

Appropriate Assessment Screening & Natura Impact Statement – Information for a Stage 1 (Appropriate Assessment) and Stage 2 (Natura Impact Statement) AA for a Proposed Amendment Application to a Permitted Development (ACP Reg. Ref.: 312170-21) at Marmalade Lane, Wyckham Avenue, Dublin 16.



23rd October 2025

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Document Control Sheet			
Project	Appropriate Assessment Screening & Natura Impact Statement - Information for a Stage 1 (AA Screening) and Stage 2 (Natura Impact Statement) AA for a proposed amendment application to a permitted development (ACP Reg. Ref.:312170-21) at Marmalade Lane, Wyckham Avenue, Dublin 16		
Report	Appropriate Assessment Screening & Natura Impact Statement		
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Introduction

The following Appropriate Assessment Screening and Natura Impact Statement – Information for a Stage 1 (AA Screening) and Stage 2 (Natura Impact Statement) AA has been prepared by Altemar Ltd. for a proposed amendment application to a permitted development (ACP Reg. Ref.:312170-21) at Marmalade Lane, Wyckham Avenue, Dublin 16.

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 European sites. European 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 European site and considers whether, on the basis of objective scientific evidence, it can be concluded that there are no likely 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 is the managing director of Altemar. Bryan 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. 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 and Natura Impact Statement.

Background to the Appropriate Assessment

The Habitats Directive 92/43/EEC (together with the Birds Directive (2009/147/EC)) forms the cornerstone of Europe's nature conservation policy. The 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 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 must be 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.

Stage 1 Screening Assessment

Management of the Site

The plan or project is not directly connected with, or necessary to the management of Natura 2000 sites.

Project Description

1 Wyckham Land Limited intend to apply for planning permission for a proposed amendment application to a permitted development (ACP Reg. Ref.:312170-21) at Marmalade Lane, Wyckham Avenue, Dublin 16.

The proposed development will amend permitted Strategic Housing Development (SHD) ACP Reg. Ref.: 312170-21 which was granted for 531 no. residential units within 5 blocks A-E along with accesses, car, motorcycle and cycle parking, residential amenity and public and communal open space along with all associated works.

The amendment proposed will replace permitted Block E in the south-west corner of the site (which comprised a total of 68 no. units) with 8 no. semi-detached, 3 storey houses. All associated works to accommodate this change are proposed including car and cycle parking, public open space and associated ancillary works.

There is no change proposed to permitted Blocks A-D and all aspects of the development as per Reg Ref ABP-312170-21 will be completed as permitted. A total of 471 no. units, 60 no. less than permitted, will be delivered as a result of this proposed development.

The proposed site outline, location, site plan and elevations are demonstrated in Figures 1-4.

Landscape

The landscape strategy for the proposed development has been prepared by NMP Landscape Architects to accompany this planning application. The proposed landscape plan is demonstrated in Figure 5.



0 0.5 1 1.5 km

Project: Marmalade Lane
 Location: Dundrum, Dublin 16.
 Date: 20th October 2025
 Drawn By: Gayle O'Farrell (Altamar)

ALTEMAR
 Marine & Environmental Consultancy

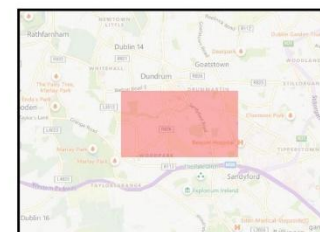


Figure 1. Site Outline and Location



Site Outline

Project: Marmalade Lane
 Location: Dundrum, Dublin 16.
 Date: 20th October 2025
 Drawn By: Gayle O'Farrell (Altamar)

ALTEMAR
 Marine & Environmental Consultancy

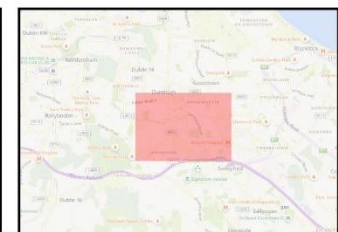


Figure 2. Site Outline



Drainage

An Infrastructure Design Report has been prepared by Donnachadh O'Brien & Associates Consulting Engineers to accompany this planning application. This report outlines the following in relation to surface and foul water drainage strategy for the site:

'Surface Water Drainage

The permitted surface water drainage system granted under ABP-312170-21 remains unchanged save for the amendments related to the surface water network located to the south-west of the subject site associated with the proposed 8 units replacing Block E as illustrated in Figure 3 below.

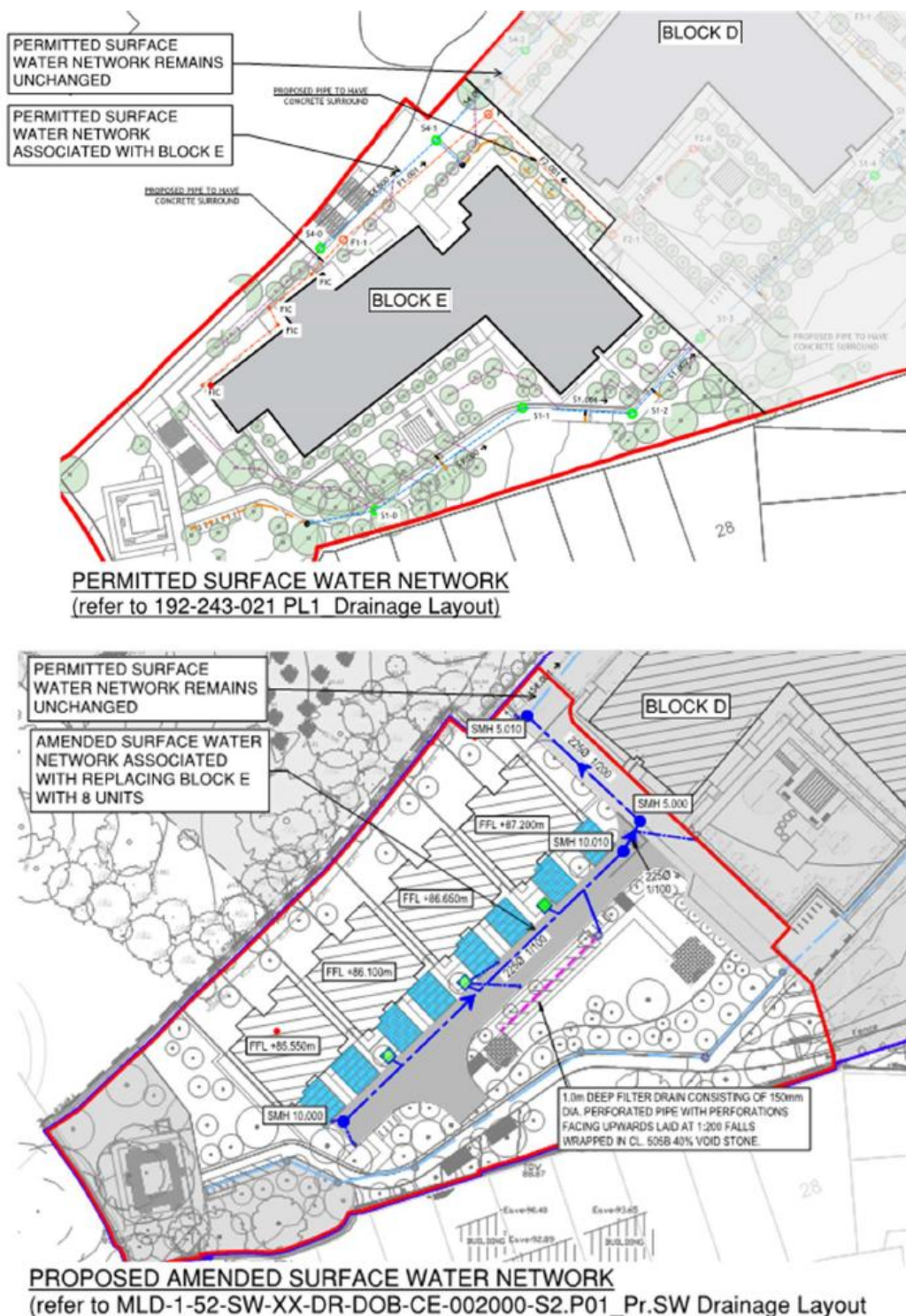


Figure 3 Comparison of permitted and proposed amended surface water network

Existing Surface Water Drainage

Record drawings provided by DLRCC indicate the presence of an existing 225mm uPVC surface water sewer on Wyckham Avenue to the west of the site. This remains unchanged from the permitted development.

Proposed Surface Water Drainage

A new surface water sewer network shall be provided for the subject development which will be entirely separated from the wastewater sewer network. The proposed surface water drainage system shall be designed using Microdrainge software with reference to the following documents:

- a) Dún Laoghaire Rathdown County Council's County Development Plan 2022 – 2028
- b) CIRIA SuDS Manual 2015 C753 – The SuDS Manual
- c) CIRIA Publications C644 – Building Greener
- d) Greater Dublin Strategic Drainage Study (GSDSDS)
- e) Greater Dublin Regional Code of Practice for Drainage Works
- f) Recommendations for Site Development Works for Housing Areas - Department of the Environment and Local Government

Surface water drainage discharge for the entire development, both permitted and proposed, will remain unchanged and is to be restricted to QBar of 19.54 l/s as per the requirements of the Greater Dublin Strategic Drainage Strategy. Surface water discharge from the subject development will connect to the permitted surface water drainage system, which is currently being constructed on site. Discharge of the stormwater drainage from the permitted development discharges by gravity to the existing 225mm. dia. surface water sewer on Wyckham Avenue.'

'SuDS Proposals

The proposed development has been assessed in relation to Sustainable Urban Drainage Systems (SuDS). All SuDS measures are to be implemented as per the previously permitted development with reference to the UK Suds Manual and DLRCC drainage requirements. Relatively small volumes of rainwater collected on the respective SuDS devices will enter the public sewer network during typical low intensity storms. The proposed SuDS measures will retain rainwater until it is either used via evapotranspiration in the green areas. The SuDS processes decrease the impact of the development on the receiving environment by providing amenity and biodiversity in many cases. Regular maintenance of the SuDS proposals is required to ensure they are operating to their optimal level throughout their design life.

Table 5. SuDS Provision for the area of Application

Granted Planning Application	Proposed Amended Planning Application
Green Roof	Permeable Surfacing
-	Tree Pits
-	Filter Drains

We would note that a green roof would not be feasible on the proposed roofs of the dwellings in the proposed amended planning application due to the pitch of the roofs of the dwellings; however, alternative SuDS are proposed as outlined in Table 5. We further note that the extent of green roofs on the remainder of the buildings in the granted planning application (Apartment Blocks A to D) remains unchanged.'

It should be noted that a petrochemical interceptor will be installed in the overall surface water drainage network.

'Wastewater Drainage

The permitted wastewater drainage system granted under ABP-312170-21 remains unchanged save for the amendments related to the wastewater network located to the south-west of the subject site associated with the proposed 8 units replacing Block E as illustrated in Figure 8 below. The proposed wastewater infrastructure associated with the amended development will connect to the wastewater currently being constructed in accordance with Uisce Eireann Connection Agreement CDS2400627001.

Overall, the peak wastewater discharge for the whole development will be reduced to 13.25 l/s from the permitted discharge of 14.93 l/s. The reduction in wastewater discharge arises from replacing Block E with the proposed 8 unit amendment.'

Foul water drainage will ultimately discharge to Ringsend WwTP.

The proposed foul, surface water, and SuDS drainage design is demonstrated in Figures 6 - 8.

Flood Risk Assessment

Further, in relation to Flood Risk, this document details the following:

'The overall permitted development was subjected to a Site Specific Flood Risk Assessment (SSFRA) completed by the Applicant and is contained within Appendix B of this report. A brief description of each section is provided in the following sub-sections. There is no change to the permitted SSFRA arising from the proposed amendment.'

'Conclusions

The site has been assessed in accordance with the "The Planning System and Flood Risk Management" Guidelines. As part of the sequential test, the OPW flood hazard maps have been consulted, as have the Catchment Flood Risk Assessment Maps produced by the OPW. In all cases it was found that the development is at low risk of flooding and the development is deemed appropriate within the proposed site location.'

Identification of Relevant Natura 2000 Sites

The following section identifies the relevant European sites, and compiles information on their qualifying interests and conservation objectives in addition to outlining the potential for significant effects on each site. The proposed development site is not located 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 or not a particular European site is likely to be affected by the proposed works is its distance from the location of the works. 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 sites to the proposed development are 4.2 km away (South Dublin Bay SAC and South Dublin Bay & River Tolka SPA) (Figure 9 & 10). Best practice guidance suggests that an initial zone of influence be set at a radius of 2km for non-linear projects (IEA, 1995). The potential zone of influence (ZOI) was set at a radius of 2km from the proposed Project. It should be noted that where there was a potential for the ZOI to be influenced by drainage connections, natural biodiversity corridors e.g. rivers or woodland these were also considered, and the assessment was extended.

There is no direct Source-Pathway-Receptor link from the proposed development to any European Site. There is an indirect hydrological pathway to European sites within the ZOI at Dublin Bay via the proposed foul and surface water drainage strategy. Surface water drainage from the site will be directed to an existing public surface water network to the west of the site. This existing network outfalls to the River Slang. This watercourse in turn outfalls to the River Dodder, the River Liffey, and ultimately the marine environment at Dublin Bay. In the absence of mitigation measures, and out of an abundance of caution, there is the potential for polluting substances such as cement or hydrocarbons to enter the Slang River, River Dodder and River Liffey during the construction phase of the proposed development. Mitigation measures are required to ensure that surface water drainage will not contain silt or pollutants that could significantly impact upon downstream Natura 2000 sites located within Dublin Bay (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).

Foul wastewater will ultimately be directed to an existing public sewage system. This network then outfalls to Ringsend WWTP for treatment. This WWTP is required to operate under an EPA licence and to meet environmental legislative requirements Foul wastewater from the proposed development will be processed in Ringsend WWTP. The indirect pathway of foul water to Ringsend will not result in a significant effect on any downstream Natura 2000 site.

No other Natura 2000 sites beyond those within Dublin Bay (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 deemed to be in the potential Zone of Influence (ZOI).

In the interest of carrying out a thorough assessment in line with both the Habitats Directive, and the precautionary principle, the area of assessment was expanded beyond the ZOI 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 taken into account. All European sites within 15km are listed in Table 1. The qualifying interests, and the potential impact of the proposed development on each European site and qualifying interest, are screened out in Table 2. SACs and SPAs within 15km of the proposed development site are demonstrated in Figures 9 and 10. Waterbodies and European sites located proximate to the proposed development are demonstrated in Figures 11 – 13.

Table 1. Proximity to designated sites of conservation importance

Site Code	NATURA 2000 Site	Distance
<i>Special Areas of Conservation</i>		
IE0000210	South Dublin Bay SAC	4.2 km
IE0002122	Wicklow Mountains SAC	5.4 km
IE0000725	Knocksink Wood SAC	7.7 km
IE0001209	Glenasmole Valley SAC	8.8 km
IE0000713	Ballyman Glen SAC	9.2 km
IE0000206	North Dublin Bay SAC	9.2 km
IE0003000	Rockabill to Dalkey Island SAC	9.7km
IE000714	Bray Head SAC	13.5 km
IE0000202	Howth Head SAC	13.6 km
IE0000199	Baldoyle Bay SAC	14.8 km
<i>Special Protection Areas</i>		
IE0004024	South Dublin Bay and River Tolka Estuary SPA	4.2 km
IE0004040	Wicklow Mountains SPA	5.6 km
IE0004006	North Bull Island SPA	7.9 km
IE004236	North-West Irish Sea SPA	9.2 km
IE0004172	Dalkey Islands SPA	9.4 km
IE0004016	Baldoyle Bay SPA	14.8 km

Table 2. Initial screening of NATURA 2000 sites

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 proposed development site is located within a suburban environment 4.2 km from the South Dublin Bay SAC (Figure 9). There is no direct hydrological pathway from the proposed development site to this SAC. There is an indirect hydrological pathway from the proposed development site to this SAC via surface water drainage. Surface water drainage from the site will be directed to an existing public surface water network to the west of the site. This existing network outfalls to the River Slang. This watercourse in turn outfalls to the River Dodder, the River Liffey, and ultimately the marine environment at Dublin Bay. In the absence of mitigation measures, and out of an abundance of caution, there is the potential for polluting substances such as cement or hydrocarbons to enter the Slang River, River Dodder and River Liffey during the construction phase of the proposed development. Mitigation measures are required to ensure that surface water drainage will not contain silt or pollutants that could significantly impact upon this SAC. There is an indirect pathway from the site to this SAC via foul wastewater drainage. Foul wastewater will ultimately be directed to an existing public sewage system. This network then outfalls to Ringsend WWTP for treatment. This WWTP is required to operate under an EPA licence and to meet environmental legislative requirements Foul wastewater from the proposed development will be processed in Ringsend WWTP. The indirect pathway of foul water to Ringsend will not result in a significant effect on the Natura 2000 site. 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 indirect hydrological connection

Natura Code	Name	Screened In/Out	Details/Reason
			from the subject site to this SAC via surface water drainage. Mitigation measures are required. 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 (<i>Glauco-Puccinellietalia maritimae</i>) [1330] Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410] Embryonic shifting dunes [2110] Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) [2120] Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130] Humid dune slacks [2190] Petalwort (<i>Petalophyllum ralfsii</i>) [1395] Potential Impact The proposed development site is located within a suburban environment 9.2 km from the North Dublin Bay SAC (Figure 9). There is no direct hydrological pathway from the proposed development site to this SAC. There is an indirect hydrological pathway from the proposed development site to this SAC via surface water drainage. Surface water drainage from the site will be directed to an existing public surface water network to the west of the site. This existing network outfalls to the River Slang. This watercourse in turn outfalls to the River Dodder, the River Liffey, and ultimately the marine environment at Dublin Bay. In the absence of mitigation measures, and out of an abundance of caution, there is the potential for polluting substances such as cement or hydrocarbons to enter the Slang River, River Dodder and River Liffey during the construction phase of the proposed development. Mitigation measures are required to ensure that surface water drainage will not contain silt or pollutants that could significantly impact upon this SAC. There is an indirect pathway from the site to this SAC via foul wastewater drainage. Foul wastewater will ultimately be directed to an existing public sewage system. This network then outfalls to Ringsend WWTP for treatment. This WWTP is required to operate under an EPA licence and to meet environmental legislative requirements Foul wastewater from the proposed development will be processed in Ringsend WWTP. The indirect pathway of foul water

Natura Code	Name	Screened In/Out	Details/Reason
			to Ringsend will not result in a significant effect on the Natura 2000 site. 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 indirect hydrological connection from the subject site to this SAC via surface water drainage. Mitigation measures are required. Significant effects are likely - Natura Impact Statement Required
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 (<i>Littorelletalia uniflorae</i>) [3110] Natural dystrophic lakes and ponds [3160] Northern Atlantic wet heaths with <i>Erica tetralix</i> [4010] European dry heaths [4030] Alpine and Boreal heaths [4060] Calaminarian grasslands of the <i>Violetalia calaminariae</i> [6130] Species-rich <i>Nardus</i> grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe) [6230] Blanket bogs (* if active bog) [7130] Siliceous scree of the montane to snow levels (<i>Androsacetalia alpinae</i> and <i>Galeopsietalia ladani</i>) [8110] Calcareous rocky slopes with chasmophytic vegetation [8210] Siliceous rocky slopes with chasmophytic vegetation [8220] Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [91A0] Otter (<i>Lutra lutra</i>) [1355] Potential Impact The proposed development site is located in a suburban environment 5.4 km from this SAC. No potential impact is foreseen. There is no direct or indirect pathway from the proposed development site to this SAC. The construction and operation of the proposed development will not impact on the conservation interests of the site. No significant effects likely
IE0000725	Knocksink Wood SAC	OUT	Conservation Objectives The maintenance of habitats and species within Natura 2000 sites at favourable conservation condition will contribute to the overall

Natura Code	Name	Screened In/Out	Details/Reason
			maintenance of favourable conservation status of those habitats and species at a national level. Qualifying Interests Petrifying springs with tufa formation (<i>Cratoneurion</i>) [7220] Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0] Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i>, <i>Alnion incanae</i>, <i>Salicion albae</i>) [91E0] Potential Impact The proposed development site is located within a suburban environment 7.7 km from the Knocksink Wood SAC. No potential impact is foreseen. There is no direct or indirect hydrological pathway from the proposed development site to this 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 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 Semi-Natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco-Brometalia</i>) (* important orchid sites) [6210] Molinia meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinion caeruleae</i>) [6410] Petrifying springs with tufa formation (<i>Cratoneurion</i>) [7220] Potential Impact The proposed development site is located within a suburban environment 8.8 km from this SAC. No potential impact is foreseen. There is no direct or indirect pathway from the proposed development site to this SAC. The construction and operation of the proposed development will not impact on the conservation interests of the site. No significant effects likely
IE0000713	Ballyman Glen 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

Natura Code	Name	Screened In/Out	Details/Reason
			Petrifying springs with tufa formation (Cratoneurion) [7220] Alkaline fens [7230] Potential Impact The proposed development site is located within a suburban environment 9.2 km from this SAC. No potential impact is foreseen. There is no direct or indirect hydrological pathway from the proposed development site to this 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. Qualifying Interests Reefs [1170] Harbour Porpoise (<i>Phocoena phocoena</i>) [1351] Potential Impact The proposed development site is located within a suburban environment 9.7 km from this SAC. No potential impact is foreseen. There is no direct or indirect pathway from the proposed development site to this SAC. The construction and operation of the proposed development will not impact on the conservation interests of the site. No significant effects likely
IE000714	Bray 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 a suburban environment 13.5 km from this SAC. No potential impact is foreseen. There is no direct or indirect pathway from the proposed development site to this SAC. The construction and operation of the proposed development will not impact on the conservation interests of the site. No significant effects likely

Natura Code	Name	Screened In/Out	Details/Reason
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 a suburban environment 13.6 km from this SAC. No potential impact is foreseen. There is no direct or indirect pathway from the proposed development site to this SAC. The construction and operation of the proposed development will not impact on the conservation interests of the site. No significant effects likely
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 (<i>Glauco-Puccinellietalia maritimae</i>) [1330] Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410] Potential Impact The proposed development site is located within a suburban environment 14.8 km from this SAC. No potential impact is foreseen. There is no direct or indirect pathway from the proposed development site to this 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.

Natura Code	Name	Screened In/Out	Details/Reason
			Special Conservation Interests Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046] Oystercatcher (<i>Haematopus ostralegus</i>) [A130] Ringed Plover (<i>Charadrius hiaticula</i>) [A137] Grey Plover (<i>Pluvialis squatarola</i>) [A141] Knot (<i>Calidris canutus</i>) [A143] Sanderling (<i>Calidris alba</i>) [A144] Dunlin (<i>Calidris alpina</i>) [A149] Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157] Redshank (<i>Tringa totanus</i>) [A162] Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179] Roseate Tern (<i>Sterna dougallii</i>) [A192] Common Tern (<i>Sterna hirundo</i>) [A193] Arctic Tern (<i>Sterna paradisaea</i>) [A194] Wetland and Waterbirds [A999] Potential Impact The development site is located within a suburban area 4.2 km from the South Dublin Bay and River Tolka Estuary SPA (Figure 10). There is no direct hydrological pathway from the proposed development site to this SPA. There is an indirect hydrological pathway from the proposed development site to this SPA via surface water drainage. Surface water drainage from the site will be directed to an existing public surface water network to the west of the site. This existing network outfalls to the River Slang. This watercourse in turn outfalls to the River Dodder, the River Liffey, and ultimately the marine environment at Dublin Bay. In the absence of mitigation measures, and out of an abundance of caution, there is the potential for polluting substances such as cement or hydrocarbons to enter the Slang River, River Dodder and River Liffey during the construction phase of the proposed development. Mitigation measures are required to ensure that surface water drainage will not contain silt or pollutants that could significantly impact upon this SPA. There is an indirect pathway from the site to this SPA via foul wastewater drainage. Foul wastewater will ultimately be directed to an existing public sewage system. This network then outfalls to Ringsend WWTP for treatment. This WWTP is required to operate under an EPA licence and to meet environmental legislative requirements Foul wastewater from the proposed development will be processed in Ringsend WWTP. The indirect pathway of foul water to Ringsend will not result in a significant effect on the Natura 2000 site. A number of wintering bird assessments were carried out onsite in 2024 & 2025 (Appendix I) and 2020/2021 (Appendix II). Results from these surveys demonstrate that the site is not of significance to birds protected as SCIs of this SPA. Further, given the minimum distance to this SPA (4.2 km), no significant noise or vibration impacts on the SCIs

Natura Code	Name	Screened In/Out	Details/Reason
			of this SPA are foreseen. In the absence of mitigation measures, no significant noise/vibration impacts or impacts on foraging activity on bird species protected as SCIs of this SPA are likely. 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 indirect hydrological connection from the subject site to this SPA via surface water drainage. Mitigation measures are required. 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. Special Conservation Interests Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046] Shelduck (<i>Tadorna tadorna</i>) [A048] Teal (<i>Anas crecca</i>) [A052] Pintail (<i>Anas acuta</i>) [A054] Shoveler (<i>Anas clypeata</i>) [A056] Oystercatcher (<i>Haematopus ostralegus</i>) [A130] Golden Plover (<i>Pluvialis apricaria</i>) [A140] Grey Plover (<i>Pluvialis squatarola</i>) [A141] Knot (<i>Calidris canutus</i>) [A143] Sanderling (<i>Calidris alba</i>) [A144] Dunlin (<i>Calidris alpina</i>) [A149] Black-tailed Godwit (<i>Limosa limosa</i>) [A156] Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157] Curlew (<i>Numenius arquata</i>) [A160] Redshank (<i>Tringa totanus</i>) [A162] Turnstone (<i>Arenaria interpres</i>) [A169] Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179] Wetland and Waterbirds [A999] Potential Impact The development site is located within a suburban area 7.9 km from the North Bull Island SPA (Figure 10). There is no direct hydrological pathway from the proposed development site to this SPA. There is an indirect hydrological pathway from the proposed development site to this SPA via surface water drainage. Surface water drainage from the site will be directed to an existing public surface water network to the west of the site. This existing network outfalls to the River Slang. This watercourse in turn outfalls to the River Dodder, the River Liffey, and ultimately the marine environment at Dublin Bay. In the absence of mitigation measures, and out of an abundance of caution, there is the potential for polluting substances

Natura Code	Name	Screened In/Out	Details/Reason
			such as cement or hydrocarbons to enter the Slang River, River Dodder and River Liffey during the construction phase of the proposed development. Mitigation measures are required to ensure that surface water drainage will not contain silt or pollutants that could significantly impact upon this SPA. There is an indirect pathway from the site to this SPA via foul wastewater drainage. Foul wastewater will ultimately be directed to an existing public sewage system. This network then outfalls to Ringsend WWTP for treatment. This WWTP is required to operate under an EPA licence and to meet environmental legislative requirements Foul wastewater from the proposed development will be processed in Ringsend WWTP. The indirect pathway of foul water to Ringsend will not result in a significant effect on the Natura 2000 site. A number of wintering bird assessments were carried out onsite in 2024 & 2025 (Appendix I) and 2020/2021 (Appendix II). Results from these surveys demonstrate that the site is not of significance to birds protected as SCIs of this SPA. Further, given the minimum distance to this SPA (7.9 km), no significant noise or vibration impacts on the SCIs of this SPA are foreseen. In the absence of mitigation measures, no significant noise/vibration impacts or impacts on foraging activity on bird species protected as SCIs of this SPA are likely. 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 indirect hydrological connection from the subject site to this SPA via surface water drainage. Mitigation measures are required. 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. Special Conservation Interests Red-throated Diver (<i>Gavia stellata</i>) [A001] Great Northern Diver (<i>Gavia immer</i>) [A003] Fulmar (<i>Fulmarus glacialis</i>) [A009] Manx Shearwater (<i>Puffinus puffinus</i>) [A013] Cormorant (<i>Phalacrocorax carbo</i>) [A017] Shag (<i>Phalacrocorax aristotelis</i>) [A018] Common Scoter (<i>Melanitta nigra</i>) [A065] Little Gull (<i>Larus minutus</i>) [A177] Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179] Common Gull (<i>Larus canus</i>) [A182] Lesser Black-backed Gull (<i>Larus fuscus</i>) [A183]

Natura Code	Name	Screened In/Out	Details/Reason
			Herring Gull (<i>Larus argentatus</i>) [A184] Great Black-backed Gull (<i>Larus marinus</i>) [A187] Kittiwake (<i>Rissa tridactyla</i>) [A188] Roseate Tern (<i>Sterna dougallii</i>) [A192] Common Tern (<i>Sterna hirundo</i>) [A193] Arctic Tern (<i>Sterna paradisaea</i>) [A194] Little Tern (<i>Sterna albifrons</i>) [A195] Guillemot (<i>Uria aalge</i>) [A199] Razorbill (<i>Alca torda</i>) [A200] Puffin (<i>Fratercula arctica</i>) [A204] Potential Impact The development site is located within a suburban area 9.2 km from the North-West Irish Sea SPA (Figure 10). There is no direct hydrological pathway from the proposed development site to this SPA. There is an indirect hydrological pathway from the proposed development site to this SPA via surface water drainage. Surface water drainage from the site will be directed to an existing public surface water network to the west of the site. This existing network outfalls to the River Slang. This watercourse in turn outfalls to the River Dodder, the River Liffey, and ultimately the marine environment at Dublin Bay. In the absence of mitigation measures, and out of an abundance of caution, there is the potential for polluting substances such as cement or hydrocarbons to enter the Slang River, River Dodder and River Liffey during the construction phase of the proposed development. Mitigation measures are required to ensure that surface water drainage will not contain silt or pollutants that could significantly impact upon this SPA. There is an indirect pathway from the site to this SPA via foul wastewater drainage. Foul wastewater will ultimately be directed to an existing public sewage system. This network then outfalls to Ringsend WWTP for treatment. This WWTP is required to operate under an EPA licence and to meet environmental legislative requirements Foul wastewater from the proposed development will be processed in Ringsend WWTP. The indirect pathway of foul water to Ringsend will not result in a significant effect on the Natura 2000 site. A number of wintering bird assessments were carried out onsite in 2024 & 2025 (Appendix I) and 2020/2021 (Appendix II). Results from these surveys demonstrate that the site is not of significance to birds protected as SCIs of this SPA. Further, given the minimum distance to this SPA (9.2 km), no significant noise or vibration impacts on the SCIs of this SPA are foreseen. In the absence of mitigation measures, no significant noise/vibration impacts or impacts on foraging activity on bird species protected as SCIs of this SPA are likely. In a strict application of the precautionary principle, it has been concluded that significant effects on the North-West Irish Sea SPA are

Natura Code	Name	Screened In/Out	Details/Reason
			likely, in the absence of mitigation measures, from the proposed works primarily as a result of the indirect hydrological connection from the subject site to this SPA via surface water drainage. Mitigation measures are required. Significant effects are likely - Natura Impact Statement Required
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. Special Conservation Interests Merlin (<i>Falco columbarius</i>) [A098] Peregrine (<i>Falco peregrinus</i>) [A103] Potential Impact The proposed development site is located within a suburban environment 5.6 km from this SPA. There is no direct or indirect hydrological pathway from the proposed development site to the SPA. Given the minimum distance to this SPA (5.6 km), no significant noise or vibration impacts on the SCIs of this SPA are foreseen. In the absence of mitigation measures, no significant noise/vibration impacts on bird species protected as SCIs of this SPA are likely. No potential impact is foreseen. 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. Special Conservation Interests Roseate Tern (<i>Sterna dougallii</i>) [A192] Common Tern (<i>Sterna hirundo</i>) [A193] Arctic Tern (<i>Sterna paradisaea</i>) [A194] Potential Impact The proposed development site is located within a suburban environment 9.4 km from this SPA. There is no direct or indirect hydrological pathway from the proposed development site to the SPA. A number of wintering bird assessments were carried out onsite in 2024 & 2025 (Appendix I) and 2020/2021 (Appendix II). Results from these surveys demonstrate that the site is not of significance to birds protected as SCIs of this SPA. Further, given the minimum distance to this SPA (9.4 km), no significant noise or vibration impacts on the SCIs of this SPA are foreseen. In the absence of mitigation measures, no

Natura Code	Name	Screened In/Out	Details/Reason
			significant noise/vibration impacts or impacts on foraging activity on bird species protected as SCIs of this SPA are likely. No potential impact is foreseen. The construction and operation of the proposed development will not impact on the conservation interests of the site. No significant effects likely
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. Special Conservation Interests Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046] Shelduck (<i>Tadorna tadorna</i>) [A048] Ringed Plover (<i>Charadrius hiaticula</i>) [A137] Golden Plover (<i>Pluvialis apricaria</i>) [A140] Grey Plover (<i>Pluvialis squatarola</i>) [A141] Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157] Wetland and Waterbirds [A999] Potential Impact The proposed development site is located within a suburban environment 14.8 km from this SPA. There is no direct or indirect hydrological pathway from the proposed development site to the SPA. A number of wintering bird assessments were carried out onsite in 2024 & 2025 (Appendix I) and 2020/2021 (Appendix II). Results from these surveys demonstrate that the site is not of significance to birds protected as SCIs of this SPA. Further, given the minimum distance to this SPA (14.8 km), no significant noise or vibration impacts on the SCIs of this SPA are foreseen. In the absence of mitigation measures, no significant noise/vibration impacts or impacts on foraging activity on bird species protected as SCIs of this SPA are likely. No potential impact is foreseen. The construction and operation of the proposed development will not impact on the conservation interests of the site. No significant effects likely

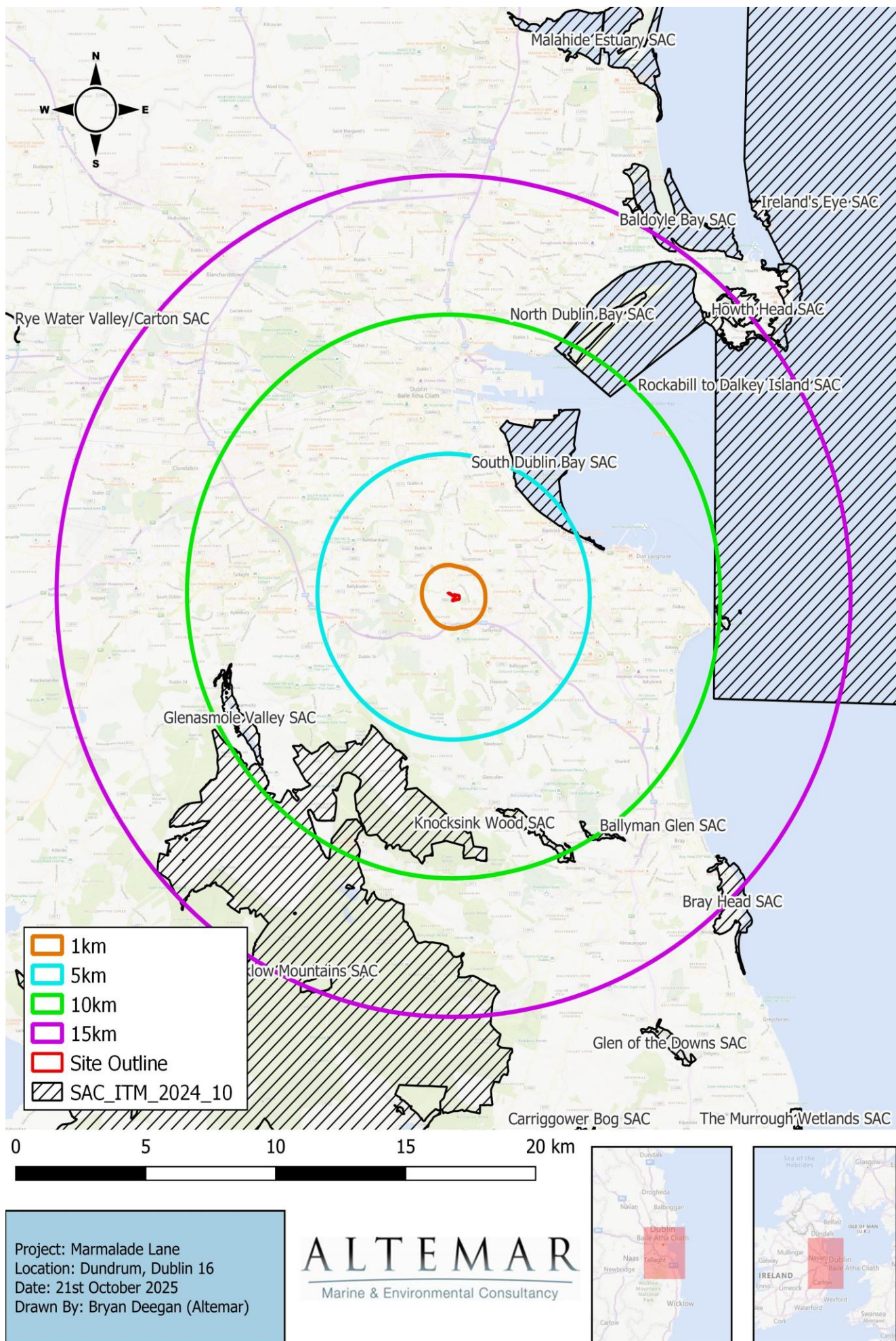


Figure 9. SACs within 15km of the proposed development

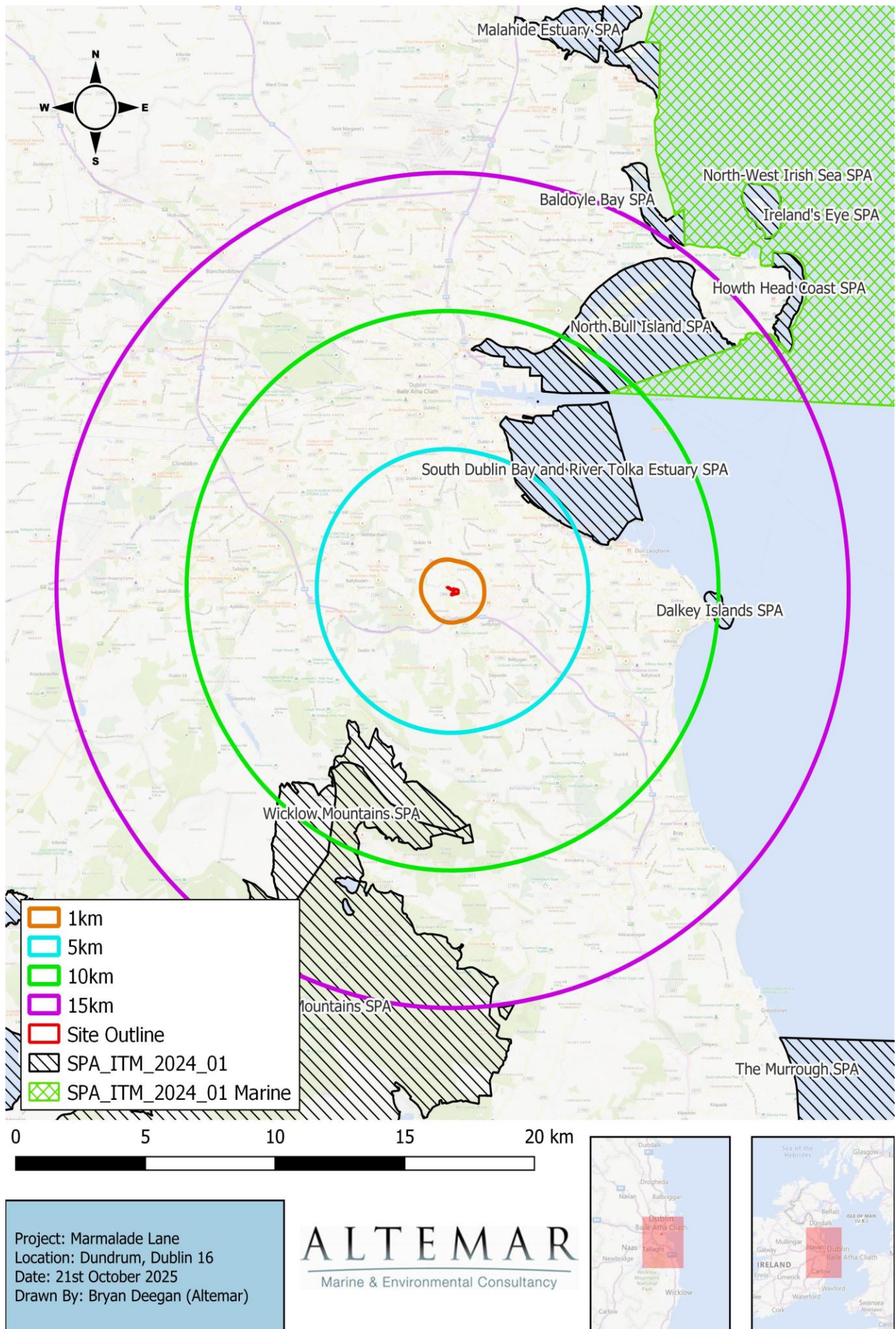


Figure 10. SPAs within 15km of the proposed development



Figure 11. Watercourses proximate to the proposed development

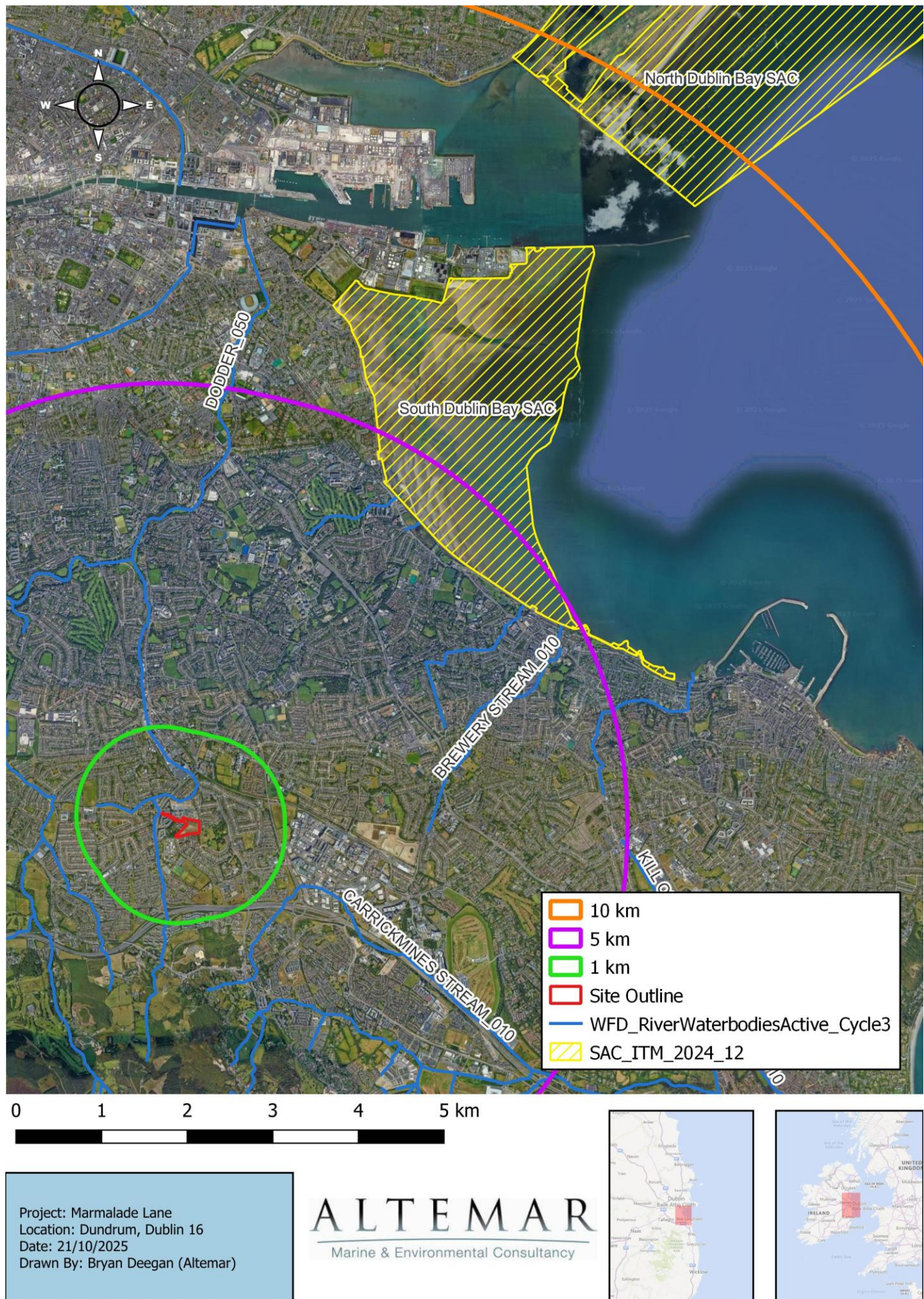
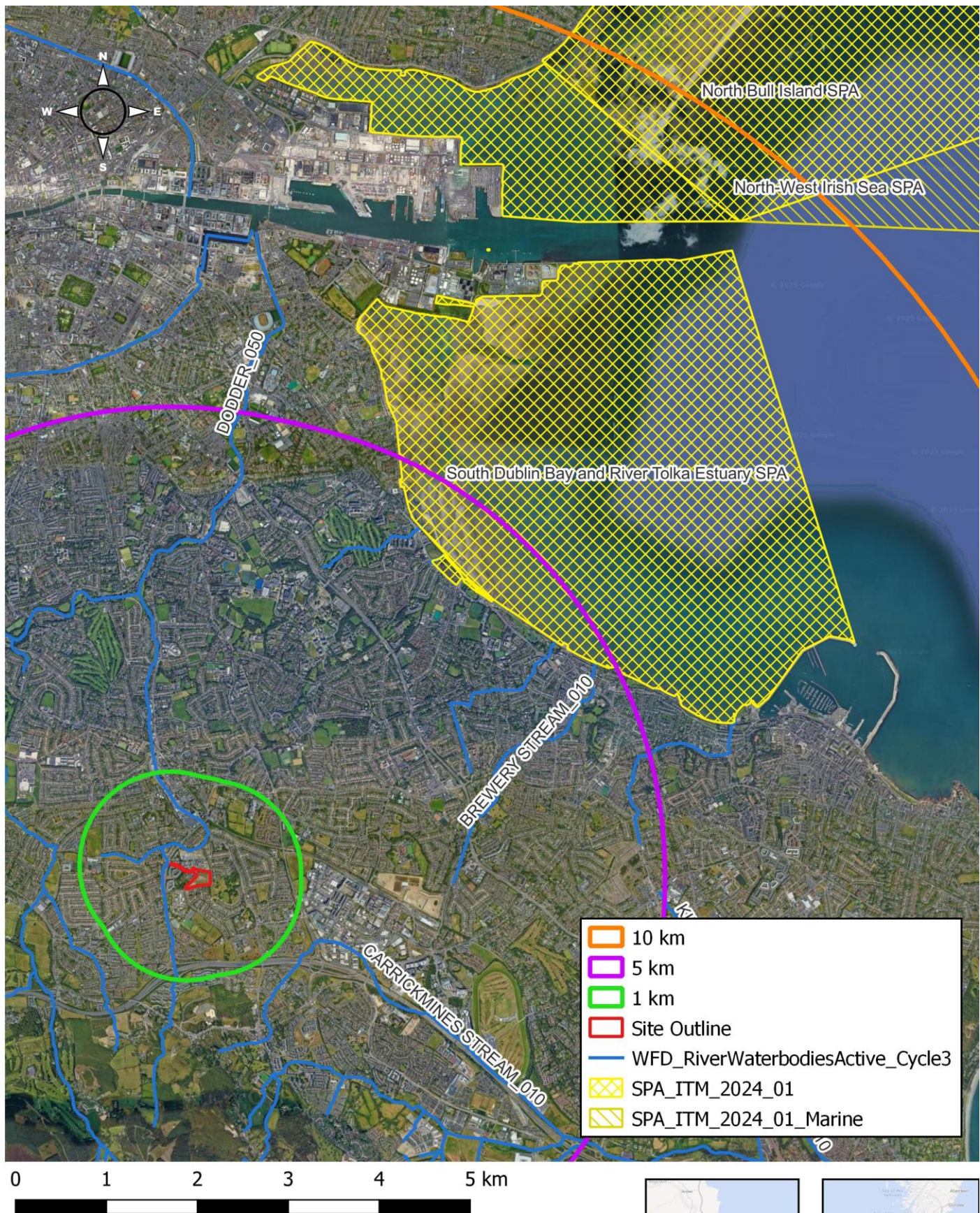


Figure 12. Watercourses and SACs proximate of the proposed development site



Project: Marmalade Lane
 Location: Dundrum, Dublin 16
 Date: 21/10/2025
 Drawn By: Bryan Deegan (Altamar)

ALTEMAR
 Marine & Environmental Consultancy



Figure 13. Watercourses and SPAs proximate of the proposed development 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' portal²:

Table 3. In-combination effects considered

DLRCC/ ABP Reg. Ref.	Address	Overview of Development
ABP321220	Karuna and Glenina, Sandyford Road, Dublin 18	Demolition of buildings for construction of a residential development comprising 13 houses and 60 apartments and all associated works
D24A/0797/WEB	Saint Olafs National School, Balally Drive, Dundrum, Dublin 16, D16E067	All-weather pitch, gravel track, and associated works.
ABP313443	'Karuna' and 'Glenina', Sandyford Road, Dublin 18.	Demolition of dwellings known as 'Glenina' and 'Karuna'. construction of 137 no. apartments and associated site works.
D21A/0737	St Tiernans Community School (Roll No. 91343T), Parkvale, Balally, Dublin 16, The subject site adjoins the Gort Mhuire Centre (protected Structure) to the south (RPS Ref. 1453)	Permission for development on a site of c. 565 ha. The development will consist of alterations to a previously granted development for a two-storey primary school building (Ballinteer Educate Together National School- Roll no. 20400E), ref Board Order: ABP- 303041-18, Planning Register Ref No: D18A/0865. The alteration includes the addition of 100m ² of PV panels to the south facing pitched roof slope
ABP307683	Green Acres Convent, Drumahill House and the Long Acre, Upper Kilmacud Road, Dundrum, Dublin 14.	Provision of 54 no. additional apartments on previously permitted development of 253 no. apartments under ABP- 304469-19, increase in childcare facility and associated site works.
ABP304469	Greenacres, Longacre and Drumahill House, Upper Kilmacud Road, Dundrum, Dublin 14.	253 no. apartments and associated works.

There are no significant projects that have been granted planning or currently under construction, proximate to the development, that could potentially cause in combination effects on European sites. It should be noted that a SHD for the construction of 531 no. residential units, creche and associated site works has been granted on the proposed development site. This project submitted a Natura Impact Statement and detailed the mitigation measures that will be implemented. The proposed development supersedes the granted permission.

Given this, it is considered that in-combination effects with other existing and proposed developments in proximity to the application area would be unlikely, neutral, insignificant and localised. It is concluded that no significant effects on Natura 2000 sites will occur due to the proposed development in combination with other projects. No in-combination effects are foreseen.

No significant effects are likely from in-combination effects

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

Appropriate Assessment Screening Conclusions

An initial screening of the proposed works, using the precautionary principle (without the use of any standard construction phase controls or 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 features of interest of the Natura 2000 sites was carried out in Table 2. 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 within 15km in addition to sites beyond 15km with a direct/indirect pathway:

Special Areas of Conservation

- IE002122 Wicklow Mountains SAC
- IE001209 Glenasmole Valley SAC
- IE000725 Knocksink Wood SAC
- IE003000 Rockabill to Dalkey Island SAC
- IE000713 Ballyman Glen SAC
- IE000202 Howth Head SAC
- IE000199 Baldoyle Bay SAC
- IE000714 Bray Head SAC

Special Protection Areas

- IE004040 Wicklow Mountains SPA
- IE004172 Dalkey Islands SPA
- IE004016 Baldoyle Bay SPA

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 because it cannot be excluded on the basis of best objective scientific information following screening, in the absence of control or mitigation measures 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. Mitigation measures are required to protect 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.

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 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 a significant effect on the European Site/s.

A Natura Impact Statement is required for the proposed development.

Stage 2: Natura Impact Statement

A Natura Impact Statement (NIS) is Stage 2 of the Appropriate Assessment process. In the case of the proposed amendment application to a permitted development (ACP Reg. Ref.:312170-21) at Marmalade Lane, Wyckham Avenue, Dublin 16, 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 downstream impacts during construction and operation), 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. Mitigation measures are required to protect Natura 2000 sites downstream of the proposed work.

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.

A further review of the Conservation Objectives and features of interest is necessary to determine if significant effects are likely to impact 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.

Further Information on European Sites Screened In for NIS

South Dublin Bay SAC (Site code: 000210)

South Dublin Bay SAC is located 4.2 km from the planning boundary. Given that surface water will be discharged to the River Slang via the surface water drainage network to the west of the site, it is considered that, out of an abundance of caution, there is an indirect hydrological connection from the proposed development to this SAC. In the absence of mitigation, there is the potential for silt and contaminated surface water runoff from construction works and machinery to enter the River Slang and the River Dodder and significantly affect the qualifying interests of this SAC.

Site-specific data

As outlined in the South Dublin Bay SAC Site Synopsis³ (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 Dwarf 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. Furoid 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 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

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

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 bernicla 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 document⁵ (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.'

The Qualifying Interests (QI) (Features of Interest) and the National conservation status of the QI for Coole-South Dublin Bay SAC are seen in Table 4.

Table 4. Qualifying Interests, Conservation Status, Management Objectives, Conditions underpinning site integrity for South Dublin Bay SAC

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
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

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%20Supp%20Doc_V1.pdf

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

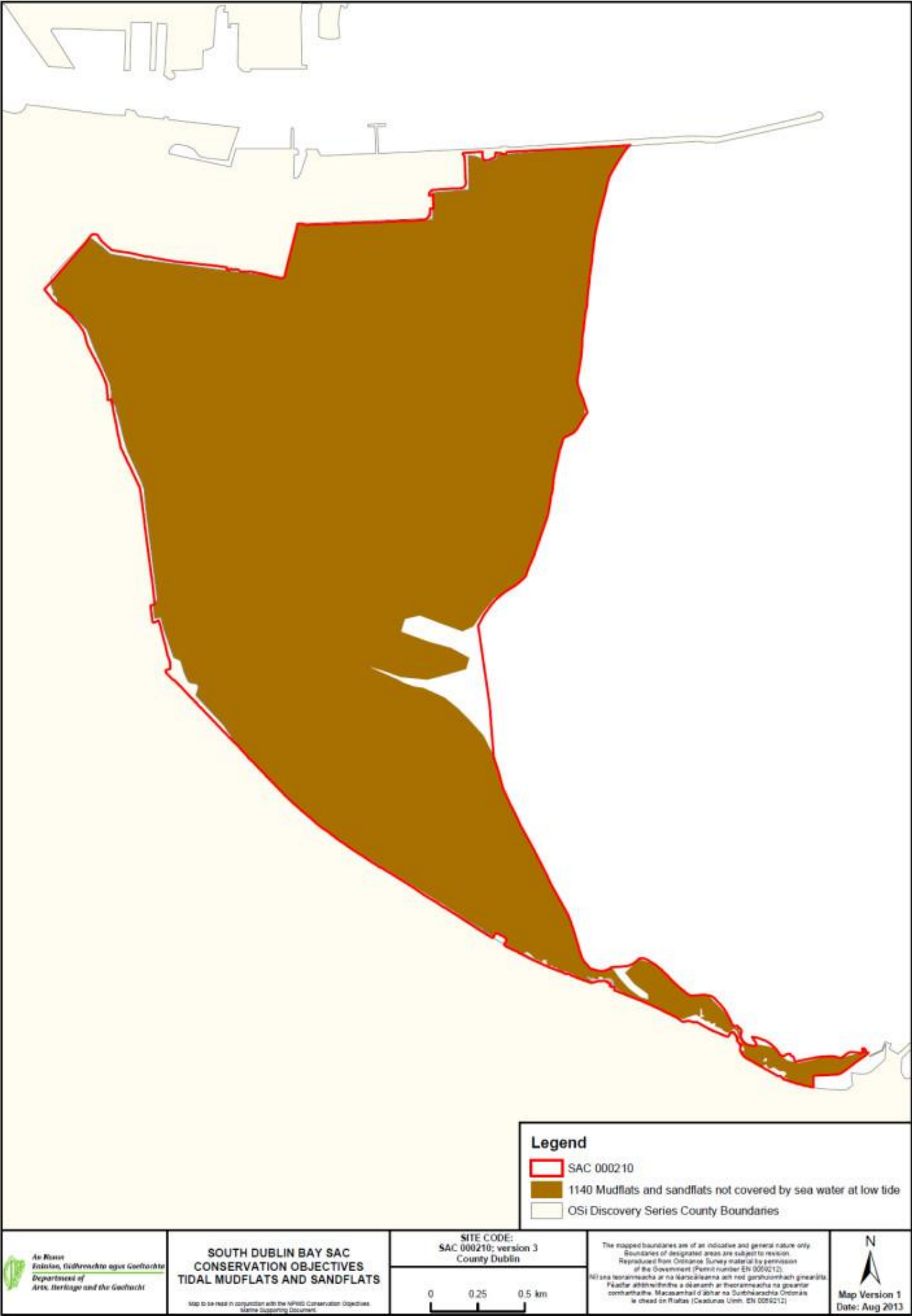


Figure 14. Tidal Mudflats and Sandflats in South Dublin Bay SAC

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

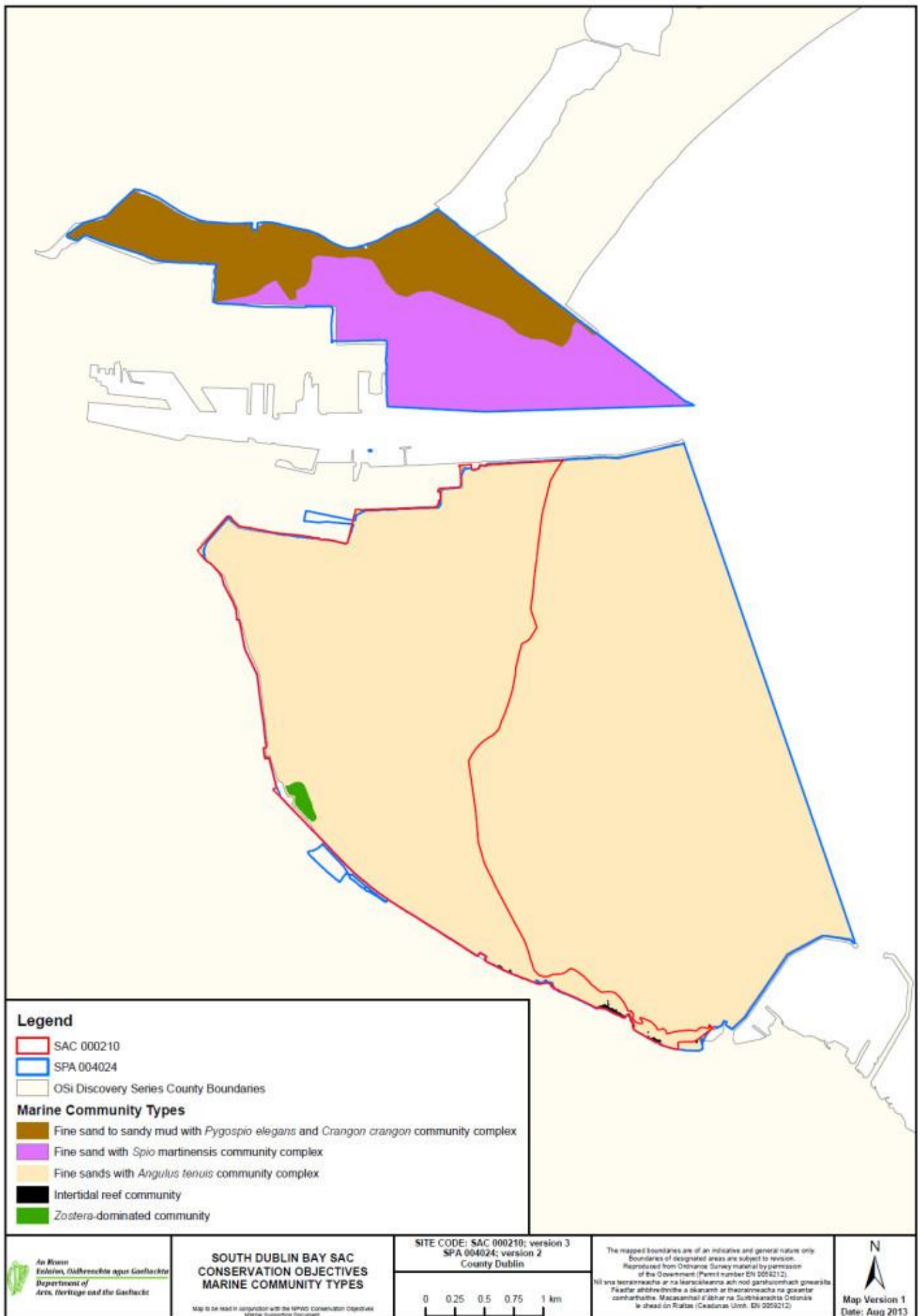


Figure 15. Marine Community Types in South Dublin Bay SAC

The attribute, measure and target of the site-specific Conservation Objectives for South Dublin Bay SAC are seen in Table 5.

Table 5. Attribute, measure and target of the site conservation objectives for South Dublin Bay SAC

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 <i>Zostera</i> -dominated community, subject to natural processes
Community structure: <i>Zostera</i> density	Shoots/m ²	Conserve the high quality of the <i>Zostera</i> -dominated community, subject to natural processes
Community distribution	Hectares	Conserve the following community types in a natural condition: Fine sands with <i>Angulus tenuis</i> community complex

North Dublin Bay SAC (Site code: 000206)

North Dublin Bay SAC is located 9.2 km from the planning boundary. Given that surface water will be discharged to the River Slang via the surface water drainage network to the west of the site, it is considered that, out of an abundance of caution, there is an indirect hydrological connection from the proposed development to this SAC. In the absence of mitigation, there is the potential for silt and contaminated surface water runoff from construction works and machinery to enter the River Slang and the River Dodder and significantly affect the qualifying interests of this SAC.

Site-specific data

As outlined in the North Dublin Bay SAC Site Synopsis⁶ (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

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

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 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 (*Centaureum 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 surrounding 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 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 (Juncetalia 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.'

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

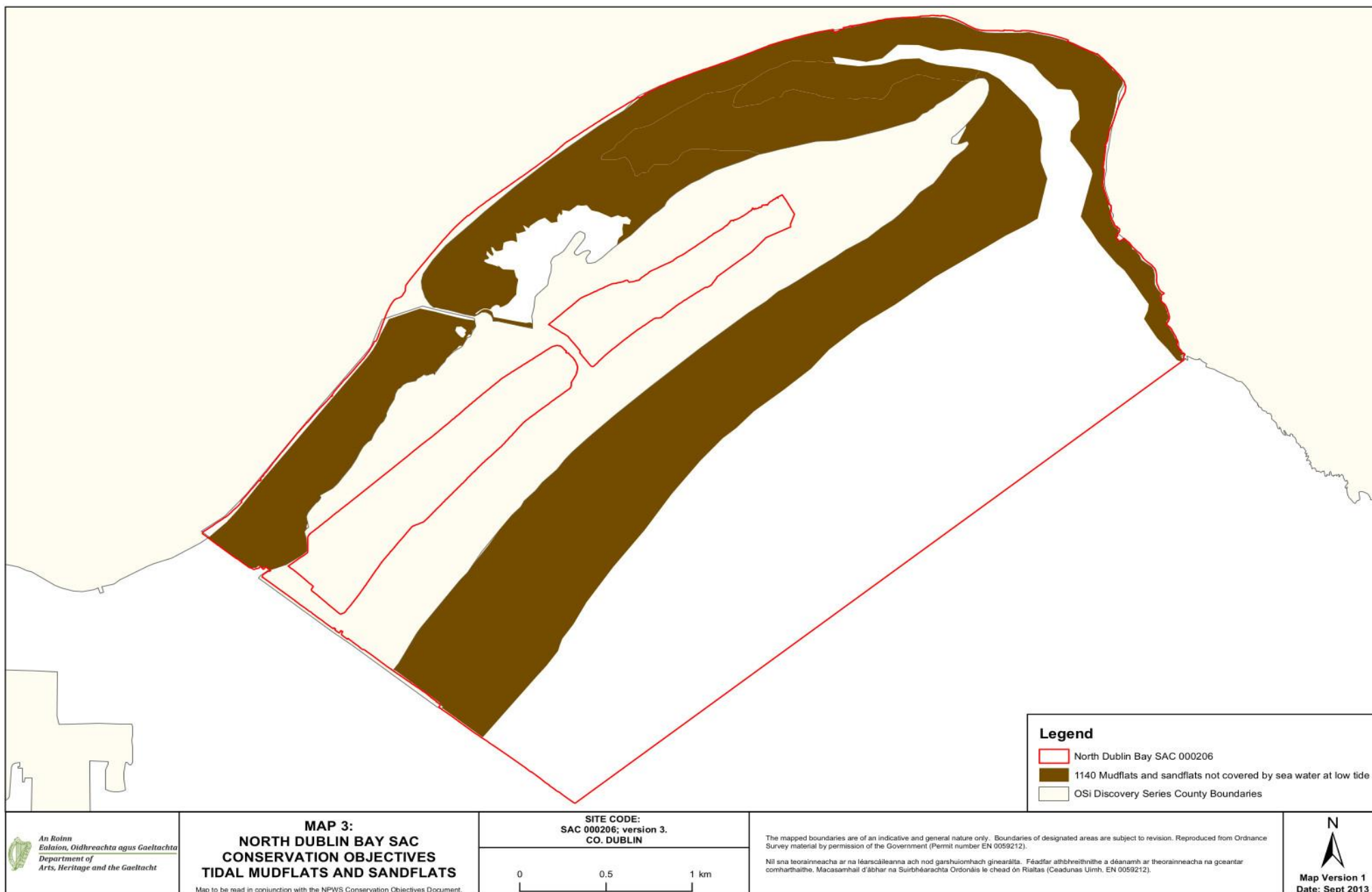


Figure 16. Tidal Mudflats and Sandflats in North Dublin Bay SAC

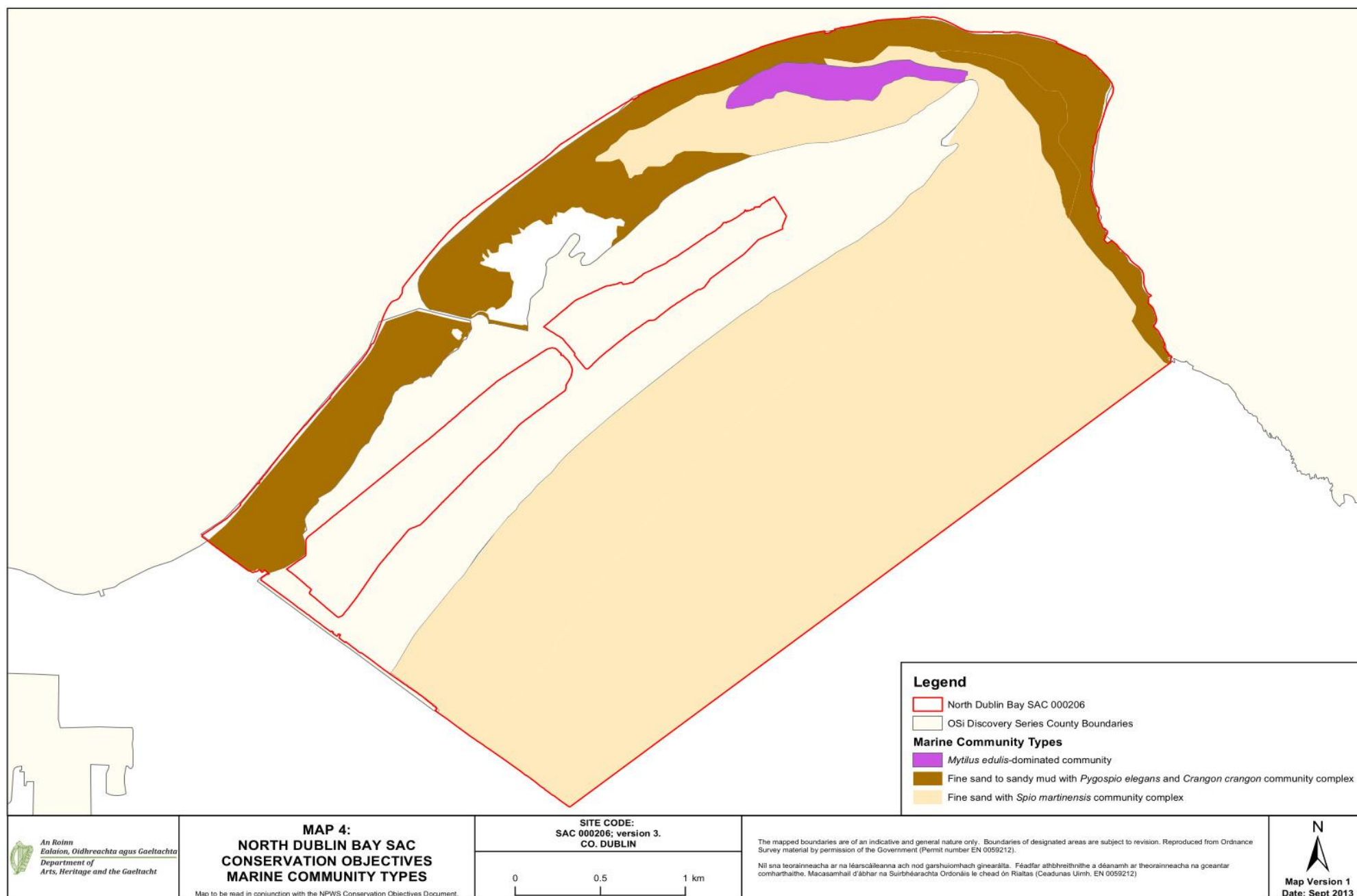


Figure 17. Marine Community Types in North Dublin Bay SAC

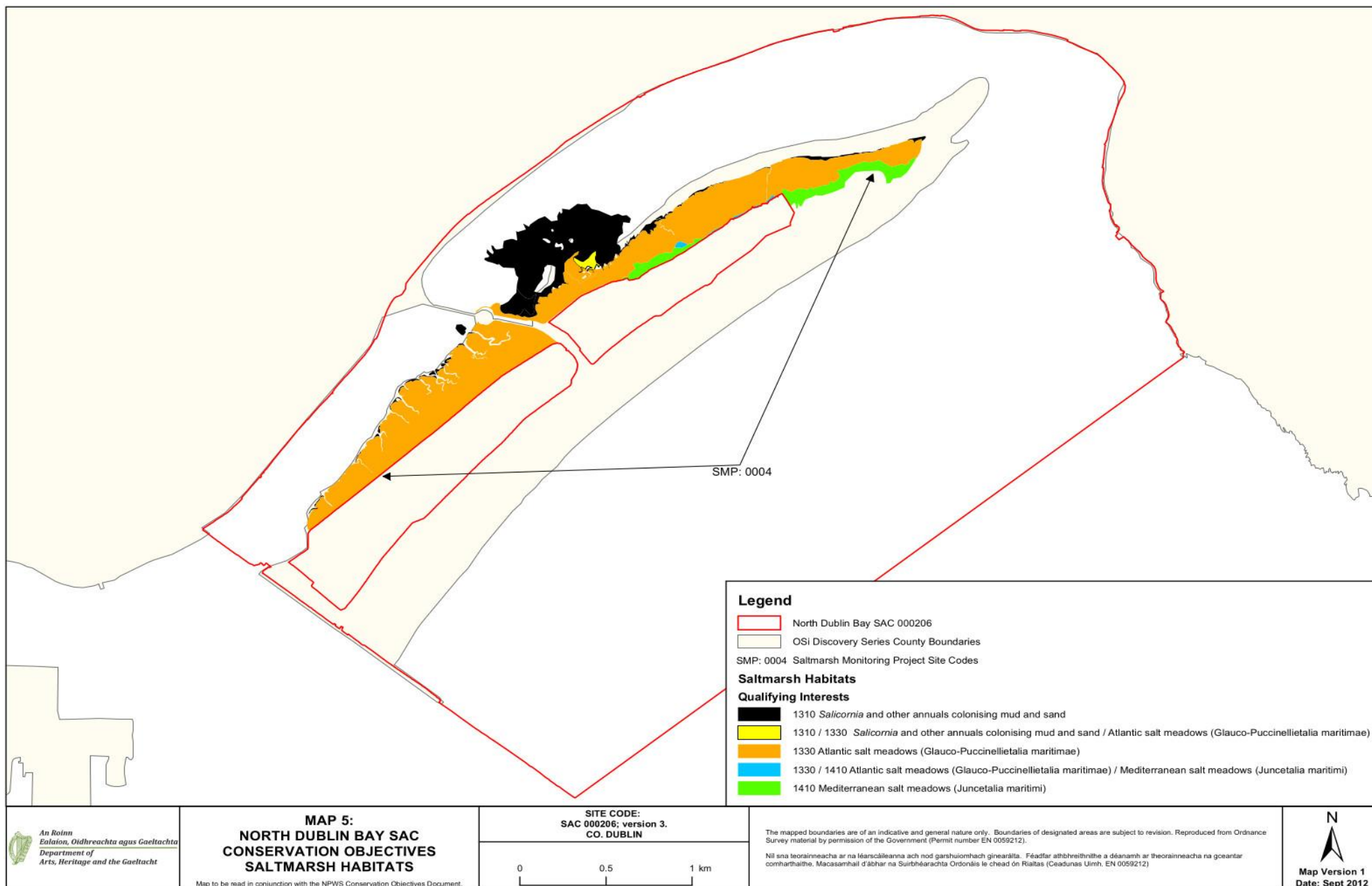


Figure 18. Saltmarsh Habitats in North Dublin Bay SAC

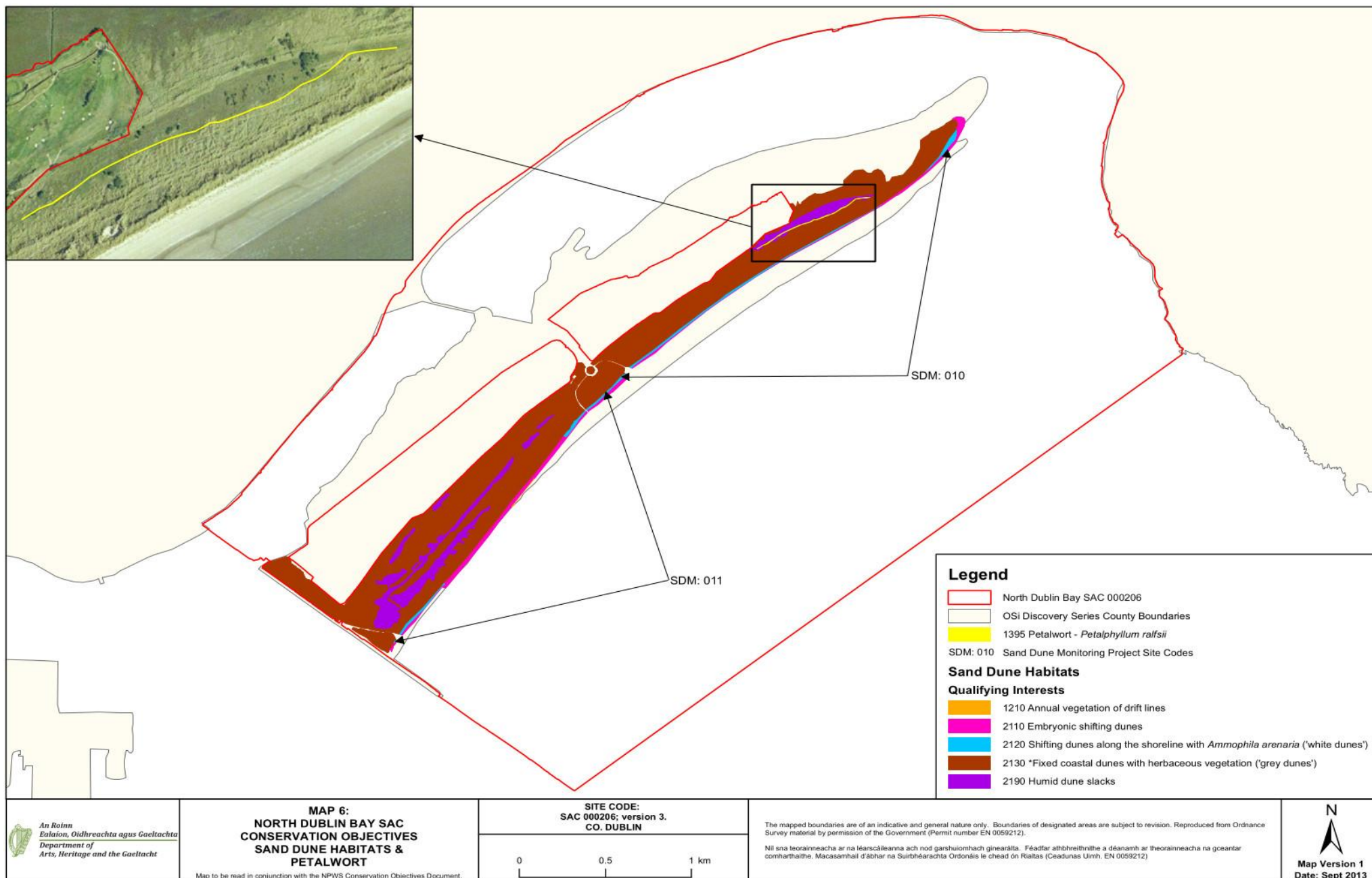


Figure 19. Sand Dune Habitats & Petalwort in North Dublin Bay SAC

The Qualifying Interests (QI) (Features of Interest) and the National conservation status of the QI for the North Dublin Bay SAC

Table 6. Qualifying Interests, Conservation Status, Management Objectives, Conditions underpinning site integrity for

Qualifying Interests, Conservation Status, Management Objectives, Conditions underpinning site integrity for relevant European sites		
European Site Name & Code	Qualifying Interests	Current Conservation Status & Trend
North Dublin Bay SAC (000206)	Mudflats and sandflats not covered by seawater at low tide [1140]	Inadequate
	Annual vegetation of drift lines [1210]	Inadequate
	Salicornia and other annuals colonising mud and sand [1310]	Favourable
	Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) [1330]	Inadequate
	Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410]	Inadequate
	Embryonic shifting dunes [2110]	Inadequate
	Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) [2120]	Inadequate
	Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130]	Bad
	Humid dune slacks [2190]	Inadequate
	Petalwort (<i>Petalophyllum ralfsii</i>) [1395]	Favourable

The attribute, measure and target of the site-specific Conservation Objectives for North Dublin Bay SAC are seen in Table 7.

Table 7. Attribute, measure and target of the site conservation objectives for North Dublin Bay SAC

North Dublin Bay SAC (000206)		
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 <i>Mytilus edulis</i> -dominated community, subject to natural processes
Community structure: <i>Mytilus edulis</i> density	Individuals/m ²	Conserve the high quality of the <i>Mytilus edulis</i> -dominated community, subject to natural processes
Community distribution	Hectares	Conserve the following community types in a natural condition: Fine sand to sandy mud with <i>Pygospio elegans</i> and <i>Crangon crangon</i> community complex; Fine sand with <i>Spio martinensis</i> 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)		
Habitat area	Hectares	The permanent habitat area is stable or increasing, subject to natural processes
Community extent	Hectares	Maintain the extent of the <i>Mytilus edulis</i> -dominated community, subject to natural processes
Community structure: <i>Mytilus edulis</i> density	Individuals/m ²	Conserve the high quality of the <i>Mytilus edulis</i> -dominated community, subject to natural processes
Community distribution	Hectares	Conserve the following community types in a natural condition: Fine sand to sandy mud with <i>Pygospio elegans</i> and <i>Crangon crangon</i> community complex; Fine sand with <i>Spio martinensis</i> 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 (<i>Cakile maritima</i>), sea sandwort (<i>Honckenya peploides</i>), prickly saltwort (<i>Salsola kali</i>) and oraches (<i>Atriplex</i> 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
Vegetation structure: zonation	Occurrence	Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession

North Dublin Bay SAC (000206)		
Attribute	Measure	Target
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 – <i>Spartina anglica</i>	Hectares	No significant expansion of common cordgrass (<i>Spartina anglica</i>), 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)
Vegetation structure: negative indicator species – <i>Spartina anglica</i>	Hectares	No significant expansion of common cordgrass (<i>Spartina anglica</i>), 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 – <i>Spartina anglica</i>	Hectares	No significant expansion of common cordgrass (<i>Spartina anglica</i>), with an annual spread of less than 1%.
Embryonic shifting dunes [2110] (Restore the favourable conservation condition)		

North Dublin Bay SAC (000206)		
Attribute	Measure	Target
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
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 (<i>Elytrigia juncea</i>) and/or lyme grass (<i>Leymus arenarius</i>) 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 (<i>Elytrigia juncea</i>) and/or lyme grass (<i>Leymus arenarius</i>)
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 <i>Ammophila arenaria</i> (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 (<i>Ammophila arenaria</i>) and/or lyme-grass (<i>Leymus arenarius</i>) 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 (<i>Ammophila arenaria</i>) and/or lyme-grass (<i>Leymus arenarius</i>)
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
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 <i>Hippophae rhamnoides</i>)	Percentage Cover	Negative indicator species (including non-native species) to represent less than 5% cover

North Dublin Bay SAC (000206)		
Attribute	Measure	Target
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 <i>Salix repens</i>	Percentage cover; centimetres	Maintain less than 40% cover of creeping willow (<i>Salix repens</i>)
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 (<i>Petalophyllum ralfsii</i>) [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 (Site code: 0004024)

South Dublin Bay and River Tolka Estuary SPA is located 4.2 km from the planning boundary. Given that surface water will be discharged to the River Slang via the surface water drainage network to the west of the site, it is considered that, out of an abundance of caution, there is an indirect hydrological connection from the proposed development to this SPA. In the absence of mitigation, there is the potential for silt and contaminated surface water runoff from construction works and machinery to enter the River Slang and the River Dodder and significantly affect the qualifying interests of this SPA.

Site-specific data

As outlined in the site synopsis (NPWS, version date 30.5.2015)⁸:

'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 thixotropic 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

⁸ <https://www.npws.ie/sites/default/files/protected-sites/synopsis/SY000238.pdf>

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 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 (2021)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 thixotropic 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 Document¹⁰ (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.

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](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)

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.

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 increasing¹¹. 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).'

The Special Conservation Interests (SCI) (Features of Interest) and the National conservation status of the SCI for South Dublin Bay and River Tolka Estuary SPA are seen in Table 8.

Table 8. *Special Conservation Interests, Conservation Status, Management Objectives, Conditions underpinning site integrity for South Dublin Bay and River Tolka Estuary SPA.*

Special Conservation Interests, Conservation Status, Management Objectives, Conditions underpinning site integrity for relevant European sites		
European Site Name & Code	Special Conservation Interests	Current Conservation Status & Trend
South Dublin Bay and River Tolka Estuary SPA (004024)	Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046]	Amber
	Oystercatcher (<i>Haematopus ostralegus</i>) [A130]	Amber
	Ringed Plover (<i>Charadrius hiaticula</i>) [A137]	Green
	Grey Plover (<i>Pluvialis squatarola</i>) [A141]	Amber
	Knot (<i>Calidris canutus</i>) [A143]	Amber
	Sanderling (<i>Calidris alba</i>) [A144]	Green
	Dunlin (<i>Calidris alpina</i>) [A149]	Red
	Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157]	Amber
	Redshank (<i>Tringa totanus</i>) [A162]	Red
	Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179]	Red
	Roseate Tern (<i>Sterna dougallii</i>) [A192]	Amber
	Common Tern (<i>Sterna hirundo</i>) [A193]	Amber
	Arctic Tern (<i>Sterna paradisaea</i>) [A194]	Amber
	Wetland and Waterbirds [A999]	N/A

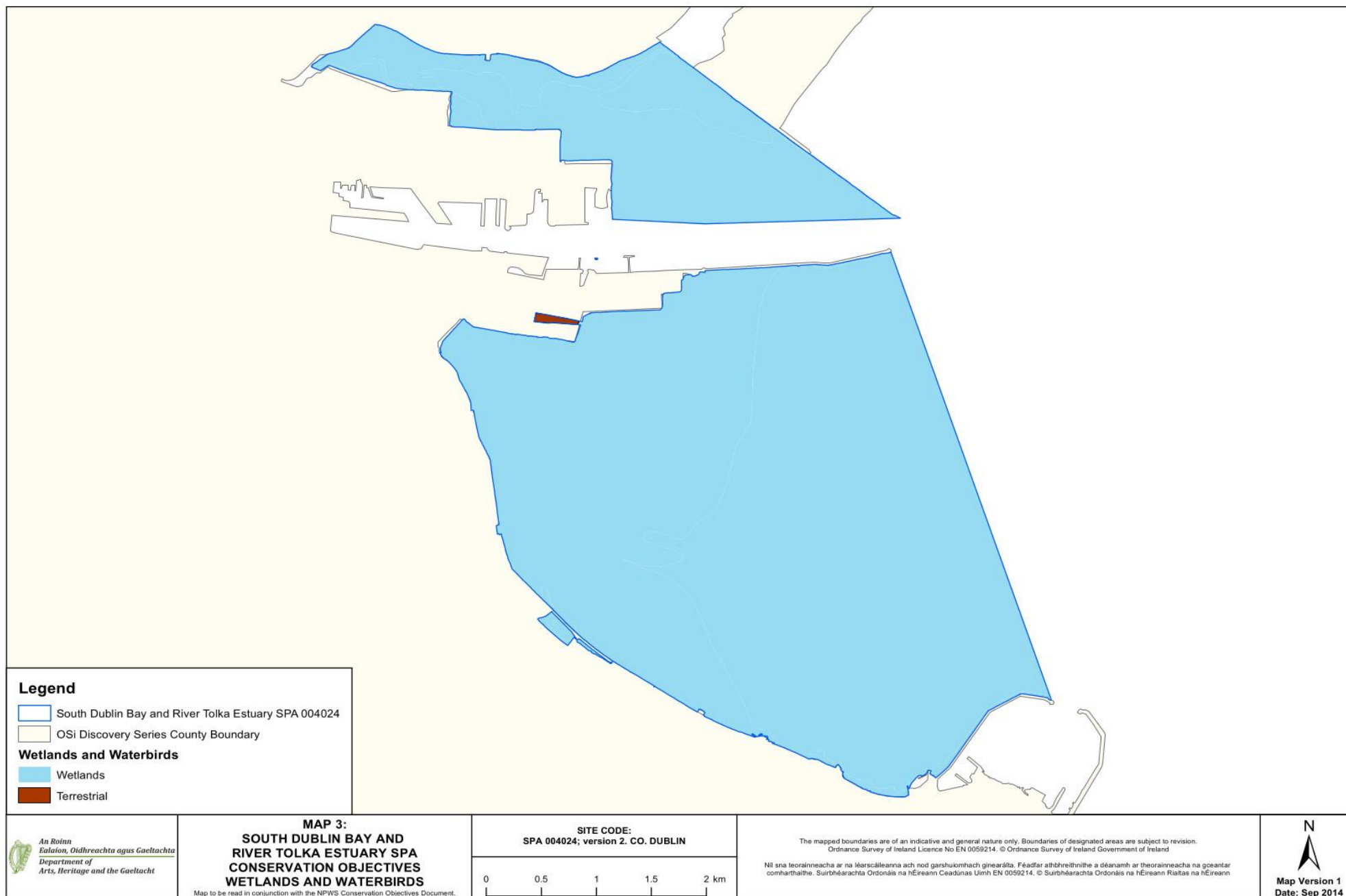


Figure 20. Wetland Habitats in South Dublin Bay and River Tolka Estuary SPA

Table 9. Attribute, measure and target of the site conservation objectives for South Dublin Bay and River Tolka Estuary SPA

South Dublin Bay and River Tolka Estuary SPA (004024)		
Attribute	Measure	Target
Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046], Oystercatcher (<i>Haematopus ostralegus</i>) [A130], Ringed Plover (<i>Charadrius hiaticula</i>) [A137], Knot (<i>Calidris canutus</i>) [A143], Sanderling (<i>Calidris alba</i>) [A144], Dunlin (<i>Calidris alpina alpina</i>) [A149], Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157], Redshank (<i>Tringa totanus</i>) [A162], Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179] (Maintain the favourable conservation condition) Note: Grey Plover (<i>Pluvialis squatarola</i>) [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 <i>Sterna dougallii</i> [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 <i>Sterna hirundo</i> [A193]		
Breeding population abundance: apparently occupied nests (AONs)	Breeding population abundance: apparently occupied nests (AONs)	Breeding population abundance: apparently occupied nests (AONs)
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 <i>Sterna paradisaea</i> [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 (Site code: 0004006)

North Bull Island SPA is located 7.9 km from the planning boundary. Given that surface water will be discharged to the River Slang via the surface water drainage network to the west of the site, it is considered that, out of an abundance of caution, there is an indirect hydrological connection from the proposed development to this SPA. In the absence of mitigation, there is the potential for silt and contaminated surface water runoff from construction works and machinery to enter the River Slang and the River Dodder and significantly affect the qualifying interests of this SPA.

Site-specific data

As outlined in the North Bull Island SPA Site Synopsis¹² (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

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

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, 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 bernicla 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 Document¹⁴ (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

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

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 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.'

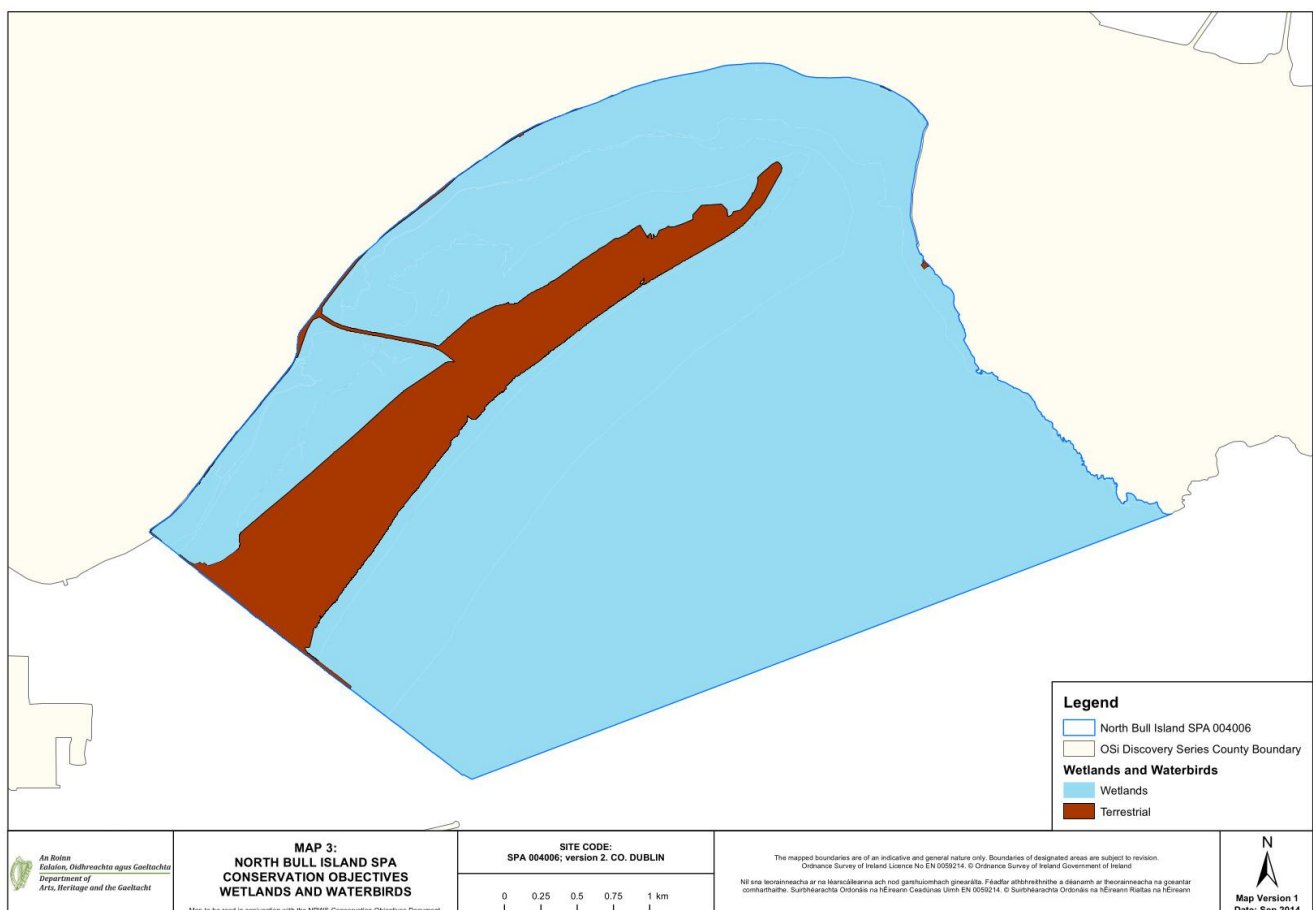


Figure 21. Wetland Habitats in North Bull Island SPA

The Special Conservation Interests (SCI) (Features of Interest) and the National conservation status of the SCI for North Bull Island SPA are seen in Table 10.

Table 10. *Special Conservation Interests, Conservation Status, Management Objectives, Conditions underpinning site integrity for North Bull Island SPA.*

Special Conservation Interests, Conservation Status, Management Objectives, Conditions underpinning site integrity for relevant European sites		
European Site Name & Code	Special Conservation Interests	Current Conservation Status & Trend
North Bull Island SPA (004006)	Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046]	Amber
	Shelduck (<i>Tadorna tadorna</i>) [A048]	Amber
	Teal (<i>Anas crecca</i>) [A052]	Amber
	Pintail (<i>Anas acuta</i>) [A054]	Red
	Shoveler (<i>Anas clypeata</i>) [A056]	Red
	Oystercatcher (<i>Haematopus ostralegus</i>) [A130]	Amber
	Golden Plover (<i>Pluvialis apricaria</i>) [A140]	Red
	Grey Plover (<i>Pluvialis squatarola</i>) [A141]	Amber
	Knot (<i>Calidris canutus</i>) [A143]	Amber
	Sanderling (<i>Calidris alba</i>) [A144]	Green
	Dunlin (<i>Calidris alpina</i>) [A149]	Red
	Black-tailed Godwit (<i>Limosa limosa</i>) [A156]	Amber
	Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157]	Amber
	Curlew (<i>Numenius arquata</i>) [A160]	Red
	Redshank (<i>Tringa totanus</i>) [A162]	Red
	Turnstone (<i>Arenaria interpres</i>) [A169]	Green
	Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179]	Red
	Wetland and Waterbirds [A999]	N/A

Table 11. Attribute, measure and target of the site conservation objectives for North Bull Island SPA

North Bull Island SPA (004006)		
Attribute	Measure	Target
Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046], Shelduck (<i>Tadorna tadorna</i>) [A048], Teal (<i>Anas crecca</i>) [A052], Pintail (<i>Anas acuta</i>) [A054], Shoveler (<i>Anas clypeata</i>) [A056], Oystercatcher (<i>Haematopus ostralegus</i>) [A130], Golden Plover (<i>Pluvialis apricaria</i>) [A140], Grey Plover (<i>Pluvialis squatarola</i>) [A141], Knot (<i>Calidris canutus</i>) [A143], Sanderling (<i>Calidris alba</i>) [A144], Dunlin (<i>Calidris alpina alpina</i>) [A149], Black-tailed Godwit (<i>Limosa limosa</i>) [A156], Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157], Curlew (<i>Numenius arquata</i>) [A160], Redshank (<i>Tringa totanus</i>) [A162], Turnstone (<i>Arenaria interpres</i>) [A169], Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179] (Maintain the favourable conservation condition)		
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
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 (Site code: 004236)

North-West Irish Sea SPA is located 9.2 km from the planning boundary. Given that surface water will be discharged to the River Slang via the surface water drainage network to the west of the site, it is considered that, out of an abundance of caution, there is an indirect hydrological connection from the proposed development to this SPA. In the absence of mitigation, there is the potential for silt and contaminated surface water runoff from construction works and machinery to enter the River Slang and the River Dodder and significantly affect the qualifying interests of this SPA.

Site-specific data

As outlined in the North-West Irish Sea SPA Site Synopsis¹⁵ (NPWS, version date 17.07.2023)

'The North-west Irish Sea SPA 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/SY004006.pdf>

Table 12. Special Conservation Interests, Conservation Status, Management Objectives, Conditions underpinning site integrity for North-West Irish Sea SPA.

Special Conservation Interests, Conservation Status, Management Objectives, Conditions underpinning site integrity for relevant European sites		
Natura 2000 Site Name & Code	Special Conservation Interests	Current Conservation Status & Trend
North-West Irish Sea SPA (004236)	Common Scoter (<i>Melanitta nigra</i>) [A065]	Red
	Red-throated Diver (<i>Gavia stellata</i>) [A001]	Amber
	Great Northern Diver (<i>Gavia immer</i>) [A003]	Amber
	Fulmar (<i>Fulmarus glacialis</i>) [A009]	Amber
	Manx Shearwater (<i>Puffinus puffinus</i>) [A013]	Amber
	Cormorant (<i>Phalacrocorax carbo</i>) [A017]	Amber
	Little Tern (<i>Sterna albifrons</i>) [A195]	Amber
	Kittiwake (<i>Rissa tridactyla</i>) [A188]	Red
	Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179]	Amber
	Common Gull (<i>Larus canus</i>) [A182]	Amber
	Lesser Black-backed Gull (<i>Larus fuscus</i>) [A183]	Amber
	Herring Gull (<i>Larus argentatus</i>) [A184]	Amber
	Roseate Tern (<i>Sterna dougallii</i>) [A192]	Amber
	Arctic Tern (<i>Sterna paradisaea</i>) [A194]	Amber
	Puffin (<i>Fratercula arctica</i>) [A204]	Red
	Razorbill (<i>Alca torda</i>) [A200]	Amber
	Guillemot (<i>Uria aalge</i>) [A199]	Amber
	Little Gull (<i>Hydrocoloeus minutus</i>) (A862)	Amber
	Common Tern (<i>Sterna hirundo</i>) (A193)	Amber

Analysis of the Potential Impact on European Sites

The proposed development is not within a designated conservation site. The nearest Natura 2000 sites are the South Dublin Bay SAC and South Dublin Bay and River Tolka Estuary SPA (4.2 km). Out of an abundance of caution, given the scale of the proposed development, the nature of the proposed works, the proximity of the subject site to an existing public surface water network that outfalls to the River Slang, and the fact that this watercourse network ultimately outfalls to the marine environment at Dublin Bay, it is considered that, in the absence of mitigation, there is the potential for silt and contaminated surface water runoff to enter the River Slang (via existing public surface water networks) and potentially give rise to significant effects on downstream Natura 2000 sites (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).

The potential effects on Natura 2000 sites are seen in Table 13. The proposed 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, pollution, and contaminated surface water runoff to the proximate River Slang (via existing public surface water networks) with the potential for effects on the 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.

Construction and operational phase mitigation measures are required on site, particularly as construction works are proposed which, in the absence of mitigation, could lead to silt laden and contaminated runoff entering the existing arterial drainage network to the west of the site and transport downstream to the River Slang, River Dodder, River Liffey, and the marine environment. Mitigation measures are required.

Mitigation Measures

Construction and operational mitigation will be incorporated into the proposed development project to minimise the potential negative impacts within the Zone of Influence (Zoi), including the the River Slang, River Dodder, River Liffey and downstream Natura 2000 Sites (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) (Table 14).

Table 13. Potential for adverse effects on the qualifying interests and conservation objectives of European sites

European Site & Site Code	Qualifying Interests / Special Conservation 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]	Without the presence of mitigation measures, there is a potential for downstream effects if significant quantities of pollution or silt were introduced into the proximate public surface water network 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 habitats and species that are of conservation interest would potentially be downstream of the proposed works. Onsite construction works have the potential to introduce silt, cement, hydrocarbons, wet concrete, and petrochemicals into the adjacent public surface water network with the potential for downstream impacts on aquatic biodiversity and the Qualifying Interests of this SAC. In the absence of mitigation measures, there is the potential for the proposed development 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 indirect pathways via the drainage network during construction and operation.
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 (<i>Glauco-Puccinellietalia maritima</i>) [1330] Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410] Embryonic shifting dunes [2110] Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) [2120]	Without the presence of mitigation measures, there is a potential for downstream effects if significant quantities of pollution or silt were introduced into the proximate public surface water network 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 habitats and species that are of conservation interest would potentially be downstream of the proposed works. Onsite construction works have the potential to introduce silt, cement, hydrocarbons, wet concrete, and petrochemicals into the adjacent public surface water network with the potential for downstream impacts on aquatic biodiversity and the Qualifying Interests of this SAC. In the absence of mitigation measures, there is the potential for the proposed development 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 (<i>Glauco-Puccinellietalia maritima</i>) [1330] • Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410] • Embryonic shifting dunes [2110]

Table 13. Potential for adverse effects on the qualifying interests and conservation objectives of European sites

	Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130] Humid dune slacks [2190] Petalwort (<i>Petalophyllum ralfsii</i>) [1395]	• Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) [2120] • Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130] • Humid dune slacks [2190] • Petalwort (<i>Petalophyllum ralfsii</i>) [1395] Mitigation measures are required to remove the potential of impacts on the SAC from indirect pathways via the drainage network during construction and operation.
South Dublin Bay and River Tolka Estuary SPA	Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046] Oystercatcher (<i>Haematopus ostralegus</i>) [A130] Ringed Plover (<i>Charadrius hiaticula</i>) [A137] Grey Plover (<i>Pluvialis squatarola</i>) [A141] Knot (<i>Calidris canutus</i>) [A143] Sanderling (<i>Calidris alba</i>) [A144] Dunlin (<i>Calidris alpina</i>) [A149] Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157] Redshank (<i>Tringa totanus</i>) [A162] Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179] Roseate Tern (<i>Sterna dougallii</i>) [A192] Common Tern (<i>Sterna hirundo</i>) [A193] Arctic Tern (<i>Sterna paradisaea</i>) [A194] Wetland and Waterbirds [A999]	Without the presence of mitigation measures, there is a potential for downstream effects if significant quantities of pollution or silt were introduced into the proximate public surface water network 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 habitats and species that are of conservational interest would potentially be downstream of the proposed works. Onsite construction works have the potential to introduce silt, cement, hydrocarbons, wet concrete, and petrochemicals into the adjacent public surface water network with the potential for downstream impacts on aquatic biodiversity and the SCIs of this SPA. Potential chemical spills can result in fish mortality and could affect feeding habitats for bird species that rely on the sand and mudflats downstream in Dublin Bay for food sources. In the absence of mitigation measures, there is the potential for the proposed development to impact on the distribution number and range of the following SCIs: • Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046] • Oystercatcher (<i>Haematopus ostralegus</i>) [A130] • Ringed Plover (<i>Charadrius hiaticula</i>) [A137] • Grey Plover (<i>Pluvialis squatarola</i>) [A141] • Knot (<i>Calidris canutus</i>) [A143] • Sanderling (<i>Calidris alba</i>) [A144] • Dunlin (<i>Calidris alpina</i>) [A149] • Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157] • Redshank (<i>Tringa totanus</i>) [A162] • Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179] • Roseate Tern (<i>Sterna dougallii</i>) [A192] • Common Tern (<i>Sterna hirundo</i>) [A193] • Arctic Tern (<i>Sterna paradisaea</i>) [A194]

Table 13. Potential for adverse effects on the qualifying interests and conservation objectives of European sites

		In particular, the introduction of fresh water into South Dublin Bay and River Tolka Estuary SPA via the proposed surface water drainage network may have significant effects on the conservation objectives of Light-bellied Brent Geese (<i>Branta bernicla hrota</i>) [A046]. The introduction of fresh water may impact on the growth of <i>Zostera</i> in the SPA, a critical food source for this bird species. Numbers of birds protected as SCIs of this Natura 2000 site that were observed on site were below the 1% level of the National population, thereby indicating that the site is not an important foraging site for these species (see Appendix I). Mitigation measures are required for the potential of impacts on the SPA.
North Bull Island SPA	Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046] Shelduck (<i>Tadorna tadorna</i>) [A048] Teal (<i>Anas crecca</i>) [A052] Pintail (<i>Anas acuta</i>) [A054] Shoveler (<i>Anas clypeata</i>) [A056] Oystercatcher (<i>Haematopus ostralegus</i>) [A130] Golden Plover (<i>Pluvialis apricaria</i>) [A140] Grey Plover (<i>Pluvialis squatarola</i>) [A141] Knot (<i>Calidris canutus</i>) [A143] Sanderling (<i>Calidris alba</i>) [A144] Dunlin (<i>Calidris alpina</i>) [A149] Black-tailed Godwit (<i>Limosa limosa</i>) [A156] Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157] Curlew (<i>Numenius arquata</i>) [A160] Redshank (<i>Tringa totanus</i>) [A162] Turnstone (<i>Arenaria interpres</i>) [A169] Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179] Wetland and Waterbirds [A999]	Without the presence of mitigation measures, there is a potential for downstream effects if significant quantities of pollution or silt were introduced into the proximate public surface water network 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 habitats and species that are of conservational interest would potentially be downstream of the proposed works. Onsite construction works have the potential to introduce silt, cement, hydrocarbons, wet concrete, and petrochemicals into the adjacent public surface water network with the potential for downstream impacts on aquatic biodiversity and the SCIs of this SPA. Potential chemical spills can result in fish mortality and could affect feeding habitats for bird species that rely on the sand and mudflats downstream in Dublin Bay for food sources. In the absence of mitigation measures, there is the potential for the proposed development to impact on the distribution number and range of the following SCIs: • Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046] • Shelduck (<i>Tadorna tadorna</i>) [A048] • Teal (<i>Anas crecca</i>) [A052] • Pintail (<i>Anas acuta</i>) [A054] • Shoveler (<i>Anas clypeata</i>) [A056] • Oystercatcher (<i>Haematopus ostralegus</i>) [A130] • Golden Plover (<i>Pluvialis apricaria</i>) [A140] • Grey Plover (<i>Pluvialis squatarola</i>) [A141] • Knot (<i>Calidris canutus</i>) [A143] • Sanderling (<i>Calidris alba</i>) [A144] • Dunlin (<i>Calidris alpina</i>) [A149] Numbers of birds protected as SCIs of this Natura 2000 site that were observed on site were below the 1% level of the National population, thereby indicating that the site is not an important foraging site for these species (see Appendix I). Mitigation measures are required for the potential of impacts on the SPA.

Table 13. Potential for adverse effects on the qualifying interests and conservation objectives of European sites

North-West Irish Sea SPA	Common Scoter (<i>Melanitta nigra</i>) [A065] Red-throated Diver (<i>Gavia stellata</i>) [A001] Great Northern Diver (<i>Gavia immer</i>) [A003] Fulmar (<i>Fulmarus glacialis</i>) [A009] Manx Shearwater (<i>Puffinus puffinus</i>) [A013] Cormorant (<i>Phalacrocorax carbo</i>) [A017] Little Tern (<i>Sterna albifrons</i>) [A195] Kittiwake (<i>Rissa tridactyla</i>) [A188] Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179] Common Gull (<i>Larus canus</i>) [A182] Lesser Black-backed Gull (<i>Larus fuscus</i>) [A183] Herring Gull (<i>Larus argentatus</i>) [A184] Roseate Tern (<i>Sterna dougallii</i>) [A192] Arctic Tern (<i>Sterna paradisaea</i>) [A194] Puffin (<i>Fratercula arctica</i>) [A204] Razorbill (<i>Alca torda</i>) [A200] Guillemot (<i>Uria aalge</i>) [A199] Little Gull (<i>Hydrocoloeus minutus</i>) (A862) Common Tern (<i>Sterna hirundo</i>) (A193)	Without the presence of mitigation measures, there is a potential for downstream effects if significant quantities of pollution or silt were introduced into the proximate public surface water network 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 habitats and species that are of conservational interest would potentially be downstream of the proposed works. Onsite construction works have the potential to introduce silt, cement, hydrocarbons, wet concrete, and petrochemicals into the adjacent public surface water network with the potential for downstream impacts on aquatic biodiversity and the SCIs of this SPA. Potential chemical spills can result in fish mortality and could affect feeding habitats for bird species that rely on the sand and mudflats downstream in Dublin Bay for food sources. In the absence of mitigation measures, there is the potential for the proposed development to impact on the distribution number and range of the following SCIs: • Common Scoter (<i>Melanitta nigra</i>) [A065] • Red-throated Diver (<i>Gavia stellata</i>) [A001] • Great Northern Diver (<i>Gavia immer</i>) [A003] • Fulmar (<i>Fulmarus glacialis</i>) [A009] • Manx Shearwater (<i>Puffinus puffinus</i>) [A013] • Cormorant (<i>Phalacrocorax carbo</i>) [A017] • Little Tern (<i>Sterna albifrons</i>) [A195] • Kittiwake (<i>Rissa tridactyla</i>) [A188] • Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179] • Common Gull (<i>Larus canus</i>) [A182] • Lesser Black-backed Gull (<i>Larus fuscus</i>) [A183] • Herring Gull (<i>Larus argentatus</i>) [A184] • Roseate Tern (<i>Sterna dougallii</i>) [A192] • Arctic Tern (<i>Sterna paradisaea</i>) [A194] • Puffin (<i>Fratercula arctica</i>) [A204] • Razorbill (<i>Alca torda</i>) [A200] • Guillemot (<i>Uria aalge</i>) [A199] • Little Gull (<i>Hydrocoloeus minutus</i>) (A862) • Common Tern (<i>Sterna hirundo</i>) (A193) Numbers of birds protected as SCIs of this Natura 2000 site that were observed on site were below the 1% level of the National population, thereby indicating that the site is not an important foraging site for these species (see Appenix I). Mitigation measures are required for the potential of impacts on the SPA.
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Table 14. Mitigation Measures.		
Sensitive Receptors	Potential Impacts	Mitigation
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 River Dodder River Slang River Liffey	- Habitat degradation - Dust deposition - Pollution - Silt ingress from site runoff - Downstream impacts - Negative impacts on the aquatic environment, aquatic species and qualifying interests.	The following mitigation measures will be implemented. The mitigation measures outlined below are consistent with those devised in the NIS prepared by Moore Group (2021) for the permitted parent planning application (ACP Reg. Ref.:312170-21): Construction Phase <u>'Protection of Surface Water</u> <i>Construction management measures including specific measures to prevent pollution of the Slang River will be incorporated into the CEMP, which will ensure that there are no likely effects on the receiving environment of the Dodder River, River Liffey or Dublin Bay from surface water runoff. These construction management measures include:-</i> <u>Fuel/Lubrixant spillage from equipment</u> <i>Chemicals used will be stored in sealed containers.</i> <i>Chemicals shall be applied in such a way as to avoid any spillage or leakage.</i> <i>All refuelling, oiling and greasing will take place above drip trays or on an impermeable surface which provides protection to underground strata and watercourses and away from drains and watercourses as far as reasonably practicable. Vehicles will not be left unattended during refuelling.</i> <i>It is proposed that the construction compound will be located within the site boundary.</i> <i>Storage areas, machinery depots and site offices will be located within the site boundary.</i> <i>Spill kits will be made available and all staff will be properly trained on correct use.</i> <i>All fuels, lubricants and hydraulic fluids required to be stored on site will be kept in secure bunded areas. The bunded area will accommodate 110% of the total capacity of the containers within it.</i> <i>Containers will be properly secured to prevent unauthorised access and misuse. An effective spillage procedure will be put in place with all staff properly briefed. Any waste oils or hydraulic fluids will be collected, stored in appropriate containers and disposed of offsite in an appropriate manner.</i> <i>All plant shall be well maintained with any fuel or oil drips attended to on an ongoing basis.</i> <i>Any minor spillage during this process will be cleaned up immediately.</i> <i>Should any incident occur, the situation will be dealt with and coordinated by the nearest supervisor who will be responsible for instructions by the Local Authority.</i>

Table 14. Mitigation Measures.

Sensitive Receptors	Potential Impacts	Mitigation
		<u>Concrete</u> • <i>Wet concrete and cement are very alkaline and corrosive and can cause serious pollution to watercourses. Disposal of raw or uncured waste concrete will be controlled during delivery or by removal by the contractor.</i> • <i>Careful management of bulk-liquid concrete will be implemented during the construction phase, including careful and controlled pouring and handling, secure shuttering / form-work and adequate curing times.</i> • <i>Wash water from cleaning ready mix concrete lorries and mixers may be contaminated with cement and is therefore highly alkaline, therefore, washing will not be permitted on site.'</i> Operational Phase <i>'The Proposed Development will be fully serviced with separate foul and storm sewers which will have adequate capacity for the facility likely discharge, as required by Irish Water licencing.</i> <i>The design of the Proposed Development will incorporate SuDS features in order to improve water quality and reduce the quantity of surface water discharging into the receiving system. The water supply network will include low flow devices with the aim of minimising water usage.</i> <i>It is noted that the design of the Proposed Development will also include a proposed oil/ petrol interceptor on the stormwater drainage infrastructure.</i> <i>The design of the Proposed Development will also incorporate a foul drainage system which, as per other urban developments in Dublin region, will outfall to the public sewer and will be treated at the Irish Water Ringsend WWTP prior to subsequent discharge following treatment to Dublin Bay. This WWTP is required to operate under an EPA licence and must meet environmental legislative requirements as set out in such licence.'</i>

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

A robust series of mitigation measures are outlined. These would ensure that water entering the public surface water drainage network and, by extension, the River Slang, River Dodder, and River Liffey is clean and uncontaminated and would not significantly impact on downstream Natura 2000 sites (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). With the successful implementation of the mitigation measures to limit surface water impacts on downstream watercourses, no significant impacts on Natura 2000 sites are foreseen from the construction and operation 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 the proximate Natura 2000 site.

The construction and operational 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 standard construction and operational phase controls as outlined above. No significant adverse impacts on the conservation objectives 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 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 impacts. These measures are to protect the surface water, which is the primary vector of impacts from the site, and to ensure that it is not impacted during construction and operation.

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' portal¹⁶;

Table 15. In-combination effects considered

DLRCC/ ABP Reg. Ref.	Address	Overview of Development
ABP321220	Karuna and Glenina, Sandyford Road, Dublin 18	Demolition of buildings for construction of a residential development comprising 13 houses and 60 apartments and all associated works
D24A/0797/ WEB	Saint Olafs National School, Balally Drive, Dundrum, Dublin 16, D16E067	All-weather pitch, gravel track, and associated works.
ABP313443	'Karuna' and 'Glenina', Sandyford Road, Dublin 18.	Demolition of dwellings known as 'Glenina' and 'Karuna'. construction of 137 no. apartments and associated site works.
D21A/0737	St Tiernans Community School (Roll No. 91343T), Parkvale, Balally, Dublin 16, The subject site adjoins the Gort Mhuire Centre (protected Structure) to the south (RPS Ref. 1453)	Permission for development on a site of c. 565 ha. The development will consist of alterations to a previously granted development for a two-storey primary school building (Ballinteer Educate Together National School- Roll no. 20400E), ref Board Order: ABP- 303041-18, Planning Register Ref No: D18A/0865. The alteration includes the addition of 100m2 of PV panels to the south facing pitched roof slope
ABP307683	Green Acres Convent, Drumahill House and the Long Acre, Upper Kilmacud Road, Dundrum, Dublin 14.	Provision of 54 no. additional apartments on previously permitted development of 253 no. apartments under ABP- 304469-19, increase in childcare facility and associated site works.
ABP304469	Greenacres, Longacre and Drumahill House, Upper Kilmacud Road, Dundrum, Dublin 14.	253 no. apartments and associated works.

There are no significant projects that have been granted planning or currently under construction, proximate to the development, that could potentially cause in combination effects on European sites. It should be noted that a SHD for the construction of 531 no. residential units, creche and associated site works has been granted on the proposed development site. This project submitted a Natura Impact Statement and detailed the mitigation measures that will be implemented. The proposed development supersedes the granted permission.

Given this, it is considered that in-combination effects with other existing and proposed developments in proximity to the application area would be unlikely, neutral, insignificant and localised. It is concluded that no significant effects on Natura 2000 sites will occur due to the proposed development in combination with other projects. No in-combination effects are foreseen.

No significant effects are likely from in-combination effects

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

Conclusion

It has been concluded that significant effects 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 are likely from the proposed works in the absence of mitigation measures, primarily as a result of the indirect hydrological connection to the site via surface water drainage. In the absence of mitigation, and out of an abundance of caution, there is the potential for dust, silt, and contaminants to enter a proximate surface water drainage network that ultimately outfalls to the River Slang. This watercourse in turn outfalls to the River Dodder, the River Liffey, and ultimately the marine environment at Dublin Bay and 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. 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 works will create localised noise disturbance that will not impact on Natura 2000 sites. Mitigation measures will be in place to ensure that there are no significant impacts on the surface water that leads to the marine environment.

A number of wintering bird assessments were carried out onsite (Appendices I & II). As detailed in Appendices I & II, the site is not of significance to wintering birds and is not an ex-situ site for wintering birds of proximate SPAs.

Following the implementation of the mitigation measures outlined, the construction and operation of the proposed development would not be deemed to adversely affect 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, alone in combination with other plans and projects. No significant adverse effects are likely on all other Natura 2000 sites, in the absence of mitigation, alone in combination with other plans and projects.

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.

On the basis of 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 Bing maps and satellite imagery.

References

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http://www.npws.ie/publications/archive/NPWS_2009_AA_Guidance.pdf
3. Managing NATURA 2000 Sites: the provisions of Article 6 of the Habitats Directive 92/43/EEC, European Commission 2000; http://ec.europa.eu/environment/nature/Natura2000/management/docs/art6/provision_of_art6_en.pdf
4. Assessment of Plans and Projects Significantly Affecting NATURA 2000 Sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC;
http://ec.europa.eu/environment/nature/Natura2000management/docs/art6/Natura_2000_assess_en.pdf
5. 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; http://ec.europa.eu/environment/nature/Natura2000/management/docs/art6/guidance_art6_4_en.pdf
6. Guidance document on the implementation of the birds and habitats directive in estuaries and coastal zones with particular attention to port development and dredging;
http://ec.europa.eu/environment/nature/Natura2000/management/docs/guidance_doc.pdf
7. The Status of EU Protected Habitats and Species in Ireland.
http://www.npws.ie/publications/euconservationstatus/NPWS_2007_Conservation_Status_Report.pdf
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13. NPWS (2013) Conservation Objectives: Rockabill to Dalkey Island SAC 003000. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
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16. NPWS (2012) Conservation Objectives: Baldoye Bay SAC 000199. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
17. NPWS (2017) Conservation Objectives: Bray Head SAC 000714. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.
18. NPWS (2015) Conservation Objectives: South Dublin Bay and River Tolka Estuary SPA 004024. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
19. NPWS (2024) Conservation Objectives: Wicklow Mountains SPA 004040. Version 1. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage.
20. NPWS (2015) Conservation Objectives: North Bull Island SPA 004006. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
21. NPWS (2023) Conservation Objectives: North-west Irish Sea SPA 004236. Version 1. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage.
22. NPWS (2024) Conservation Objectives: Dalkey Islands SPA 004172. Version 1. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage.
23. NPWS (2013) Conservation Objectives: Baldoye Bay SPA 004016. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.



Wintering Bird Assessment for a Proposed Amendment Application to a Permitted Development (ACP Reg. Ref. 312170-21) at Marmalade Lane, Wyckham Avenue, Dublin 16.



22nd October 2025

Prepared by: Bryan Deegan (MCIEEM) of Altamar Ltd.
On behalf of: 1 Wyckham Land Limited

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Document Control Sheet			
Client	1 Wyckham Land Limited		
Project	Wintering Bird Assessment for a proposed amendment application to a permitted development (ACP Reg. Ref.:312170-21) at Marmalade Lane, Wyckham Avenue, Dublin 16.		
Report	Wintering Bird Assessment		
Date	22 nd October 2025		
Version	Author	Reviewed	Date
Final	Bryan Deegan	Gayle O'Farrell	22 nd October 2025

Summary

Structure/features:	In November 2024, the survey area consisted of grassland bounded by perimeter trees. Site clearance and construction work for the permitted SHD (ACP Reg. Ref.:312170-21) commenced in early 2025. The majority of the site is currently comprised of bare ground, built land, and an active construction site.
Location:	Marmalade Lane, Wyckham Avenue, Dublin 16.
Bird species present:	Blackbird, black-headed gull, blue tit, buzzard, Canada goose, chaffinch, coal tit, dunnock, goldfinch, great spotted woodpecker, great tit, greenfinch, herring gull, hooded crow, jackdaw, linnet, magpie, robin, rook, song thrush, woodpigeon, wren.
Proposed work:	Residential Development.
Surveys by:	Gayle O'Farrell (BSc Agri-Environmental Science).
Survey dates:	08 th November 2024, 13 th November 2024, 29 th November 2024, 22 nd January 2025, 14 th March 2025.



Figure 1. Wintering bird survey areas.

Competency of assessor

Since its inception in 2001, Altamar 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 (MCIEEM, BSc Applied Marine Biology, MSc Environmental Science)

Bryan Deegan, the managing director of Altamar, 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 lead project ecologist for Project Pembroke and was 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).

Gayle O'Farrell (BSc Agri-Environmental Sciences)

Gayle O'Farrell (BSc (Hons.) Agri-Environmental Sciences) is a skilled ornithological surveyor and has led a number of breeding / wintering bird surveys for a wide range of residential, industrial and commercial projects across Ireland. Gayle is also skilled in bat detection through static detector surveys, dusk emergence, and dawn re-entry surveys, experienced in habitat assessment, terrestrial mammal, and flora/invasive species surveys to produce numerous ecological assessments.

Legislative context

The Wildlife Act 1976 protects wild birds in Ireland. Based on this legislation it is an offence to wilfully interfere with or destroy wild birds and their nests and eggs (other than the wild species mentioned in the Third Schedule of this Act). Under this legislation it is an offence for any person who *"wilfully takes or removes the eggs or nest of a protected wild bird otherwise than under and in accordance with such a licence, wilfully destroys, injures or mutilates the eggs or nest of a protected wild bird, wilfully disturbs a protected wild bird on or near a nest containing eggs or unflown young."*

Habitats Directive- Council Directive 92/43/EEC 1992 on the conservation of natural habitats and of wild fauna and flora has been transposed into Irish Law, including, via, *inter alia*, the European Communities (Birds and Natural Habitats) Regulations 2011 (as amended).

Council Directive 2009/147/EC 2010 on the conservation of wild birds provides for the conservation of wild birds by, among other things, classifying important ornithological sites as Special Protection Areas. The Directive relates to the conservation of all species of naturally occurring birds in the wild state, their eggs, nests and habitats in the European territory of the Member States. The Directive prohibits in particular:

- deliberate killing or capture by any method;
- deliberate destruction of, or damage to, their nests and eggs or removal of their nests;
- taking their eggs in the wild and keeping these eggs even if empty;
- deliberate disturbance of these birds particularly during the period of breeding and rearing, in so far as disturbance would be significant having regard to the objectives of this Directive;
- keeping birds of species the hunting and capture of which is prohibited.

Under the European Communities (Birds and Natural Habitats) Regulations 2011 (as amended), notwithstanding any consent, statutory or otherwise, given to a person by a public authority or held by a person, except in accordance with a licence granted by the Minister under Regulation 54, a person who in respect of the species referred to in Part 1 of the First Schedule:

- deliberately captures or kills any specimen of these species in the wild,
- deliberately disturbs these species particularly during the period of breeding, rearing, hibernation and migration,
- deliberately takes or destroys eggs of those species from the wild,
- damages or destroys a breeding site or resting place of such an animal, or

- keeps, transports, sells, exchanges, offers for sale or offers for exchange any specimen of these species taken in the wild, other than those taken legally as referred to in Article 12(2) of the Habitats Directive, shall be guilty of an offence.

Wintering bird surveys

This report presents the methodology and results of 5 visits to lands at Marmalade Lane, Wyckham Avenue, Dublin 16 by Gayle O'Farrell from November 2024 to March 2025.

Survey methodology

Wintering bird surveys were carried out over the entire wintering bird season on lands at Marmalade Lane, Wyckham Avenue, Dublin 16 in order to gather baseline data to assist in assessing the potential impacts on wintering birds from future proposed developments on the site, in particular those listed as Qualifying Interests of SPAs within 15 km and other amber/red-listed birds of conservation concern in Ireland (BoCCI). Potential impacts on wintering bird species include disturbance, destruction of foraging areas, destruction of roosting areas and collision risk during construction and operation (cranes, buildings etc.). These wintering bird surveys were carried out based on the BTO Common Bird Census (Bibby *et al.*, 2000 and Gilbert *et al.*, 1998) and I-WeBS Counter Manual: Guidelines for Irish Wetland Bird Survey counters (BWI & NPWS), following CIEEM guidelines.

A 15-minute settlement period was given following arrival to allow resumption of bird activity after any possible disturbance caused by arrival to the site. Various features such as grassland and trees were present within the survey area during the November 2024 surveys. It should be noted that site clearance and construction work for the permitted SHD (ACP Reg. Ref.:312170-21) commenced in early 2025. The majority of the site is currently comprised of bare ground, built land, and an active construction site. A roving transect survey around the perimeter was carried out on each occasion, providing clear views of all areas within and over that survey area. One vantage point provided unobstructed views across the site (Figure 2). Flight lines, large flights, foraging, etc. and any other observed behaviour by wintering bird species and other species observed within, over and immediately adjacent to the survey area were recorded. Each survey was carried out by a single surveyor.

A pair of binoculars were used by the surveyor to identify and count birds at distance.

Care was taken not to double count any observations. Surveys were initiated at varying times (morning/midday/afternoon). Local temperatures varied from 8 – 13°C. Winds varied from 1 – 2 on the Beaufort scale. Weather conditions were suitable on all occasions.

Peak counts for the survey area were compared to 1% national and international population sizes of relevant species for which data was available. Foraging areas, flight paths, large flights and other observations were mapped according to field sheet records.



Figure 2. Survey area and vantage point

Survey results/discussion

Habitats of wintering bird potential

A desk and ground level wintering bird habitat assessment were carried and used to examine the structures, features and vegetation on site that could provide wintering bird habitat. Potential features associated with foraging/roosting include agricultural fields, improved/amenity grassland, scrub, watercourses and drainage ditches, estuaries and intertidal zones. All open areas, vegetated areas, built areas and water-holding features within and immediately adjacent to the site were assessed for wintering bird potential.

In November 2024, the survey area consisted of grassland bounded by perimeter trees. Site clearance and construction work for the permitted SHD (ACP Reg. Ref.:312170-21) commenced in early 2025. The majority of the site is currently comprised of bare ground, built land, and an active construction site.

Prior to site clearance and construction work commencing in 2025, grassland onsite provided a habitat of minor foraging value for wintering birds. No buildings or structures were present within the survey area that may provide breeding habitat for gull species, although buildings/structures in the surrounding area may facilitate this. The site is within 5km of South Dublin Bay and River Tolka Estuary SPA, and so there is the potential for Special Conservation Interests of this SPA to utilise and/or fly over the site.

Wintering bird activity survey

A total of 21 species were recorded within, above and adjacent to the survey area across 5 surveys. 16 green and 5 amber species of conservation concern were recorded either within, over and adjacent to the overall survey area. Details regarding the status, behaviour and abundances of species recorded on/over/adjacent to the site relevant to the conservation interests of Special Protected Areas (SPAs) are discussed below.

Black-headed gull (amber BoCCI) was observed in flight over, and foraging within, the survey area during one survey (Figures 3 & 4). A total of 8 observations of black-headed gull were made, totalling 17 no. individuals. Peak count was 17 individuals. A total of 10 no. individuals were observed foraging on grassland within the centre of the site (Figure 4). It should be noted that foraging activity for this species was recorded in November 2024. Site clearance and construction work for the permitted SHD (ACP Reg. Ref.:312170-21) commenced in early 2025. The majority of the site is currently comprised of bare ground, built land, and an active construction site. No further foraging activity for this species was recorded onsite in the January or March 2025 surveys. Black-headed gull is a Special Conservation Interest of the nearby South Dublin Bay and River Tolka Estuary SPA, North Bull Island SPA, and North-West Irish Sea SPA. The peak number is below 1% of the international population (table 2).

Herring gull (amber BoCCI) was observed in flight over, and foraging within, the survey area during four surveys (Figures 5 & 6). A total of 47 observations of herring gull were made, totalling 120 no. individuals. Peak count was 71 individuals. A total of 42 no. individuals were observed foraging on grassland within the centre of the site (Figure 6). It should be noted that foraging activity for this species was recorded in November 2024. Site clearance and construction work for the permitted SHD (ACP Reg. Ref.:312170-21) commenced in early 2025. The majority of the site is currently comprised of bare ground, built land, and an active construction site. No further foraging activity for this species was recorded onsite in the January or March 2025 surveys. Herring gull is a Special Conservation Interest of the nearby North-West Irish Sea SPA. The peak number is below 1% of the international population (table 2).

Table 1. Species recorded within the survey area.

Common name	BTO	Latin name	BoCCI
Blackbird	B.	<i>Turdus merula</i>	Green
Black-headed Gull	BH	<i>Larus ridibundus</i>	Amber
Blue Tit	BT	<i>Cyanistes caeruleus</i>	Green
Buzzard	BZ	<i>Buteo buteo</i>	Green
Canada Goose	CG	<i>Branta canadensis</i>	Green
Chaffinch	CH	<i>Fringilla coelebs</i>	Green
Coal Tit	CT	<i>Periparus ater</i>	Green
Dunnock	D.	<i>Prunella modularis</i>	Green
Goldfinch	GO	<i>Carduelis carduelis</i>	Amber
Great Spotted Woodpecker	GS	<i>Dendrocopos major</i>	Green
Great Tit	GT	<i>Parus major</i>	Green
Greenfinch	GF	<i>Carduelis chloris</i>	Amber
Herring Gull	HG	<i>Larus argentatus</i>	Amber
Hooded Crow	HC	<i>Corvus cornix</i>	Green
Jackdaw	JD	<i>Corvus monedula</i>	Green
Linnet	LI	<i>Linaria cannabina</i>	Amber
Magpie	MG	<i>Pica pica</i>	Green
Robin	R.	<i>Erithacus rubecula</i>	Green
Song Thrush	ST	<i>Turdus philomelos</i>	Green
Woodpigeon	WP	<i>Columba palumbus</i>	Green
Wren	WR	<i>Troglodytes troglodytes</i>	Green

Table 2. Peak counts of bird species recorded within the survey area.

Species	Peak count (2024/25)	1% national	1% international
Blackbird	4		
Black-headed Gull	17		>10,000
Blue Tit	3		
Buzzard	1		
Canada Goose	1		
Chaffinch	3		
Coal Tit	3		
Dunnock	2		
Goldfinch	7		
Great Spotted Woodpecker	2		
Great Tit	5		
Greenfinch	2		
Herring Gull	71		>1000
Hooded Crow	2		
Jackdaw	5		
Linnet	40		
Magpie	10		
Robin	7		
Song Thrush	1		
Woodpigeon	10		
Wren	6		



Figure 3. Black-headed gull flights.



Figure 4. Black-headed gull foraging (recorded November 2024)

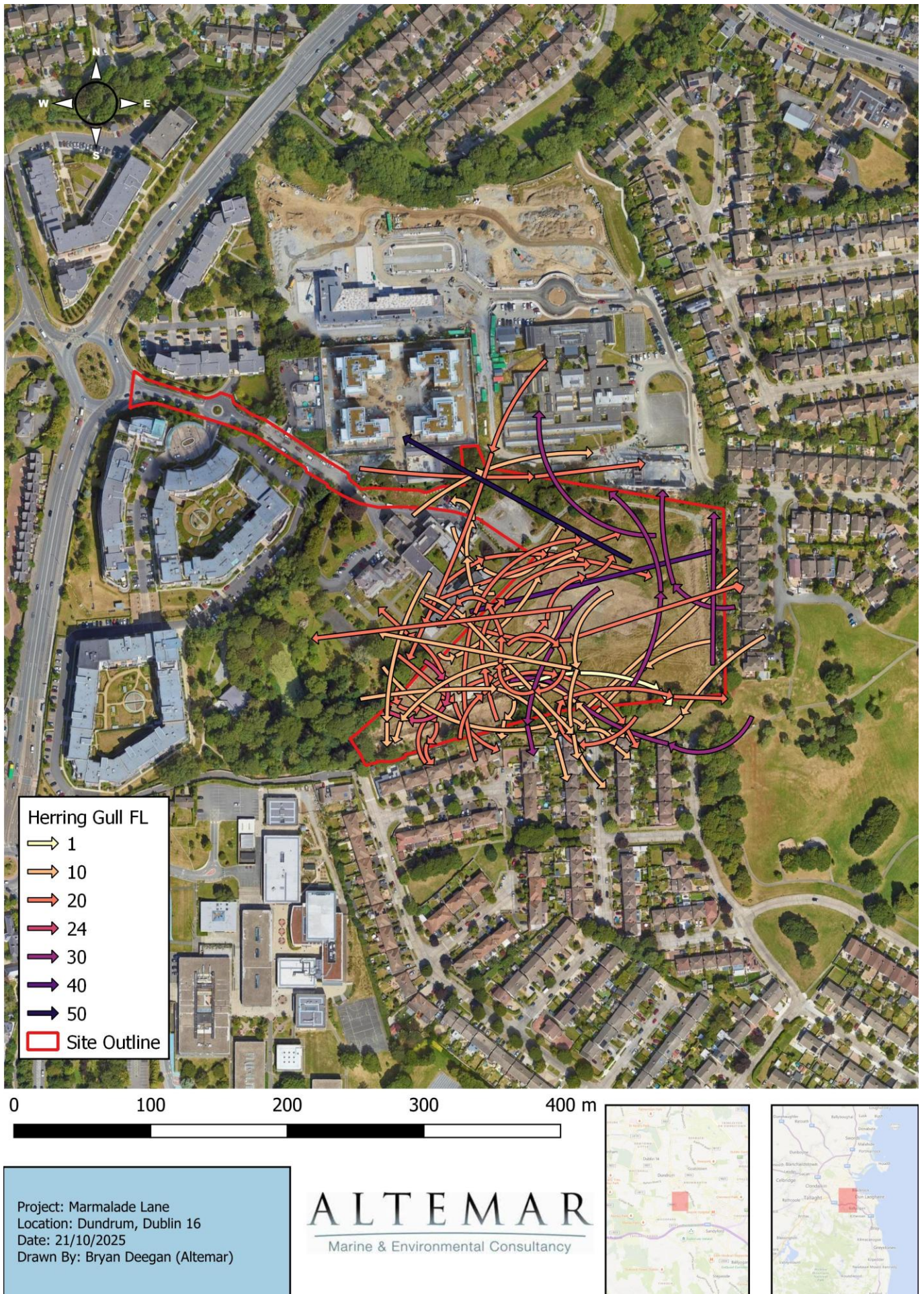


Figure 5. Herring gull flights



Project: Marmalade Lane
 Location: Dundrum, Dublin 16
 Date: 21/10/2025
 Drawn By: Bryan Deegan (Altamar)

ALTEMAR
 Marine & Environmental Consultancy

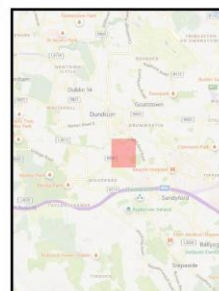


Figure 6. Herring gull foraging (recorded November 2024)

Wintering bird assessment findings

Review of local bird records

The review of existing bird records (sourced from NBDC Database) within a 2 km² grid (Reference grid O12T) encompassing the study area reveals that 50 bird species have previously been observed and recorded locally (Table 3).

Table 3: NBDC bird records within 2 km² grid (Ref. grid O12T)

Species name	Record count	Date of last record	Title of dataset
Blackbird (<i>Turdus merula</i>)	6	08/04/2020	Birds of Ireland
Blackcap (<i>Sylvia atricapilla</i>)	3	21/04/2021	Birds of Ireland
Black-headed Gull (<i>Chroicocephalus ridibundus</i>)	5	17/01/2019	Birds of Ireland
Blue Tit (<i>Cyanistes caeruleus</i>)	6	30/03/2019	Birds of Ireland
Bullfinch (<i>Pyrrhula pyrrhula</i>)	1	05/08/2009	Birds of Ireland
Buzzard (<i>Buteo buteo</i>)	2	29/09/2018	Birds of Ireland
Chaffinch (<i>Fringilla coelebs</i>)	3	15/01/2019	Birds of Ireland
Coal Tit (<i>Periparus ater</i>)	4	01/03/2018	Birds of Ireland
Collared Dove (<i>Streptopelia decaocto</i>)	3	31/12/2011	Bird Atlas 2007 - 2011
Common Gull (<i>Larus canus</i>)	1	11/10/2018	Birds of Ireland
Curlew (<i>Numenius arquata</i>)	1	08/12/2018	Birds of Ireland
Duncock (<i>Prunella modularis</i>)	3	31/12/2011	Bird Atlas 2007 - 2011
Fieldfare (<i>Turdus pilaris</i>)	2	17/01/2019	Birds of Ireland
Goldcrest (<i>Regulus regulus</i>)	3	14/03/2021	Birds of Ireland
Goldfinch (<i>Carduelis carduelis</i>)	7	20/04/2020	Birds of Ireland
Great Spotted Woodpecker (<i>Dendrocopos major</i>)	1	29/01/2021	Birds of Ireland
Great Tit (<i>Parus major</i>)	3	31/12/2011	Bird Atlas 2007 - 2011
Greenfinch (<i>Chloris chloris</i>)	3	31/12/2011	Bird Atlas 2007 - 2011
Grey Heron (<i>Ardea cinerea</i>)	1	03/09/2018	Birds of Ireland
Grey Wagtail (<i>Motacilla cinerea</i>)	5	25/05/2021	Birds of Ireland
Herring Gull (<i>Larus argentatus</i>)	3	14/10/2018	Birds of Ireland
Hooded Crow (<i>Corvus cornix</i>)	4	13/04/2020	Birds of Ireland
House Martin (<i>Delichon urbicum</i>)	1	31/12/2011	Bird Atlas 2007 - 2011
House Sparrow (<i>Passer domesticus</i>)	6	15/01/2023	Birds of Ireland
Jackdaw (<i>Coloeus monedula</i>)	4	15/01/2019	Birds of Ireland
Kingfisher (<i>Alcedo atthis</i>)	2	18/01/2021	Birds of Ireland
Lesser Redpoll (<i>Acanthis cabaret</i>)	1	31/12/2011	Bird Atlas 2007 - 2011
Little Egret (<i>Egretta garzetta</i>)	5	30/03/2022	Birds of Ireland
Long-tailed Tit (<i>Aegithalos caudatus</i>)	3	30/03/2019	Birds of Ireland
Magpie (<i>Pica pica</i>)	11	10/04/2021	Birds of Ireland
Mallard (<i>Anas platyrhynchos</i>)	2	16/01/2019	Birds of Ireland
Mistle Thrush (<i>Turdus viscivorus</i>)	3	02/04/2019	Birds of Ireland
Moorhen (<i>Gallinula chloropus</i>)	3	15/01/2023	Birds of Ireland
Pied Wagtail (<i>Motacilla alba yarrellii</i>)	1	14/04/2018	Birds of Ireland
Pied Wagtail (<i>Motacilla alba</i>)	2	31/12/2011	Bird Atlas 2007 - 2011
Raven (<i>Corvus corax</i>)	2	17/06/2019	Birds of Ireland

<i>Redwing (Turdus iliacus)</i>	1	31/12/2011	<i>Bird Atlas 2007 - 2011</i>
<i>Robin (Erithacus rubecula)</i>	10	15/01/2021	<i>Birds of Ireland</i>
<i>Rock Dove (Columba livia)</i>	3	30/04/2023	<i>Birds of Ireland</i>
<i>Rook (Corvus frugilegus)</i>	6	02/04/2019	<i>Birds of Ireland</i>
<i>Siskin (Spinus spinus)</i>	2	15/01/2019	<i>Birds of Ireland</i>
<i>Song Thrush (Turdus philomelos)</i>	4	18/05/2021	<i>Birds of Ireland</i>
<i>Sparrowhawk (Accipiter nisus)</i>	4	15/01/2021	<i>Birds of Ireland</i>
<i>Spotted Flycatcher (Muscicapa striata)</i>	1	22/05/2025	<i>Birds of Ireland</i>
<i>Starling (Sturnus vulgaris)</i>	3	15/01/2019	<i>Birds of Ireland</i>
<i>Swallow (Hirundo rustica)</i>	6	15/04/2021	<i>Birds of Ireland</i>
<i>Swift (Apus apus)</i>	2	31/12/2011	<i>Bird Atlas 2007 - 2011</i>
<i>Whimbrel (Numenius phaeopus)</i>	1	16/04/2023	<i>Birds of Ireland</i>
<i>Woodpigeon (Columba palumbus)</i>	6	02/04/2019	<i>Birds of Ireland</i>
<i>Wren (Troglodytes troglodytes)</i>	6	17/06/2019	<i>Birds of Ireland</i>

Historical Surveys

As part of PhD research by Dr. Tess Handby (2022), multiple roosting sites were recorded for Brent geese of the East Canadian High Arctic population within approximately 10km of the survey area. The species' preferred inland foraging habitat consists mainly of amenity grassland, of which the majority of available areas are relatively small in Dublin. Nearby green areas, such as Fairview Park, TU Dublin grounds at Grange Gorman and the Phoenix Park may provide attractive areas to Brent Geese within short range of multiple roosting sites, in particular those identified within North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA. However, due to the scattered and overall small nature of the available foraging habitat within Dublin City Centre compared with the greater Dublin area and the lack of natural features adjacent to the site such as rivers that may be used by Geese as aids for navigation through the city, it is unlikely that the area of the proposed development is of particular importance for Brent Geese transiting between roosting and foraging areas. No Brent Geese were recorded at the proposed site during any of the surveys undertaken onsite. Core/buffer/transition zones, roost sites, suitable/unsuitable foraging areas, and overall foraging ranges of wintering Brent Geese in Dublin, identified by Dr. Handby, are demonstrated below in figure 7.

I-WeBS

I-WeBS National and Site Trends Report 1994/95 – 2019/20 report presents national and site-specific trends of wetland birds in Ireland. This report was used to assess the trends of species (relevant to South Dublin Bay and River Tolka Estuary SPA and North Bull Island SPA) recorded during wintering bird surveys on lands at Marmalade Lane, Wyckham Avenue, Dublin 16. The proposed site is within 5 km of the Dublin Bay I-WeBS site (OU404).

No species considered by I-WeBS at a national or site-specific level were recorded during the five surveys.

The national wetland bird trend summary (figure 8) provides long-term population trends for wintering species in Ireland. Trends for individual species nationally and Dublin Bay are included in appendix 1a and 1b of this report.

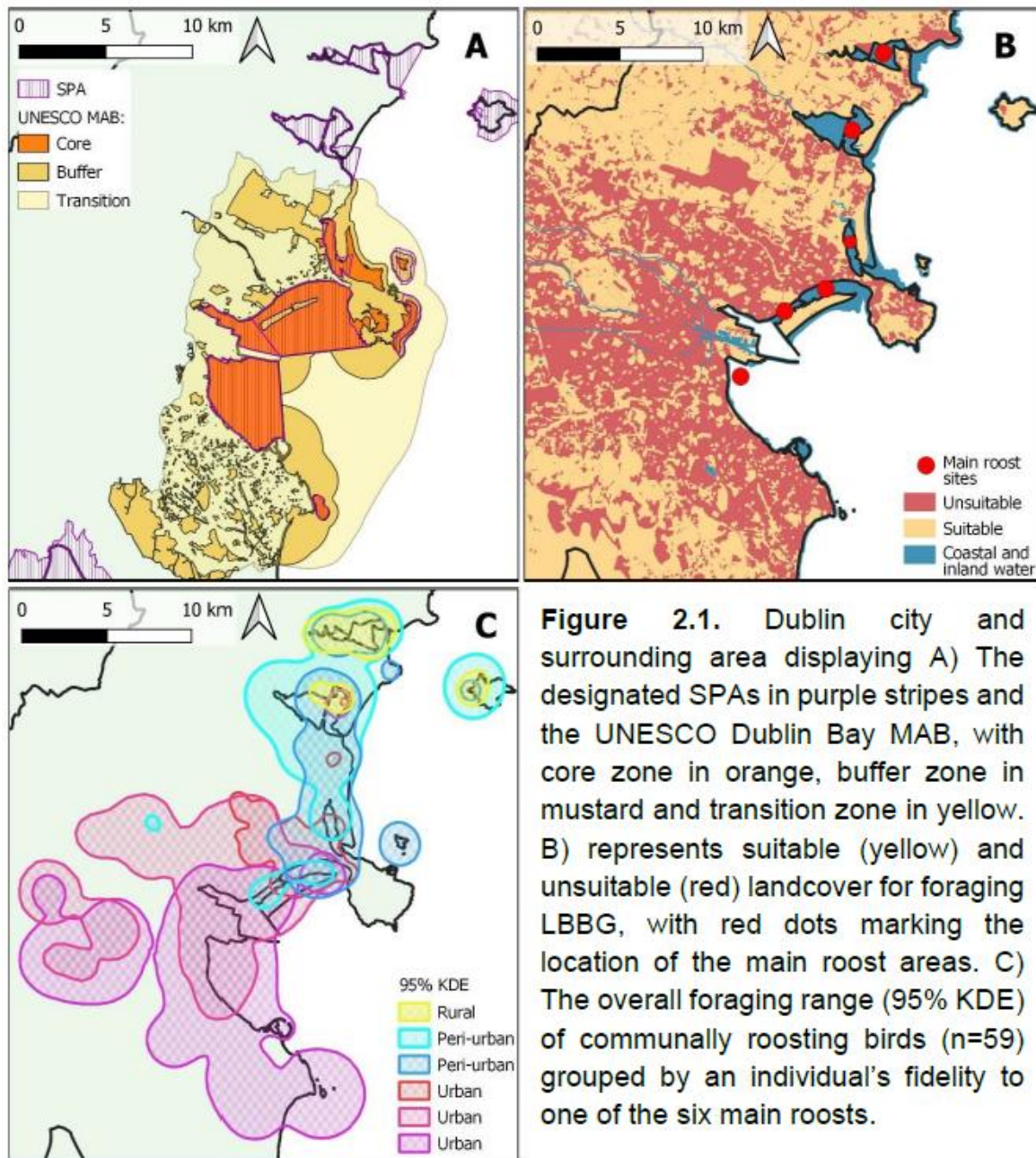


Figure 2.1. Dublin city and surrounding area displaying A) The designated SPAs in purple stripes and the UNESCO Dublin Bay MAB, with core zone in orange, buffer zone in mustard and transition zone in yellow. B) represents suitable (yellow) and unsuitable (red) landcover for foraging LBBG, with red dots marking the location of the main roost areas. C) The overall foraging range (95% KDE) of communally roosting birds (n=59) grouped by an individual's fidelity to one of the six main roosts.

Figure 7. Designated areas and identified brent goose habitat and use areas (Handby, 2022).

National Summary

Species	Trend (%)			Long Term Trend
	National - 5 Year	National - 12 Year	National - 25 Year	
Scaup	-33.6	-82.9	-89.2	Large Decline
Pochard	-19.8	-60.4	-79.1	Large Decline
Goldeneye	-32.5	-39.0	-66.9	Large Decline
Lapwing	-6.5	-45.1	-63.9	Large Decline
Gray Plover	-30.6	-39.4	-57.8	Large Decline
Golden Plover	-16.9	-58.1	-54.1	Large Decline
Dunlin	5.9	-21.2	-45.2	Moderate Decline
Curlew	-9.4	-23.7	-43.1	Moderate Decline
Turnstone	-33.6	-46.0	-23.7	Intermediate Decline
Coot	-10.1	1.1	-23.2	Intermediate Decline
Mallard	-11.3	-19.7	-19.1	Intermediate Decline
Wigeon	0.9	-17.0	-18.2	Intermediate Decline
Tufted Duck	-20.7	-28.9	-17.9	Intermediate Decline
Red-breasted Merganser	-12.9	5.2	-14.7	Intermediate Decline
Pintail	-0.8	-6.0	-13.7	Intermediate Decline
Great Crested Grebe	-39.5	-6.1	-10.8	Intermediate Decline
Shoveler	23.0	-21.3	-10.8	Intermediate Decline
Knot	0.0	-12.2	-9.8	Intermediate Decline
Bar-tailed Godwit	-32.6	-13.9	-5.1	Intermediate Decline
Ringed Plover	-4.3	-26.8	-1.1	Intermediate Decline
Gray Heron	1.0	-4.9	6.6	Stable or Increasing
Redshank	-14.0	-28.4	6.7	Stable or Increasing
Shelduck	6.3	-0.8	9.3	Stable or Increasing
Oystercatcher	-17.5	-31.1	10.8	Stable or Increasing
Mute Swan	4.6	9.6	13.8	Stable or Increasing
Teal	1.8	5.7	19.4	Stable or Increasing
Purple Sandpiper	-36.4	-37.6	23.5	Stable or Increasing
Gadwall	-26.5	4.3	24.4	Stable or Increasing
Little Grebe	6.1	16.7	38.2	Stable or Increasing
Greenshank	0.9	7.3	41.0	Stable or Increasing
Cormorant	38.5	8.4	42.9	Stable or Increasing
Sanderling	-23.8	-11.1	84.6	Stable or Increasing
Black-tailed Godwit	22.5	25.0	92.3	Stable or Increasing
Light-bellied Brant Goose	-11.2	1.2	93.3	Stable or Increasing
Little Egret	34.6	61.5	483.3	Stable or Increasing

Figure 8. I-WeBS National Trends Report.

Conclusion

This report aims to build on the baseline data and provide information to assist in assessing the potential impact of the proposed development on wintering birds within/over/adjacent to the development area. This report presents the methodology and results of 5 visits to this location by Altamar Ltd. from November 2024 to March 2025.

A total of 21 species were recorded within, above and adjacent to the survey area across 5 surveys. 16 green and 5 amber species of conservation concern were recorded either within, over and adjacent to the overall survey area. Herring gull (SCI of North-West Irish Sea SPA) and Black-headed gull (SCI of South Dublin Bay and River Tolka Estuary SPA, North Bull Island SPA, and North-West Irish Sea SPA) were recorded flying over, and foraging within, the survey area. Peak counts of these species were 71 no. individuals and 17 no. individuals respectively. Peak counts for these species are below 1% of the international population (table 2).

The proposed development is predicted to reduce available foraging areas for wintering birds, in particular those listed as Special Conservation Interests of nearby SPAs. However, no significant number of bird species protected as SCIs of proximate SPAs were recorded foraging onsite during any of the 5 site surveys. Further, site clearance and construction work for the permitted SHD (ACP Reg. Ref.:312170-21) commenced in early 2025. The majority of the site is currently comprised of bare ground, built land, and an active construction site. The reduction in potential foraging areas is not significant in the context of the wider area available to species of relevance due to the widespread and abundant habitats of comparable suitability. Given the minimal bird activity recorded within and proximate to the subject site, the site is not of significance to birds protected as SCIs of any proximate SPA. No significant impacts on wintering bird species foraging and moving between foraging/roosting sites are likely in the absence of mitigation measures. No significant impact on species listed as SCIs of South Dublin Bay and River Tolka Estuary SPA, North Bull Island SPA, and North-West Irish Sea SPA or bird species of conservation interest are predicted.

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Appendix I

Appendix 1a – I-WeBS Trends for Dublin Bay (site code OU404).

Site Summary

Species	Trend (%)			Long Term Trend
	Dublin Bay - 5 Year	Dublin Bay - 12 Year	Dublin Bay - 23 Year	
Grey Plover	7.7	-5.0	-51.3	Large Decline
Lapwing	-36.0	-33.6	-40.3	Moderate Decline
Shoveler	-5.9	14.4	-32.2	
Ringed Plover	6.5	-52.1	-14.5	Intermediate Decline
Curlew	-14.1	-22.7	-4.5	
Pintail	24.4	78.3	8.1	Stable or Increasing
Bar-tailed Godwit	-20.8	20.6	31.0	
Dunlin	69.6	18.6	32.7	
Redshank	-5.3	-8.2	45.9	
Shelduck	29.8	49.3	58.0	
Wigeon	61.9	126.7	78.9	
Teal	9.2	43.4	80.3	
Sanderling	15.0	-13.2	84.0	
Mallard	32.2	134.7	91.7	
Turnstone	-26.4	-30.3	91.7	
Oystercatcher	1.9	12.8	103.8	
Golden Plover	948.0	147.2	114.8	
Red-breasted Merganser	2.9	37.3	118.8	
Knot	68.5	33.8	127.5	
Grey Heron	11.6	2.7	148.4	
Great Crested Grebe	-54.1	69.9	188.4	
Cormorant	3.8	-22.9	189.3	
Light-bellied Brent Goose	-7.0	22.2	230.0	
Greenshank	15.6	48.6	235.5	
Black-tailed Godwit	120.0	193.3	780.0	
Little Egret	78.3	121.6	1540.0	

Appendix 1b– I-WeBS Site Summary Table for OU404 Dublin Bay.

“Peak counts for each species in each of the most recent 10 seasons are presented. Please note:

- The mean is based only on available survey data from the most recent 5-season period, i.e. for the period 2016/17 - 2020/21, using I-WeBS core counts.
- Blank columns indicate seasons when no counts were carried out, while blank cells show that a species was absent, where other counts are in the same column.
- Counts that are poor quality are excluded from these tables, with the exception of known underestimates of individual species.
- Where peak counts were recorded outside the midwinter period (Nov, Dec, Jan) these are marked with an asterisk (*). This may indicate that higher numbers occurred during passage periods, or may be due to a lack of counts in the midwinter months.
- The 'Peak Months' column indicates the months when the highest number of peak counts were recorded.”

SPECIES	1% NATIONAL	1% INTERNATIONAL	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	MEAN	PEAK MONTHS
Arctic Tern			1*										0	Oct
Bar-tailed Godwit	170	1500	1895	2141*	1710*	1642*	2164*	2653*	1599*	1773	2736*	1833*	2119	Mar
Black-headed Gull			2245*	1907*	2559	1259*	2768*	2393*	1375*	3243*	3803	4842*	3131	Sep
Black-necked Grebe			4*										0	Feb
Black-tailed Godwit	200	1100	891*	1362	1768*	873*	2185*	1274*	1474*	3369*	2987*	1499	2121	Feb, Mar, Sep, Oct
Common Gull			249*	300*	984	272*	890*	213*	141*	387*	538*	286*	313	Mar
Common Scoter	110	7500	20*	10*	42*		40*	19		24	10		11	Oct
Common Tern			5*	3	39*		1			102*	10*	2*	23	Sep
Common/Arctic Tern			163*										0	Sep
Cormorant	110	1200	132*	53	198*	41*	71	95*	112*	100*	157*	183*	129	Sep
Curlew	350	7600	1169*	874*	932*	1424	567*	750*	494	1323*	1162*	715*	889	Sep
Curlew Sandpiper			1*	1*							1*		0	Oct
Dunlin	460	13300	3559*	4163	4897*	3603*	2557*	8280	5884	7474	6017	10362	7603	Jan, Mar
Gadwall	20	1200			2*	2*							0	Jan, Feb, Mar
Glaucous Gull								1					0	Jan
Golden Plover	920	9300	390*	404*	1080*	740*	1155	1010*	1322	1430*	1610	95*	1093	Oct
Goldeneye	40	11400	11*	6*		2*		1*		2			1	Feb, Mar
Great Black-backed Gull			311*	116	188*	52*	263*	151	108	138*	145	119*	132	Sep
Great Crested Grebe	30	6300	898	87*	755	143	307	192	34	388	106*	262	196	Nov
Great Northern Diver	20	50	2		3*		5	1*	1	1*	2	1	1	Mar, Nov, Dec

SPECIES	1% NATIONAL	1% INTERNATIONAL	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	MEAN	PEAK MONTHS
Greenshank	20	3300	38*	46	34*	47*	78*	35	14	44*	51*	48*	38	Oct
Grey Heron	25	5000	28	15*	68*	40*	44*	28*	24	27*	82*	19*	36	Oct
Grey Plover	30	2000	200	307*	310*	452*	235*	245*	198	499*	560*	208*	342	Feb
Herring Gull			518*	130*	486*	261*	538*	450*	607*	483*	374*	694*	522	Sep
Iceland Gull								1*		1			0	Feb, Mar, Dec
Kingfisher					1*		1*			4	1*	1	1	Nov
Kittiwake									40*				8	Mar
Knot	160	5300	3435	3022	4547*	3450	2405*	5850*	6554	7256*	5781*	5946	6277	Feb
Lapwing	850	72300	120	67*	52	54*	143*	25*	32	31*	775*	30	179	Sep, Dec
Lesser Black-backed Gull			28*	25*	5*	20*	16*	5*	2*	69*	8	135*	44	Sep, Oct
Light-bellied Brent Goose	350	400	4053	6134*	2262	4503	3501*	4420*	3331	3662	5848	1472	3747	Dec
Little Egret	20	1100	45*	19*	59*	69*	59*	70*	57	71*	130*	140*	94	Sep
Little Grebe	20	4700	1*	9*	1	5*		4	1*	3*	8	6	4	Dec
Long-tailed Duck				2*				2				1	1	Dec
Mallard	280	53000	151*	52*	92*	106*	120	64*	82	221*	133*	96	119	Sep
Mallard (domestic)			2*	1									0	Sep, Dec
Mediterranean Gull			113*	23	39*	27*	64*	68*	6	14*	32*	7*	25	Oct
Moorhen			7	5*	5*		5*	3*	2	4	6	1	3	Nov
Mute Swan	90	100	2*	2*	4*	6*	9*	5*	11	9*	32*	7*	13	Oct
Oystercatcher	610	8200	3408	3025	3074*	2197	3572*	4042	2375	3378	3313	2466*	3115	Jan, Oct, Dec
Pintail	20	600	212	160	200*	150*	124*	190	214	318	192*	252	233	Jan
Purple Sandpiper	20	110	4	3*	2	1*	2*				1	1	0	Jan, Oct
Red-breasted Merganser	25	860	114*	50*	54*	57*	69*	80*	37	40*	96	36*	58	Mar, Oct
Red-necked Grebe					1*								0	Feb
Redshank	240	2400	2273*	2077*	2460*	1889*	1648*	1430*	2274	2312*	2299*	2517*	2166	Sep
Red-throated Diver	20	3000	8*	8*	7*	2	7	6	5	4	1		3	Feb
Ring-billed Gull				1*				1*					0	Mar, Sep

SPECIES	1% NATIONAL	1% INTERNATIONAL	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	MEAN	PEAK MONTHS
Ringed Plover	120	540	125	215*	101*	98*	109*	208	285	148	131	70	168	Dec
Sanderling	85	2000	411*	405*	510*	266	841	374*	301*	736*	588*	748*	549	Sep, Oct
Sandwich Tern			4*	23*	52*		8*		8*	75*	3*	12*	20	Sep
Shag			19*	23	36	3*	71	19*	10	10	22*	1*	12	Nov
Shelduck	100	2500	603	731	956	605	744	1811	1241	1632	1619	2586	1778	Dec
Shoveler	20	650	101	79	126	47	115	116	144	122	124	81	117	Dec
Snipe			12*	62*	20		31	53*	10	43	15*	5	25	Jan
Spotted Redshank			1*		1*		3*						0	Oct
Teal	360	5000	909*	981	1378	1233*	1291*	1654	1030	2187	1392	930*	1439	Dec
Turnstone	95	1400	328	227	466*	250*	584	286*	334	216	445*	259	308	Oct
Unidentified gull			10*	85									0	Sep, Nov
Water Rail			1*										0	Feb
Whimbrel				1*	2*	4*				2*	2*	1*	1	Sep
Whooper Swan	150	340								11*	1		2	Jan, Oct
Wigeon	560	14000	610	445	691*	702*	1106*	1839	918	1314	1833	1082	1397	Nov
Yellow-legged Gull				1	1*		2	1					0	Dec



Bird Survey Report

Strategic Housing Development
at Marmalade Lane, Dublin 16

DOCUMENT DETAILS

Client: Lioncor

Project Title: "The development will comprise a 'Build to Rent' (BTR) apartment development consisting of 5 no. blocks ranging in height up to 10 storeys (including over basement /undercroft). 531 no. apartments are proposed comprising studios, 1 -beds, 2-beds & 3-beds. All residential units provided with associated private balconies/terraces to the north/south/east/west elevations. The BTR development will also include Resident Support Facilities & Resident Services & Amenities, a creche and café. Provision of 171 no. car parking spaces (including creche drop-off spaces, and visitor spaces), 1,012 no. cycle parking spaces and 26 no. motorcycle spaces. Vehicular/pedestrian/cyclist accesses including from Wyckham Avenue and including improvement works to the existing Carmelite Centre access road and entrance. All associated site development works, open spaces, roof gardens, landscaping, boundary treatments, plant areas, waste management areas, cycle parking areas, and services provision (including ESB substations).".

Document Title: Bird Survey Report

Prepared By: John Curtin – Consultant Ecologist

Date: 05/11/2021

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EXECUTIVE SUMMARY

This document reports on the findings of several bird surveys undertaken within and surrounding a greenfield site located at Marmalade Lane, Dundrum, Dublin 16. Surveys took place between March 2020 and October 2021. The objective of the surveys was to establish the usage of the site by birds both during the winter and summer periods and examine impacts of the development on the local bird populations. Findings are intended to influence design and appraisal of the proposed SHD.

Surveys were conducted with reference to Birdwatch Ireland's Countryside bird survey methodology, Tipperary Swift survey 2018 (Birdwatch, 2018) and BTO Breeding Bird Survey. All surveys were carried out at the appropriate time of day in acceptable weather conditions.

Particular attention was paid to the interaction of rare and protected birds or those associated with the surrounding Natura 2000 sites. Results showed the site is low importance for wintering or breeding birds. Numerous gulls were observed flying overhead but these species rarely interacted with the site. The development of the site is deemed to have a long term imperceptible negative impact on the local bird populations provided the mitigation measures outlined below are implemented.

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1 INTRODUCTION

1.1 Purpose of this report

Eire Ecology were commissioned by Lioncor to complete a bird survey for the Marmalade Lane Strategic Housing Development. Transect and vantage point methods were used to establish the level and extent of bird activity on the site during the breeding (summer) and winter periods. During the survey all bird species and behaviour were recorded. Surveys were conducted to encompass a buffer of 500m from the subject site.



Table 1-1: Site Outline

1.2 Landscape context

The area of interest comprises of a green field located to the rear of the Carmelite Order; Gort Muire building and grounds. The subject site also includes a narrow strip of the adjacent Ballawley Park. The site sits within a mixture of residential and commercial properties alongside parklands and green areas.

1.3 Development proposals

The development will comprise a 'Build to Rent' (BTR) apartment development consisting of 5 no. blocks ranging in height up to 10 storeys (including over basement /undercroft). 531 no. apartments are proposed comprising studios, 1-beds, 2-beds & 3-beds. All residential units provided with associated private balconies/terraces to the north/south/east/west elevations. The BTR development will also include Resident Support Facilities & Resident Services & Amenities, a creche and café. Provision of 171 no. car parking spaces (including creche drop-

off spaces, and visitor spaces), 1,012 no. cycle parking spaces and 26 no. motorcycle spaces. Vehicular/pedestrian/cyclist accesses including from Wyckham Avenue and including improvement works to the existing Carmelite Centre access road and entrance. All associated site development works, open spaces, roof gardens, landscaping, boundary treatments, plant areas, waste management areas, cycle parking areas, and services provision (including ESB substations)''.

1.4 Methods

All bird species utilising the site and the surrounding areas were recorded. Rare birds and those listed as conservation objectives of the surrounding Natura 2000 sites were given priority attention. Surveys were conducted during the wintering and breeding seasons over two years. These surveys included vantage point, transects and point counts focusing on the site and a buffer to 500m from the subject site. In addition a breeding swift survey was conducted focusing on the Carmelite Order building. **Figure 1-2** shows the subject site and areas of highest bird potential within 500m of the site.

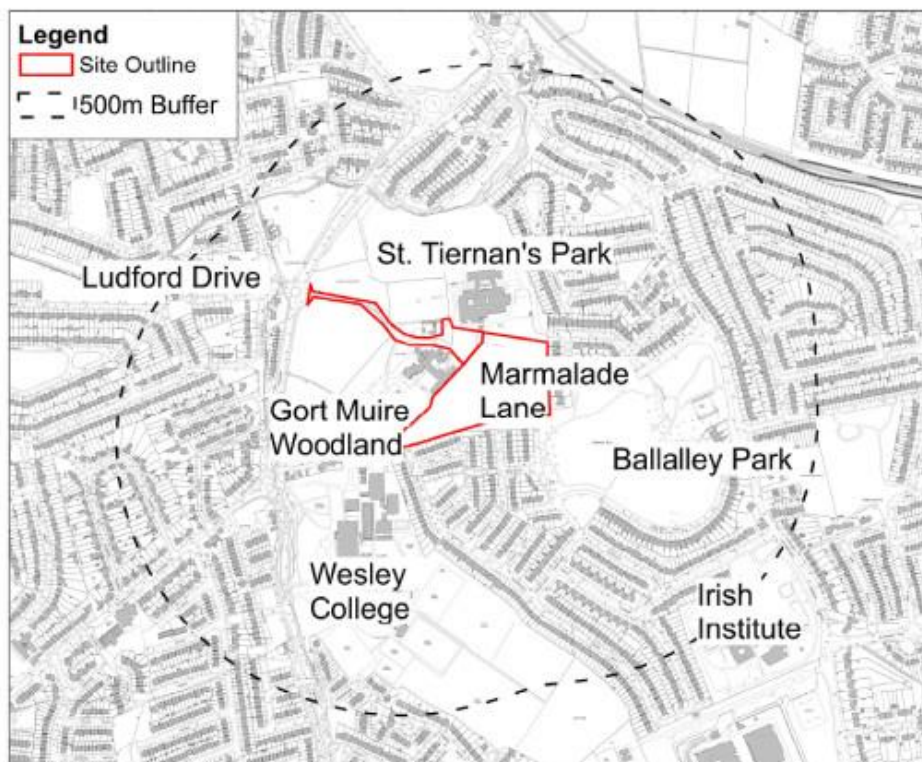


Table 1-2: Transect / point count locations.

2 ASSESSMENT METHODOLOGY

2.1 POLICY & GUIDANCE

2.2 EU Birds Directive

The "Birds Directive" (Council Directive 79/409/EEC as codified by 2009/147/EC) provides for a network of sites in all member states to protect birds at their breeding, feeding, roosting and wintering areas. This directive identifies species that are rare, in danger of extinction or vulnerable to changes in habitat and which need protection (Annex I species). Appendix I indicates Annex I bird species as listed on the Birds Directive. A "Special Protection Area" or SPA, is a designation under The Birds Directive.

SACs and SPAs form a pan-European network of protected sites known as Natura 2000 sites and any plan or project that has the potential to impact upon a Natura 2000 site requires Appropriate Assessment (AA). As outlined previously, an AA Screening Report was prepared for this project and is presented as a separate report to the planning application.

2.2.1 Wildlife Acts 1976 – 2012

The primary domestic legislation providing for the protection of wildlife in general, and the control of some activities adversely impacting upon wildlife is the Wildlife Act of 1976, as amended. The aims of the wildlife act according to the National Parks and Wildlife Service are "... to provide for the protection and conservation of wild fauna and flora, to conserve a representative sample of important ecosystems, to provide for the development and protection of game resources and to regulate their exploitation, and to provide the services necessary to accomplish such aims." All bird species are protected under the act. The Wildlife (Amendment) Act of 2000 amended the original Act to improve the effectiveness of the Act to achieve its aims.

2.3 SURVEY METHODOLOGY

The breeding wader survey was led by John Curtin (B.Sc.) and assisted by Niamh Graham and Shane O' Neill. John is an experienced ecologist with a high skillset over several disciplines. Primarily a field worker with experience in ornithological surveys and monitoring, botanical and habitat identification and mammal surveys. In addition, he has prepared numerous stage 1 and 2 Natura Impact Statements and Environmental Impact Statements. Niamh Graham is an ornithologist with experience surveying throughout Ireland. Her Masters dissertation focused on the Call Acoustics of the Corncrake (*Crex crex*) of Five Donegal Islands. Shane O' Neill Shane is an experienced ornithologist with a particular interest in raptor ecology (Co-author Hen Harrier Survey, NPWS 2015). Shane also has experience with breeding birds, waders and all aspects of ornithology.

2.4 Background data search

A search was made in November 2020 for relevant reference materials, and a list of sources is given in Table 2-1

Table 2-1: Data sources

Information Obtained	Available From
Protected and noteworthy species-records	https://maps.biodiversityireland.ie/Map
Aerial photography	https://www.google.ie/maps/ ; http://map.geohive.ie/mapviewer.html

A search was also made for records of noteworthy bird species surrounding the site. Species included in the search parameters were:

- European protected species (listed on Schedules 2 and 5 of The Conservation of Habitats and Species Regulations 2017);
- nationally protected species under the (Wildlife Act (1976), Wildlife (Amendment) Act 2000;
- species listed as critically endangered, endangered or vulnerable based on the IUCN Red List Categories and Criteria 2001;
- all species listed on the Birdwatch Ireland's Birds of Conservation Concern 4 as red' or 'amber'.
- nationally rare or nationally scarce species;

3 Results

3.1 Background Data Search

Table 3-1 Protected habitats in the vicinity of the proposed development

Name of Site	Site Code	Distance to proposed development	Conservation Objectives (CO)	Potential links with subject site prior to site specific bird surveys
South Dublin Bay and River Tolka Estuary SPA	004024	4.14km	Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046]	Unlikely given the distance of the SPA to the subject site ¹
			Oystercatcher (<i>Haematopus ostralegus</i>) [A130]	Possible. Although primarily a n estuarine shorebird Oystercatchers have been recorded breeding and utilising urban areas, foraging for earthworms and crane fly on lawn areas of short vegetation (van Dijk, 2014) (Duncan, 2001), (Lynch, 1997)
			Ringed Plover (<i>Charadrius hiaticula</i>) [A137]	Unlikely
			Grey Plover (<i>Pluvialis squatarola</i>) [A141]	Unlikely
			Knot (<i>Calidris canutus</i>) [A143]	Unlikely
			Sanderling (<i>Calidris alba</i>) [A144]	Unlikely
			Dunlin (<i>Calidris alpina</i>) [A149]	Unlikely
			Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157]	Unlikely
			Redshank (<i>Tringa totanus</i>) [A162]	Unlikely
			Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179]	Unlikely

¹ A study conducted by BSG for St. Aidan's CBS Dublin 9 examined impacts on Brent Gese by the transformation of a grass pitch to artificial turf. They state based on a review of available information that 'light bellied brent geese will preferentially use sites as close to their roost site as possible and that their preferred ranging distance is to foraging areas within 3km of their roost sites' (BSG-Ecology, 2014). The South Dublin Bay and River Tolka Estuary SPA sits over 1km outside this 3km radius from the subject site.

Name of Site	Site Code	Distance to proposed development	Conservation Objectives (CO)	Potentials links with subject site prior to site specific bird surveys
			Roseate Tern (Sterna dougallii) [A192]	Possible
			Common Tern (Sterna hirundo) [A193]	Unlikely
			Arctic Tern (Sterna paradisaea) [A194]	Unlikely
			Wetland and Waterbirds [A999]	Unlikely
				None
Wicklow Mountains SPA	004040	5.60km	Merlin (Falco columbarius) [A098]	Unlikely
			Peregrine (Falco peregrinus) [A103]	Unlikely
North Bull Island SPA	004006	9.18km	Light-bellied Brent Goose (Branta bernicla hrota) [A046]	Unlikely
			Shelduck (Tadorna tadorna) [A048]	Unlikely
			Teal (Anas crecca) [A052]	Unlikely
			Pintail (Anas acuta) [A054]	Unlikely
			Shoveler (Anas clypeata) [A056]	Unlikely
			Oystercatcher (Haematopus ostralegus) [A130]	Possible
			Golden Plover (Pluvialis apricaria) [A140]	Possible
			Grey Plover (Pluvialis squatarola) [A141]	Unlikely
			Knot (Calidris canutus) [A143]	Unlikely
			Sanderling (Calidris alba) [A144]	Unlikely
			Dunlin (Calidris alpina) [A149]	Unlikely
			Black-tailed Godwit (Limosa limosa) [A156]	Unlikely
			Bar-tailed Godwit (Limosa lapponica) [A157]	Unlikely
			Curlew (Numenius arquata) [A160]	Unlikely
			Redshank (Tringa totanus) [A162]	Unlikely
			Turnstone (Arenaria interpres) [A169]	Unlikely

Name of Site	Site Code	Distance to proposed development	Conservation Objectives (CO)	Potential links with subject site prior to site specific bird surveys
			Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179]	Unlikely given the distance of the SPA to the subject site
			Wetland and Waterbirds [A999]	None
Dalkey Islands SPA	004172	9.41 km	Roseate Tern (<i>Sterna dougalii</i>) [A192]	Unlikely
			Common Tern (<i>Sterna hirundo</i>) [A193]	Unlikely
			Arctic Tern (<i>Sterna paradisaea</i>) [A194]	Unlikely
Baldoyle Bay SPA	004016	14.72 km	Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046]	Unlikely given the distance of the SPA to the subject site
			Shelduck (<i>Tadorna tadorna</i>) [A048]	Unlikely
			Ringed Plover (<i>Charadrius hiaticula</i>) [A137]	Unlikely
			Golden Plover (<i>Pluvialis apricaria</i>) [A140]	Unlikely
			Grey Plover (<i>Pluvialis squatarola</i>) [A141]	Unlikely
			Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157]	Unlikely
			Wetland and Waterbirds [A999]	None

Little Egret	<i>Egretta garzetta</i>	31/12/2011	Wildlife Acts EU Birds Directive >> Annex I
Common Kingfisher	<i>Alcedo atthis</i>	31/12/2011	Wildlife Acts EU Birds Directive >> Annex I Bird Species Birds of Conservation Concern
Rock Pigeon	<i>Columba livia</i>	31/12/2011	Wildlife Acts EU Birds Directive EU Birds Directive >> Annex II, Section I
Common Wood Pigeon	<i>Columba palumbus</i>	31/12/2011	Wildlife Acts EU Birds Directive >> Annex II & Annex III,
Mallard	<i>Anas platyrhynchos</i>	31/12/2011	Wildlife Acts EU Birds Directive >> Annex II & Annex III,
Common Starling	<i>Sturnus vulgaris</i>	31/12/2011	Wildlife Acts EU Birds Directive >> Annex I Birds of Conservation Concern - Amber List
Common Swift	<i>Apus apus</i>	31/12/2011	Wildlife Acts EU Birds Directive >> Annex I Birds of Conservation Concern - Amber List
House Martin	<i>Delichon urbicum</i>	31/12/2011	Wildlife Acts EU Birds Directive >> Annex I Birds of Conservation Concern - Amber List
House Sparrow	<i>Passer domesticus</i>	31/12/2011	Wildlife Acts EU Birds Directive >> Annex I Birds of Conservation Concern - Amber List
Black-headed Gull	<i>Larus ridibundus</i>	31/12/2011	Wildlife Acts EU Birds Directive >> Annex I Birds of Conservation Concern - Red List
Herring Gull	<i>Larus argentatus</i>	31/12/2011	Wildlife Acts EU Birds Directive >> Annex I Birds of Conservation Concern - Red List
Black-billed Magpie	<i>Pica pica</i>	24/02/2016	Wildlife Acts
Blackcap	<i>Sylvia atricapilla</i>	31/12/2011	Wildlife Acts
Blue Tit	<i>Cyanistes caeruleus</i>	31/12/2011	Wildlife Acts
Chaffinch	<i>Fringilla coelebs</i>	31/12/2011	Wildlife Acts
Coal Tit	<i>Parus ater</i>	31/12/2011	Wildlife Acts
Blackbird	<i>Turdus merula</i>	01/07/2012	Wildlife Acts
Bullfinch	<i>Pyrrhula pyrrhula</i>	05/08/2009	Wildlife Acts
Collared Dove	<i>Streptopelia</i>	31/12/2011	Wildlife Acts
Great Spotted Woodpecker	<i>Dendrocopos major</i>	29/01/2021	Wildlife Acts
Jackdaw	<i>Corvus monedula</i>	31/12/2011	Wildlife Acts
Eurasian Siskin	<i>Carduelis spinus</i>	31/12/2011	Wildlife Acts
Sparrowhawk	<i>Accipiter nisus</i>	05/08/2009	Wildlife Acts
Goldfinch	<i>Carduelis carduelis</i>	31/12/2011	Wildlife Acts
Greenfinch	<i>Carduelis chloris</i>	31/12/2011	Wildlife Acts
European Robin	<i>Erithacus rubecula</i>	31/12/2011	Wildlife Acts
Fieldfare	<i>Turdus pilaris</i>	31/12/2011	Wildlife Acts

Scientific name	Common name	Date of last record	Designation
Goldcrest	<i>Regulus regulus</i>	31/12/2011	Wildlife Acts
Great Tit	<i>Parus major</i>	31/12/2011	Wildlife Acts
Grey Wagtail	<i>Motacilla cinerea</i>	31/12/2011	Wildlife Acts
Hedge Accentor	<i>Prunella modularis</i>	31/12/2011	Wildlife Acts
Hooded Crow	<i>Corvus cornix</i>	31/12/2011	Wildlife Acts
Lesser Redpoll	<i>Carduelis cabaret</i>	31/12/2011	Wildlife Acts
Long-tailed Tit	<i>Aegithalos caudatus</i>	31/12/2011	Wildlife Acts
Mistle Thrush	<i>Turdus viscivorus</i>	31/12/2011	Wildlife Acts
Redwing	<i>Turdus iliacus</i>	31/12/2011	Wildlife Acts
Rook	<i>Corvus frugilegus</i>	31/12/2011	Wildlife Acts
Song Thrush	<i>Turdus philomelos</i>	31/12/2011	Wildlife Acts
White Wagtail	<i>Motacilla alba</i>	31/12/2011	Wildlife Acts
Winter Wren	<i>Tragodytes</i>	31/12/2011	Wildlife Acts

4 Survey Results

Table 4-1 shows the dates on which surveys were completed. All surveys were completed in suitable weather conditions. This section summarises results from within the site and the surrounding 500m. Further details such as flightpaths, numbers and location of observation can be found in Appendix A.

Table 4-1 Survey dates and environmental data

Date	Survey type	Time	Sunrise / Sunset	Weather	Surveyor
09/03/2020	Hinterland survey	11:00 – 16:00	-	Overcast, showers, F3 W	John Curtin
09/03/2020	Vantage point	16:20 – 19:20	18:18	Overcast, showers, F3 W	John Curtin
10/03/2020	Vantage point	05:50 – 08:50	06:50	Overcast, dry, F2 W	John Curtin
10/03/2020	Hinterland survey	09:00 – 15:00	-	Overcast, dry, F2 W	John Curtin
01/06/2020	Transect & point counts	11:00 – 19:00	-	Clear, dry, F2 E	John Curtin
19/06/2020	Swift survey and point	04:30 – 12:00	04:56	Overcast, showers, F2 SW	John Curtin
16/07/2021	Hinterland survey	15:30 – 16:30	-	Clear, dry, wind - still	Niamh Graham
16/07/2021	Vantage point	17:00 – 20:00	21:44	Clear, dry, wind - still	Niamh Graham
17/07/2021	Vantage point	06:00 – 09:00	05:18	Clear, dry, wind - still	Niamh Graham
17/07/2021	Transect	09:00 – 10:00	-	Clear, dry, wind - still	Niamh Graham
17/07/2021	Hinterland survey	10:00 – 13:00	-	Clear, dry, wind - still	Niamh Graham
28/10/2021	Vantage point	12:00 – 15:00	18:00	Overcast, showers, F2 W	Shane O' Neill
28/10/2021	Vantage point	15:30 – 18:30		Overcast, F1 W	Shane O' Neill
29/10/2021	Hinterland	08:00 – 15:00	-	Scattered cloud, F1 SW	Shane O' Neill

4.1 Bird Surveys undertaken within the subject site.

4.1.1 March 2020 (wintering period)

During the March surveys vantage point surveys were conducted from the eastern end of the site for three hours up to dusk on the 09th and from 1 hour prior to sunrise for three hours on the 10th. These surveys revealed some activity from gulls (Herring, Great black-backed and Black-headed) over the site and the surrounding lands. Towards dusk of the 09th however, all gulls vacated the area and flew east over the VP off site. Similarly on the 10th, upon arrival no gulls were noted on the site until approx. 10 minutes after sunrise at which point gulls arrived flying over the site from the west. It is the surveyor's opinion that most gulls roost at sites adjacent to the coast and fly inland during daylight hours.

4.1.2 June 2020 (breeding period)

A walked transect with point counts (01st of June) and swift survey (19th of June) was conducted within the site. No species of note was found breeding within the subject site. Herring gull and Great black-backed gull were noted overflying and occasionally perched within the site however no breeding evidence was recorded.

A swift survey was conducted within the site on the dawn of the 19th of June focusing on the adjacent Carmalite building. This showed highest potential for breeding swifts. This survey followed guidance outlined in the Tipperary Swift survey 2018 (Birdwatch, 2018). No evidence of breeding swifts was noted from the site or surroundings.

4.1.3 July 2021 (breeding period)

During this survey several gull species were noted circling over the site and the wider area. These included Herring gull, Black-headed gull (highest was approx. 50 individuals) and Great and Lesser Black-backed gull. In addition, 5 observations of swifts were noted (max. 5 individuals). Gulls were observed using thermals outside the site. The last recording was at 19:25. Gulls left the site in a south-eastern direction. A pair of herring gull were noted displaying territorial behaviour over the Carmalite building potential indicating breeding status.

4.1.4 October 2021 (wintering period)

Observations during this survey again showed multiple gulls flying over the site and surrounding areas. Mew gull, Black-headed gull and Herring gull were all recorded overflying however none landed in the site or appeared to interact with the site during the survey. Magpie and hooded crow were the only bird species noted to land and perch on the ground during the survey. At 16:40 a Herring gull was observed feeding a juvenile on the roof of the Carmalite order building. This indicates the possibility Herring gull are breeding on the roof of this building. In addition, two brief sighting of raptors were noted; a sparrowhawk was noted,

mobbed by Mistle thrush before flying south and a kestrel was noted flying offsite to the east (within the 500m buffer).

4.2 Hinterland Surveys

Hinterland surveys refer to bird surveys conducted outside the subject site in areas of high bird potential within 500m (see figure 1-2). Sites examined include green areas; pitches and parks, treelines and watercourses.

4.2.1 March 2020 (wintering period)

Point counts and transects were conducted at all favourable bird habitats within 500m of the site. A woodland and pond found adjacent to the site (Gort Muire Woodland) towards the west contained Mallard and Moorhen. Black-headed gull; a conservation objective of the South Dublin Bay and River Tolka Estuary SPA was found sporadically throughout the site with highest numbers recorded at Ludford Drive where 59 birds were noted perched on grassland. A Little egret was also noted at Ludford drive by a stream.

4.2.2 June 2020 (breeding period)

Species found breeding and probably breeding were all frequent to the locality. The area of highest interest can be found by the pond to the west of Marmalade lane within the boundary of Gort Muire where breeding Moorhen and Mallard were observed. A tree creeper (*Certhia familiaris*) was also found here.

4.2.3 July 2021 Surveys (breeding period)

During this survey Moorhen were again found breeding in the pond alongside Mallard. At Ludford Drive a Grey heron was noted fishing in the stream and occasional gull species were observed flying overhead.

4.2.4 October 2021 (wintering period)

In addition to Moorhen and mallard a pair of Little grebe were noted from the pond at Gort Muire woodland. Mew gull, Herring gull and Black-headed were noted throughout with the largest numbers (19) noted feeding at Dundrum football grounds. 16 were also noted feeding on open parkland within Ballalley park. A single grey heron was again noted from the stream at Ludford Drive.

5 DISCUSSION & CONCLUSION

The surveys discussed above provide information on bird activity from the subject site and the surrounding areas. Little activity was noted from the subject site barring interactions from common species such as wood pigeon, jackdaw, blackbird, linnet, song thrush and starling. Jackdaw, starling and possibly Herring gull have breeding grounds on the adjacent Carmalite building. Wood pigeon, blackbird linnet and song thrush are likely breeding within the adjacent park. The pond and woods to the south showed higher diversity of species with moorhen and mallard breeding here.

6 ASSESSMENT OF IMPACTS

There will be no direct or indirect impact on Natura site located within the potential zone of influence. The potential for impacts on these sites was considered in the Appropriate Assessment Screening Report and the Natura Impact Statement compiled for the project. It was concluded with the inclusion of SuDS features and Construction Management that there would be no significant effect on any European site.

No evidence of Oystercatchers or Brent geese were recorded within or surrounding the site during any surveys. Of the conservation objective species noted in table 3-1 only Black-headed gull were observed flying within and surrounding the site. This species was found not to be breeding here and like other species of gulls, is likely to breed on the tops of buildings in urban areas. Swifts were not recorded breeding within or adjacent to the site although several observations of the species were noted overflying the site during the July 2021 survey. Overall the subject site is of low value to the Wintering birds for which coastal SPAs are designated and given the distance of removal; over 4km there will be no loss of foraging habitat to Annexed species such as Light-bellied Brent Goose.

The conversion of the field from pasture to built land will result in the loss of this habitat for some species of feeding birds. It should be noted bird activity from the site was low and typically from bird species of low conservation concern. There are also large areas of parkland in the surround areas thus impacts are viewed as long term negligible negative in scale.

7 MITIGATION MEASURES

- Vegetation cutting will be carried out only outside the bird-nesting season March 1st – August 31st in order to avoid impacts on nesting birds.
- A suitably qualified ecologist will be employed to review the Construction Environmental Management Plan and will visit the site during site preparation and during the construction works to meet the contractor and review how the plan measures are being implemented.
- A bird boxes scheme should be implemented within the landscape plan to offset any potential lost nesting habitat within the subject site. Bird boxes should include swift boxes attached at height to the buildings. Guidance on positioning of boxes should be taken from Swift Conservation Ireland. No lighting should be directed at any bird box or on the flight path of swifts approaching nest boxes. A lighting specialist should be employed to ensure on site lighting complies with this measure.
- It is likely gull species will utilise the tops of the buildings as a breeding habitat. Should this occur these species should not be interfered with.

8 RESIDUAL IMPACTS

Residual impacts are those that occur after the mitigation measures have taken effect. If the mitigation measures listed above are employed during construction, then there will be minimal impact on bird species from the proposed development.

9 Bibliography

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10 Appendix A – Tables and Data

Table 10-1 Species of note March 2020 walked surveys

March 2020 - Species of note						
Species	X	Y	Number of birds	Habitat	Breeding code	Location
Black-headed Gull	717584.7	726878.3	2	Grassland	Flying	Ballawley Park
Herring Gull	717615.3	726963.6	1	Grassland	Flying	Ballawley Park
Black-headed Gull	716650.9	727190.3	1	Hedgerow	Flying	Ludford Drive
Black-headed Gull	716303.1	727249.4	59	Grassland	Flying	Ludford Drive
Black-headed Gull	716288.3	727349.9	41	Grassland	Flying	Ludford Drive
Herring Gull	716288.3	727349.9	1	Grassland	Flying	Ludford Drive
Little Egret	716833.5	727212.3	1	Freshwater	Suitable nesting habitat	Ludford Drive
Black-headed Gull	717361.4	727018.3	5	Conifers	Flying	Gort Muire Woodland
Black-headed Gull	717350.1	727176.3	7	Treeline	Flying	Gort Muire Woodland
Great Black-backed Gull	717358.3	726916	1	Grassland	Flying	Marmalade Lane
Mallard	717237.6	726941.8	1	Freshwater	Flying	Gort Muire Woodland
Mallard	717231.6	726938.8	2	Freshwater	Pair	Gort Muire Woodland
Common Moorhen	717223.2	726949.3	2	Freshwater	Pair	Gort Muire Woodland
Black-headed Gull	717404.6	727240.5	5	Grassland	Flying	St Tiernan's Park
Herring Gull	717128.3	726730.4	1	Grassland	Flying	Wesley College

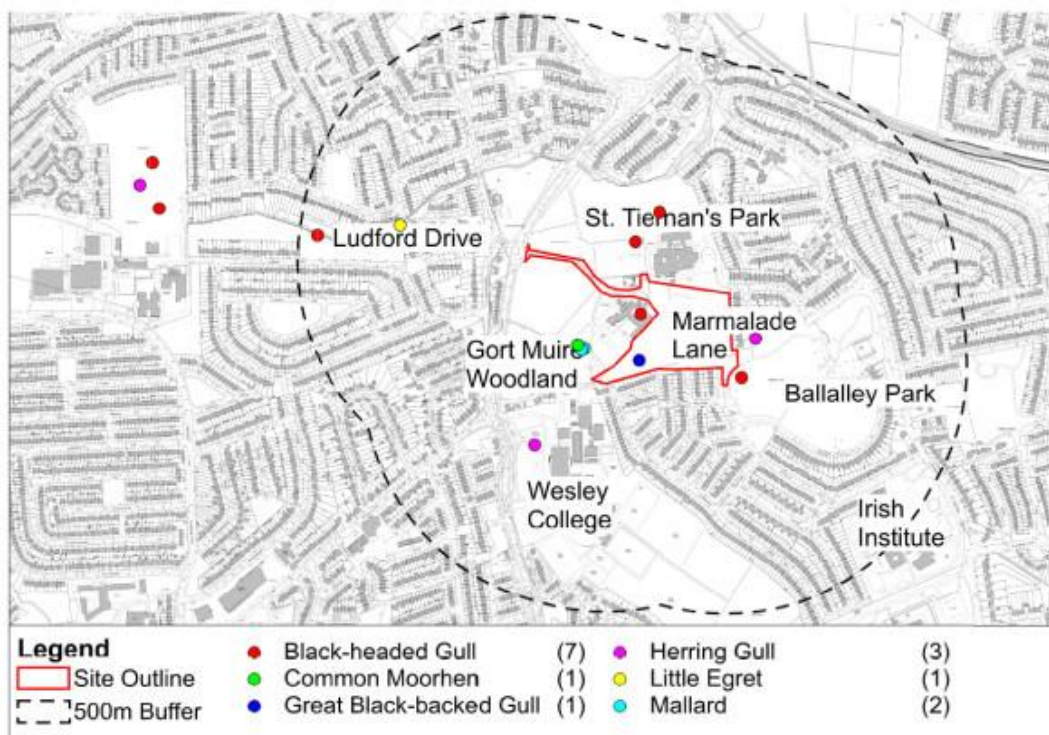


Table 10-2: March 2020 species of note

Table 10-3 Other species recorded within the site and the surrounding areas.

March 2020						
Species	X	Y	Number of birds	Habitat	Breeding code	Location
Magpie	717232.2	727113.4	1	Built Land	Flying	Marmalade Lane
Rock Dove	717223.2	727115	1	Built Land	Flying	Marmalade Lane
Wood Pigeon	717426.9	727062.8	1	Scattered Trees	Perched	Marmalade Lane
Starling	717530.1	727007.5	9	Grassland	Perched	Marmalade Lane
Blackbird	717524.2	727069.1	1	Treeline	Perched	Marmalade Lane
Wren	717558	727013.5	1	Hedgerow	Flying	Marmalade Lane
European Robin	717562	727011.3	1	Built Land	Flying	Marmalade Lane
Wood Pigeon	717561.2	726973.2	1	Treeline	Flying	Marmalade Lane
Jackdaw	717489.2	726915.4	2	Grassland	Flying	Marmalade Lane
Wren	717466.1	726918.6	1	Scrub	Flying	Marmalade Lane
Magpie	717377.1	726888.7	2	Treeline	Pair	Marmalade Lane
Wood Pigeon	717369	726891.8	2	Treeline	Pair	Marmalade Lane
Raven	717364.2	726937.8	1	Grassland	Flying	Marmalade Lane
Magpie	717321.2	726934.5	6	Conifers	Flying	Marmalade Lane
Blackbird	717201.9	726973.7	1	Scattered Trees	Flying	Marmalade Lane
Hooded Crow	717225.4	727005.3	2	Treeline	Flying	Marmalade Lane
Coal Tit	717255.2	727034.6	1	Hedgerow	Flying	Marmalade Lane
Song Thrush	717376.3	727041.7	2	Built Land	Flying	Marmalade Lane
Jackdaw	717275.5	727070.1	2	Treeline	Flying	Marmalade Lane

March 2020						
Species	X	Y	Number of birds	Habitat	Breeding code	Location
Blackbird	717712.3	726965.8	1	Conifers	Flying	Ballawaley Park
Wood Pigeon	717842.4	726811.8	1	Treeline	Flying	Ballawaley Park
Magpie	717759.4	726751.7	1	Grassland	Flying	Ballawaley Park
Wood Pigeon	717667.8	726826.1	1	Treeline	Flying	Ballawaley Park
Jackdaw	717632.6	726766.4	2	Grassland	Flying	Ballawaley Park
Hooded Crow	717649.6	726820.4	1	Grassland	Flying	Ballawaley Park
Starling	717565.6	726894.1	15	Scattered Trees	Flying	Ballawaley Park
Hooded Crow	717569.2	726845.4	1	Treeline	Flying	Ballawaley Park
Blackbird	717537.8	726913.5	1	Treeline	Pair	Ballawaley Park
Mistle Thrush	717570.3	726914.5	1	Treeline	Flying	Ballawaley Park
Wood Pigeon	717560.1	726924.8	2	Treeline	Flying	Ballawaley Park
Coal Tit	717602.6	726949.9	1	Treeline	Flying	Ballawaley Park
Blackbird	717726	726860.1	1	Treeline	Flying	Ballawaley Park
Goldfinch	717828.1	726891.4	24	Scattered Trees	Flying	Ballawaley Park
Hooded Crow	717838.4	726869	1	Treeline	Flying	Ballawaley Park
Blue Tit	717829	727036.2	3	Treeline	Suitable habitat nesting	Ballawaley Park
Great Tit	717852.9	727027.7	1	Treeline	Flying	Ballawaley Park
Song Thrush	717866.9	727045.4	1	Treeline	Flying	Ballawaley Park
Song Thrush	717695.4	726915.3	1	Grassland	PRB Pair	Ballawaley Park
Collared Dove	716826.7	727205.7	1	Treeline	Flying	Ludford Drive
Magpie	716813.9	727186.4	2	Grassland	Pair	Ludford Drive
Jackdaw	716639.4	727159.9	1	Grassland	Flying	Ludford Drive
Hooded Crow	716576.9	727185.1	1	Grassland	Flying	Ludford Drive
Common Gull	716311.7	727249.2	2	Grassland	Flying	Ludford Drive
Jackdaw	716304.4	727259.5	2	Grassland	Flying	Ludford Drive
Goldfinch	716660.6	727194.8	10	Conifers	Flying	Ludford Drive
Wood Pigeon	716598.2	727022.6	3	Grassland	Flying	Ludford Drive
Blackbird	717329	727317.1	1	Scrub	Flying	St Tiernans Park
Magpie	717348.3	727297.6	2	Treeline	Flying	St Tiernans Park
Magpie	717500.4	727417.7	1	Grassland	Flying	St Tiernans Park
Magpie	717459.1	726461.8	1	Grassland	Flying	St Tiernans Park
Hooded Crow	717584.5	726379.3	1	Grassland	Flying	St Tiernans Park
Magpie	717827.5	726533.8	3	Treeline	Flying	Irish Management Institute
Wood Pigeon	717963.2	726663.6	3	Grassland	Flying	Irish Management Institute
Blue Tit	718050.5	726583.8	1	Treeline	Flying	Irish Management Institute
Wood Pigeon	718038.9	726601.6	1	Treeline	Flying	Irish Management Institute
Hooded Crow	718025.4	726634.4	2	Treeline	Pair	Irish Management Institute
Magpie	717117.8	726710.4	4	Grassland	Suitable habitat nesting	Wesley College
Wood Pigeon	717109.7	726629.8	2	Treeline	Flying	Wesley College
Jackdaw	717398.7	727074.2	1	Treeline	Flying	Marmalade Lane
Jackdaw	717427.4	727071.1	1	Treeline	Flying	Marmalade Lane
Great Tit	717420.1	727083.3	1	Scrub	Flying	Marmalade Lane
Blackbird	717439.3	727068.7	1	Conifers	Flying	Marmalade Lane

March 2020						
Species	X	Y	Number of birds	Habitat	Breeding code	Location
Jackdaw	717285.2	726911.5	42	Mixed woodland	Flying	Marmalade Lane
Magpie	717294.9	726908.4	8	Mixed woodland	Flying	Marmalade Lane
Starling	717365.9	726994.9	64	Built Land	Flying	Marmalade Lane

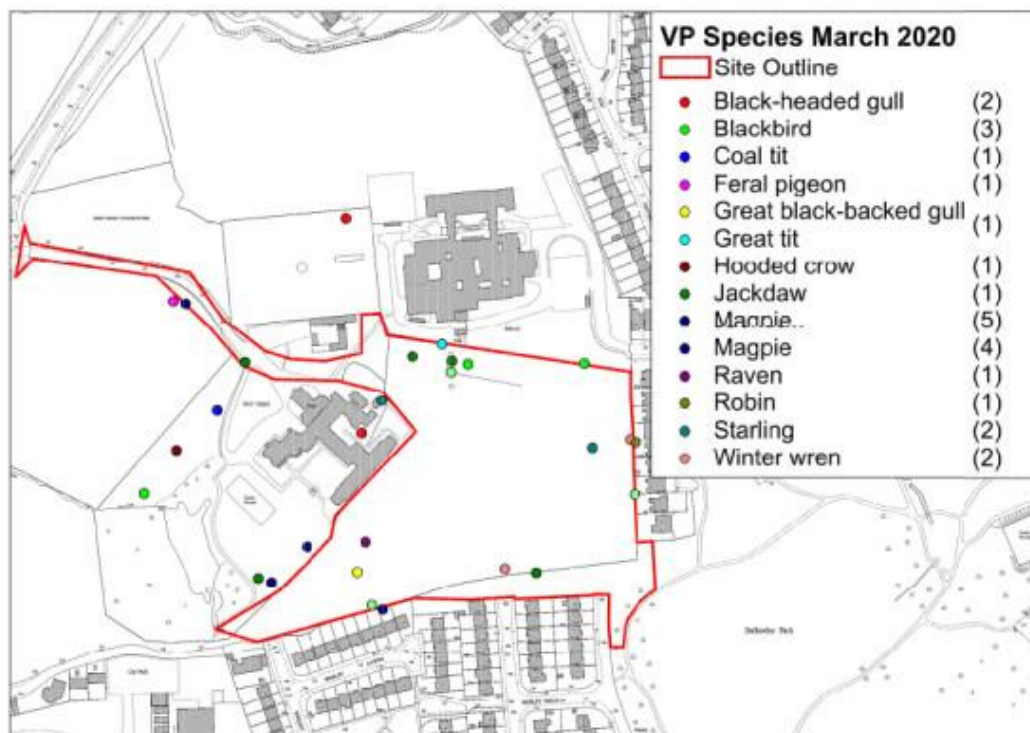


Table 10-4: March VP bird locations

Table 10-5 Species of note June 2020 walked surveys

01 st June 2020						
Species	X	Y	Number of birds	Habitat	Breeding code	Location
Herring gull	53.27978	-6.23734	1	Grass / lawn	Flying	Marmalade Lane
Great black-backed gull	53.2792	-6.23961	1	Built land	Flying	Marmalade Lane
Moorhen	53.27991	-6.24204	6	Fresh water	B Nest young seen or heard	Gort Muire pond and woods
Mallard	53.27988	-6.24211	1	Fresh water	Flying	Gort Muire pond and woods
Tree creeper	53.27954	-6.24167	1	Mixed woodland	PSB suitable nesting habitat	Gort Muire pond and woods
Herring gull	53.27944	-6.23716	8	Grass / lawn	Flying	Ballawaley Park
Herring gull	53.27602	-6.23261	1	Built land	Flying	Irish Management Institute
Mallard	53.28243	-6.24771	1	Fresh water	PSB suitable nesting habitat	Ludford Drive

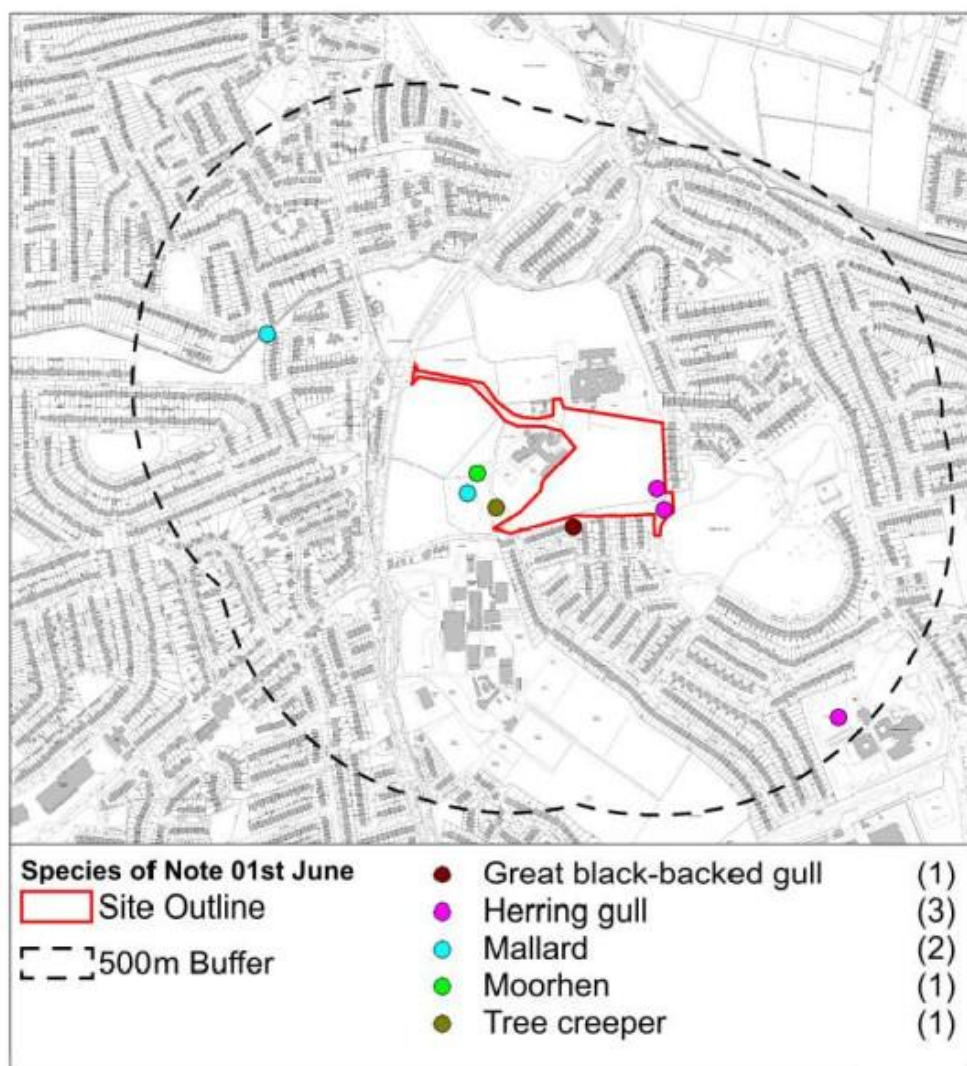


Table 10-6: Breeding bird survey June 2020

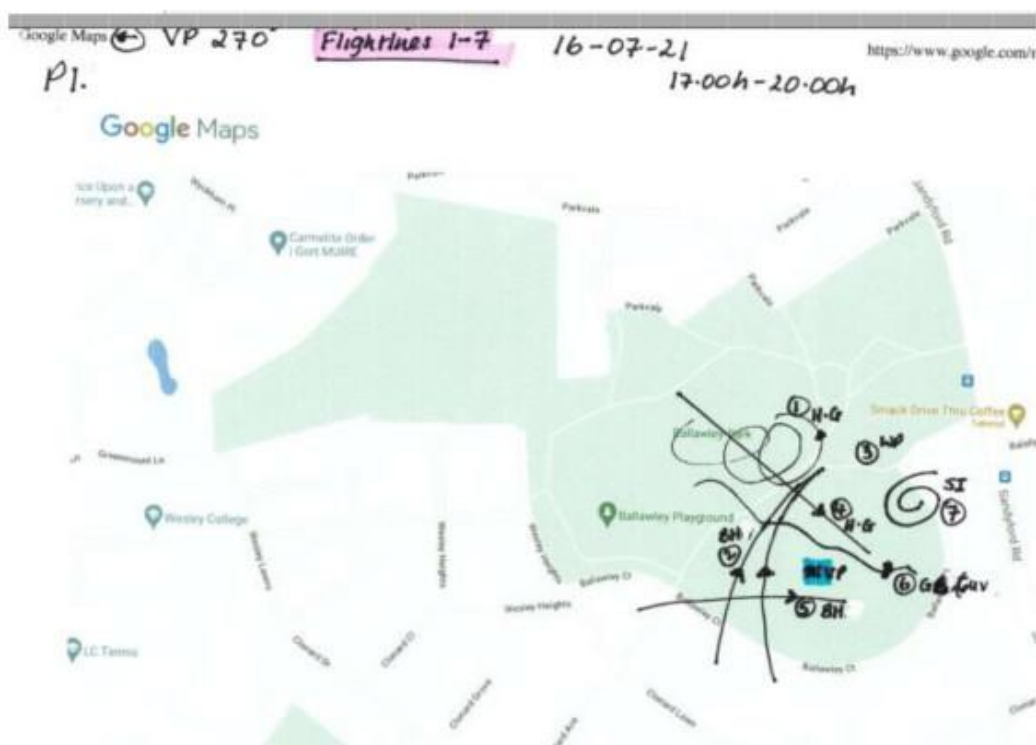
Other species – 01 st June 2020						
Species	X	Y	Number of birds	Habitat	Breeding code	Location
Eurasian Jackdaw	53.27966	-6.2416	4	Mixed woodland	PSB suitable nesting habitat	Gort Muire Woodland
Coal Tit	53.27945	-6.24196	1	Mixed woodland	PSB suitable nesting habitat	Gort Muire Woodland
Eurasian Jackdaw	53.28007	-6.24098	8	Grass / lawn	Flying	Marmalade Lane
Common Wood Pigeon	53.28008	-6.23347	3	Mixed woodland	PSB suitable nesting habitat	Ballawaley Park
Common Wood Pigeon	53.28035	-6.23308	1	Mixed woodland	PSB suitable nesting habitat	Ballawaley Park
European Robin	53.28041	-6.23328	1	Mixed woodland	PSB suitable nesting habitat	Ballawaley Park
Common Blackbird	53.28017	-6.23464	1	Deciduous woods	Flying	Ballawaley Park

Other species – 01 st June 2020						
Species	X	Y	Number of birds	Habitat	Breeding code	Location
Wren	53.27954	-6.23749	1	Hedgerow	PSB suitable nesting habitat	Ballawaley Park
Hooded Crow	53.27902	-6.23658	1	Grass / lawn	Flying	Ballawaley Park
Coal Tit	53.27855	-6.23631	1	Treeline	PSB suitable nesting habitat	Ballawaley Park
Magpie	53.27937	-6.23423	2	Mixed woodland	PRB Pair	Ballawaley Park
Dunnoek	53.27999	-6.23404	1	Bramble scrub	PRB Pair	Ballawaley Park
Great Tit	53.27949	-6.23431	1	Mixed woodland	PSB suitable nesting habitat	Ballawaley Park
European Goldfinch	53.27943	-6.23393	3	Mixed woodland	PSB suitable nesting habitat	Ballawaley Park
Common Blackbird	53.27934	-6.23317	1	Bramble scrub	PSB suitable nesting habitat	Ballawaley Park
Blue Tit	53.27837	-6.23372	1	Treeline	PRB Agitated behaviour	Ballawaley Park
Song Thrush	53.2803	-6.2341	1	Treeline	PSB Singing male	Ballawaley Park
Common Wood Pigeon	53.27697	-6.23114	1	Treeline	PSB suitable nesting habitat	Irish Management Institute
Blue Tit	53.27703	-6.23149	1	Treeline	PSB suitable nesting habitat	Irish Management Institute
Wren	53.27669	-6.23022	1	Treeline	Flying	Irish Management Institute
Blackcap	53.2759	-6.22972	1	Treeline	PSB suitable nesting habitat	Irish Management Institute
Hooded Crow	53.2766	-6.23098	1	Grass / lawn	Flying	Irish Management Institute
Magpie	53.27642	-6.23237	2	Built land	PRB Pair	Irish Management Institute
Magpie	53.27675	-6.23134	2	Grass / lawn	PRB Pair	Irish Management Institute
Common Wood Pigeon	53.28163	-6.2371	1	Built land	Flying	St Tiernans Park
Herring Gull	53.28152	-6.23876	1	Built land	Flying	St Tiernans Park
Magpie	53.28196	-6.23721	1	Built land	Flying	St Tiernans Park
Feral Pigeon	53.28216	-6.23737	9	Built land	Flying	St Tiernans Park
Common Blackbird	53.28252	-6.24773	1	Built land	PSB suitable nesting habitat	Ludford Drive
Chaffinch	53.28336	-6.24512	1	Treeline	PSB suitable nesting habitat	Ludford Drive
Common Wood Pigeon	53.28334	-6.24512	1	Treeline	PSB suitable nesting habitat	Ludford Drive
Grey Wagtail	53.28342	-6.24407	1	Fresh water	PSB suitable nesting habitat	Ludford Drive
Common Wood Pigeon	53.28352	-6.24376	1	Treeline	Flying	Ludford Drive
Common Wood Pigeon	53.28326	-6.24146	1	Treeline	PSB suitable nesting habitat	Ludford Drive
Common Blackbird	53.28319	-6.24125	1	Treeline	PSB suitable nesting habitat	Ludford Drive
Common Wood Pigeon	53.27844	-6.24365	5	Grass / lawn	PSB suitable nesting habitat	Wesley College
Common Starling	53.27836	-6.2437	1	Grass / lawn	PSB suitable nesting habitat	Wesley College

Other species – 01 st June 2020						
Species	X	Y	Number of birds	Habitat	Breeding code	Location
Magpie	53.27821	-6.24373	2	Treeline	PRB Pair	Wesley College
Common Blackbird	53.27775	-6.24365	1	Treeline	PSB suitable nesting habitat	Wesley College
Common Wood Pigeon	53.27703	-6.24333	1	Treeline	PSB suitable nesting habitat	Wesley College
Hooded Crow	53.27737	-6.24402	1	Treeline	PSB suitable nesting habitat	Wesley College
Hooded Crow	53.27662	-6.24284	2	Treeline	PRB Pair	Wesley College
Great Tit	53.27649	-6.24308	1	Treeline	PSB suitable nesting habitat	Wesley College
Magpie	53.27763	-6.24403	2	Treeline	PRB Pair	Wesley College

PSB; Possibly breeding, PRB Probably breeding, B; Breeding

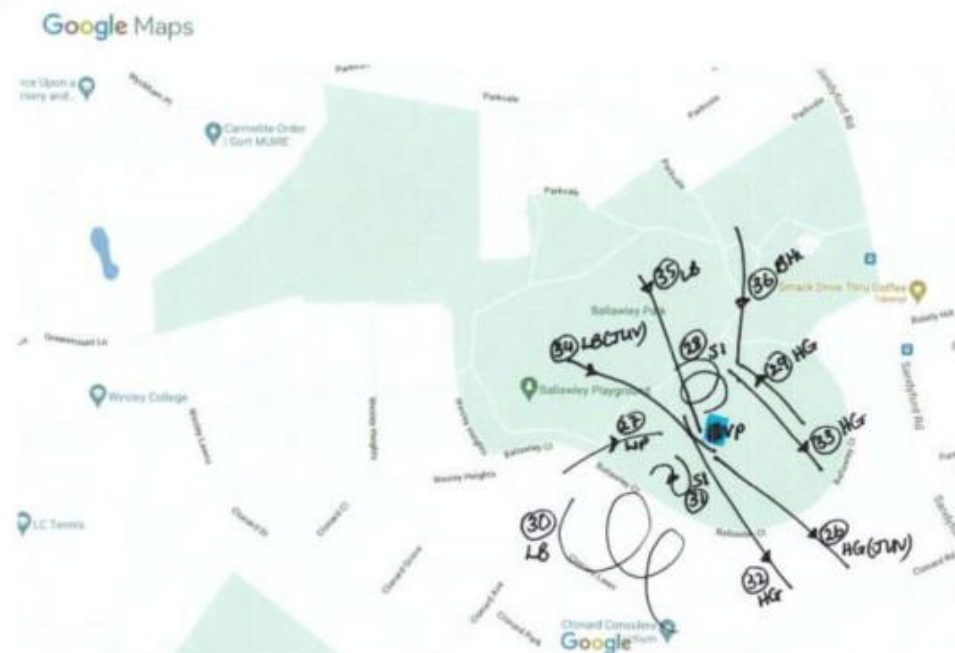
Table 10-7 Flight lines – Vantage point surveys July 2021

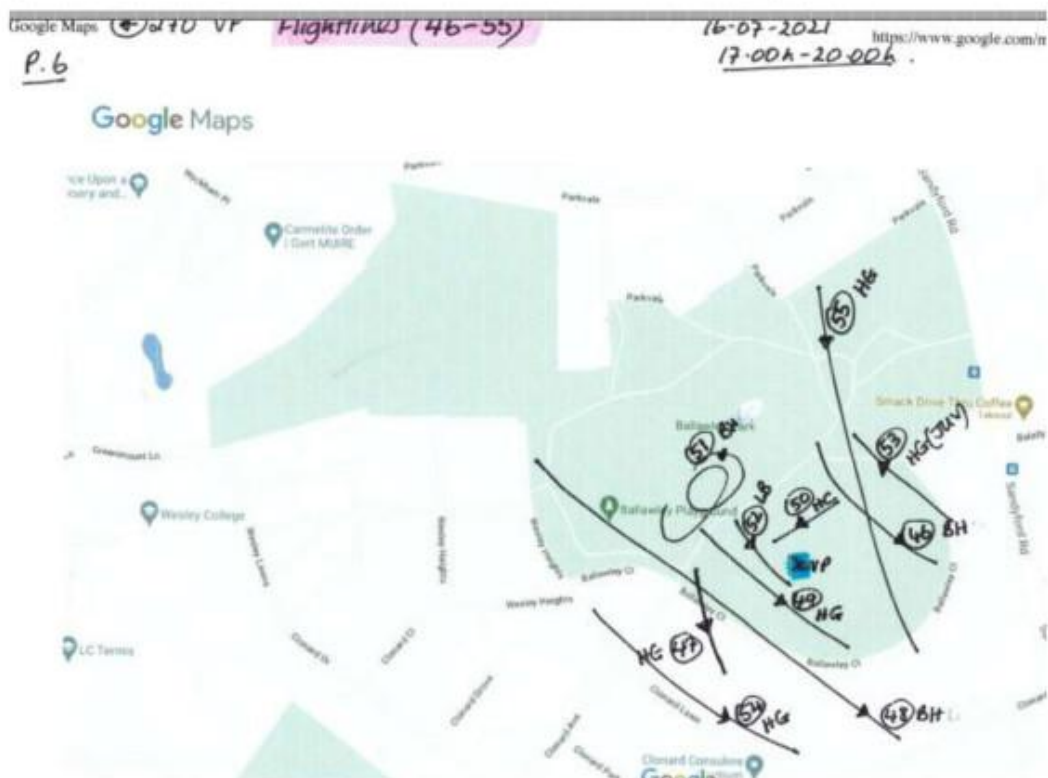
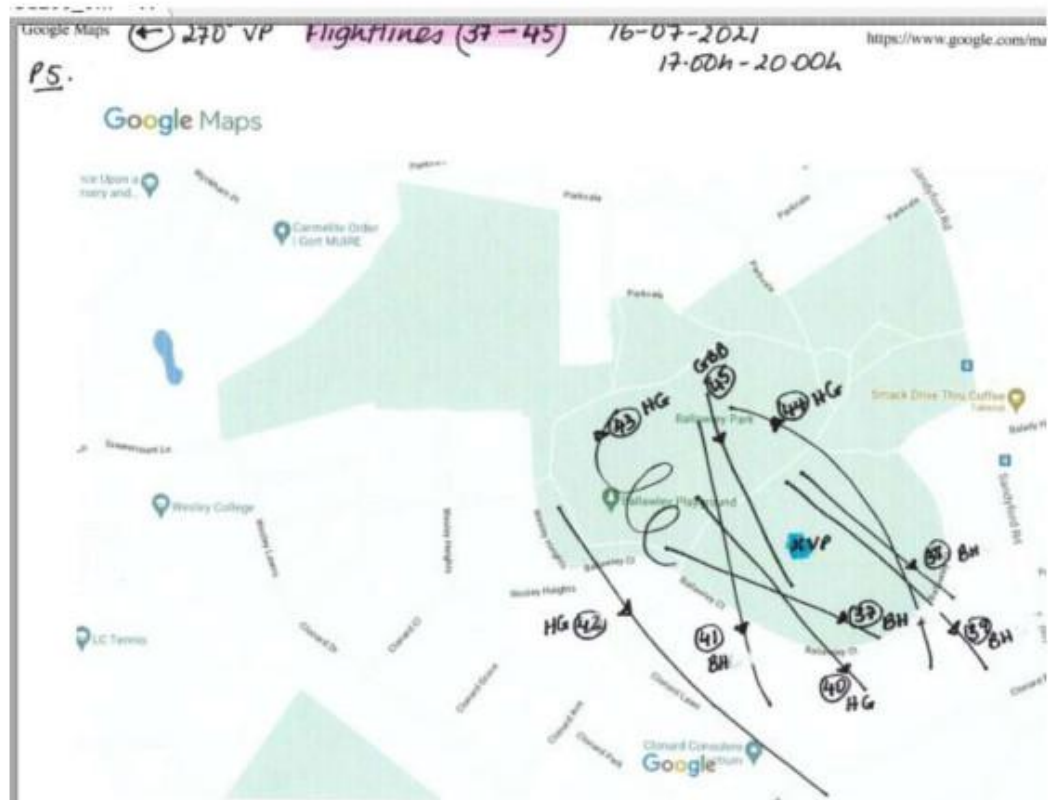


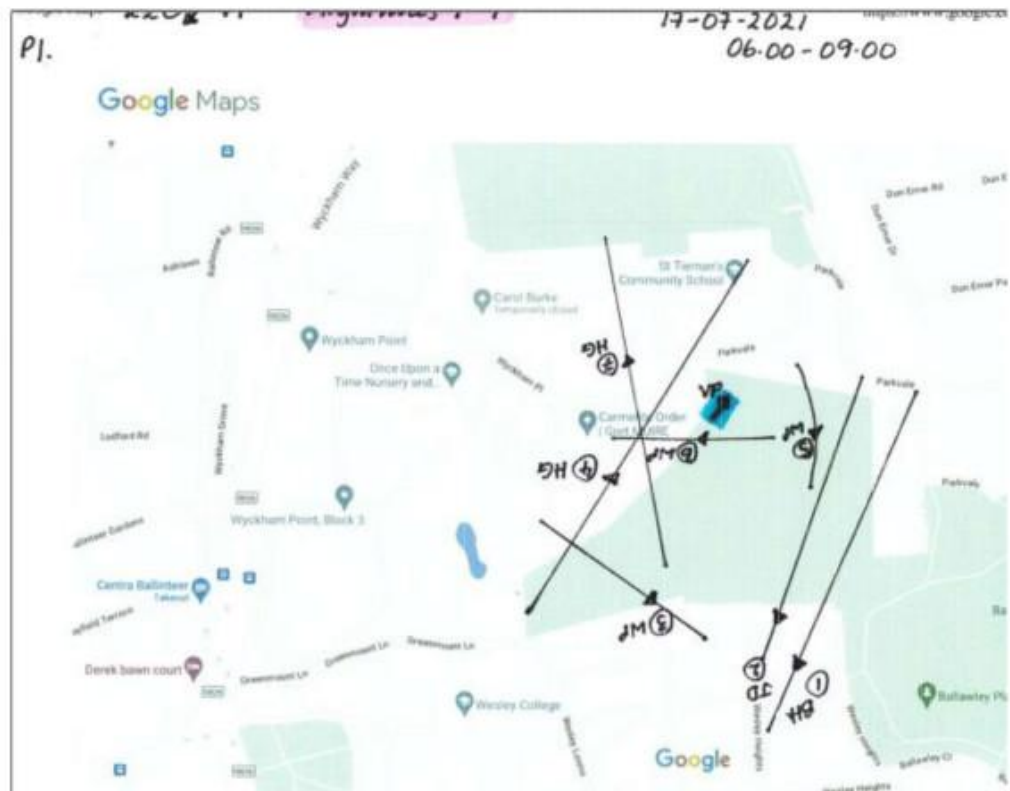
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Google Maps VP 270° ↻ *Flighttimes (16-25)* 16-07-2021 17:00h - 20:00h <https://www.google.com>
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Google Maps VP 270° ↻ *Flighttimes (26-36)* 16-07-2021 17:00h - 20:00h <https://www.google.com/maps>
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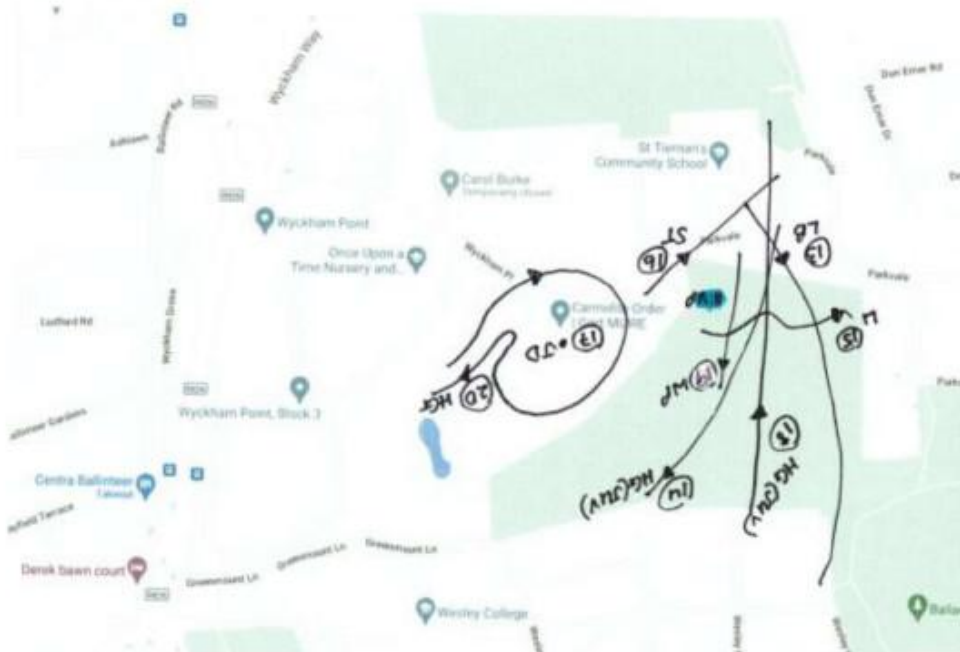


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17-07-2021
06:00 - 09:00

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Table 10-8: Breeding bird survey July 2021

Common name	Species quantity	Bird notes		Location
Moorhen	5	3 Adults, 2 fledglings	Breeding	Gort Muire Woodland
Mallard	3	3 young birds, resting pond, probable females	Breeding	Gort Muire Woodland
Herring gull	3	Circling convent	PSB suitable nesting habitat	Gort Muire Woodland
Black headed gull	1	flew over convent	Flying	Gort Muire Woodland
Blackbird	1	-	PSB suitable nesting habitat	Gort Muire Woodland
Magpie	7	Around the convent grounds	PSB suitable nesting habitat	Gort Muire Woodland
Woodpigeon	5	-	PSB suitable nesting habitat	Gort Muire Woodland
Chiffchaff	1	male heard in tree	PSB Singing male	Gort Muire Woodland
Bluetit	5	juveniles, yellow	Breeding	Marmalade Lane
Goldfinch	6_10	mainly juveniles, didn't have adult plumage	Breeding	Marmalade Lane
Woodpigeon	1	-	PSB suitable nesting habitat	Ludford Drive
Rook	1	-	PSB suitable nesting habitat	Ludford Drive
Songthrush	1	-	PSB suitable nesting habitat	Ludford Drive
Woodpigeon	1	-	PSB suitable nesting habitat	Ludford Drive
Woodpigeon	1	-	PSB suitable nesting habitat	Ludford Drive
Grey heron	1	Juvenile fishing in stream	Breeding	Ludford Drive
Woodpigeon	4	foraging in parkland	PSB suitable nesting habitat	St. Tiernans
Bluetits	2+	vocalising in woodland	PSB Singing male	St. Tiernans
Herring gull	1	circling over road	Flying	St. Tiernans
Rook	4	foraging in pitch	Flying	Ballawley Park
Woodpigeon	2	-	PRB Pair	Ballawley Park
Robin	1	vocalising in woodland	PSB Singing male	Ballawley Park
Blackbird	1	Female-alarm call	PRB Agitated behaviour	Ballawley Park
Herring gull	2	circling	Flying	Ballawley Park
Great tit	2	Juveniles	Breeding	Ballawley Park
Rook	1	-	PSB suitable nesting habitat	Ballawley Park
Hooded crow	1	-	PSB suitable nesting habitat	Ballawley Park
Woodpigeon	1	-	PSB suitable nesting habitat	Ballawley Park
Songthrush	1	vocalising	PSB Singing male	Ballawley Park
Robin	1	vocalising	PSB Singing male	Ballawley Park
Great tit	2	-	PSB suitable nesting habitat	Ballawley Park
Goldfinch	1	-	PSB suitable nesting habitat	Ballawley Park

Woodpigeon	2	-	PSB suitable nesting habitat	Ballawley Park
Woodpigeon	4	-	PSB suitable nesting habitat	Ballawley Park
Rook	2	foraging	PRB Pair	Ballawley Park
Jackdaw	3	foraging	PSB suitable nesting habitat	Ballawley Park
Woodpigeon	2	-	PSB suitable nesting habitat	Ballawley Park
Magpie	3	-	PSB suitable nesting habitat	Ballawley Park
Goldcrest	2	-	PSB suitable nesting habitat	Wesley College
Greenfinch	10	Mixture of juveniles and adults	Breeding	Wesley College
Blackbird	1	-	PSB suitable nesting habitat	Wesley College
Goldfinch	1	-	PSB suitable nesting habitat	Wesley College

Table 10-9 Species of note October 2021 Vantage point surveys

Start and finish times	Time of sighting	Species	Number	Map reference	Notes
12:00 - 15:00	0	-	-	-	Nothing of interest was recorded at this VP. Common Gull, Black-headed Gull and Herring Gull were recorded flying over the site in all directions throughout the watch. Only Magpie and Hooded crow were recorded landed in the proposed site during this watch.
15:30 - 18:30	15:52	Sparrowhawk	1	1	Sparrowhawk flew in from south east being mobbed by Mistle thrush and Goldfinch. Flew over the site 25 seconds 5-10 meters before flying south.
	16:40	Herring Gull	2	2	Adult feeding fledged chick on roof of nursing home. Possibly still provisioning at or near nest site.
	17:29	Kestrel	1	3	Recorded flying east 10-15m for 20 seconds. This record was off site but inside 500m buffer.

Table 10-10 Flight lines October 2021

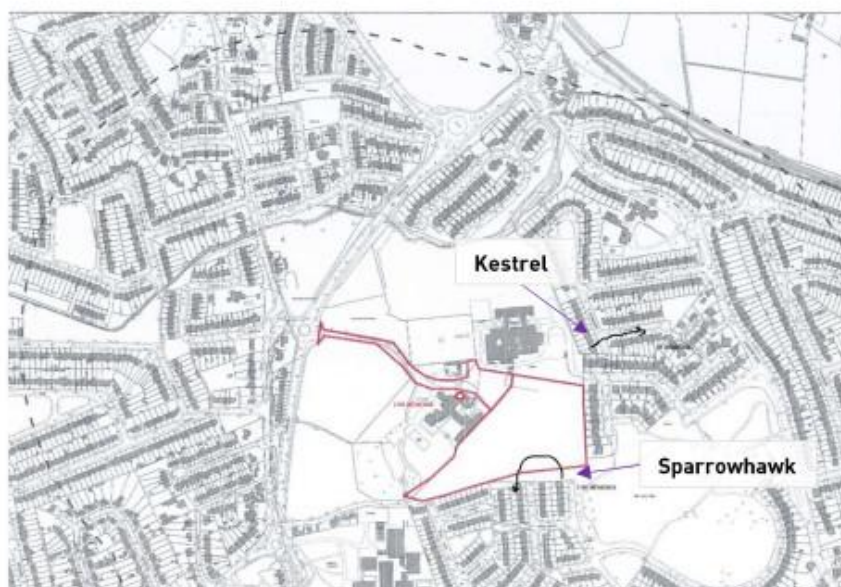


Table 10-11 Species list October 2021 Vantage point survey

Name		
Black headed Gull	Herring Gull	Redwing
Blackbird	Hooded Crow	Robin
Blue Tit	Jackdaw	Rock Dove
Chaffinch	Linnit	Rook
Coal Tit	Longtail Tit	Sparrowhawk
Common Gull	Magpie	Starling
Dunock	Mistlethrush	Wintering Wren
Goldfinch	Pied Wagtail	Woodpigeon
Great Tit		

Table 10-12 Walkover / point counts – species of note, October 2021

Location	Species	Numbers	Grid Ref	Activity	Notes
Ballalley Park	Common Gull	2	017637,26896	Flying	Flying north east
Ballalley Park	Common Gull	1	017815,26979	Flying	Flying west
Ballalley Park	Black headed Gull	3	017888,26939	Flying	Flying north
Ballalley Park	Common Gull	2	017951,26940	Flying	Flying east
Ballalley Park	Black headed Gull	16	017767,26889	Feeding	Feeding on open parkland
St. Tiernan's Park	Herring Gull	5	017521,27157	Perched	Perched on roof of St. Tiernan's school
St. Tiernan's Park	Black headed Gull	4	017521,27157	Perched	Perched on roof of St. Tiernan's school
Gort Muire Woodland	Herring Gull	2	017382,27018	Flying	Circling over the site
Gort Muire Woodland	Little Grebe	2	017312,26913	Feeding	Feeding on pond

Gort Muire Woodland	Mallard	2	017312,26913	Feeding and preening	Preening and feeding on pond
Gort Muire Woodland	Moorhen	5	017312,26913	Feeding	2 adults 3 juveniles feeding on pond
Wesley Collage	No access - asked to leave by grounds man.				
Ludford Drive	Black headed Gull	1	016861,27124	Feeding	On open parkland
Ludford Drive	Black headed Gull	1	016802,27121	Feeding	On open parkland
Ludford Drive	Grey heron	1	016819,27150	Flying	Flying east 5-10 meters
Dundrum football grounds	Black headed Gull	19	016356,27284	Feeding	Feeding on Dundrum football grounds – situated outside the 500m boundary

Table 10-13 Walkover / point counts – species list, October 2021

Location	Species	
Ballalley Park	Blackbird	Herring Gull
Ballalley Park	Chaffinch	Jack Daw
Ballalley Park	Coal Tit	Magpie
Ballalley Park	Common Gull	Robin
Ballalley Park	Dunock	Starling
Ballalley Park	Goldfinch	Wintering Wren
Ballalley Park	Great Tit	Woodpigeon
St. Tiernan's Park	Black-headed Gull	Linnit
St. Tiernan's Park	Blue Tit	Magpie
St. Tiernan's Park	Chaffinch	Robin
St. Tiernan's Park	Grey Wagtail	Rock Dove
St. Tiernan's Park	herring Gull	Starling
St. Tiernan's Park	Hooded Crow	Wintering Wren
St. Tiernan's Park	Jack Daw	Woodpigeon
Gort Muire Woodland	Blackbird	Jack Daw
Gort Muire Woodland	Chaffinch	Little Grebe
Gort Muire Woodland	Coal Tit	Magpie
Gort Muire Woodland	Goldfinch	Mallard
Gort Muire Woodland	Goldfinch	Moorhen
Gort Muire Woodland	Great Tit	Robin
Gort Muire Woodland	Herring Gull	Wintering Wren
Gort Muire Woodland	Hooded Crow	Woodpigeon
Ludford Drive	Black-headed Gull	Magpie
Ludford Drive	Blue Tit	Mallard
Ludford Drive	Chaffinch	Robin
Ludford Drive	Coal Tit	Rock Dove
Ludford Drive	Goldfinch	Rook

Ludford Drive	Grey Heron	Wintering Wren
Ludford Drive	Hooded Crow	Woodpigeon
Ludford Drive	Jack Daw	