Bull Island SPA
Lambay Island SPA
Lambay Island SAC
Ireland's Eye SPA
Howth Head SAC
Howth Head Coast SPA
Codling Fault Zone SAC
South Dublin Bay and River Tolka Estuary SPA
Rockabill to Dalkey Island SAC
Dublin
Legend
North-West Irish Sea SPA 004236
North Bull Island SPA 004006
Rockabill SPA 004014
Rogerstown Estuary SPA 004015
Baldoyle Bay SPA 004016
South Dublin Bay and River Tolka Estuary SPA 004024
Malahide Estuary SPA 004025
Dundalk Bay SPA 004026
Lambay Island SPA 004069
Boyne Estuary SPA 004080
Howth Head Coast SPA 004113
Ireland's Eye SPA 004117
Skerries Islands SPA 004122
River Nanny Estuary And Shore SPA 004158
Baldoyle Bay SAC 000199
Howth Head SAC 000202
Lambay Island SAC 000204
Malahide Estuary SAC 000205
Rogerstown Estuary SAC 000208
Clogher Head SAC 001459
Boyne Coast and Estuary SAC 001957
Rockabill to Dalkey Island SAC 003000
Codling Fault Zone SAC 003015
MAP 2:
NORTH-WEST IRISH SEA SPA
CONSERVATION OBJECTIVES
OVERLAPPING AND ADJACENT SITES
Map to be read in conjunction with the NPWS Conservation Objectives Document
SITE CODE:
SPA 004236; version 3
0 2.5 5 10 Kilometres
The mapped boundaries are of an indicative and general nature only. Boundaries of designated areas are subject to revision.
© Includes National Mapping Division of Tailte Éireann data
reproduced under National Mapping Division of Tailte Éireann Licence number CYAL50351092.
Níl sna teorainneacha ar na léarscáileanna ach nod garshuiomhach ginearálta. Féadfar athbhreithnithe a déanamh ar theorainneacha na gceantar comharthaithe. © Folaíonn sé rannán Náisiúnta Mapála de shonraí Tailte Éireann
ama atáirgeadh faoin rannán mapála Náisiúnta d'uimhir cheadúnais Tailte Éireann CYAL50351092
N
Map version 1
Date: September 2023

Status of Qualifying Interests & Conservation Objectives

The Qualifying Interests (QI) (Features of Interest), Special Conservation Interests (SCIs) for the SAC and SPA sites and the National conservation status of the Natura 2000 sites subject to the NIS are seen in Table 4. The site-specific conservation Objectives for Natura 2000 sites are seen in Table 5.

Table 4. Qualifying Interests, Conservation Status, Management Objectives, Conditions underpinning site integrity for Natura 2000 sites

Qualifying Interests, Conservation Status, Management Objectives, Conditions underpinning site integrity for relevant European sites		
Natura 2000 Site Name & Code	Qualifying Interests	Current Conservation Status & Trend
Special Areas of Conservation (SAC)		
South Dublin Bay SAC (000210)	Mudflats and sandflats not covered by seawater at low tide [1140] Annual vegetation of drift lines [1210] Salicornia and other annuals colonising mud and sand [1310] Embryonic shifting dunes [2110]	**Inadequate** **Inadequate** **Favourable** **Inadequate**
North Dublin Bay SAC (000206)	Mudflats and sandflats not covered by seawater at low tide [1140] Annual vegetation of drift lines [1210] Salicornia and other annuals colonising mud and sand [1310] Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) [1330] Mediterranean salt meadows (*Juncetalia maritimi*) [1410] Embryonic shifting dunes [2110] Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes) [2120] Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130] Humid dune slacks [2190] Petalwort (*Petalophyllum ralfsii*) [1395]	**Inadequate** **Inadequate** **Favourable** **Inadequate** **Inadequate** **Inadequate** **Inadequate** **Bad** **Inadequate** **Favourable**
Special Protection Areas (SPA)		
South Dublin Bay and River Tolka Estuary SPA (004024)	Light-bellied Brent Goose (*Branta bernicla hrota*) [A046] Oystercatcher (*Haematopus ostralegus*) [A130] Ringed Plover (*Charadrius hiaticula*) [A137] Grey Plover (*Pluvialis squatarola*) [A141] Knot (*Calidris canutus*) [A143] Sanderling (*Calidris alba*) [A144] Dunlin (*Calidris alpina*) [A149] Bar-tailed Godwit (*Limosa lapponica*) [A157] Redshank (*Tringa totanus*) [A162] Black-headed Gull (*Chroicocephalus ridibundus*) [A179]	**Amber** **Amber** **Green** **Amber** **Amber** **Green** **Red** **Amber** **Red** **Red**

Qualifying Interests, Conservation Status, Management Objectives, Conditions underpinning site integrity for relevant European sites		
Natura 2000 Site Name & Code	Qualifying Interests	Current Conservation Status & Trend
	Roseate Tern (*Sterna dougallii*) [A192] Common Tern (*Sterna hirundo*) [A193] Arctic Tern (*Sterna paradisaea*) [A194] Wetland and Waterbirds [A999]	**Amber** **Amber** **Amber** **N/A**
North Bull Island SPA (004006)	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] Golden Plover (*Pluvialis apricaria*) [A140] Grey Plover (*Pluvialis squatarola*) [A141] Knot (*Calidris canutus*) [A143] Sanderling (*Calidris alba*) [A144] Dunlin (*Calidris alpina*) [A149] Black-tailed Godwit (*Limosa limosa*) [A156] Bar-tailed Godwit (*Limosa lapponica*) [A157] Curlew (*Numenius arquata*) [A160] Redshank (*Tringa totanus*) [A162] Turnstone (*Arenaria interpres*) [A169] Black-headed Gull (*Chroicocephalus ridibundus*) [A179] Wetland and Waterbirds [A999]	**Amber** **Amber** **Amber** **Red** **Red** **Amber** **Red** **Amber** **Amber** **Green** **Red** **Amber** **Amber** **Red** **Red** **Green** **Red** **N/A**
North-West Irish Sea SPA (004236)	Red-throated Diver (*Gavia stellata*) [A001] Great Northern Diver (*Gavia immer*) [A003] Fulmar (*Fulmarus glacialis*) [A009] Manx Shearwater (*Puffinus puffinus*) [A013] Cormorant (*Phalacrocorax carbo*) [A017] Shag (*Phalacrocorax aristotelis*) [A018] Common Scoter (*Melanitta nigra*) [A065] Little Gull (*Larus minutus*) [A177] Black-headed Gull (*Chroicocephalus ridibundus*) [A179] Common Gull (*Larus canus*) [A182] Lesser Black-backed Gull (*Larus fuscus*) [A183]	**Amber** **Amber** **Amber** **Amber** **Amber** **Amber** **Red** **Amber** **Amber** **Amber** **Amber**

Qualifying Interests, Conservation Status, Management Objectives, Conditions underpinning site integrity for relevant European sites		
Natura 2000 Site Name & Code	Qualifying Interests	Current Conservation Status & Trend
	Herring Gull (*Larus argentatus*) [A184] Great Black-backed Gull (*Larus marinus*) [A187] Kittiwake (*Rissa tridactyla*) [A188] Roseate Tern (*Sterna dougallii*) [A192] Common Tern (*Sterna hirundo*) [A193] Arctic Tern (*Sterna paradisaea*) [A194] Little Tern (*Sterna albifrons*) [A195] Guillemot (*Uria aalge*) [A199] Razorbill (*Alca torda*) [A200] Puffin (*Fratercula arctica*) [A204]	**Amber** **Green** **Red** **Amber** **Amber** **Amber** **Amber** **Amber** **Red** **Red**

Table 5. Site-specific conservation objectives for Natura 2000 sites

South Dublin Bay SAC (000210)		
Attribute	**Measure**	**Target**
Mudflats and sandflats not covered by water at low tide [1140] (Maintain the favourable conservation condition)		
Habitat area	Hectares	The permanent habitat area is stable or increasing, subject to natural processes
Community extent	Hectares	Maintain the extent of the *Zostera*-dominated community, subject to natural processes
Community structure: *Zostera* density	Shoots/m^2	Conserve the high quality of the *Zostera*-dominated community, subject to natural processes
Community distribution	Hectares	Conserve the following community types in a natural condition: Fine sands with *Angulus tenuis* community complex

North Dublin Bay SAC (000206)		
Attribute	**Measure**	**Target**
Mudflats and sandflats not covered by water at low tide [1140] (Maintain the favourable conservation condition)		

North Dublin Bay SAC (000206)		
Attribute	**Measure**	**Target**
Habitat area	Hectares	The permanent habitat area is stable or increasing, subject to natural processes
Community extent	Hectares	Maintain the extent of the *Mytilus edulis*-dominated community, subject to natural processes
Community structure: *Mytilus edulis* density	Individuals/m^2	Conserve the high quality of the *Mytilus edulis* -dominated community, subject to natural processes
Community distribution	Hectares	Conserve the following community types in a natural condition: Fine sand to sandy mud with *Pygospio elegans* and *Crangon crangon* community complex; Fine sand with *Spio martinensis* community complex
Annual vegetation of drift lines [1210] (Restore the favourable conservation condition)		
Habitat area	Hectares	Area increasing, subject to natural processes, including erosion and succession
Habitat distribution	Occurrence	No decline, or change in habitat distribution, subject to natural processes
Physical structure: functionality and sediment supply	Presence/ absence of physical barriers	Maintain the natural circulation of sediment and organic matter, without any physical obstructions
Vegetation structure: zonation	Occurrence	Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession
Vegetation composition: typical species and subcommunities	Percentage cover at a representative number of monitoring stops	Maintain the presence of species-poor communities with typical species: sea rocket (*Cakile maritima*), sea sandwort (*Honckenya peploides*), prickly saltwort (*Salsola kali*) and oraches (*Atriplex* spp.)
Vegetation composition: negative indicator species	Percentage cover	Negative indicator species (including non-natives) to represent less than 5% cover
Salicornia and other annuals colonizing mud and sand [1310] (Restore the favourable conservation condition of Salicornia and other annuals colonizing mud and sand)		
Habitat area	Hectares	Area stable or increasing, subject to natural processes, including erosion and succession. For sub-site mapped: North Bull Island 29.10 ha.
Habitat distribution	Occurrence	No decline, or change in habitat distribution, subject to natural processes
Physical structure: sediment supply	Presence/ absence of physical barriers	Maintain, or where necessary restore, natural circulation of sediment and organic matter, without any physical obstructions
Physical structure: creeks and pans	Occurrence	Maintain creek and pan structure, subject to natural processes, including erosion and succession
Physical structure: flooding regime	Hectares flooded; frequency	Maintain natural tidal regime

North Dublin Bay SAC (000206)		
Attribute	**Measure**	**Target**
Vegetation structure: zonation	Occurrence	Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession
Vegetation structure: vegetation height	Centimetres	Maintain structural vegetation with sward
Vegetation structure: vegetation cover	Percentage cover at a representative number of monitoring stops	Maintain more than 90% of area outside creeks vegetated
Vegetation composition: typical species and sub-communities	Percentage cover	Maintain the presence of species-poor communities listed in SMP (McCorry and Ryle, 2009)
Vegetation structure: negative indicator species – *Spartina anglica*	Hectares	No significant expansion of common cordgrass (*Spartina anglica*), with an annual spread of less than 1%.
Atlantic salt meadows [1330] (Maintain the favourable conservation condition)		
Habitat area	Hectares	Area stable or increasing, subject to natural processes, including erosion and succession. For sub-site mapped: North Bull Island 81.84ha.
Habitat distribution	Occurrence	No decline, or change in habitat distribution, subject to natural processes
Physical structure: sediment supply	Presence/ absence of physical barriers	Maintain natural circulation of sediments and organic matter, without any physical obstructions
Physical structure: creeks and pans	Occurrence	Maintain creek and pan structure, subject to natural processes, including erosion and succession
Physical structure: flooding regime	Hectares flooded; frequency	Maintain natural tidal regime
Vegetation structure: zonation	Occurrence	Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession
Vegetation structure: vegetation height	Centimetres	Maintain structural vegetation with sward
Vegetation structure: vegetation cover	Percentage cover at a representative number of monitoring stops	Maintain more than 90% of area outside creeks vegetated
Vegetation composition: typical species and sub-communities	Percentage cover at a representative number of monitoring stops	Maintain range of sub-communities with typical species listed in SMP (McCorry and Ryle, 2009)

North Dublin Bay SAC (000206)		
Attribute	**Measure**	**Target**
Vegetation structure: negative indicator species – *Spartina anglica*	Hectares	No significant expansion of common cordgrass (*Spartina anglica*), with an annual spread of less than 1%.
Mediterranean salt meadows [1410] (Maintain the favourable conservation condition)		
Habitat area	Hectares	Area stable or increasing, subject to natural processes, including erosion and succession. For sub-site mapped: North Bull Island – 7.98ha.
Habitat distribution	Occurrence	No decline, or change in habitat distribution, subject to natural processes
Physical structure: sediment supply	Presence/ absence of physical barriers	Maintain/restore natural circulation of sediments and organic matter, without any physical obstructions
Physical structure: creeks and pans	Occurrence	Maintain creek and pan structure, subject to natural processes, including erosion and succession
Physical structure: flooding regime	Hectares flooded; frequency	Maintain natural tidal regime
Vegetation structure: zonation	Occurrence	Maintain range of coastal habitats including transitional zones, subject to natural processes including erosion and succession
Vegetation structure: vegetation height	Centimetres	Maintain structural vegetation with sward
Vegetation structure: vegetation cover	Percentage cover at a representative number of monitoring stops	Maintain more than 90% of area outside creeks vegetated
Vegetation composition: typical species and sub-communities	Percentage cover at a representative number of monitoring stops	Maintain range of sub-communities with typical species listed in SMP (McCorry and Ryle, 2009)
Vegetation structure: negative indicator species – *Spartina anglica*	Hectares	No significant expansion of common cordgrass (*Spartina anglica*), with an annual spread of less than 1%.
Embryonic shifting dunes [2110] (Restore the favourable conservation condition)		
Habitat area	Hectares	Area stable or increasing, subject to natural processes, including erosion and succession. For sub-site mapped: North Bull Island – 2.64ha; South Bull – 3.43ha.
Habitat distribution	Occurrence	No decline, or change in habitat distribution, subject to natural processes
Physical structure: functionality and sediment supply	Presence/ absence of physical barriers	Maintain the natural circulation of sediment and organic matter, without any physical obstructions

North Dublin Bay SAC (000206)		
Attribute	**Measure**	**Target**
Vegetation structure: zonation	Occurrence	Maintain range of coastal habitats including transitional zones, subject to natural processes including erosion and succession
Vegetation composition: plant health of foredune grasses	Percentage Cover	More than 95% of sand couch (*Elytrigia juncea*) and/or lyme grass (*Leymus arenarius*) should be healthy (i.e., green plant parts above ground and flowering heads present)
Vegetation composition: typical species and sub-communities	Percentage cover at a representative number of monitoring stops	Maintain the presence of species-poor communities with typical species: sand couch (*Elytrigia juncea*) and/or lyme grass (*Leymus arenarius*)
Vegetation structure: negative indicator species	Percentage Cover	Negative indicator species (including non-native species) to represent less than 5% cover
Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes) [2120] (Restore the favourable conservation condition)		
Habitat area	Hectares	Area stable or increasing, subject to natural processes, including erosion and succession. For sub-site mapped: North Bull Island – 2.20ha; South Bull – 0.97ha.
Habitat distribution	Occurrence	No decline, or change in habitat distribution, subject to natural processes
Physical structure: functionality and sediment supply	Presence/ absence of physical barriers	Maintain the natural circulation of sediment and organic matter, without any physical obstructions
Vegetation structure: zonation	Occurrence	Maintain range of coastal habitats including transitional zones, subject to natural processes including erosion and succession
Vegetation composition: plant health of dune grasses	Percentage Cover	95% of marram grass (*Ammophila arenaria*) and/or lyme-grass (*Leymus arenarius*) should be healthy (i.e. green plant parts above ground and flowering heads present)
Vegetation composition: typical species and sub-communities	Percentage cover at a representative number of monitoring stops	Maintain the presence of species-poor communities dominated by marram grass (*Ammophila arenaria*) and/or lyme-grass (*Leymus arenarius*)
Vegetation structure: negative indicator species	Percentage Cover	Negative indicator species (including non-native species) to represent less than 5% cover
Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130] (Restore the favourable conservation condition)		
Habitat area	Hectares	Area stable or increasing, subject to natural processes, including erosion and succession. For sub-site mapped: North Bull – 40.29ha; South Bull – 64.56ha.
Habitat distribution	Occurrence	No decline, or change in habitat distribution, subject to natural processes
Physical structure: functionality and sediment supply	Presence/ absence of physical barriers	Maintain the natural circulation of sediment and organic matter, without any physical obstructions

North Dublin Bay SAC (000206)		
Attribute	**Measure**	**Target**
Vegetation structure: zonation	Occurrence	Maintain range of coastal habitats including transitional zones, subject to natural processes including erosion and succession
Vegetation structure: bare ground	Percentage cover	Bare ground should not exceed 10% of fixed dune habitat, subject to natural processes
Vegetation structure: sward height	Centimetres	Maintain structural variation within sward
Vegetation composition: typical species and sub-communities	Percentage cover at a representative number of monitoring stops	Maintain range of sub-communities with typical species listed in Delaney et. al. (2013)
Vegetation composition: negative indicator species (including *Hippophae rhamnoides*)	Percentage Cover	Negative indicator species (including non-native species) to represent less than 5% cover
Vegetation composition: scrub/trees	Percentage Cover	No more than 5% cover or under control
Humid dune slacks [2190] (Restore the favourable conservation condition)		
Habitat area	Hectares	Area increasing, subject to natural processes, including erosion and succession. For sub-sites mapped: North Bull – 3.96ha; South Bull – 9.15ha.
Habitat distribution	Occurrence	No decline, or change in habitat distribution, subject to natural processes
Physical structure: functionality and sediment supply	Presence/ absence of physical barriers	Maintain the natural circulation of sediment and organic matter, without any physical obstructions
Physical structure: hydrological and flooding regime	Water table levels; groundwater fluctuations (metres)	Maintain natural hydrological regime
Vegetation structure: zonation	Occurrence	Maintain range of coastal habitats including transitional zones, subject to natural processes including erosion and succession
Vegetation structure: bare ground	Percentage cover	Bare ground should not exceed 5% of dune slack habitat, with the exception of pioneer slacks which can have up to 20% bare ground
Vegetation structure: vegetation height	Centimetres	Maintain structural variation within sward
Vegetation composition: typical species and sub-communities	Percentage cover at a representative number of monitoring stops	Maintain range of sub-communities with typical species listed in Delaney et. al. (2013)
Vegetation composition: cover of *Salix repens*	Percentage cover; centimetres	Maintain less than 40% cover of creeping willow (*Salix repens*)

North Dublin Bay SAC (000206)		
Attribute	**Measure**	**Target**
Vegetation composition: negative indicator species	Percentage Cover	Negative indicator species (including non-native species) to represent less than 5% cover
Vegetation composition: scrub/trees	Percentage Cover	No more than 5% cover or under control
Petalwort (*Petalophyllum ralfsii)* [1395] (Maintain the favourable conservation condition)		
Distribution of populations	Number and geographical spread of populations	No decline
Population size	Number of individuals	No decline
Age of suitable habitat	Hectares	No decline
Hydrological conditions: soil moisture	Occurrence	Maintain hydrological conditions so that substrate is kept moist and damp throughout the year, but not subject to prolonged inundation by flooding in winter
Vegetation structure: height and cover	Centimetres and percentage	Maintain open, low vegetation with a high percentage of bryophytes (small acrocarps and liverwort turf) and bare ground

South Dublin Bay and River Tolka Estuary SPA (004024)		
Attribute	Measure	Target
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 alpina*) [A149], Bar-tailed Godwit (*Limosa lapponica*) [A157], Redshank (*Tringa totanus*) [A162], Black-headed Gull (*Chroicocephalus ridibundus*) [A179] (Maintain the favourable conservation condition) Note: Grey Plover (*Pluvialis squatarola*) [A141] is proposed for removal from the list of SCI's for the site so no site specific conservation objective is included for the species		
Population Trend	Percentage Change	Long term population trend stable or increasing
Distribution	Range, timing and intensity of use of areas	No significant decrease in the range, timing and intensity of use of areas by all of the above named species, other than that occurring from natural patterns of variation
Roseate Tern *Sterna dougallii* [A192]		
Passage population: individuals	Passage population: individuals	Passage population: individuals
Distribution: roosting areas	Distribution: roosting areas	Distribution: roosting areas
Prey biomass available	Prey biomass available	Prey biomass available
Barriers to connectivity	Barriers to connectivity	Barriers to connectivity
Disturbance at roosting site	Disturbance at roosting site	Disturbance at roosting site
Common Tern *Sterna hirundo* [A193]		
Breeding population abundance: apparently occupied nests (AONs)	Breeding population abundance: apparently occupied nests (AONs)	Breeding population abundance: apparently occupied nests (AONs)

South Dublin Bay and River Tolka Estuary SPA (004024)		
Attribute	Measure	Target
Productivity rate: fledged young per breeding pair	Productivity rate: fledged young per breeding pair	Productivity rate: fledged young per breeding pair
Passage population: individuals	Passage population: individuals	Passage population: individuals
Distribution: breeding colonies	Distribution: breeding colonies	Distribution: breeding colonies
Distribution: roosting areas	Number; location; area (hectares)	No significant decline
Prey biomass available	Kilogrammes	No significant decline
Barriers to connectivity	Number; location; shape; area (hectares)	No significant increase
Disturbance at breeding site	Level of impact	Human activities should occur at levels that do not adversely affect the breeding common tern population
Disturbance at roosting site	Level of impact	Human activities should occur at levels that do not adversely affect the numbers of common tern among the post-breeding aggregation of terns
Arctic Tern *Sterna paradisaea* [A194]		
Passage population: individuals	Number	No significant decline
Distribution: roosting areas	Number; location; area (hectares)	No significant decline
Prey biomass available	Kilogrammes	No significant decline
Barriers to connectivity	Number; location; shape; area (hectares)	No significant increase
Disturbance at roosting site	Level of impact	Human activities should occur at levels that do not adversely affect the numbers of Arctic tern among the post-breeding aggregation of terns
A999 Wetlands - To maintain the favourable conservation condition of the wetland habitat		
Habitat Area	Hectares	The permanent area occupied by the wetland habitat should be stable and not significantly less than the area of 2,192ha, other than that occurring from natural patterns of variation

North Bull Island SPA (004006)		
Attribute	Measure	Target
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], Golden Plover (*Pluvialis apricaria*) [A140], Grey Plover (*Pluvialis squatarola*) [A141], Knot (*Calidris canutus*) [A143], Sanderling (*Calidris alba*) [A144], Dunlin (*Calidris alpina alpina*) [A149], Black-tailed Godwit (*Limosa limosa*) [A156], Bar-tailed Godwit (*Limosa lapponica*) [A157], Curlew (*Numenius arquata*) [A160], Redshank (*Tringa totanus*) [A162], Turnstone (*Arenaria interpres*) [A169], Black-headed Gull (*Chroicocephalus ridibundus*) [A179] (Maintain the favourable conservation condition)		
Population Trend	Percentage Change	Long term population trend stable or increasing

South Dublin Bay and River Tolka Estuary SPA (004024)		
Attribute	Measure	Target
Distribution	Range, timing and intensity of use of areas	No significant decrease in the range, timing and intensity of use of areas by all of the above named species, other than that occurring from natural patterns of variation
A999 Wetlands - To maintain the favourable conservation condition of the wetland habitat		
Habitat Area	Hectares	The permanent area occupied by the wetland habitat should be stable and not significantly less than the area of 1,713ha, other than that occurring from natural patterns of variation

North-West Irish Sea SPA		
Attribute	Measure	Target
Red-throated Diver (*Gavia stellata*) [A001], Great Northern Diver (*Gavia immer*) [A003], Fulmar (*Fulmarus glacialis*) [A009], Manx Shearwater (*Puffinus puffinus*) [A013], Cormorant (*Phalacrocorax carbo*) [A017], Shag (*Phalacrocorax aristotelis*) [A018], Common Scoter (*Melanitta nigra*) [A065], Little Gull (*Larus minutus*) [A177], Black-headed Gull (*Chroicocephalus ridibundus*) [A179], Common Gull (*Larus canus*) [A182], Lesser Black-backed Gull (*Larus fuscus*) [A183], Herring Gull (*Larus argentatus*) [A184], Great Black-backed Gull (*Larus marinus*) [A187], Kittiwake (*Rissa tridactyla*) [A188], Roseate Tern (*Sterna dougallii*) [A192], Common Tern (*Sterna hirundo*) [A193], Arctic Tern (*Sterna paradisaea*) [A194], Little Tern (*Sterna albifrons*) [A195], Guillemot (*Uria aalge*) [A199], Razorbill (*Alca torda*) [A200], Puffin (*Fratercula arctica*) [A204]		
Breeding/Non-breeding population size (depending on species)	Number	No significant decline
Spatial distribution	Hectares, time and intensity of use	Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population
Forage spatial distribution, extent, abundance and availability	Location and hectares, and forage biomass	Sufficient number of locations, areas of suitable habitat and available forage biomass to support the population target
Disturbance across the site	Intensity, frequency, timing and duration	The intensity, frequency, timing and duration of disturbance occurs at levels that do not significantly impact the achievement of targets for population size and spatial distribution.
Barriers to connectivity and site use	Number, location; shape; area (hectares)	The number, location, shape and area of barriers do not significantly impact the site population's access to the SPA or other ecologically important sites outside the SPA

Analysis of Potential Impacts on Natura 2000 Sites

Impacts of the Proposed Works

The proposed development is not within a designated conservation site. The nearest Natura 2000 sites are South Dublin Bay SAC (2.5km) and South Dublin Bay and River Tolka Estuary SPA (1.5km). Given the nature of the demolition, site clearance, excavation and construction works and recognising that the proposed development site is located 25m from the River Liffey, it is considered that there is a direct hydrological pathway to South Dublin Bay SAC, South Dublin Bay and River Tolka Estuary SPA, North Dublin Bay SAC, North Bull Island SPA and North-West Irish Sea SPA. Out of an abundance of caution, it is considered that, in the absence of mitigation measures, there is the potential for dust and contaminated surface water runoff to enter the River Liffey during construction and operation and effect the integrity of Natura 2000 sites located within Dublin Bay.

The potential impacts on Natura 2000 sites are seen in Table 6. The proposed demolition, excavation, clearance and construction works would impact on the existing ecology of the site and the surrounding area. In the absence of mitigation, this could lead to the transportation of dust and surface water runoff to the proximate River Liffey (25m), with the potential for downstream impacts on the integrity of marine based Natura 2000 sites located within the Dublin Bay.

Demolition, construction and operational phase mitigation measures are required on site particularly as clearance of the site is proposed which will remove all existing terrestrial habitats and in the absence of mitigation would lead to dust and silt laden and contaminated runoff entering the River Liffey. Mitigation measures are required to prevent adverse effects on Natura 2000 sites screened in for NIS.

Mitigation Measures

Mitigation measures to prevent significant adverse effects on downstream Natura 2000 sites are outlined in Table 7. These measures include the measures outlined in the accompanying EIAR, Outline Construction Management Plan and Surface Water Management Plan.

Table 6. Potential for adverse effects on the qualifying interests and conservation objectives of Natura 2000 sites		
Natura 2000 Site	Qualifying Interests	Potential for Adverse Effects
South Dublin Bay SAC	Mudflats and sandflats not covered by seawater at low tide [1140] Annual vegetation of drift lines [1210] Salicornia and other annuals colonising mud and sand [1310] Embryonic shifting dunes [2110]	Given the nature of the works, all of these effects would be expected to be localised in nature restricted to the immediate vicinity of the site. However, without the presence of mitigation measures there is a potential for downstream effects if significant quantities of pollution or silt were introduced into the River Liffey with potential for downstream impacts on South Dublin Bay SAC. The habitats of conservation interest of this SAC are not on site. However, the range of the species that are of conservational interest may extend into the proposed development site, and are located downstream of the proposed works. In the absence of mitigation, construction, excavation and demolition works have the potential for downstream impacts on aquatic biodiversity through the introduction of silt, dust and petrochemicals. Existing drainage networks on site, surface water runoff, haulage, storage of topsoil or works in the vicinity of the drainage networks on onsite could lead to dust, hazardous material, soil or silt laden runoff entering the adjacent river. Surface water runoff on site during construction may lead to silt or contaminated materials from site entering the River Liffey with downstream impacts on the SAC. If on-site concrete production is required or cement works are carried out in the vicinity of watercourses there is potential for contamination of watercourses. The use of plant and machinery, as well as the associated temporary storage of construction materials, oils, fuels and chemicals could lead to pollution on site or in adjacent watercourses. Impacts on the SAC from upstream sources have the potential to directly impact on the qualifying interests of the SAC in the absence of mitigation measures. In the absence of mitigation measures there is the potential to impact on the distribution number and range of the following qualifying interests: • Mudflats and sandflats not covered by seawater at low tide [1140] • Annual vegetation of drift lines [1210] • Salicornia and other annuals colonising mud and sand [1310] • Embryonic shifting dunes [2110] Mitigation measures are required to remove the potential of impacts on the SAC from direct pathways via the River Liffey.
North Dublin Bay SAC	Mudflats and sandflats not covered by seawater at low tide [1140] Annual vegetation of drift lines [1210] Salicornia and other annuals colonising mud and sand [1310] Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) [1330] Mediterranean salt meadows (*Juncetalia maritimi*) [1410]	Given the nature of the works, all of these effects would be expected to be localised in nature restricted to the immediate vicinity of the site. However, without the presence of mitigation measures there is a potential for downstream effects if significant quantities of pollution or silt were introduced into the River Liffey with potential for downstream impacts on North Dublin Bay SAC. The habitats of conservation interest of this SAC are not on site. However, the range of the species that are of conservational interest may extend into the proposed development site, and are located downstream of the proposed works. In the absence of mitigation, construction, excavation and demolition works have the potential for downstream impacts on aquatic biodiversity through the introduction of silt and petrochemicals. Existing drainage networks on site, surface water runoff, haulage, storage of topsoil or works in the vicinity of the drainage networks on onsite could lead to dust, hazardous material, soil or silt laden runoff entering adjacent river. Surface water runoff on site during demolition may lead to silt or contaminated materials from site entering the River Liffey with downstream impacts on the SAC. If on-site

Table 6. Potential for adverse effects on the qualifying interests and conservation objectives of Natura 2000 sites		
Natura 2000 Site	Qualifying Interests	Potential for Adverse Effects
	Embryonic shifting dunes [2110] Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes) [2120] Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130] Humid dune slacks [2190] Petalwort (*Petalophyllum ralfsii*) [1395]	concrete production is required or cement works are carried out in the vicinity of watercourses there is potential for contamination of watercourses. The use of plant and machinery, as well as the associated temporary storage of construction materials, oils, fuels and chemicals could lead to pollution on site or in adjacent watercourses. Impacts on the SAC from upstream sources have the potential to directly impact on the qualifying interests of the SAC in the absence of mitigation measures. In the absence of mitigation measures there is the potential to impact on the distribution number and range of the following qualifying interests: • Mudflats and sandflats not covered by seawater at low tide [1140] • Annual vegetation of drift lines [1210] • Salicornia and other annuals colonising mud and sand [1310] • Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) [1330] • Mediterranean salt meadows (*Juncetalia maritimi*) [1410] • Embryonic shifting dunes [2110] • Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes) [2120] • Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130] • Humid dune slacks [2190] • Petalwort (*Petalophyllum ralfsii*) [1395] Mitigation measures are required to remove the potential of impacts on the SAC from direct pathways via the River Liffey.
South Dublin Bay and River Tolka Estuary SPA	Light-bellied Brent Goose (*Branta bernicla hrota*) [A046] Oystercatcher (*Haematopus ostralegus*) [A130] Ringed Plover (*Charadrius hiaticula*) [A137] Grey Plover (*Pluvialis squatarola*) [A141] Knot (*Calidris canutus*) [A143] Sanderling (*Calidris alba*) [A144] Dunlin (*Calidris alpina*) [A149] Bar-tailed Godwit (*Limosa lapponica*) [A157] Redshank (*Tringa totanus*) [A162]	Given the nature of the works, all of these effects would be expected to be localised in nature restricted to the immediate vicinity of the site. However, without the presence of mitigation measures there is a potential for downstream effects if significant quantities of pollution or silt were introduced into the River Liffey with potential for downstream impacts on South Dublin Bay and River Tolka Estuary SPA. The habitats of conservation interest of this SPA are not on site. However, the range of the species that are conservation interests would potentially be downstream of the proposed works. Construction, excavation and demolition works have the potential for downstream impacts on aquatic biodiversity through the introduction of silt and petrochemicals. Existing drainage networks on site, surface water runoff, haulage, storage of topsoil or works in the vicinity of the drainage networks on onsite could lead to dust, hazardous material, soil or silt laden runoff entering adjacent river. Surface water runoff on site during construction may lead to silt or contaminated materials from site entering the River Liffey with downstream impacts on the SAC. If on-site concrete production is required or cement works are carried out in the vicinity of watercourses there is potential for contamination of watercourses. The use of plant and machinery, as well as the associated temporary storage of construction materials, oils, fuels and chemicals could lead to pollution on site or in adjacent watercourses. Impacts on the SPA from upstream sources have the potential to directly impact on the qualifying interests of the SPA in the absence of mitigation measures. In the absence of mitigation measures there is the potential to impact on the distribution number and range of the following qualifying interests:

Table 6. Potential for adverse effects on the qualifying interests and conservation objectives of Natura 2000 sites		
Natura 2000 Site	Qualifying Interests	Potential for Adverse Effects
	Black-headed Gull (*Chroicocephalus ridibundus*) [A179] Roseate Tern (*Sterna dougallii*) [A192] Common Tern (*Sterna hirundo*) [A193] Arctic Tern (*Sterna paradisaea*) [A194] Wetland and Waterbirds [A999]	• Light-bellied Brent Goose (*Branta bernicla hrota*) [A046] • Oystercatcher (*Haematopus ostralegus*) [A130] • Ringed Plover (*Charadrius hiaticula*) [A137] • Grey Plover (*Pluvialis squatarola*) [A141] • Knot (*Calidris canutus*) [A143] • Sanderling (*Calidris alba*) [A144] • Dunlin (*Calidris alpina*) [A149] • Bar-tailed Godwit (*Limosa lapponica*) [A157] • Redshank (*Tringa totanus*) [A162] • Black-headed Gull (*Chroicocephalus ridibundus*) [A179] • Roseate Tern (*Sterna dougallii*) [A192] • Common Tern (*Sterna hirundo*) [A193] • Arctic Tern (*Sterna paradisaea*) [A194] Mitigation measures are required to remove the potential of impacts on the SPA from direct pathways via the River Liffey.
North Bull Island SPA	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] Golden Plover (*Pluvialis apricaria*) [A140] Grey Plover (*Pluvialis squatarola*) [A141] Knot (*Calidris canutus*) [A143] Sanderling (*Calidris alba*) [A144] Dunlin (*Calidris alpina*) [A149]	Given the nature of the works, all of these effects would be expected to be localised in nature restricted to the immediate vicinity of the site. However, without the presence of mitigation measures there is a potential for downstream effects if significant quantities of pollution or silt were introduced into the River Liffey with potential for downstream impacts on North Bull Island SPA. The habitats of conservation interest of this SPA are not on site. However, the range of the species that are conservation interests would potentially be downstream of the proposed works. Construction, excavation and demolition works have the potential for downstream impacts on aquatic biodiversity through the introduction of silt and petrochemicals. Existing drainage networks on site, surface water runoff, haulage, storage of topsoil or works in the vicinity of the drainage networks on onsite could lead to dust, hazardous material, soil or silt laden runoff entering adjacent river. Surface water runoff on site during demolition may lead to silt or contaminated materials from site entering the River Liffey with downstream impacts on the SAC. If on-site concrete production is required or cement works are carried out in the vicinity of watercourses there is potential for contamination of watercourses. The use of plant and machinery, as well as the associated temporary storage of construction materials, oils, fuels and chemicals could lead to pollution on site or in adjacent watercourses. Impacts on the SPA from upstream sources have the potential to directly impact on the qualifying interests of the SPA in the absence of mitigation measures. In the absence of mitigation measures there is the potential to impact on the distribution number and range of the following qualifying interests: • Light-bellied Brent Goose (*Branta bernicla hrota*) [A046]

Table 6. Potential for adverse effects on the qualifying interests and conservation objectives of Natura 2000 sites		
Natura 2000 Site	Qualifying Interests	Potential for Adverse Effects
	Black-tailed Godwit (*Limosa limosa*) [A156] Bar-tailed Godwit (*Limosa lapponica*) [A157] Curlew (*Numenius arquata*) [A160] Redshank (*Tringa totanus*) [A162] Turnstone (*Arenaria interpres*) [A169] Black-headed Gull (*Chroicocephalus ridibundus*) [A179] Wetland and Waterbirds [A999]	• Shelduck (*Tadorna tadorna*) [A048] • Teal (*Anas crecca*) [A052] • Pintail (*Anas acuta*) [A054] • Shoveler (*Anas clypeata*) [A056] • Oystercatcher (*Haematopus ostralegus*) [A130] • Golden Plover (*Pluvialis apricaria*) [A140] • Grey Plover (*Pluvialis squatarola*) [A141] • Knot (*Calidris canutus*) [A143] • Sanderling (*Calidris alba*) [A144] • Dunlin (*Calidris alpina*) [A149] • Black-tailed Godwit (*Limosa limosa*) [A156] • Bar-tailed Godwit (*Limosa lapponica*) [A157] • Curlew (*Numenius arquata*) [A160] • Redshank (*Tringa totanus*) [A162] • Turnstone (*Arenaria interpres*) [A169] • Black-headed Gull (*Chroicocephalus ridibundus*) [A179] • Wetland and Waterbirds [A999] Mitigation measures are required to remove the potential of impacts on the SPA from direct pathways via the River Liffey.
North-West Irish Sea SPA	Red-throated Diver (*Gavia stellata*) [A001] Great Northern Diver (*Gavia immer*) [A003] Fulmar (*Fulmarus glacialis*) [A009] Manx Shearwater (*Puffinus puffinus*) [A013] Cormorant (*Phalacrocorax carbo*) [A017] Shag (*Phalacrocorax aristotelis*) [A018] Common Scoter (*Melanitta nigra*) [A065] Little Gull (*Larus minutus*) [A177]	Given the nature of the works, all of these effects would be expected to be localised in nature restricted to the immediate vicinity of the site. However, without the presence of mitigation measures there is a potential for downstream effects if significant quantities of pollution or silt were introduced into the River Liffey with potential for downstream impacts on North Bull Island SPA. The habitats of conservation interest of this SPA are not on site. However, the range of the species that are conservation interests would potentially be downstream of the proposed works. Construction, excavation and demolition works have the potential for downstream impacts on aquatic biodiversity through the introduction of silt and petrochemicals. Existing drainage networks on site, surface water runoff, haulage, storage of topsoil or works in the vicinity of the drainage networks on onsite could lead to dust, hazardous material, soil or silt laden runoff entering adjacent river. Surface water runoff on site during demolition may lead to silt or contaminated materials from site entering the River Liffey with downstream impacts on the SAC. If on-site concrete production is required or cement works are carried out in the vicinity of watercourses there is potential for contamination of watercourses. The use of plant and machinery, as well as the associated temporary storage of construction materials, oils, fuels and chemicals could lead to pollution on site or in adjacent watercourses.

Table 6. Potential for adverse effects on the qualifying interests and conservation objectives of Natura 2000 sites		
Natura 2000 Site	Qualifying Interests	Potential for Adverse Effects
	Black-headed Gull (*Chroicocephalus ridibundus*) [A179] Common Gull (*Larus canus*) [A182] Lesser Black-backed Gull (*Larus fuscus*) [A183] Herring Gull (*Larus argentatus*) [A184] Great Black-backed Gull (*Larus marinus*) [A187] Kittiwake (*Rissa tridactyla*) [A188] Roseate Tern (*Sterna dougallii*) [A192] Common Tern (*Sterna hirundo*) [A193] Arctic Tern (*Sterna paradisaea*) [A194] Little Tern (*Sterna albifrons*) [A195] Guillemot (*Uria aalge*) [A199] Razorbill (*Alca torda*) [A200] Puffin (*Fratercula arctica*) [A204]	Impacts on the SPA from upstream sources have the potential to directly impact on the qualifying interests of the SPA in the absence of mitigation measures. In the absence of mitigation measures there is the potential to impact on the distribution number and range of the following qualifying interests: • Black-headed Gull (*Chroicocephalus ridibundus*) [A179] • Common Gull (*Larus canus*) [A182] • Lesser Black-backed Gull (*Larus fuscus*) [A183] • Herring Gull (*Larus argentatus*) [A184] • Great Black-backed Gull (*Larus marinus*) [A187] • Kittiwake (*Rissa tridactyla*) [A188] • Roseate Tern (*Sterna dougallii*) [A192] • Common Tern (*Sterna hirundo*) [A193] • Arctic Tern (*Sterna paradisaea*) [A194] • Little Tern (*Sterna albifrons*) [A195] • Guillemot (*Uria aalge*) [A199] • Razorbill (*Alca torda*) [A200] • Puffin (*Fratercula arctica*) [A204] Mitigation measures are required to remove the potential of impacts on the SPA from direct pathways via the River Liffey.

Table 7. Mitigation measures

Sensitive Receptors	Potential Impacts on SPA & SAC	Mitigation Measures to Prevent Impacts on Natura 2000 sites
South Dublin Bay SAC, North Dublin Bay SAC, South Dublin Bay and River Tolka Estuary SPA, North Bull Island SPA, North-West Irish Sea SPA	• Habitat degradation • Dust deposition • Pollution • Silt ingress from site runoff • Downstream impacts • Negative impacts on the aquatic environment, aquatic species and qualifying interests.	**As outlined in the accompanying biodiversity chapter of the accompanying EIAR (Chapter 6) the following mitigation will be implemented:** *'6.6.1 Construction Phase* *A project ecologist will be appointed and consulted in relation to all onsite drainage during works.* *All site clearance and drainage work methodologies will have prior approval of a project ecologist.* *Staging of project will be carried out to reduce risks of onsite drainage to the River Liffey and subject to the approval of a project ecologist.* *Local drainage connections, gullies and watercourses will be protected from dust, silt and surface water throughout the works.* *All onsite drainage network connections will be blanked off and sealed at the first phase of the construction works.* *There will be no entry of solids or petrochemicals to the drainage network during the works.* *Spill containment equipment shall be available for use in the event of an emergency. The spill containment equipment shall be replenished if used and shall be checked on a scheduled basis.* *Dust mitigation will be in place as outlined in Chapter 8 (Air Quality and Climate).* *A pre-demolition inspection for roosting bats and nesting birds will be carried out.* *A watching brief will be incorporated on site in relation to contaminated soils and the project ecologist informed if any contaminated material is found on site. Should any contaminated material be found on site a methodology statement will be provided to the project ecologist for treatment/removal in compliance with legislation.* *6.6.2 Operational Phase* *Standard operational mitigation measures as outlined in the engineering report will be in place to protect surface water networks from pollution. Refer to Engineering Services Report (prepared by CS Consulting Engineers) submitted as part of this planning application which details the proposed separate foul and surface water drainage system.'* **As outlined in the accompanying hydrology chapter of the accompanying EIAR (Chapter 7) the following mitigation will be implemented:** *7.6.1 Construction Phase* *7.6.1.1 Surface Water Quality* *CS Consulting Group have prepared Outline Construction Management Plan (OCMP) (2024) in respect of the subject development that is included with the planning application documentation. It contains best practice measures and protocols to be implemented during the construction phase of the Proposed Development to avoid / minimise environmental impacts. This outline and explains the construction techniques and methodologies which will be implemented during construction of the Proposed Development.* *Construction works and the proposed mitigation measures are informed and comply by best practice guidance from Inland Fisheries Ireland on the prevention of pollution during development projects including but not limited to:*

Table 7. Mitigation measures

Sensitive Receptors	Potential Impacts on SPA & SAC	Mitigation Measures to Prevent Impacts on Natura 2000 sites
		• *Construction Industry Research and Information Association (CIRIA), Control of Water Pollution from Construction Sites, Guidance for Consultants and Contractors (C532);* • *Environmental Protection Agency (EPA) – Draft Best Practice Guidelines for the Preparation of Resource Management Plans for Construction & Demolition Projects – April 2021.* • *Construction Industry Research and Information Association (CIRIA) Environmental Good Practice on Site (4th edition), (C741); and* • *Enterprise Ireland Best Practice Guide, Oil Storage Guidelines (BPGCS005).* • *Local Government Water Pollution Act 1977.* • *Environmental Protection Agency Act 2003.* *The OCMP will be implemented and adhered to by the construction Contractor and will be overseen and updated as required if site conditions change by the Project Manager, Environmental Manager, Resource Manager, and Ecological Clerk of Works where relevant. All personnel working on the Site will be trained in the implementation of the procedures.* *The OCMP sets out the proposed procedures and operations to be utilised on the proposed construction site to protect water quality. The mitigation and control measures outlined in the OCMP will be employed on site during the construction phase. All mitigation measures outlined here, and within the OCMP will be implemented during the construction phase, as well as any additional measures required pursuant to planning conditions which may be imposed.* *Suspended Solids* *As there is potential for run-off to directly and indirectly discharge to a watercourse (Liffey Estuary) underlying the site and in order to manage the potential impact associated with sediment and sediment runoff the following mitigation measures will be implemented during the construction phase.* • *During earthworks and excavation works care will be taken to ensure that exposed soil surfaces are stable to minimise erosion. All exposed soil surfaces will be within the main excavation site which limits the potential for any offsite impacts.* • *Run-off water containing silt will be contained on site via settlement tanks and treated to ensure adequate silt removal.* • *Silt reduction measures on site will include a combination of silt fencing and settlement measures (silt traps, silt sacks and settlement tanks/ponds).* • *Any hard surface site roads will be swept to remove mud and aggregate materials from their surface while any unsurfaced roads shall be restricted to essential site traffic only.* • *A power washing facility or wheel cleaning facility will be installed near to the site compound for use by vehicles exiting the site when appropriate,* • *A stabilised entranceway consisting of an aggregate on a filter cloth base that is located at any entry or exit point of the construction site.* • *Aggregate will be established at the site entrance points from the construction site boundary extending for at least 10 m.*

Table 7. Mitigation measures

Sensitive Receptors	Potential Impacts on SPA & SAC	Mitigation Measures to Prevent Impacts on Natura 2000 sites
		• *The temporary storage of soil will be carefully managed. Stockpiles will be tightly compacted to reduce runoff and graded to aid in runoff collection.* • *Construction materials, including aggregates etc. will be stored a minimum of 20-meter buffer distance from any surface water bodies and surface water drainage points.* • *Aggregate materials such as sands and gravels will be stored in clearly marked receptacles within a secure compound area to prevent contamination.* • *Movement of material will be minimised to reduce the degradation of soil structure and generation of dust.* • *Excavations will remain open for as little time as possible before the placement of fill. This will help to minimise the potential for water ingress into excavations.* • *Weather conditions will be considered when planning construction activities to minimise the risk of run-off from the site.* • *Any surface water run-off collecting in excavations will likely contain a high sediment load. This will be diverted to settlement ponds and will not be allowed to directly discharge to existing onsite concrete storm water sewer drains within the site boundary or the Liffey Estuary.* *In addition to the measures above, a watching brief will be maintained throughout the excavation phase. All excavated materials will be visually assessed by suitably qualified persons for signs of possible contamination such as staining or strong odours. Any signs of potential contamination will be recorded within the watching brief. Should any unusual staining or odour be noticed, samples of this soil will be analysed for the presence of potential contaminants to ensure that historical pollution of the soil has not occurred. Should it be determined that any of the soil excavated is contaminated, this will be segregated and appropriately disposed of by a suitably permitted/licensed waste disposal contractor.* *Surface water discharge from the site will be managed and controlled for the duration of the construction works until the permanently attenuated surface water drainage system of the proposed site is complete. A temporary drainage system shall be established prior to the commencement of the initial infrastructure construction works to collect and discharge any treated construction water during construction.* *Cement/concrete works* *Where feasible all ready-mixed concrete will be brought to site by truck. A suitable risk assessment for wet concreting will be completed prior to works being carried out which will include measures to prevent discharge of alkaline wastewaters or contaminated storm water to the underlying subsoil.* *No wash-down or wash-out of ready-mix concrete vehicles during the construction works will be carried out at the site within 10 meters of an existing surface water drainage point. Washouts will only be allowed to take place in designated areas with an impervious surface where all wash water is contained and removed from site by road tanker or discharged to foul sewer subject to the grant of a discharge licence by Uisce Éireann / DCC.* *The construction contractor will be required to implement emergency response procedures, and these will be in line with industry guidance. All personnel working on the Site will be suitably trained in the implementation of the procedures.* *Hydrocarbons and other construction chemicals*

Table 7. Mitigation measures

Sensitive Receptors	Potential Impacts on SPA & SAC	Mitigation Measures to Prevent Impacts on Natura 2000 sites
		The following mitigation measures will be implemented during the construction phase in order to prevent any spillages to ground, of fuels and other construction chemicals, and prevent any discharges to surface water and groundwater systems: • *Designation of bunded refuelling areas on the Site.* • *Provision of spill kit facilities across the Site.* • *Where mobile fuel bowsers are used, the following measures will be taken:* o *Any flexible pipe, tap or valve will be fitted with a lock and will be secured when not in use.* o *The pump or valve will be fitted with a lock and will be secured when not in use.* o *All bowsers to carry a spill kit and operatives must have spill response training.* o *Portable generators or similar fuel containing equipment will be placed on suitable drip trays.* *In the case of drummed fuel or other potentially polluting substances which may be used during the construction phase, the following measures will be adopted:* • *Secure storage of all containers that contain potential polluting substances in a dedicated internally bunded chemical storage cabinet unit or inside a concrete bunded area;* • *Oil and fuel storage tanks shall be stored in designated areas, and these areas shall be stored within temporary bunded areas, doubled skinned tanks or bunded containers to a volume of 110% of the capacity of the largest tank/container. Drainage from the bunded area(s) shall be diverted for collection and safe disposal.* • *Clear labelling of containers so that appropriate remedial measures can be taken in the event of a spillage.* • *All drums to be quality approved and manufactured to a recognised standard.* • *If drums are to be moved around the Site, they will be secured and on spill pallets; and* • *Drums will be loaded and unloaded by competent and trained personnel using appropriate equipment.* *Refuelling of construction vehicles and the addition of hydraulic oils or lubricants to vehicles will take place in a designated area or within the construction compound (or where possible off the site) which will be away from surface water gullies or drains minimum 20 m buffer zone. In the event of a machine requiring refuelling outside of this area, fuel will be transported in a mobile double skinned tank. An adequate supply of spill kits and hydrocarbon adsorbent packs will be stored in this area. All relevant personnel will be fully trained in the use of this equipment. Guidelines such as "Control of Water Pollution from Construction Sites, Guidance for Consultants and Contractors" (CIRIA 532, 2001) will be complied with.* *The construction contractor will be required to implement emergency response procedures, and these will be in line with industry guidance. All personnel working on the Site will be suitably trained in the implementation of the procedures.* *Disposal of collected water (rainfall run-off and perched water)* *Rainfall at the construction site will be managed and controlled for the duration of the construction works until the permanently intercepted and attenuated surface water drainage system of the proposed site is complete. Dewatering water from excavation works within overburden deposits will be contained within the site, treated (if required) and discharged. This water will be discharged into the public storm water network subject to the grant of a discharge licence by DCC. Depending on the quality of this water the discharge*

Table 7. Mitigation measures

Sensitive Receptors	Potential Impacts on SPA & SAC	Mitigation Measures to Prevent Impacts on Natura 2000 sites
		of this treated water will occur to either; to surface water (via the storm water network to the River Liffey); or to Ringsend WWTP (via the combined foul wastewater network). *A staged treatment system (treatment-train) will be in place during construction works that will ensure the quality of the discharge water to foul sewer and storm sewer is maintained in accordance with discharge permit conditions. The dewatering will occur via suitably installed dewatering wells/sumps containing pumps to abstract groundwater and surface water (rainfall landing on the site). The treatment-train will ensure the quality of the discharge water is maintained and will comprise hydrocarbon interception for removal of petrol/diesel, settlement tanks for silt removal, and pH balancing.* *The quality of discharged water to the foul and storm network is expected to be compliant with respective licence conditions following treatment and management. In case of any exceedances of parameters stipulated by discharge permit conditions, water will be retreated on site, or disposed of to a licenced facility. The discharges to storm water and combined foul water network shall comply with the requirements established in the discharge licence to Dublin City Council (for storm water network) and/or Uisce Éireann (for foul water network).* *It will not be permitted to discharge into any newly constructed storm water systems or existing watercourse without adhering to the conditions of a discharge licence and agreeing the same with the Design Team, Site Manager and Local Authority Area Engineer. Any discharge will first pass through an appropriately-designed silt trap so that only silt-free water leaves the site.* *Wastewater Management* *Foul wastewater discharge from the site will be managed and controlled for the duration of the construction works.* *Site welfare facilities will be established to provide sanitary facilities for construction workers on site. The main contractor will ensure that sufficient facilities are available at all times to accommodate the number of employees on site. Foul water from the offices and welfare facilities on the site will discharge into the existing sewer on site (the cabins may initially need to have the foul water collected by a licensed waste sewerage contractor before connection to the sewer line can be made).* *The construction contractor will implement emergency response procedures, and these will be in line with industry guidance. All personnel working on the Site will be suitably trained in the implementation of the procedures.* *6.6.1.2 Surface Water Flow and Quantity* *During construction a site drainage and protection system will be built to reduce the flow of run-off from the site, prevent soil erosion, and protect water quality in the Liffey Estuary. Temporary excavated channels, bunds, silt fences, or ridges or a combination of the three, may be constructed to manage sediment-laden water.* *Silt traps and silt fences will be installed around the perimeter of the site where construction is proposed to detain flows from runoff so that deposition of transported sediment can occur through settlement. Inspection and maintenance of the silt fences during construction phase is crucial to ensuring that they work as intended. They will remain in place throughout the entire construction phase.* *Temporary surface water management systems, and the treatment train described above will throttle runoff and allow suspended solids to be settled out and removed. All inlets to the settling basins will be 'riprapped' to prevent scour and erosion in the vicinity of the inlet.*

Table 7. Mitigation measures

Sensitive Receptors	Potential Impacts on SPA & SAC	Mitigation Measures to Prevent Impacts on Natura 2000 sites
		Surface water discharge from the site will be managed and controlled for the duration of the construction works until the permanently attenuated surface water drainage system of the proposed site is complete. A temporary drainage system shall be established prior to the commencement of the initial infrastructure construction works to collect and discharge any treated construction water during construction. This is subject to the grant of a discharge licence by Uisce Éireann / DCC.' *'7.6.2 Operational Phase* *7.6.2.1 Surface Water Quality* *The design has taken account of the potential impacts of the development on surface water quality; measures have been incorporated in the design to mitigate these potential impacts.* *The Proposed Development stormwater drainage network design includes sustainable drainage systems (SuDS) these measures by design ensure the stormwater leaving the site is to be attenuated and treated within the Proposed Development's site boundary to ensure suitable quality, before discharging to the existing public surface water network which subsequently outfalls to the nearby Liffey Estuary.* *The purpose of the proposed design is to:* • *Treat runoff and remove pollutants to improve quality.* • *Restrict outflow and to control quantity.* • *Increase amenity value.* *The layout of the proposed surface water drainage network is shown on CS Consulting Drawing Set included with the planning application. It is proposed to separate the surface water and wastewater drainage networks, which will serve the Proposed Development, and provide independent connections to the local public surface water and wastewater sewer networks respectively.* *In respect of the indirect hydrological link to the European conservation sites associated with Dublin Bay, via foul water – foul waste arising at the site that will discharge to Ringsend Wastewater Treatment Plant (D0034-01).* *7.6.2.2 Surface Water Flow and Quantity* *The design has taken account of the potential impacts of the development on surface water flow; measures have been incorporated in the design to mitigate these potential impacts. It is proposed to limit the surface water run-off volume and discharge into the existing 375mm diameter storm sewer along North Wall Quay.* *The Proposed Development will include the employment of Green Blue Roofs which provides attenuation storage equating to a volume of approx. 139m3 of water. These features have the function of reducing the volumes of rainwater discharging to the public sewer network, as well as mitigating peaks in run-off and reducing the potential for contaminants to be washed from the roof, decreasing the development's impact on the receiving environment. Green Blue roofs also have secondary environmental benefits, providing a temperature control effect by absorbing less solar radiation and improving air quality by trapping airborne particulate matter.*

Table 7. Mitigation measures

Sensitive Receptors	Potential Impacts on SPA & SAC	Mitigation Measures to Prevent Impacts on Natura 2000 sites
		There are no direct discharges to any open water courses included in the design. As set out in the CS Consulting Group Engineering Services Report (2024) flow restriction is achieved by means of a flow restriction device (hydro-brake or similar) which shall be installed and incorporated into the design prior to outfall. The surface water network has been designed to provide sufficient capacity to contain and convey all surface water run-off associated with the 1-in-100-year event to the attenuation basins without any overland flooding including an additional allowance of 30% in rainfall intensities due to climate change. The layout of the proposed surface water drainage network is shown on CS Consulting Drawing Set included with the planning application. *The development is required to retain stormwater volumes predicted to be experienced during extreme rainfall events. This is defined as the volume of storm water generated during a 1-in-100-year storm event, increased by 30% for the predicted effects of climate change. The proposed development shall be provided with Blue Roofs at levels 9, 10, 11, 15, and 16.* *It shall be the responsibility of the site management team to ensure the entire drainage system is well maintained. Maintenance and clearing of gullies drain manholes (including catch pits) and attenuation tanks shall ensure adequate performance. It is recommended that a maintenance check be carried out every 3-4 months and also immediately after a high intensity storm event.* *With reference to CS Consulting Group (2024) Site Specific Flood Risk Assessment the following design mitigation are included within the project design in respect of flood risk. It has been demonstrated in the earlier sections that the site is not at risk of flooding from external sources, or as result of the Proposed Development. In order to minimise the risk of flooding within the development, all drainage infrastructure has been designed in accordance with the relevant standards. The Proposed Development includes a new surface water network which will mitigate the pluvial risk to the site in line with SuDS measures.* *It should be noted that in the event of an extreme tidal level warning, tidal flooding is not instantaneous; advance warning of an elevated tidal surge shall allow suitable action to be taken to ensure no loss of life and minimum damage to property. It is proposed to provide demountable flood barriers at the entrance of the Proposed Development to mitigate the risk to an acceptable degree. Works have been completed to aid in the defence of the quays from tidal flooding; these flood defences extend up to the Loop Line Bridge. These defences shall defend North Wall Quay from a potential 1-in-200-year extreme high tide and provide an acceptable degree of tidal flooding risk mitigation. The nearest node point to the development site is 09LIFF00180 indicates the flood level for the 0.1% AEP is 3.12m AOD. Therefore, a freeboard of 500mm shall be provided above this level. The FFL of the Proposed Development shall therefore be 3.650m AOD.* *The risk for tidal and pluvial flood events will be addressed to an acceptable degree by the implementation of appropriate active flood defence measures which will be included as part of the development design (refer to Section 6.4.2 below).* *The development's basement shall be constructed to withstand groundwater ingress, mitigating the risk of flooding from this source.* *Water conservation measures will be considered to reduce overall potable water demand and consumption, including: low volume flush / dual flush WC's, spray taps, draw off tap controls, leak detection measures – through the metering of supply***.'**

Table 7. Mitigation measures

Sensitive Receptors	Potential Impacts on SPA & SAC	Mitigation Measures to Prevent Impacts on Natura 2000 sites
		As outlined in the accompanying Air Quality chapter of the accompanying EIAR (Chapter 8) the following mitigation will be implemented: *'8.6.1 Construction Phase* *The proposed development has been assessed as having a medium risk of dust soiling impacts and a low risk of dust related human health impacts during the construction phase as a result of earthworks, construction and trackout activities (see Section 8.5.1). Therefore, the following dust mitigation measures shall be implemented during the construction phase of the proposed development. These measures are appropriate for sites with a medium risk of dust impacts and aim to ensure that no significant nuisance occurs at nearby sensitive receptors. The mitigation measures draw on best practice guidance from Ireland (DCC, 2018), the UK (IAQM (2024), BRE (2003), The Scottish Office (1996), UK ODPM (2002)) and the USA (USEPA, 1997). These measures will be incorporated into the overall Construction Environmental Management Plan (CEMP) prepared for the site. The measures are divided into different categories for different activities.* *8.6.1.1 Communications* • *Develop and implement a stakeholder communications plan that includes community engagement before works commence on site. Community engagement includes explaining the nature and duration of the works to local residents and businesses.* • *The name and contact details of a person to contact regarding air quality and dust issues shall be displayed on the site boundary, this notice board should also include head/regional office contact details.* *8.6.1.2 Site Management* • *During working hours, dust control methods will be monitored as appropriate, depending on the prevailing meteorological conditions. Dry and windy conditions are favourable to dust suspension therefore mitigations must be implemented if undertaking dust generating activities during these weather conditions.* • *A complaints register will be kept on site detailing all telephone calls and letters of complaint received in connection with dust nuisance or air quality concerns, together with details of any remedial actions carried out.* *8.6.1.3 Preparing and Maintaining the Site* • *Plan site layout so that machinery and dust causing activities are located away from receptors, as far as is possible.* • *Erect solid screens or barriers around dusty activities or the site boundary that are at least as high as any stockpiles on site.* • *Avoid site runoff of water or mud.* • *Keep site fencing, barriers and scaffolding clean using wet methods.* • *Remove materials that have a potential to produce dust from site as soon as possible, unless being re-used on site. If they are being re-used on-site cover as described below.* • *Cover, seed or fence stockpiles to prevent wind whipping.* *8.6.1.4 Operating Vehicles / Machinery and Sustainable Travel* • *Ensure all vehicles switch off engines when stationary - no idling vehicles.* • *Avoid the use of diesel or petrol powered generators and use mains electricity or battery powered equipment where practicable.*

Table 7. Mitigation measures

Sensitive Receptors	Potential Impacts on SPA & SAC	Mitigation Measures to Prevent Impacts on Natura 2000 sites
		• *Impose and signpost a maximum-speed-limit of 15 kph haul roads and work areas (if long haul routes are required these speeds may be increased with suitable additional control measures provided, subject to the approval of the nominated undertaker and with the agreement of the local authority, where appropriate).* • *Produce a Construction Logistics Plan to manage the sustainable delivery of goods and materials.* • *Implement a Travel Plan that supports and encourages sustainable travel (public transport, cycling, walking, and car-sharing)* *8.6.1.5 Operations* • *Only use cutting, grinding or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction, e.g. suitable local exhaust ventilation systems.* • *Ensure an adequate water supply on the site for effective dust/particulate matter suppression/mitigation, using non-potable water where possible and appropriate.* • *Use enclosed chutes and conveyors and covered skips.* • *Minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate.* • *Ensure equipment is readily available on site to clean any dry spillages and clean up spillages as soon as reasonably practicable after the event using wet cleaning methods.* *8.6.1.6 Waste Management* • *Avoid bonfires and burning of waste materials.* *8.6.1.7 Measures Specific to Demolition* • *Soft strip inside buildings before demolition (retaining walls and windows in the rest of the building where possible, to provide a screen against dust).* • *Ensure effective water suppression is used during demolition operations. Hand held sprays are more effective than hoses attached to equipment as the water can be directed to where it is needed. In addition high volume water suppression systems, manually controlled, can produce fine water droplets that effectively bring the dust particles to the ground.* • *Bag and remove any biological debris or damp down such material before demolition.* *8.6.1.8 Measures Specific to Earthworks* • *Re-vegetate earthworks and exposed areas/soil stockpiles to stabilise surfaces as soon as practicable.* • *Use Hessian, mulches or trackifiers where it is not possible to re-vegetate or cover with topsoil, as soon as practicable.* • *Only remove the cover in small areas during work and not all at once.* • *During dry and windy periods, and when there is a likelihood of dust nuisance, a bowser will operate to ensure moisture content is high enough to increase the stability of the soil and thus suppress dust.* *8.6.1.9 Measures Specific to Construction* • *Ensure sand and other aggregates are stored in bunded areas and are not allowed to dry out, unless this is required for a particular process, in which case ensure that appropriate additional control measures are in place.*

Table 7. Mitigation measures

Sensitive Receptors	Potential Impacts on SPA & SAC	Mitigation Measures to Prevent Impacts on Natura 2000 sites
		• *Ensure bulk cement and other fine powder materials are delivered in enclosed tankers and stored in silos with suitable emission control systems to prevent escape of material and overfilling during delivery.* • *For smaller supplies of fine power materials ensure bags are sealed after use and stored appropriately to prevent dust.* *8.6.1.10 Measures Specific to Trackout* • *A speed restriction of 15 kph will be applied as an effective control measure for dust for on-site vehicles.* • *Avoid dry sweeping of large areas.* • *Ensure vehicles entering and leaving sites are covered to prevent escape of materials during transport.* • *Inspect on-site haul routes for integrity and instigate necessary repairs to the surface as soon as reasonably practicable.* • *Record all inspections of haul routes and any subsequent action in a site log book.* • *Install hard surfaced haul routes, which are regularly damped down with fixed or mobile sprinkler systems, or mobile water bowsers and regularly cleaned.* • *Implement a wheel washing system (with rumble grids to dislodge accumulated dust and mud prior to leaving the site where reasonably practicable).* • *Ensure there is an adequate area of hard surfaced road between the wheel wash facility and the site exit, wherever site size and layout permits.* • *Access gates to be located at least 10 m from receptors where possible.* *8.6.1.11 Monitoring* • *Undertake daily on-site and off-site inspections, where receptors (including roads) are nearby, to monitor dust, record inspection results in the site inspection log. This should include regular dust soiling checks of surfaces such as street furniture, cars and windowsills within 100 m of site boundary, with cleaning to be provided if necessary.* • *Increase the frequency of site inspections by the person accountable for air quality and dust issues on site when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions.'* ***As outlined in the accompanying Land, Soils, Geology and Hydrogeology chapter of the accompanying EIAR (Chapter 5) the following mitigation will be implemented**:* *'5.6.1 Construction Phase* *CS Consulting Group have prepared an Outline Construction Management Plan (OCMP) (2024) in respect of the Proposed Development that is included with the application documentation. It contains best practice measures and protocols to be implemented during the construction phase of the Proposed Development to avoid / minimise environmental impacts. This outline and explains the construction techniques and methodologies which will be implemented during construction of the Proposed Development.* *Construction works and the proposed mitigation measures are informed by best practice guidance from Inland Fisheries Ireland on the prevention of pollution during development projects including but not limited to:*

Table 7. Mitigation measures

Sensitive Receptors	Potential Impacts on SPA & SAC	Mitigation Measures to Prevent Impacts on Natura 2000 sites
		• *Construction Industry Research and Information Association (CIRIA), Control of Water Pollution from Construction Sites, Guidance for Consultants and Contractors (C532);* • *Construction Industry Research and Information Association (CIRIA) Environmental Good Practice on Site (4th edition), (C741); and* • *Enterprise Ireland Best Practice Guide, Oil Storage Guidelines (BPGCS005).* *The OCMP will be implemented and adhered to by the construction contractor and will be overseen and updated as required if site conditions change by the Project Manager, Environmental Manager, Resource Manager, and Ecological Clerk of Works where relevant. All personnel working on the Site will be trained in the implementation of the procedures.* *The OCMP sets out the proposed procedures and operations to be utilised on the proposed construction site to protect water quality. The mitigation and control measures outlined in the OCMP will be employed on site during the construction phase. All mitigation measures outlined within this EIAR, and within the OCMP will be implemented during the construction phase, as well as any additional measures required pursuant to planning conditions which may be imposed.* *5.6.1.1 Land, Soils, Geology, Hydrogeology* *Excavation and Contamination* *Following demolition of the existing building as part of the Proposed Development works, a watching brief will be maintained by qualified person(s) who will visually examine the soil during site investigations and excavation and assess for signs of possible contamination such as staining or strong odours. All potential signs of contamination will be noted in the watching brief.* *Should any unusual staining or odour be noticed, samples of this soil will be analysed for the presence of potential contaminants to ensure that historical pollution of the soil has not occurred. Should it be determined that any of the soil excavated is contaminated, this will be segregated and appropriately disposed of by a suitably permitted/licensed waste disposal contractor. See Chapter 13 (Material Assets – Waste Management), Appendix 13.1 for further information contaminated soil management.* *Suspended Solids* *As there is potential for run-off to directly and indirectly discharge / recharge to a watercourse / groundwater (Liffey Estuary / Dublin GWB) underlying the site and in order to manage the potential impact associated with sediment and sediment runoff the following mitigation measures will be implemented during the construction phase.* • *During earthworks and excavation works care will be taken to ensure that exposed soil surfaces are stable to minimise erosion. All exposed soil surfaces will be within the main excavation site which limits the potential for any offsite impacts.* • *Silt reduction measures on site will include a combination of silt fencing and settlement measures (silt traps, silt sacks and settlement tanks/ponds).* • *Any hard surface site roads will be swept to remove mud and aggregate materials from their surface while any unsurfaced roads shall be restricted to essential site traffic only.* • *A power washing facility or wheel cleaning facility will be installed near to the site compound for use by vehicles exiting the site when appropriate,*

Table 7. Mitigation measures

Sensitive Receptors	Potential Impacts on SPA & SAC	Mitigation Measures to Prevent Impacts on Natura 2000 sites
		• *A stabilised entranceway consisting of an aggregate on a filter cloth base that is located at any entry or exit point of the construction site.* • *Aggregate will be established at the site entrance points from the construction site boundary extending for at least 10 m.* • *The temporary storage of soil will be carefully managed. Stockpiles will be tightly compacted to reduce runoff and graded to aid in runoff collection.* • *Construction materials, including aggregates etc. will be stored a minimum of 20-meter buffer distance from any surface water bodies and surface water drainage points.* • *Aggregate materials such as sands and gravels will be stored in clearly marked receptacles within a secure compound area to prevent contamination.* • *Movement of material will be minimised to reduce the degradation of soil structure and generation of dust.* • *Excavations will remain open for as little time as possible before the placement of fill. This will help to minimise the potential for water ingress into excavations.* • *Weather conditions will be considered when planning construction activities to minimise the risk of run-off from the site.* • *Any surface water run-off collecting in excavations will likely contain a high sediment load. This will be diverted to an onsite treatment system and will not be allowed to directly discharge directly to the stormwater sewer.* *Cement/concrete works* *Where feasible all ready-mixed concrete will be brought to site by truck. A suitable risk assessment for wet concreting will be completed prior to works being carried out which will include measures to prevent discharge of alkaline wastewaters or contaminated storm water to the underlying subsoil.* *No wash-down or wash-out of ready-mix concrete vehicles during the construction works will be carried out at the site within 10 meters of an existing surface water drainage point. Wash-outs will only be allowed to take place in designated areas with an impervious surface where all wash water is contained and removed from site by road tanker or discharged to foul sewer submit to agreement with Uisce Éireann.* *The construction contractor will be required to implement emergency response procedures, and these will be in line with industry guidance. All personnel working on the Site will be suitably trained in the implementation of the procedures.* *Hydrocarbons and other construction chemicals* *The following mitigation measures will be implemented during the construction phase in order to prevent any spillages to ground of fuels and other construction chemicals and prevent any resulting to surface water and groundwater systems:* • *Designation of bunded refuelling areas on the Site;* • *Provision of spill kit facilities across the Site;* • *Where mobile fuel bowsers are used, the following measures will be taken:* o *Any flexible pipe, tap or valve will be fitted with a lock and will be secured when not in use;* o *The pump or valve will be fitted with a lock and will be secured when not in use;* o *All bowsers to carry a spill kit and operatives must have spill response training;*

Table 7. Mitigation measures

Sensitive Receptors	Potential Impacts on SPA & SAC	Mitigation Measures to Prevent Impacts on Natura 2000 sites
		o Portable generators or similar fuel containing equipment will be placed on suitable drip trays. *In the case of drummed fuel or other potentially polluting substances which may be used during the construction phase, the following measures will be adopted:* • *Secure storage of all containers that contain potential polluting substances in a dedicated internally bunded chemical storage cabinet unit or inside a concrete bunded area;* • *Oil and fuel storage tanks shall be stored in designated areas, and these areas shall be stored within temporary bunded areas, doubled skinned tanks or bunded containers to a volume of 110% of the capacity of the largest tank/container. Drainage from the bunded area(s) shall be diverted for collection and safe disposal.* • *Clear labelling of containers so that appropriate remedial measures can be taken in the event of a spillage;* • *All drums to be quality approved and manufactured to a recognised standard;* • *If drums are to be moved around the Site, they will be secured and on spill pallets; and* • *Drums will be loaded and unloaded by competent and trained personnel using appropriate equipment.* *Refuelling of construction vehicles and the addition of hydraulic oils or lubricants to vehicles will take place in a designated area or within the construction compound (or where possible off the site) which will be away from surface water gulleys or drains minimum 20 m buffer zone). In the event of a machine requiring refuelling outside of this area, fuel will be transported in a mobile double skinned tank. An adequate supply of spill kits and hydrocarbon adsorbent packs will be stored in this area. All relevant personnel will be fully trained in the use of this equipment. Guidelines such as "Control of Water Pollution from Construction Sites, Guidance for Consultants and Contractors" (CIRIA 532, 2001) will be complied with.* *The construction contractor will be required to implement emergency response procedures, and these will be in line with industry guidance. All personnel working on the Site will be suitably trained in the implementation of the procedures.* *Disposal of collected water (rainfall run-off and perched water)* *Rainfall at the construction site will be managed and controlled for the duration of the construction works until the permanently intercepted and attenuated surface water drainage system of the proposed site is complete. Dewatering water from excavation works within overburden deposits will be contained within the site, treated (if required) and discharged.* *Where required, a wastewater discharge licence will be applied for to manage surface water on site during the construction phase. This shall permit the discharge of trade effluent arising from groundwater/surface water ingress on the construction site. The discharge to surface water sewer is subject to agreement with DCC; and the discharge to the existing stormwater sewer is subject to agreement with Uisce Éireann .* *It is proposed that monitoring of groundwater levels outside of the excavation be undertaken during the dewatering and excavation (enabling works) to ensure there is adverse impact on groundwater levels outside of the basement excavation.* *Contaminated waters, if encountered on site, shall be treated using best practice and appropriate measures/controls dependent on the nature of the contamination, prior to discharge to the surface water network. There shall be no direct pumping of contaminated water from the works to the surface water drainage at any time. The treatment and monitoring of this water prior to disposal will occur within the construction site. See Chapter 6 (Hydrology) of this EIAR Section 6.6.1 for further details.*

Table 7. Mitigation measures

Sensitive Receptors	Potential Impacts on SPA & SAC	Mitigation Measures to Prevent Impacts on Natura 2000 sites
		Wastewater Management *Foul wastewater discharge from the site will be managed and controlled for the duration of the construction works.* *Site welfare facilities will be established to provide sanitary facilities for construction workers on site. The main contractor will ensure that sufficient facilities are available at all times to accommodate the number of employees on site. Foul water from the offices and welfare facilities on the site will discharge into the existing sewer on site (the cabins may initially need to have the foul water collected by a licensed waste sewerage contractor before connection to the sewer line can be made).* *The construction contractor will implement emergency response procedures, and these will be in line with industry guidance. All personnel working on the Site will be adequately and suitably trained in the implementation of the procedures.* *5.6.1.2 Human Health and Populations* *It has been established (Section 5.3.7) that there are no recorded groundwater boreholes for domestic use within the vicinity of the site, and the site is not located near or in close proximity of any public groundwater supplies or group schemes, or groundwater source protection zones. On a precautionary basis, the mitigation measures set out in Section 5.6.1.1, will be implemented during the construction works for the protection of human health and populations.* *Furthermore, as stated in Section 5.6.1.1 all excavated materials will be visually assessed by suitably qualified persons for signs of possible contamination such as staining or strong odours. Should any unusual staining or odour be noticed, samples of this soil will be analysed for the presence of potential contaminants to ensure that historical pollution of the soil has not occurred. Should it be determined that any of the soil excavated is contaminated, this will be segregated and appropriately disposed of by a suitably permitted/licensed waste disposal contractor. All sampling and soil handling will be undertaken by suitably qualified and trained persons using suitable personal protective equipment to avoid risks to human health.* *5.6.1.3 Water Framework Directive Status* *AWN Consulting have prepared a Water Framework Directive (WFD) Screening Report (see Appendix 6.2 of this EIAR). It has been established (Section 5.5.1.3) that while, there is a potential of accidental discharges during the construction phase this will not impact on trends in water quality and overall WFD status. The WFD Screening Report outlines that the project-specific OCMP includes robust mitigation measures to protect the underlying hydrogeological environment. On a precautionary basis, the mitigation measures set out in Section 5.6.1.1, and the OCMP, will be implemented during the construction works for the protection of groundwater quality.* *5.6.2 Operational Phase* *5.6.2.1 Land, Soils, Geology, and Hydrogeology* *The Proposed Development design includes hardstand cover across the entire site and as set out in the CS Consulting Group Engineering Services Report (2024) the proposed/existing surface water drainage system for this development has been designed as a sustainable urban drainage system (SuDS) and uses green blue roofs for attenuation together with a flow control device (hydro-brake) =and petrol interceptors. Therefore, the risk of accidental discharge of hydrocarbons or potential operational contamination sources has been adequately addressed through design.'*

Table 7. Mitigation measures

Sensitive Receptors	Potential Impacts on SPA & SAC	Mitigation Measures to Prevent Impacts on Natura 2000 sites
		As outlined in the Outline Construction Management Plan by CS Consulting, the following mitigation will be in place: ***'ENVIRONMENTAL CONSIDERATIONS*** ***Stormwater and Wastewater Management*** *The purpose of these procedures is to ensure that storm water and wastewater runoff is managed and that there is no off-site environment impact caused by overland storm water flows.* *The project environmental management plan will be developed in detail to include:* • *silt control on the roads* • *discharge water from dewatering systems* • *diversion of clean water* • *treatment and disposal of wastewater from general clean-up of tools and equipment* • *spills control* • *silt trapping and oil interception (to be considered where surface water run-off may enter watercourse)* • *refuelling of machinery off-site or at a designated bunded refuelling area.* ***Noise*** *General considerations* • *All site staff shall be briefed on noise control measures and best practice methodologies to control noise.* • *Site hoarding will be erected to minimise noise transmission beyond the site boundary.* • *The Contractor will employ a Dedicated Community Liaison Officer (DCLO) to engage with neighbours on a weekly basis, keep them apprised of the pending works on site and address any concerns raised.* • *Internal haul routes shall be maintained, and steep gradients shall be avoided where possible.* • *Material and plant loading and unloading shall only take place during normal working hours unless the requirement for extended hours for traffic management (i.e. road closure) or health and safety reasons has been granted (application must be made to the Council a minimum of 4 days prior to proposed works).* • *The opening and shutting of gates will be minimised through good coordination of deliveries and vehicle movements.* *Plant* • *The Contractor will ensure that each item of plant and equipment complies with the noise limits quoted in the relevant EC Directive 2000/14/EC.* • *All plant and equipment shall be fitted with appropriate mufflers or silencers of the type recommended by the manufacturer.* • *All plant and equipment shall be used only for the tasks for which it has been designed.* • *All plant and equipment in intermittent use shall be shut down in the intervening periods between work, or throttled down to a minimum.* • *Plant shall be powered by mains electricity wherever possible, rather than by generators.*

Table 7. Mitigation measures

Sensitive Receptors	Potential Impacts on SPA & SAC	Mitigation Measures to Prevent Impacts on Natura 2000 sites
		• *Partial or full enclosures shall be provided around fixed plant where possible.* • *Movable plant shall be located away from noise sensitive receptors where possible.* • *All plant operators are to be qualified in their specific piece of plant.* • *Compressors and generators shall be sited in areas least likely to give rise to nuisance.* • *Regular and effective maintenance by trained personnel shall be carried out to reduce noise and/or vibration from plant and machinery.* *Vehicle activity* • *All vehicle movement on site will occur within permitted working hours, unless permission to the contrary has been granted.* • *Loading and unloading shall occur within designated loading areas, as far from noise receptors as possible.* • *Deliveries and vehicle movements shall be planned so that vehicles are not waiting or queuing on the adjacent road network.* • *The site layout shall be planned to ensure that reversing of vehicles is kept to a minimum.* ***Air Quality and Dust Monitoring*** *Dust prevention measures shall be included for control of any site airborne particulate pollution. The Contractor shall continuously monitor levels of dust and airborne particulate matter (PM10 and PM2.5) in the vicinity of the site throughout demolition and construction works, in accordance with planning conditions, and records shall be kept of such monitoring for review by the Planning Authority.* *Appropriate water-based dust suppression methods (e.g. a 'Dust Boss' spray cannon machine) will be employed by the Contractor to contain dust on site and ensure that the maximum permissible dust deposition threshold is not exceeded. These systems will be closely monitored by site management personnel, particularly during extended dry periods when dust dispersal risk is higher.* *The following additional measures are to be taken to reduce the generation of dust during works on site:* • *Excavation and construction techniques with reduced dust generation potential shall be preferred.* • *Tools and machinery generating dust (e.g. drills) shall be fitted with dust-collection systems where possible.* • *Any internal site road that has the potential to give rise to fugitive dust will be regularly watered during dry and/or windy conditions.* • *Unbound internal site roads will be restricted to essential site traffic.* • *Vehicles delivering or removing material with dust potential (soil, aggregates, etc.) will be enclosed or covered with tarpaulin at all times, to restrict the escape of dust.* • *Material handling systems and site stockpiling of materials will be designed and laid out to minimise exposure to wind. Water misting or sprays will be used as required if particularly dusty activities are necessary during dry or windy periods.* ***Harmful Materials***

Table 7. Mitigation measures

Sensitive Receptors	Potential Impacts on SPA & SAC	Mitigation Measures to Prevent Impacts on Natura 2000 sites
		Harmful material will be stored on site for use in connection with the construction works only. These materials will be stored in a controlled manner. Where on-site storage facilities are used, there will be a bunded filling area using double bunded steel tank at a minimum. *<u>Contaminated soil</u>* *If any contaminated material is encountered, it will need to be segregated from clean/inert material, tested and classified as either non-hazardous or hazardous in accordance with the EPA publication entitled 'Waste Classification: List of Waste & Determining if Waste is Hazardous or Non-Hazardous' using the HazWasteOnline application (or similar approved classification method). The material will then need to be classified as clean, inert, nonhazardous or hazardous in accordance with the EC Council Decision 2003/33/EC, which establishes the criteria for the acceptance of waste at landfills.* *<u>Fuels/oils</u>* *As fuels and oils are classed as hazardous materials, any on-site storage of fuel/oil, all storage tanks and all draw-off points will be bunded and located in a dedicated, secure area of the site. Provided that these requirements are adhered to and site crew are trained in the appropriate refuelling techniques, it is not expected that there will be any fuel/oil wastage at the site.* *<u>Other known hazardous substances</u>* *Paints, glues, adhesives and other known hazardous substances will be stored in designated areas. They will generally be present in small volumes only and associated waste volumes generated will be kept to a minimum. Wastes will be stored in appropriate receptacles pending collection by an authorised waste contractor. In addition, WEEE (containing Construction and Demolition Waste Management Plan 11 hazardous components), printer toner/cartridges, batteries (Lead, Ni-Cd or Mercury) and/or fluorescent tubes and other mercury containing waste may be generated during construction activities. These wastes (if encountered) will be stored in appropriate receptacles in designated areas of the site pending collection by an authorised waste contractor.* *In the event that hazardous soil, or historically deposited hazardous waste is encountered during the work, the Contractor must notify the Environment and Transportation Department of Dublin City Council, and provide a Hazardous/Contaminated Soil Management Plan, to include estimated tonnages, description of location, any relevant control measures, destination for authorised disposal/treatment, in addition to information on the authorised waste collectors.* *<u>Protection of Watercourses</u>* *The following measures will be employed to protect surface water in the receiving environment during demolition and construction, and to prevent its contamination by direct run-off or by infiltration from the development site. These have been developed in accordance with best practice guidance from Inland Fisheries Ireland (2016).* *<u>Emergency Response Plan</u>*

Table 7. Mitigation measures

Sensitive Receptors	Potential Impacts on SPA & SAC	Mitigation Measures to Prevent Impacts on Natura 2000 sites
		An Emergency Response Plan shall be prepared, which details the procedures to be followed in the event of flooding, a spill of chemical, fuel or other hazardous wastes, a fire, or non-compliance incident. *All site staff shall be trained in the implementation of the Emergency Response Plan and the use of any spill control equipment, as necessary.* *<u>Discharge licences</u>* *It will not be permitted to discharge into any newly constructed storm water systems or existing watercourse without adhering to the conditions of the discharge licence and agreeing the same with the Design Team, Site Manager and Local Authority Area Engineer. Any discharge will first pass through an appropriately-designed silt trap so that only silt-free water leaves the site.* *<u>Over ground oil/diesel storage</u>* *Only approved storage systems for oil/diesel within the site will be permitted, (i.e. all oil/diesel storage to be located within a designated area placed well away from any watercourses and contained within constructed bunded areas e.g. placed on 150mm concrete slab with the perimeter constructed with 225mm solid blockwork rendered internally). The bunded area will accommodate the relevant oil/diesel storage capacity in case of accidental spillage. Fuel storage tanks shall be bunded to a capacity at least 110% of the volume of the storage tank (plus an allowance of 30mm for rainwater ingress). Any accidental spillages – however minor – will be dealt with immediately on site by containment/removal from site.* *Emergency procedures and spillage kits shall be available and construction staff shall be familiar with emergency procedures.* *<u>Refuelling</u>* *Refuelling operations will be restricted to a designated bunded area adjacent to the storage area and remote from watercourses.* *<u>Concrete preparation, placement, and washout</u>* *Pumped concrete shall be monitored to ensure no accidental discharge. Mixer washings and excess concrete shall not be discharged to surface water. Concrete washout areas shall be located remote from any surface water drainage features to avoid accidental discharge to watercourses. All concrete truck washout is to take place back in the ready-mix depot. Discharge water generated during the placement of concrete shall be removed off site for treatment and disposal.* *If pouring of cementitious materials is required for the works adjacent to a pond, surface water drainage features, or drainage features connected to same, this shall be carried out in the dry.* *Soil movement* *The contractor shall avoid work involving moving of soil during heavy rainfall to minimise potential for entrainment of silt. Where forecasts indicate heavy rainfall events, works should be rescheduled accordingly. Temporary construction surface drainage and sediment control measures will be in place before earthworks commence.*

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Sensitive Receptors	Potential Impacts on SPA & SAC	Mitigation Measures to Prevent Impacts on Natura 2000 sites
		<u>Groundwater management</u> *Contaminated groundwater, if encountered on site, could result in contaminated waters being discharged from the construction site. Any such contaminated waters shall be treated using best practice and appropriate measures/controls dependent on the nature of the contamination, prior to discharge to the public drainage network. There shall be no direct pumping of contaminated water from the works to the public drainage at any time.* *<u>Disposal of wastewater off site</u>* *Foul drainage from site offices and compounds, where not directed to the existing wastewater network, shall be contained and disposed of off-site in an appropriate manner and in accordance with the relevant statutory regulations, to prevent the pollution of watercourses.* *The Site Management Team will maintain a record of all receipts for the removal of toilet or interceptor waste off site to insure its disposal in a traceable manner. These will be available for inspection by the Environment and Transportation Department of DCC at all times.* *<u>Road sweepers/cleaning</u>* *The cleaning of public roads in and around the subject site will be undertaken to reduce environmental impacts and care will be taken to prevent any pollution of watercourses from this activity.* *<u>Maintenance of existing gullies</u>* *Gullies on all existing roads used for site access will be maintained and cleaned as required to ensure their continued effective operation.* ***Vibration*** *The Contractor will be required to carry out their works such that the effect of vibration on the adjacent buildings and surroundings is minimised, and that no damage to these results from construction activity on site. Potential sources of significant vibration include:* • *Reduced level excavation and/or rock breaking.* • *Other construction activities on site involving the use of heavy machinery.* *The Contractor will be required to comply with the requirements of the planning permission for any vibration limits for the works. The Local Authority, Engineer, Client, and/or Contractor are to establish background vibration levels prior to the commencement of works. A vibration monitoring system is to be put in place prior to any works taking place and will be maintained in continuous operation throughout demolition and construction works on site. This system is to raise an alarm if an agreed limit is exceeded, at which time the working methods are to be adjusted so as to reduce the vibration generated. Monitoring locations will be selected within the site, close to its boundaries, such that the recorded vibration levels shall always be higher than those experienced outside the site'*

Table 7. Mitigation measures

Sensitive Receptors	Potential Impacts on SPA & SAC	Mitigation Measures to Prevent Impacts on Natura 2000 sites
		In addition to the measures outlined above, the following mitigation will be implemented: • All demolition and site clearance works methodologies will have prior approval of a project ecologist. • Staging of project will be carried out to reduce risks or onsite drainage and the River Liffey. • Upon lifting of the concrete slab/hard standing and removal the building on site, the soils will be will be assessed for contamination prior to any site discharge. • Local drainage connections, gullies and watercourses will be protected from dust, silt and surface water throughout the works. • Local silt traps established throughout site. • All onsite drainage network connections will be blanked off and sealed at the first phase of the demolition works. • Upon the lifting of the hard standing on site additional inspections and hazardous material testing will be carried and appropriate decontamination of the site carried out in consultation with the project ecologist. • Staging of project will initially stabilise, isolate, fence and landscape the watercourse on site • No entry of solids or petrochemicals to the drainage network during the works • Full compliance with the water Pollution Acts will be carried out on site. • The Site Manager will be responsible for the pollution prevention programme and will ensure that at least daily checks are carried out to ensure compliance. A record of these checks will be maintained. • The site compound will include a dedicated bund for the storage of dangerous substances including fuels, oils etc. Refuelling of vehicles/machinery will only be carried out within the bunded area. • A project ecologist will be appointed and consulted in relation to all onsite drainage during works. Consultation with the project ecologist will not involve the formulation of new mitigation measures for the purposes of protecting any European Site, and relate only to the implementation of those mitigation measures already stated in the submission or the formulation of mitigation for other purposes. • Dewatering of excavations may be necessary. Appropriate monitoring of groundwater levels during site works will be undertaken. Standard construction phase filtering of surface water for suspended solids will be carried out. Unfiltered surface water discharges or runoff are not permitted from the site to surface water networks or the River Liffey. • Contamination testing of surface water discharges will be carried out on a weekly basis so long as pumped discharges are required. • Spill containment equipment shall be available for use in the event of an emergency. The spill containment equipment shall be replenished if used and shall be checked on a scheduled basis. • Environmental risks due to demolition and post demolition of the proposed development do potentially exist, particularly in relation runoff, drains that could lead to the River Liffey. Following the demolition of the site and the reinstatement of the site the surface water runoff should be prevented by keeping the soil level on site at least 30cm below the street level to allow for natural percolation into the soil and prevent runoff.

Adverse Effects on the conservation objectives of Natura 2000 sites likely to occur from the project (post mitigation)

A robust series of mitigation measures are proposed. These would ensure that surface water runoff from the proposed works site is clean, uncontaminated and that dust from the works would not significantly impact on the River Liffey and downstream Natura 2000 sites. It should be noted that the early implementation of ecological supervision on site will be at the initial mobilisation and enabling works. This is seen as an important element to the project, particularly in relation to the implementation of surface water runoff mitigation strategies.

With the successful implementation of the mitigation measures to limit surface water impacts on the River Liffey, including mitigation/supervision, no significant impacts are foreseen from the construction & demolition works of the proposed project. Residual impacts of the proposed project will be localised to the immediate vicinity of the proposed works and would not impact on the integrity of proximate Natura 2000 sites.

The construction phase mitigation proposed for the development satisfactorily addresses the mitigation of potential impacts on South Dublin Bay SAC, North Dublin Bay SAC, South Dublin Bay and River Tolka Estuary SPA, North Bull Island SPA and North-West Irish Sea SPA through the application of the mitigation measures and standard construction phase controls as outlined above. No significant adverse impacts on the conservation objectives of Natura 2000 sites are likely following the implementation of the mitigation measures outlined above.

It is essential that these measures outlined are complied with, to ensure that the proposed development does not have "downstream" environmental effects on Natura 2000 sites. These measures are to protect the River Liffey, which is the primary vector of impacts from the development site, and to ensure that downstream Natua 2000 are not impacted during demolition, excavation, construction and operation phases of the proposed development.

In-Combination Effects

There are several proposed developments located in the area immediately surrounding the subject site. The following is a list of planning applications in close proximity to the subject site as identified on the Department of Housing, Local Government and Heritage's 'National Planning Application Database' portal[16],:

Table 8. In-combination effects considered

Ref. No.	Address	Proposal
3136/21	New Century House, Mayor Street Lower, IFSC, Dublin 1, D01 K8N7	Planning permission for development on a site of 0.34 ha at New Century House, Mayor Street Lower, IFSC, Dublin 1, D01 K8N7. The site is bound by Mayor Street Lower to the north, Citi Bank building fronting North Wall Quay to the south, and Clarion Quay apartment development to the east and Commons Street to the west. The proposed development comprises of the following: - Provision of 2 no. metal sign boards to the bank branch facade of the northern and eastern elevations; - Increase in width (c.475mm) and illumination of permitted totem sign; - Provision of double doors to replace single entrance door of the bank branch; - Installation of ATM on the northern elevation of the bank branch; - Provision of canopy sign with illuminated uplighting to the permitted office building.
2084/19	The Spencer Hotel, North Wall Quay, I.F.S.C., Dublin 1	The development will consist of a number of building lighting measures to the North Wall Quay (south facing) elevation and to the Excise Walk (west facing) elevation of the hotel building. These include: Narrow beam downlights (4 no.) at ground floor level on the south elevation (North Wall Quay); Narrow beam uplights (6 no.) located above the ground floor level on the south elevation (North Wall Quay); Linear narrow beam lighting at

[16] https://housinggovie.maps.arcgis.com/apps/webappviewer/index.html?id=9cf2a09799d74d8e9316a3d3a4d3a8de

Ref. No.	Address	Proposal
		ground floor on the south elevation (North Wall Quay); LED neon flex lighting at 1st-5th floor levels on the south elevation (North Wall Quay) and west elevation (Excise Walk); All of the proposed lighting is to be colour changeable.
4202/21	25-28, North Wall Quay, Dublin 1, D01 H104	Planning permission for development on a site of c. 0.3973 ha. The site is bounded by North Wall Quay to the south and Alderman Way to the north. The proposed development is to amend planning permission granted by Dublin City Council Reg. Ref. 3245/20 to provide for the following: • Alteration of the roof profile (overall maximum height of 35.5m, was previously 38.9m); • Relocation of the main lifts and alteration of stair cores, resulting in an increase of the shoulder height of the building, enlarging the atrium and opening up the floor space; • Redesign of the elevations, to include extension of the southern elevation fronting onto North Wall Quay • Extension of the existing building by 1.5m to the north and 1.8m to the east; • Provision of additional door on the western elevation; • Relocation of 1 no. door on northern elevation; • Provision of screen to the northwest corner of the building to create storage area; • Change in finish to the stair cores on the rear elevation; • Provision of accessible landscaped terraces at 7th storey on southern elevation, and on 8th storey on southern and northern elevation; • Amendments to the ground floor layout to provide for the enlargement of the entrance to the building, relocation and expansion of reception and lobby area, staff welfare facilities, courtyard, uncovered storage area with 12 no. cycle parking spaces, substation, switch room and platform for access and the associated loss of 2 no. parking spaces at ground floor for access, loading area and goods lift' • Amendments to basement level to provide for a reconfiguration of the floor layout resulting in a reduction from 69 no. to 64 no. spaces, provision of 8 no. motorbike spaces, increase from 177 no. cycle parking spaces to 200 no spaces, reconfiguration of staff welfare facilities, plant rooms and store rooms, lifts and stair cores continue into basement. Access to basement will remain unchanged; • Provision of 1 no. 'A&L Goodbody' entrance sign comprising of stainless steel internally illuminated individually mounted lettering to the south elevation and 1 no. 'A&L Goodbody' façade sign at 7th storey on the southern elevation in the eastern corner comprising of Perspex lettering with LED Light tape backing; • Alterations to the hard and soft landscaping, SUDs drainage, PV Panels, provision of plant and screening at roof level and plant at basement level, green roofs and all other associated site development works necessary to facilitate the development. The proposed development will result in an increase in gross floor area from 17,357 sqm (excluding basement of 3,708 sqm) to 18,131 sqm (excluding basement of 3,708 sqm).
4022/22	5-6 Georges Dock, Dublin 1	Planning permission for the development will consist of the removal of 3 car parking spaces at ground floor level and construction of a new stand alone single storey shower block accessed from the rear car park entrance to the building. The structure will contain 2 new male shower rooms, 2 female shower rooms and one disabled WC and shower room and a drying room. The entrance to the shower rooms will have an overhead canopy and planter box with integrated external lighting.
4881/22	Unit 2 Gandon House, Custom House Square, Mayor Street Lower, I.F.S.C., Dublin 1	The development will consist of: (a) the change of use from coffee shop use to restaurant use, (b) the removal of existing fascia signage while maintaining the existing signage zone, (c) all associated site works.
4096/23	The Forum, 1 Commons Street, Dublin 1, D01 Y048	Planning permission for development on a site at No. 1 Commons Street, Dublin 1, D01 Y048 (which is a 2 no. storey office at the fourth and fifth floor levels, accessible via a ground floor reception area at Commons Street, with office floors located above the 4 no. storey commercial car park - IFSC Carpark, Commons Street, Dublin 1, D01 DA34). The site is bounded to the north by the Exchange, Georges Dock, an office block; to the east by Commons Street; to the south by the Hilton Garden Inn Hotel, Custom House Quay; and to the west by Exchange Place. The development will consist of

Ref. No.	Address	Proposal
		alterations to the front (east), rear (west) elevations in respect of the reception and office frontages from ground to roof levels (with no change to the floor area of the existing office floor plate). The development will consist of demolition of existing cladding and provision of new glazing and metal clad vertical columns and horizontal beams with integrated backlit business identification signage at reception facade at ground floor level to third floor level on Commons Street; removal of existing cladding and provision of new glazing and metal clad vertical columns and horizontal beams at fourth and fifth floor levels on Commons Street and Exchange Place; changes to the materials and finishes of the fourth floor level and fifth floor level balconies on Commons Street and Exchange Place; replacement of existing atrium rooflights with glazed atrium rooflights and all associated site development works.
4946/22	The Exchange, I.F.S.C., George's Dock, Dublin 1	The development will consist of the installation of roof-mounted solar photovoltaic panels to include all ancillary works and services.
3290/23	10/11 Exchange Place, I.F.S.C., Dublin 1, D01 N4X6	Permission is sought for the a change of use from existing medical centre (class 8a) on the ground floor and existing commercial offices (class 3) on the first to third floors to a mixed-use of commercials offices (class 3) / medical use (class 8a; Health Centre or Clinic) on ground to third floors. The proposed development includes all ancillary works necessary to facilitate the development.
3500/19	The CHQ Building, George's Dock, Dublin 1	PROTECTED STRUCTURE: Planning permission for development at the western mezzanine level of the CHQ Building, George's Dock, Dublin 1, D01 R9YO. The CHQ Building is a registered protected structure (RPS No. 2094). The development will consist of the change of use of the northern part of the western mezzanine from 'events/exhibition/research space' to office use. The works will incorporate the enclosure of the northern part of the western mezzanine and its connection to the eastern mezzanine by the implementation of a 2.1 metre partition glazing along the eastern edge and full height partition to the northern edge and southern edge of the mezzanine. A total of 3 no. plant and ventilation pods will be installed along with a standalone plant room. Existing smoke vent openings at roof level will be amended for the purposes of ventilation. Alterations will be made at ground floor level of units 13 and 21 to implement fire escape stairs. New accommodation access stairs and entrance to the mall will be also implemented at ground floor level at unit 31, with existing fire escape stairs at unit 32 widened. Bicycle parking will be provided at the eastern elevation. The area subject to the change of use totals c. 884 sqm.

Following an analysis of development proposals proximate to the subject site, it is considered that in combination effects with other existing and proposed developments in proximity to the application area would be unlikely, neutral, not significant and localised. It is concluded that no significant effects on Natura 2000 sites are likely as a result of the proposed development in combination with other projects. No in combination effects are foreseen.

No projects in the vicinity of the proposed development would be seen to have a significant in combination effect on Natura 2000 sites.

Conclusion

In a strict application of the precautionary principle, it has been concluded that significant effects on the integrity of South Dublin Bay SAC, North Dublin Bay SAC, South Dublin Bay and River Tolka Estuary SPA, North Bull Island SPA and North-West Irish Sea SPA are likely from the proposed works in the absence of mitigation measures, primarily as a result of a direct hydrological connection to the site during construction and operation via dust and surface water runoff to the River Liffey. For this reason, an NIS was carried out to assess whether the proposed project, either alone or in combination with other plans or projects, in view of best scientific knowledge and in view of the sites' conservation objectives, will adversely affect the integrity of the European Site. All other Natura 2000 sites were screened out at initial screening.

Construction, excavation and demolition works will create localised light and noise disturbance that will not impact on Natura 2000 sites. There is potential for dust, pollution and silt laden material to enter the River Liffey during the works. Mitigation measures will be in place to ensure that there are no significant effects on the River Liffey that leads to European sites at Dublin Bay.

Following the implementation of the mitigation measures outlined, the construction, excavation and demolition works would not be deemed to have a significant impact on the River Liffey which is considered a direct pathway to five Natura 2000 sites in Dublin Bay. No significant impacts are likely on Natura 2000 sites, alone in combination with other plans and projects based on the implementation of mitigation measures.

This report presents an Appropriate Assessment Screening and NIS for the proposed development. It outlines the information required for the competent authority to screen for appropriate assessment and to determine whether or not the proposed development, either alone or in combination with other plans or projects, in view of best scientific knowledge and in view of the sites' conservation objectives, will adversely affect the integrity of the European site.

Based on the content of this report, the competent authority is enabled to conduct an Appropriate Assessment and consider whether, either alone or in combination with other plans or projects, in view of best scientific knowledge and in view of the sites' conservation objectives, will adversely affect the integrity of the European site.

No significant effects are likely on Natura 2000 sites, their features of interest or conservation objectives. The proposed project will not will adversely affect the integrity of European sites.

Data used for the AA Screening/NIS Assessment

NPWS site synopses and Conservation objectives of sites within 15km were examined. There is no direct pathway to any Natura 2000 sites beyond 15km of the proposed development site. The most recent SAC and SPA boundary shapefiles were downloaded and overlaid on ESRI terrain maps and satellite imagery. Several site visits were carried out, including bat surveys, to determine if the site contained possible threats to a Natura 2000 site or any Natura 2000 species or habitats. An EIAR accompanies this AA Screening and NIS.

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Appendix I Habitats and Species on site.

Figure A1.1: Habitats of subject site according to Fossitt (2000).

BL3 – Artificial surfaces and buildings.

The site is a modern functioning bank (Citibank) with an underground car park. Outside of the building, the ground is paved for footpaths and roadways. No derelict areas were noted on site.

Plate 1: *Building onsite. (Looking east)*

Plate 2: *Rooftop of building onsite.*

Plate 3: *Underground carpark.*

BC4- Flower beds and boarders.

Throughout the site, various ornamental flower beds were positioned for aesthetic value. They contained species such as brown-eyed Susan (*Rudbeckia triloba*), New Zealand flax (*Phormium tenax*), spurge- laurel (*Daphne laureola*), Algerian ivy (*Hedera canariensis*), spider-plant (*Chlorophytum comosum*), Alpine lady-fern (*athyrium distentifolium*), fatsia (*Fatsia japonica*), sweet bay leaf (*Laurus nobilis*) and hydrangea (*Hydrangea sp*.).

Plate 4: *Flowerbed north of the site.*

WS3 – Ornamental/non-native shrubs

This habitat comprised mainly of Cotoneaster (*Cotoneaster sp*.), cherry laurel (*Laurocerasus officinalis*), with some buddleja (*Buddleja davidii*) and Himalayan firethorn (*Pyracantha crenulata*). Also included were trees of Caucasian lime (*Tilia euchlora*), Callery pear (*Pyrus calleryana Chanticleer*), Persian ironwood (*Parrotia persica*) and pin oak (*Quercus palustris*).

Plate 5: *Cotoneaster (Cotoneaster sp.) shrub.*

Plate 6: *Himalayan firethorn (Pyracantha crenulata) shrub.*

Invasive Species

No invasive plant or animal species listed under the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. 477 of 2011) Section 49, the Third Schedule: Part 1 Plants, Third Schedule: Part 2A Animals were noted on site. No terrestrial or aquatic invasive species such as Japanese knotweed, giant rhubarb, Himalayan balsam, giant hogweed etc. that could hinder removal of soil from the site during groundworks were noted.

Fauna

Bats

A bat survey of the building and an emergent/detector survey were carried out on site. No evidence of past or current bat presence. No bats were observed foraging on site. No bats were seen emerging from buildings on site. The trees along the onsite have no potential for roosting bats as they are mostly tall, thin specimens and, in some cases, multi-stemmed with no features such as hollows or crevices that might be used by bats. No evidence of past or current use by bats of any of the onsite structures or trees was found when surveys were undertaken.

Terrestrial Mammals

No signs of badger activity or an active sett were noted on site. No mammal species of conservation importance were noted site during surveys.

Amphibians and Reptiles

No amphibians or reptiles were noted on site. There are no water features are noted on site.

Birds

The site is currently of very low nesting potential for birds. It should be noted that no features on site would result in foraging of wintering bird species and the site is not an ex-situ site for wintering birds. During the site assessment no brent geese were noted flying overhead. However, herring gulls (*Larus argentatus)* were noted flying proximate to the site in the vicinity of the River Liffey. Herring gulls (*Larus argentatus*) were noted on the building during the survey. No nesting behaviour was noted. The site is not a regular flightline path for such species like Brent Geese or other species of significant interest, and that these species are not frequently encountered passing through this area. The proposed structure is within a dense urban environment. During construction works, due to the exterior “Fin” design of the external elements the building would be clearly visible to birds and would not be expected to form a significant bird strike risk. The following bird species were noted on site:

Table 7.4 *Bird species noted within or in the vicinity of the proposed development*

Common Name	Scientific Name
Herring gull (Amber Listed)	*Larus argentatus*

Discussion of species and habitats

The proposed development consists largely of Built land (BL3) with some ornamental shrubs, and flower beds. No flora or habitats of National or international conservation importance were noted on site during the surveys. No invasive flora species were noted on site. No flora species of conservation importance or invasive species were noted on site during site surveys. No amphibians or reptiles were noted on site.