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Marine & Environmental Consultancy

Appropriate Assessment Screening for a proposed development at former Central Mental Hospital, Dundrum Road, Dublin 14.

29th April 2025

Prepared by: Bryan Deegan (MCIEEM) of Altemar Ltd.
On behalf of: Dún Laoghaire Rathdown County Council and the Land Development Agency

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Document Control Sheet			
Project	Appropriate Assessment Screening for large-scale residential development at former Central Mental Hospital, Dundrum Road, Dublin 14		
Report	Appropriate Assessment Screening		
Date	29th April 2025		
Version	Author	Reviewed	Date
Draft 01	Bryan Deegan	Gayle O'Farrell	13th June 2024
Planning	Bryan Deegan		25th September 2024
RFI	Bryan Deegan		29th April 2025

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Introduction

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 (Special Areas of Conservation (SAC) or Special Protection Areas (SPA)).

The following Appropriate Assessment Screening has been prepared by Altemar Ltd. at the request of Dún Laoghaire Rathdown County Council and the Land Development Agency for the proposed development on the lands at the Central Mental Hospital, Dundrum Road, Dundrum, Dublin 14. The AA Screening stage examines the likely significant effects of the proposed development, 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, in view of best scientific knowledge and the conservation objectives of the relevant European sites, that there are not likely to be significant effects on any European site.

The following AA Screening takes into account the amendments made to the project following the receipt of a Request for Further Information (RFI) from An Bord Pleanála on the 12th March 2025. As outlined in Point 8 of the RFI "*Having regard to the foregoing, the applicant is requested to amend the Appropriate Assessment Screening Report and Natura Impact Statement by way of an addendum, as necessary*." The following report consists of an updated AA Screening to take into account the all project elements including the updated elements in the RFI. These changes subject to planning conditions primarily consist of:

- A single-exit lane layout for the main vehicular exit onto Dundrum Road in place of the proposed two-lane exit (referred to as Option B);
- Revisions to the detailed design of the potential pedestrian/cycle link to Annaville;
- Revised priority crossing arrangements for the Active Travel Route;
- Minor adjustment of certain windows on specific apartments;
- Further landscape detail in respect of Privacy Strips between apartments and adjoining public/communal open space.

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.

Statement of Authority

Bryan Deegan (MCIEEM) prepared this AA Screening. Bryan is the managing director of Altemar. Bryan is an environmental scientist, aquatic 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).

Background to the Appropriate Assessment

The Habitats Directive 92/43/EEC (together with the Birds Directive (2009/1477/EC)) forms the cornerstone of Europe's nature conservation policy. The 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.*

[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;

- *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."*

Stages of the Appropriate Assessment

This Appropriate Assessment screening report 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. This AA screening report was prepared by to provide the competent authority (Board) with information necessary to meet their obligation of carrying out AA screening, to determine whether AA is required. 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
    - Identification of relevant European sites, and compilation of information on their qualifying interests and conservation objectives
    - Identification and description of individual in combination effects likely to result from the proposed project;
    - Assessment of the likely significance of the effects identified above. Exclusion of sites where it can be objectively concluded that there will be no likely significant effects; and,

      Conclusions
2) Appropriate Assessment (Natura Impact Statement):
    - Description of the European sites that will be considered further;
    - Identification and description of potential adverse impacts on the conservation objectives of these sites likely to occur from the project or plan; and,
    - Mitigation Measures that will be implemented to avoid, reduce or remedy any such potential adverse impacts
    - Assessment as to whether, following the implementation of the proposed mitigation measures, it can be concluded, beyond all reasonable scientific doubt, that there will be no adverse impact on the integrity of the relevant European Site in light of its conservation objectives"
    - Conclusions.

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

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

Stage 1 Screening Assessment

Project Description

Dún Laoghaire Rathdown County Council, in partnership with The Land Development Agency, is seeking a ten year approval to carry out the following proposed development which is located on a total application site area of c. 9.7 ha, located on the former Central Mental Hospital, Dundrum Road, Dundrum, Dublin 14 and areas of Dundrum Road and St. Columbanus Road, Dublin 14. The subject site is in the immediate setting and curtilage of a number of protected structures, namely the 'Asylum' (RPS No. 2072), the 'Catholic Chapel' (RPS No. 2071) and the 'Hospital Building' (RPS No. 2073).

The development will consist of the construction of a residential scheme of 934 no. dwellings on an overall site of c. 9.7 ha.

The development will consist of the demolition of existing structures associated with the existing use (3,677 sq m), including:

- Single storey former swimming pool / sports hall and admissions unit (2,750 sq m);
- Two storey redbrick building (305 sq m);
- Single storey ancillary and temporary structures including portacabins (618sq m);
- Removal of existing internal sub-divisions/ fencing, including removal of security fence at Dundrum Road entrance;
- Demolition of section of porch and glazed screens at Gate Lodge building (4 sq m);
- Removal of walls adjacent to Main Hospital Building;
- Alterations and removal of section of wall to Walled Garden.

The development will also consist of alterations and partial demolition of the perimeter wall, including:

- Alterations and removal of section of perimeter wall adjacent to Rosemount Green (south);
- Formation of a new opening in perimeter wall at Annaville Grove to provide a pedestrian and cyclist access;
- Alterations and removal of sections of wall adjacent to Dundrum Road (including removal of existing gates and entrance canopy), including reduction in height of section, widening of existing vehicular access, and provision of a new vehicle, cyclist and pedestrian access;
- Alterations and removal of section of perimeter wall adjacent to Mulvey Park to provide a pedestrian and cyclist access.

The development with a total gross floor area of c. 94,058 sq m (c. 93,980 sq m excluding retained existing buildings), will consist of 934 no. residential units comprising:

- 926 no. apartments (consisting of 342 no. one bedroom units; 98 no. two bedroom (3 person) units; 352 no. two bedroom (4 person) units; and 134 no. three bedroom units) arranged in 9 blocks (Blocks 02-10) ranging between 2 and 8 storeys in height (with a lower ground floor to Blocks 02 and Block 10 and Basements in Blocks 03 and 04), together with private balconies and private terraces and communal amenity open space provision (including courtyards) and ancillary residential facilities, including an 130 sq m internal residential amenity area at the Ground Floor Level of Block 3;
- 6 no. three bedroom duplex apartments located at Block 02, together with private balconies and terraces.
- 2 no. 5 bedroom assisted living units and private rear gardens located at Block 02.

The development will also consist of 4,380 sq m of non-residential uses, comprising:

- Change of use and renovation of existing single storey Gate Lodge building (former reception/staff area) to provide a café unit (78 sq m);
- 1 no. restaurant unit (266 sq m) located at ground floor level at Block 03;
- 3 no. retail units (1,160 sq m) located at ground floor level at Blocks 03 and 07;
- 1 no. medical unit (288 sq m) located at ground floor level at Block 02;
- A new childcare facility (716 sq m) and associated outdoor play area located at lower ground and ground floor level at Block 10;
- A management suite (123 sq m) located at ground floor level at Block 10; and
- A new community centre facility, including a multi-purpose hall, changing rooms, meeting rooms, storage and associated facilities (1,749 sq m) located at ground and first floor level at Block 06.

Vehicular access to the site will be from a new signalised access off Dundrum Road to the south of the existing access and the existing access of Dundrum Road will be retained for emergency vehicle, pedestrian and cyclist access only. The development will also consist of the provision of public open space and related play areas; hard and soft landscaping including internal roads, cycle and pedestrian routes, active travel routes for cyclists and pedestrians, pathways and boundary treatments, street furniture, wetland features, part-basement, car parking (524 no. spaces in total, including car sharing and accessible spaces); motorcycle parking; electric vehicle charging points; bicycle parking (long and short stay spaces including stands); ESB substations, piped infrastructural services and connections (including connection into existing surface water sewer in St. Columbanus Road); ducting; plant (including external plant for Air Source Heat Pumps and associated internal heating plantrooms); waste management provision; SuDS measures (including green roofs, blue roofs, bio-retention areas); attenuation tanks; sustainability measures (including solar panels); signage; public lighting; any making good works to perimeter wall and all site development and excavation works above and below ground.

The proposed site outline, location, site plan and elevations are demonstrated in Figures 1-5.

Landscape

The landscape strategy for the proposed development has been prepared by AECOM Architects to accompany this planning application. The proposed landscape plan is demonstrated in Figure 6.

Figure 1. Site location

Figure 2. Site outline

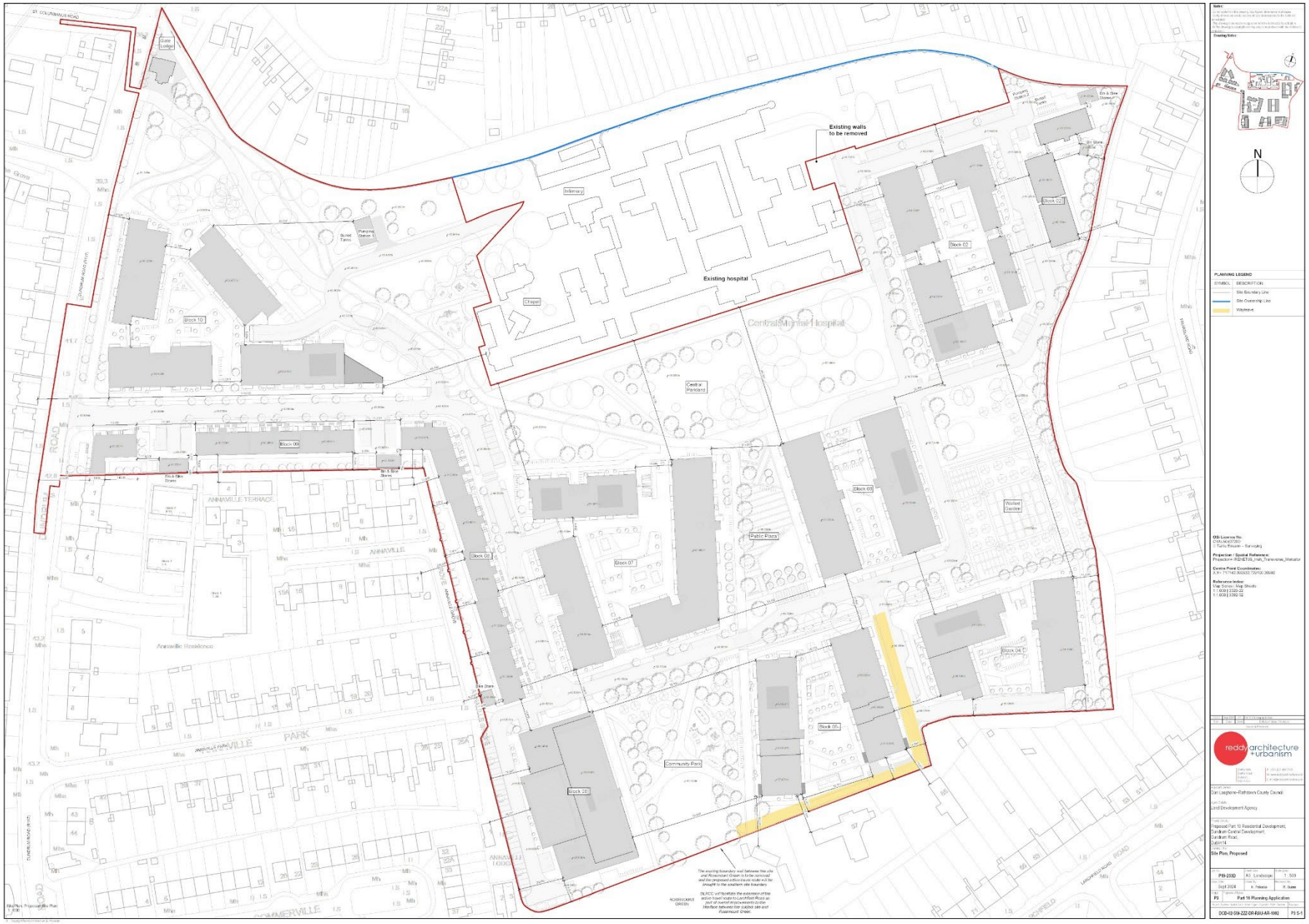

Figure 3. Site Layout

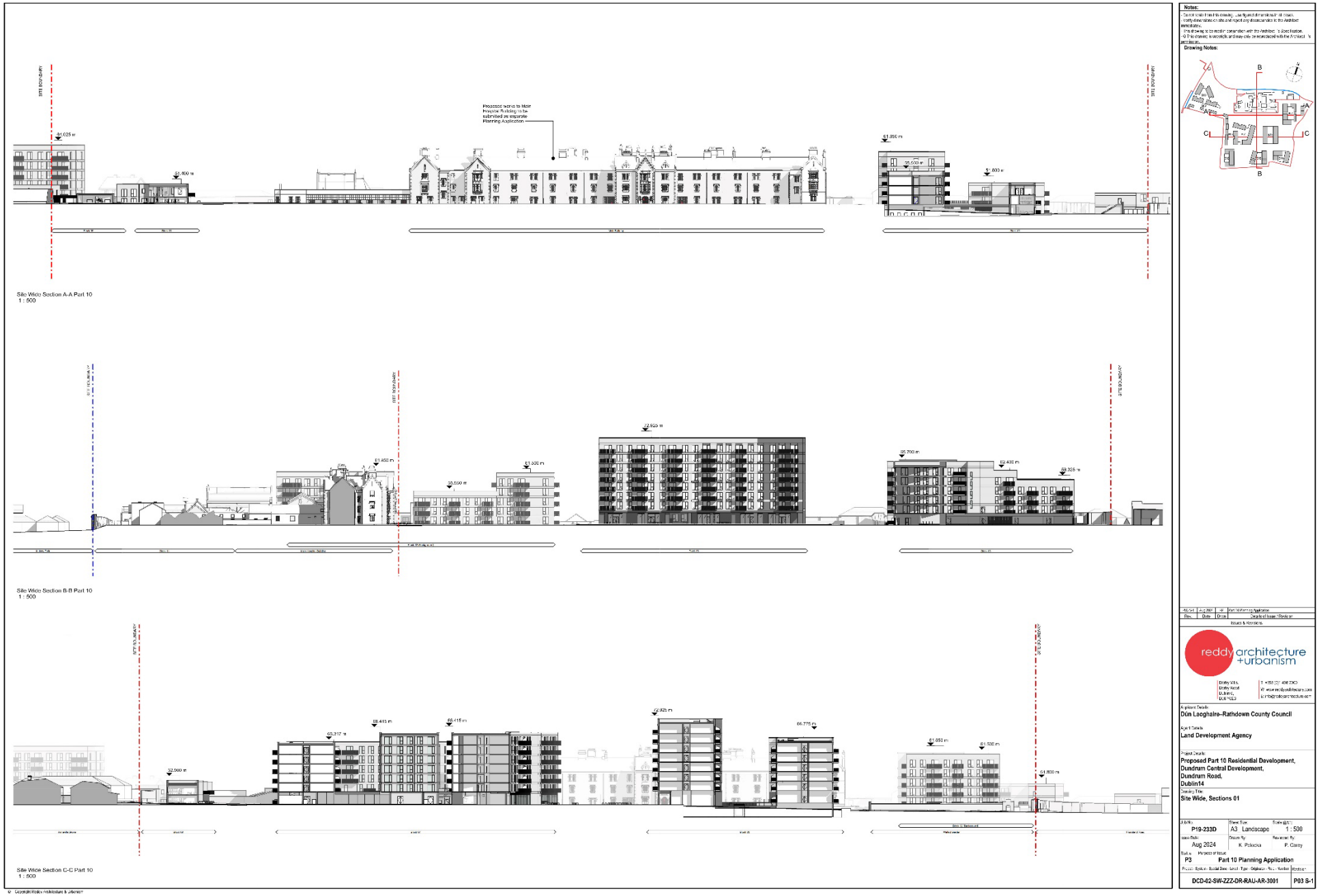

Figure 4- proposed elevations- section 1

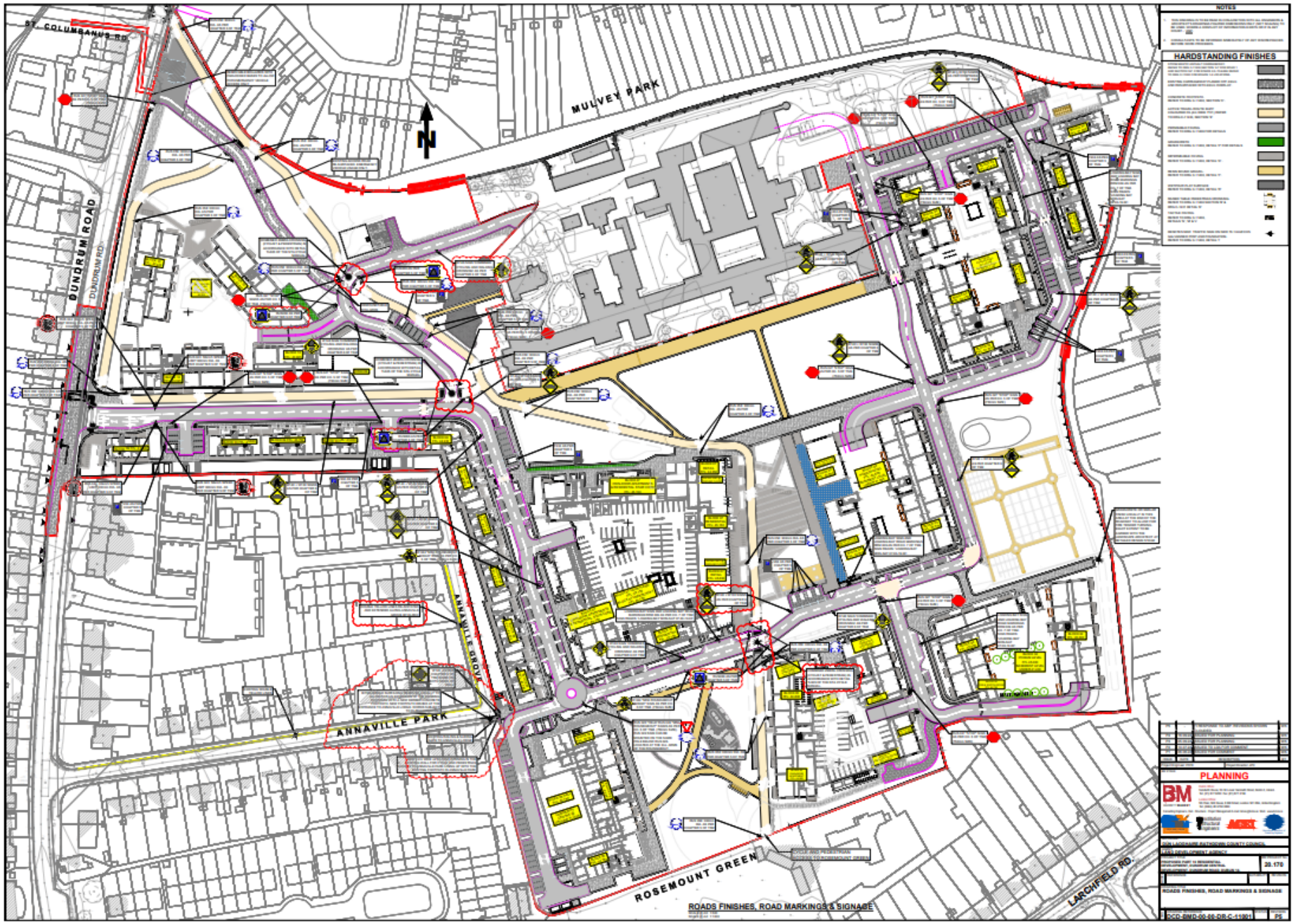

Figure 5- Road Finishes and Markings.

Figure 6. Proposed landscape plan

Drainage

A Services Design Report has been prepared by Barrett Mahony Civil & Structural Consulting Engineers to accompany this planning application This report outlines the following in relation to surface and foul water drainage strategy for the site:

'EXISTING SURFACE WATER INFRASTRUCTURE

The lands/roads surrounding the site contain a number of surface water sewers and a combined sewer. The River Slang runs south to north, approximately 70m to the west of the site and a drainage ditch runs through the site and northwards along the eastern boundary as shown in Figure 3.1.

Existing Site Drainage

Existing site drainage confirmed by CCTV and dye testing have shown the existing buildings on site discharging to a combined drainage system on site. This system discharges to the Ø300mm combined sewer in the Dundrum Road, connecting at the current site entrance.

Existing Surface Water Drainage in The Vicinity of The Site:

a) The River Slang: The River Slang runs from south of Dundrum Village northwards down to the River Dodder and passes approximately 70 metres west of the western site boundary on the Dundrum Road. The estimated 100-year storm level in the river is approximately 1.5metres lower than the lowest point of the site, at the existing Dundrum Road entrance. Predicted floods, for storms with 1 in 10, 1 in 100 & 1 in 1000- year return periods are shown on the OPW CFRAMS Flood Maps. This flooding does not encroach on the subject site. Refer to the Site-Specific Flood Risk Assessment for further information.

b) Public Sewer and drainage ditch on the south and east boundary: A 525mm diameter surface water sewer enters the south side of the site from Rosemount Green. Refer to Figure 3.1 below. This connects into an open drainage ditch which runs west to east across the site along the southern edge of the walled garden and discharges through a grated opening in the boundary wall (Location 'Y' in Figure 2.1 below) where it continues as a drainage ditch running northwards just along and outside of the east boundary wall. Tailte maps indicate that the drainage ditch is in third party ownership along the outside of the wall. There are no records of flooding in this watercourse. Flow monitoring in the ditch by LowFlow Ltd was carried out close to Location 'Y'. Refer to the report in Appendix 3. The report indicates that there is a correlation between the flow in the channel and rainfall events.

Drainage Ditch flood level

The Lowflo flow logger results showed that the depth of water in the drainage ditch varied between 25mm and 180mm during the two and a half months of recordings. The drainage ditch is approximately 1m deep. There is insufficient data to calculate a flood level for the 1 in 100 year storm event. In the case that the level in the ditch rises, the head of water in the pipe network discharging to it, will be sufficient to push the water through and out into the ditch.

Fig 3.1. Aerial View of the Approximate Natural Catchment Areas and surface water drainage outfalls on the Existing Site. Catchment 1 shaded yellow. Catchment 2 is in the unshaded area.

In relation to the proposed surface water drainage strategy, the report outlines the following:

'*Catchment strategy*

The development will be split into three catchments. The catchments will be attenuated separately by means of blue roofs and attenuation tanks. The catchments follow approximately the existing site topography and natural drainage routes on site set out in the preceding section. Catchment A drains to the River Slang, via an existing surface water sewer. Catchments B & C drain to an existing open drainage ditch. Connection points 'A', 'B1' and 'B2' shown in Figure 3.1. B1 takes Catchment B, while B2 takes Catchment C.

Catchment Area

The total site area is c9.6ha inside the boundary wall. The positively drained area on site is approximately 6.4ha, comprising of Catchment A (1.41ha), Catchment B (4.01ha) and Catchment C (0.98ha). The drainage system involves a robust suite of SuDS measures in the treatment train, which will influence on the runoff coefficients. The more porous the material, the lower the runoff coefficient. Surface materials will consist of, but not limited to, permeable paving, intensive and extensive green/blue roofs and podiums, impermeable roofs, bio-retention areas, filter strips, a detention basin, impermeable hardstanding, tree pits and landscaped areas. Please refer to the BM SuDS layout drawing C11030 for further information.'

With regard to the proposed Sustainable Urban Design Systems (SuDS) for the proposed development site, the report outlines that the following SuDS measures will be implemented into the surface water drainage strategy:

- Green Roofs
- Permeable Paving
- Attenuation Devices
- Bio-Retention and Tree Pits
- Detention Basin
- Filter trenches
- SuDS Management Train

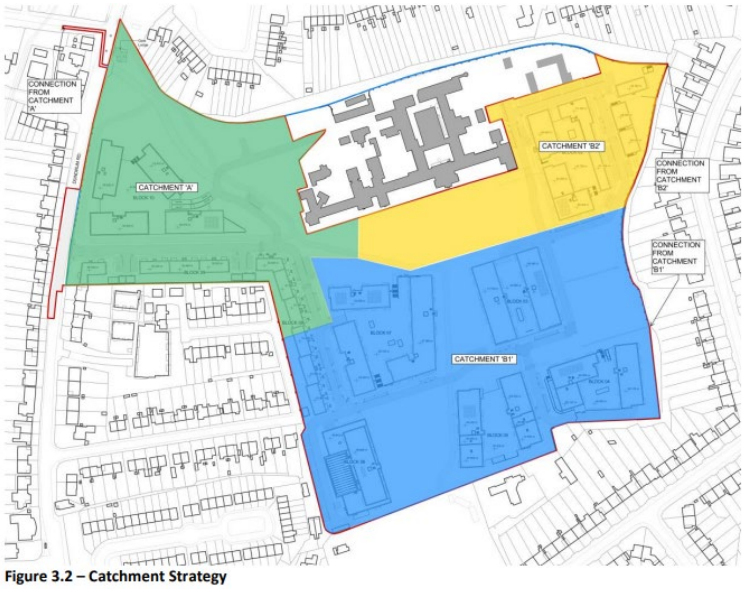

Figure 3.2 – Catchment Strategy

Figure 7. Catchment Strategy

Foul Water Drainage

In terms of existing foul drainage systems, the report outlines the following:

'The foul drainage from the existing buildings on site drains to a combined drainage system on site which discharges to the Ø300mm combined sewer on the Dundrum Road. The combined sewer drains in a northerly direction towards a pumping station near the River Dodder at Milltown.'

In relation to the proposed foul drainage system, the report details the following:

'The proposed foul drainage system will be designed to take discharges from the new residential units & other proposed limited non-residential uses on site – creche, retail units, community centre, medical centre, a restaurant & a café. Drainage from any kitchen/canteen facilities will discharge through a grease separator designed in accordance with IS EN 1825 Part 1 and Part 2 and to Uisce Éireann requirements. The foul system will connect to the Uisce Éireann network at the existing 300mm combined sewer in the Dundrum Road. Refer to BMCE drawings C11021 for layout of the proposed foul drainage.'

Foul water drainage will ultimately discharge to Ringsend WwTP.

The proposed drainage design is demonstrated in Figure 8.

Flood Risk Assessment

A Site-Specific Flood Risk Assessment has been prepared by Barrett Mahony Civil & Structural Consulting Engineers to accompany this planning application. This report concludes with the following:

'The flood risk assessment has been carried out in accordance with the OPW publication "The Planning System and Flood Risk Assessment Guidelines for Planning Authorities". An assessment has been carried out. The developed site is shown not to be at a significant risk from flooding and shown not to create a significant risk to adjoining areas or downstream. In summary:

1. River Slang: The site lies outside the predicted 0.1% AEP (1 in a 1000 year) extent of flooding on this river.

2. Surface Water Drainage:

a. The system is designed for a 100yr storm + 20% climate change without flooding.

b. The surface water drainage from the site to the surface water sewer network will discharge at rates no greater than the existing greenfield runoff rates thereby not increasing the risk of flooding to adjoining areas or downstream from the site.

c. Overland flow routes of rainwater in the event of a significant & unlikely blockage of the surface water drainage system, have been considered. Overland flows are contained within the site in a controlled manner without risk to the residential buildings on site.

3. Standard mitigation measures will apply on site. House and apartment floor levels are set 150mm above the surrounding ground level, as are the level of the wastewater pumping stations, to minimise flood risk. All basements on site will be waterproofed. The top of basement car park entrance ramps will be set 100mm above the surrounding ground levels to avoid backflow of surface water down the ramps. Therefore, the development is deemed acceptable & appropriate from a flood risk assessment perspective.'

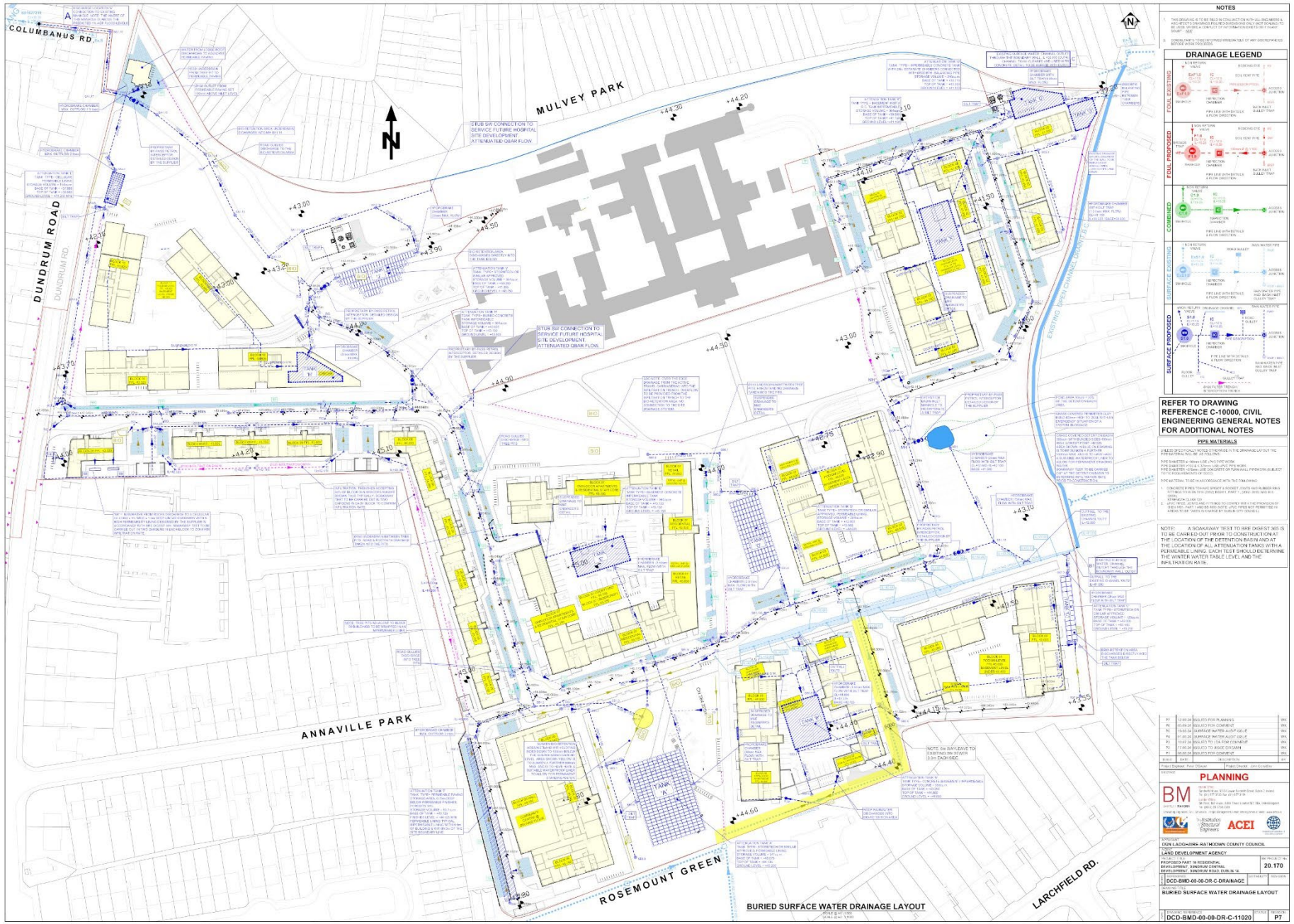

Figure 8. Proposed drainage layout

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 2.8 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 a direct hydrological pathway to European sites within the ZOI at Dublin Bay via the proposed surface water strategy. There is a direct hydrological connection (Figures 13 and 14) from the subject site to the aforementioned Natura 2000 sites via the proposed surface water drainage strategy. It is proposed to separate the surface water drainage strategy for the subject site into three catchments: Catchment A, Catchment B1, and Catchment B2. Surface water drainage from Catchment A will join the existing public surface water network via a manhole connection located to the north-west of the site. This network then outfalls to the River Slang. Surface water drainage from Catchment B1 will, after attenuation, outfall to an existing open channel drain that passes through the subject site. Catchment B2 will, after attenuation, outfall to an existing drainage ditch located just outside of the site. As both the River Slang and the aforementioned open channel drain (which leads to the Elm Park stream) flow into Dublin Bay, there is a direct hydrological connection to Natura 2000 sites located along this pathway. Mitigation measures are required to ensure that surface water drainage will not contain silt or pollutants that could significantly impact upon the qualifying interests of these proximate Natura 2000 sites.

Mitigation measures are required to mitigate against the potential impact of contaminated surface water entering Dublin Bay and impacting on the Conservation objectives of Natura 2000 sites.

There is an indirect hydrological pathway to marine-based Natura 2000 sites in Dublin Bay via the proposed foul wastewater drainage network. Foul wastewater from the proposed development will be directed to an existing combined sewerage system located to the northern boundary of the subject site. Foul wastewater will then outfall to Ringsend WwTP for treatment.

No other Natura 2000 sites, beyond those within Dublin Bay are deemed to be in the potential Zone of Influence (ZoI). The ZoI is deemed to be within 2km of the proposed development, with the potential for extending this to beyond 2km via direct pathway e.g. watercourse. However, following the precautionary principle, screening of all Natura 2000 sites within 15km and those with a direct/indirect pathway beyond 15km is carried out. It is found there are no Natura 2000 sites with a direct/indirect pathway beyond 15km of the subject site.

Table 1. Proximity to designated sites of conservation importance

Site Code	NATURA 2000 Site	Distance
Special Areas of Conservation		
IE0000210	South Dublin Bay SAC	2.8 km
IE0002122	Wicklow Mountains SAC	7.1 km
IE0000206	North Dublin Bay SAC	7.5 km
IE0001209	Glenasmole Valley SAC	9.2 km
IE0000725	Knocksink Wood SAC	9.7 km
IE0003000	Rockabill to Dalkey Island SAC	9.9 km
IE0000713	Ballyman Glen SAC	11.1 km
IE0000202	Howth Head SAC	12.1 km
IE0000199	Baldoyle Bay SAC	13 km
Special Protection Areas		
IE0004024	South Dublin Bay and River Tolka Estuary SPA	2.8 km
IE0004040	Wicklow Mountains SPA	7.4 km
IE0004006	North Bull Island SPA	7.5 km
IE004236	North-West Irish Sea SPA	7.7 km
IE0004172	Dalkey Islands SPA	9.8 km
IE0004016	Baldoyle Bay SPA	12.9 km
IE0004113	Howth Head Coast SPA	14.1 km

Tables 2 and 3 provides an overview of the initial screening of Natura 2000 sites within 15km of the subject site. Included within this table are the qualifying interests for each Natura site and the Source/Pathway/Receptor links between the works and the respective Natura 2000 site with the potential to result in adverse effects (without mitigation measures).

A distance of 15km was selected due to the proximity of the proposed project to various waterbodies and/or drainage ditches, which can act as potential pathways.

There is no direct or indirect hydrological pathway from the proposed development site to the Natura 2000 sites beyond 15km and no impact is foreseen on these sites.

Table 2. Initial screening of NATURA 2000 sites within 15km with potential of hydrological connection to the proposed development

Natura Code	Name	Screened In/Out	Details/Reason
Special Areas of Conservation			
IE0000210	South Dublin Bay SAC	**IN**	**Conservation Objectives** The maintenance of habitats and species within Natura 2000 sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level. **Qualifying Interests** Mudflats and sandflats not covered by seawater at low tide [1140] Annual vegetation of drift lines [1210] Salicornia and other annuals colonising mud and sand [1310] Embryonic shifting dunes [2110] **Potential Impact** The development site is located within a suburban area 2.8 km from the South Dublin Bay SAC (Figure 11). There is a direct hydrological pathway from the proposed development site to this SAC via the proposed connection of surface water drainage to the River Slang and an existing open channel drain to the Elm Park Stream. Both of these waterbodies outfall to Dublin Bay. Mitigation measures are required to ensure that surface water drainage will not contain silt or pollutants that could significantly impact upon the qualifying interests of these proximate Natura 2000 sites. There is an indirect pathway from the site to this SAC via the proposed foul wastewater network. Foul wastewater will be directed to the existing public combined sewage system located to the northern extremity of the subject site. This network then outfalls to Ringsend WwTP for treatment. Foul wastewater from the proposed development will be processed in the existing Ringsend Treatment works. 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 there is the potential for significant effects on the South Dublin Bay SAC in the absence of mitigation measures. This is as a result of the direct hydrological connection from the subject site to this SAC via surface water drainage. For this reason, it is necessary to proceed to a NIS on the effects of the project on this site in view of its conservation objectives. **Potential for significant effects - Natura Impact Statement Required**

Natura Code	Name	Screened In/Out	Details/Reason
IE0000206	North Dublin Bay SAC	**IN**	**Conservation Objectives** The maintenance of habitats and species within Natura 2000 sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level. **Qualifying Interests** Mudflats and sandflats not covered by seawater at low tide [1140] Annual vegetation of drift lines [1210] Salicornia and other annuals colonising mud and sand [1310] Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) [1330] Mediterranean salt meadows (*Juncetalia maritimi*) [1410] Embryonic shifting dunes [2110] Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes) [2120] Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130] Humid dune slacks [2190] Petalwort (*Petalophyllum ralfsii*) [1395] **Potential Impact** The development site is located within a suburban area 7.5 km from the North Dublin Bay SAC (Figure 11). There is a direct hydrological pathway from the proposed development site to this SAC via the proposed connection of surface water drainage to the River Slang and an existing open channel drain to the Elm Park Stream. Both of these waterbodies outfall to Dublin Bay. Mitigation measures are required to ensure that surface water drainage will not contain silt or pollutants that could significantly impact upon the qualifying interests of these proximate Natura 2000 sites. There is an indirect pathway from the site to this SAC via the proposed foul wastewater network. Foul wastewater will be directed to the existing public combined sewage system located to the northern extremity of the subject site. This network then outfalls to Ringsend WwTP for treatment. Foul wastewater from the proposed development will be processed in the existing Ringsend Treatment works. 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 there is the potential for significant effects on the North Dublin Bay SAC in the absence of mitigation measures. This is as a result of the direct hydrological connection from the subject site to this SAC via surface water drainage. For this reason, it is necessary to proceed to a NIS on the effects of the project on this site in view of its conservation objectives. **Potential for significant effects - Natura Impact Statement Required**

Natura Code	Name	Screened In/Out	Details/Reason
IE0002122	Wicklow Mountains SAC	**OUT**	**Conservation Objectives** The maintenance of habitats and species within Natura 2000 sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level. **Qualifying Interests** Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*) [3110] Natural dystrophic lakes and ponds [3160] Northern Atlantic wet heaths with *Erica tetralix* [4010] European dry heaths [4030] Alpine and Boreal heaths [4060] Calaminarian grasslands of the *Violetalia calaminariae* [6130] Species-rich Nardus grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe) [6230] Blanket bogs (* if active bog) [7130] Siliceous scree of the montane to snow levels (*Androsacetalia alpinae* and *Galeopsietalia ladani*) [8110] Calcareous rocky slopes with chasmophytic vegetation [8210] Siliceous rocky slopes with chasmophytic vegetation [8220] Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0] Otter (*Lutra lutra*) [1355] **Potential Impact** The proposed development site is located in an urban environment 7.1 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**
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 (*Festuco-Brometalia*) (* important orchid sites) [6210] Molinia meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*) [6410] Petrifying springs with tufa formation (*Cratoneurion*) [7220] **Potential Impact** The proposed development site is located within an urban environment 9.2 km from this SAC. No potential impact is foreseen.

Natura Code	Name	Screened In/Out	Details/Reason
			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 maintenance of favourable conservation status of those habitats and species at a national level. **Qualifying Interests** Petrifying springs with tufa formation (*Cratoneurion*) [7220] Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0] Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion, Alnion incanae, Salicion albae*) [91E0] **Potential Impact** The proposed development site is located within an urban environment 9.7 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**
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 (*Phocoena phocoena*) [1351] **Potential Impact** The development site is located within an urban area 9.9 km from this SAC (Figure 11). There is no direct hydrological pathway from the proposed development site to the SAC. There is an indirect pathway from the site to the SAC via the proposed foul / surface water networks. Surface water will be directed to the River Slang and an existing open channel drain after attenuation. Due to the distance (9.9 km) via the indirect pathway, any pollutants or silt will settle, be dispersed, or diluted within the marine environment.

Natura Code	Name	Screened In/Out	Details/Reason
			The indirect pathway of surface water is not likely to impact on the conservation objectives of this SAC. Foul wastewater will be directed to the existing public combined sewage system located to the northwest of the subject site. This network then outfalls to Ringsend WwTP for treatment. Foul wastewater from the proposed development will be processed in the existing Ringsend Treatment works. The indirect pathway of foul water to Ringsend will not result in a significant effect on this SAC. No potential impact is foreseen. There is no direct pathway from this site to the SAC. The construction and operation of the proposed development will not impact on the conservation interests of the site. **No significant effects likely**
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** Petrifying springs with tufa formation (Cratoneurion) [7220] Alkaline fens [7230] **Potential Impact** The proposed development site is located within an urban environment 11.1 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**
IE0000202	Howth Head SAC	**OUT**	**Conservation Objectives** The maintenance of habitats and species within Natura 2000 sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level. **Qualifying Interests** Vegetated sea cliffs of the Atlantic and Baltic coasts [1230] European dry heaths [4030] **Potential Impact** The proposed development site is located within an urban area 12.1 km from this SAC (Figure 11). There is no direct hydrological pathway from the proposed development site to the SAC.

Natura Code	Name	Screened In/Out	Details/Reason
			There is an indirect pathway from the site to the SAC via the proposed foul / surface water networks. Surface water will be directed to the River Slang and an existing open channel drain after attenuation. Due to the distance (12.1 km) via the indirect pathway, any pollutants or silt will settle, be dispersed, or diluted within the marine environment. The indirect pathway of surface water is not likely to impact on the conservation objectives of this SAC. Foul wastewater will be directed to the existing public combined sewage system located to the northwest of the subject site. This network then outfalls to Ringsend WwTP for treatment. Foul wastewater from the proposed development will be processed in the existing Ringsend Treatment works. The indirect pathway of foul water to Ringsend will not result in a significant effect on this SAC. No potential impact is foreseen. There is no direct pathway from this site to the SAC. The construction and operation of the proposed development will not impact on the conservation interests of the site. **No significant effects likely**
IE0000199	Baldoyle Bay SAC	**OUT**	**Conservation Objectives** The maintenance of habitats and species within Natura 2000 sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level. **Qualifying Interests** Mudflats and sandflats not covered by seawater at low tide [1140] Salicornia and other annuals colonising mud and sand [1310] Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) [1330] Mediterranean salt meadows (*Juncetalia maritimi*) [1410] **Potential Impact** The proposed development site is located in an urban environment 13 km from this SAC (Figure 11). There is no direct hydrological pathway from the proposed development site to this SAC. There is an indirect pathway from the site to the SAC via the proposed foul / surface water networks. Surface water will be directed to the River Slang and an existing open channel drain after attenuation. Due to the distance (13 km) via the indirect pathway, any pollutants or silt will settle, be dispersed, or diluted within the marine environment. The indirect pathway of surface water is not likely to impact on the conservation objectives of this SAC. Foul wastewater will be directed to the existing public combined sewage system located to the northwest of the subject site. This network then outfalls to Ringsend WwTP for treatment. Foul wastewater from the proposed development will be processed in the existing Ringsend Treatment works. The indirect pathway of foul water to Ringsend will not result in a significant effect on this SAC.

Natura Code	Name	Screened In/Out	Details/Reason
			No potential impact is foreseen. There is no direct pathway from this site to the SAC. The construction and operation of the proposed development will not impact on the conservation interests of the site. **No significant effects likely**
Special Protection Areas			
IE0004024	South Dublin Bay and River Tolka Estuary SPA	**IN**	**Conservation Objectives** The maintenance of habitats and species within Natura 2000 sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level. **Special Conservation Interests** Light-bellied Brent Goose (*Branta bernicla hrota*) [A046] Oystercatcher (*Haematopus ostralegus*) [A130] Ringed Plover (*Charadrius hiaticula*) [A137] Grey Plover (*Pluvialis squatarola*) [A141] Knot (*Calidris canutus*) [A143] Sanderling (*Calidris alba*) [A144] Dunlin (*Calidris alpina*) [A149] Bar-tailed Godwit (*Limosa lapponica*) [A157] Redshank (*Tringa totanus*) [A162] Black-headed Gull (*Chroicocephalus ridibundus*) [A179] Roseate Tern (*Sterna dougallii*) [A192] Common Tern (*Sterna hirundo*) [A193] Arctic Tern (*Sterna paradisaea*) [A194] Wetland and Waterbirds [A999] **Potential Impact** The development site is located within an urban area 2.8 km from the South Dublin Bay and River Tolka Estuary SPA (Figure 12). There is a direct hydrological pathway from the proposed development site to this SPA via the proposed connection of surface water drainage to the River Slang and an existing open channel drain to the Elm Park Stream. Both of these waterbodies outfall to Dublin Bay. Mitigation measures are required to ensure that surface water drainage will not contain silt or pollutants that could significantly impact upon the qualifying interests of these proximate Natura 2000 sites. There is an indirect pathway from the site to this S via the proposed foul wastewater network. Foul wastewater will be directed to the existing public combined sewage system located to the northern extremity of the subject site. This network then outfalls to Ringsend WwTP for treatment. Foul wastewater from the proposed development will be processed in the existing Ringsend Treatment works. The indirect pathway of foul water to Ringsend will not result in a significant effect on the Natura 2000 site.

Natura Code	Name	Screened In/Out	Details/Reason
			As outlined in 2020 Wintering Bird Survey Report (Appendix I) - "*Black-headed gull flocks of county importance (>90 birds; 1% of the county population) were observed on one occasion commuting over the proposed development site. Brent goose flocks of county importance (>84 birds; 1% of the county population) were observed on one occasion commuting over the proposed development site and curlew flocks of county importance (>29 birds; 1% of the county population) were observed on two occasions commuting over the proposed development site. Flocks of importance relative to the local population (1% of the Dublin Bay I-WeBS site population) were recorded for black-headed gull on fifteen occasions, brent goose on one occasion and curlew on four occasions." "On the 4th of January, curlew were observed using an area of amenity grassland within the proposed development site for foraging. Herring gull, black-head gull, lesser black-backed gull and common gull were frequently observed using the proposed development site for foraging and roosting. Black-headed gull and herring gull were observed regularly commuting over the proposed development. Curlew and brent geese were observed commuting over the proposed development site infrequently*." Black-headed gull is a qualifying interest of this site. In addition, as outlined in Appendix II & III (2021- 2022 & 2023-2024 Wintering Bird Survey (Wintering Bird Survey) "*While some disturbance and displacement impacts may occur to the SCI species recorded, this would not be deemed to be of potential significance. This is due to the habituation of this species to anthropogenic disturbance within the site and wider urban area and its likely habitation to any disturbance resulting from the proposed development.* *Some loss of foraging habitat for this species will occur. However, this is not considered significant given the relative abundance of this habitat type (amenity grassland) within both the immediate and wider areas surrounding the site."* In a strict application of the precautionary principle, it has been concluded that significant effects on the South Dublin Bay and River Tolka Estuary SPA are likely, in the absence of mitigation measures, from the proposed works primarily as a result of the direct hydrological connection from the subject site to this SPA via surface water drainage. Mitigation measures are required. Out of an abundance of caution, mitigation measures will also be required to be in place to prevent disturbance of the bird species located within the SPA from heightened noise levels produced by the construction phase of development, albeit at a significant distance. For these reasons mitigation measures are required and it is necessary to proceed to a NIS on the effects of the project on this site in view of its conservation objectives. **Significant effects are likely - Natura Impact Statement Required**

Natura Code	Name	Screened In/Out	Details/Reason
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 (*Branta bernicla hrota*) [A046] Shelduck (*Tadorna tadorna*) [A048] Teal (*Anas crecca*) [A052] Pintail (*Anas acuta*) [A054] Shoveler (*Anas clypeata*) [A056] Oystercatcher (*Haematopus ostralegus*) [A130] Golden Plover (*Pluvialis apricaria*) [A140] Grey Plover (*Pluvialis squatarola*) [A141] Knot (*Calidris canutus*) [A143] Sanderling (*Calidris alba*) [A144] Dunlin (*Calidris alpina*) [A149] Black-tailed Godwit (*Limosa limosa*) [A156] Bar-tailed Godwit (*Limosa lapponica*) [A157] Curlew (*Numenius arquata*) [A160] Redshank (*Tringa totanus*) [A162] Turnstone (*Arenaria interpres*) [A169] Black-headed Gull (*Chroicocephalus ridibundus*) [A179] Wetland and Waterbirds [A999] **Potential Impact** The proposed works are located within an urban area 7.5 km from the North Bull Island SPA (Figure 12). There is a direct hydrological pathway from the proposed development site to this SPA via the proposed connection of surface water drainage to the River Slang and an existing open channel drain to the Elm Park Stream. Both of these waterbodies outfall to Dublin Bay. Mitigation measures are required to ensure that surface water drainage will not contain silt or pollutants that could significantly impact upon the qualifying interests of these proximate Natura 2000 sites. There is an indirect pathway from the site to this SPA via the proposed foul wastewater network. Foul wastewater will be directed to the existing public combined sewage system located to the northern extremity of the subject site. This network then outfalls to Ringsend WwTP for treatment. Foul wastewater from the proposed development will be processed in the existing Ringsend Treatment works. The indirect pathway of foul water to Ringsend will not result in a significant effect on the Natura 2000 site. As outlined in the 2020 Wintering Bird Survey Report (Appendix I): "*Black-headed gull flocks of county importance (>90 birds; 1% of the county population) were observed on one occasion commuting over the proposed development site. Brent goose flocks of county*

Natura Code	Name	Screened In/Out	Details/Reason
			importance (>84 birds; 1% of the county population) were observed on one occasion commuting over the proposed development site and curlew flocks of county importance (>29 birds; 1% of the county population) were observed on two occasions commuting over the proposed development site. Flocks of importance relative to the local population (1% of the Dublin Bay I-WeBS site population) were recorded for black-headed gull on fifteen occasions, brent goose on one occasion and curlew on four occasions." "On the 4th of January, curlew were observed using an area of amenity grassland within the proposed development site for foraging. Herring gull, black-head gull, lesser black-backed gull and common gull were frequently observed using the proposed development site for foraging and roosting. Black-headed gull and herring gull were observed regularly commuting over the proposed development. Curlew and brent geese were observed commuting over the proposed development site infrequently." Black-headed gull and Curlew are qualifying interests of this site. In addition, as outlined in Appendix II & III (2021- 2022 & 2023-2024 Wintering Bird Survey) "*While some disturbance and displacement impacts may occur to the SCI species recorded, this would not be deemed to be of potential significance. This is due to the habituation of this species to anthropogenic disturbance within the site and wider urban area and its likely habitation to any disturbance resulting from the proposed development.* *Some loss of foraging habitat for this species will occur. However, this is not considered significant given the relative abundance of this habitat type (amenity grassland) within both the immediate and wider areas surrounding the site."* In a strict application of the precautionary principle, it has been concluded that there is the potential for significant effects on the North Bull Island SPA in the absence of mitigation measures. This is as a result of the close proximity to the proposed development, the scale of the proposed development, the hydrological pathway of surface water to Dublin Bay, and the remote potential for noise level impacts on protected bird species during construction stages of development. Mitigation measures will be required to protect the conservation interests of this SPA. For this reason, it is necessary to proceed to a NIS on the effects of the project on this site in view of its conservation objectives. **Potential for significant effects - 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.

Natura Code	Name	Screened In/Out	Details/Reason
			Special Conservation Interests Red-throated Diver *(Gavia stellata)* [A001] Great Northern Diver *(Gavia immer)* [A003] Fulmar *(Fulmarus glacialis)* [A009] Manx Shearwater *(Puffinus puffinus)* [A013] Cormorant (*Phalacrocorax carbo*) [A017] Shag (*Phalacrocorax aristotelis)* [A018] Common Scoter (*Melanitta nigra)* [A065] Little Gull *(Larus minutus)* [A177] Black-headed Gull (*Chroicocephalus ridibundus)* [A179] Common Gull *(Larus canus)* [A182] Lesser Black-backed Gull *(Larus fuscus)* [A183] Herring Gull *(Larus argentatus)* [A184] Great Black-backed Gull *(Larus marinus)* [A187] Kittiwake *(Rissa tridactyla)* [A188] Roseate Tern *(Sterna dougallii)* [A192] Common Tern (*Sterna hirundo)* [A193] Arctic Tern (*Sterna paradisaea)* [A194] Little Tern (*Sterna albifrons)* [A195] Guillemot *(Uria aalge)* [A199] Razorbill *(Alca torda) [A200*] Puffin (*Fratercula arctica*) [A204] **Potential Impact** The development site is located within a suburban area 7.7 km from the North-West Irish Sea SPA (Figure 11). There is a direct hydrological pathway from the proposed development site to this SPA via the proposed connection of surface water drainage to the River Slang and an existing open channel drain to the Elm Park Stream. Both of these waterbodies outfall to Dublin Bay. Mitigation measures are required to ensure that surface water drainage will not contain silt or pollutants that could significantly impact upon the qualifying interests of these proximate Natura 2000 sites. There is an indirect pathway from the site to this SPA via the proposed foul wastewater network. Foul wastewater will be directed to the existing public combined sewage system located to the northern extremity of the subject site. This network then outfalls to Ringsend WwTP for treatment. Foul wastewater from the proposed development will be processed in the existing Ringsend Treatment works. The indirect pathway of foul water to Ringsend will not result in a significant effect on the Natura 2000 site. As outlined in the 2020 Wintering Bird Survey Report (Appendix I) "*Black-headed gull flocks of county importance (>90 birds; 1% of the county population) were observed on one occasion commuting over the proposed development site. Brent goose flocks of county importance (>84 birds; 1% of the county population) were observed on one occasion commuting over the proposed development site and curlew flocks of county importance (>29 birds; 1% of the county population) were observed on two occasions commuting over the*

Natura Code	Name	Screened In/Out	Details/Reason
			proposed development site. Flocks of importance relative to the local population (1% of the Dublin Bay I-WeBS site population) were recorded for black-headed gull on fifteen occasions, brent goose on one occasion and curlew on four occasions." "On the 4th of January, curlew were observed using an area of amenity grassland within the proposed development site for foraging. Herring gull, black-head gull, lesser black-backed gull and common gull were frequently observed using the proposed development site for foraging and roosting. Black headed gull and herring gull were observed regularly commuting over the proposed development.' Black-headed gull, herring gull, lesser black-backed gull and common gull are Special Conservation Interests (SCI) of this site. In addition, as outlined in Appendix II & III (2021- 2022 & 2023-2024 Wintering Bird Survey) "*While some disturbance and displacement impacts may occur to the SCI species recorded, this would not be deemed to be of potential significance. This is due to the habituation of this species to anthropogenic disturbance within the site and wider urban area and its likely habitation to any disturbance resulting from the proposed development.* *Some loss of foraging habitat for this species will occur. However, this is not considered significant given the relative abundance of this habitat type (amenity grassland) within both the immediate and wider areas surrounding the site."* It should be noted that a Herring Gull (SCI of this SPA) nest was recorded on the adjacent Central Mental Hospital Building during breeding bird surveys undertaken by Altemar Ltd. in 2023 and 2024 (Appendix IV). As this structure is located outside of the proposed site boundary, no direct impacts on this structure are foreseen from the proposed works and as outlined in Appendix II & III, this species has habituated to anthropogenic disturbance within the site and wider urban area and is likely habituated to any disturbance resulting from the proposed development. However, out of an abundance of caution, mitigation measures are required to ensure that there are no significant disturbance impacts on this Herring Gull nest during construction and operation. In a strict application of the precautionary principle, it has been concluded that there is the potential for significant effects on the North-West Irish Sea SPA in the absence of mitigation measures. This is as a result of the close proximity to the proposed development, the scale of the proposed development, the hydrological pathway of surface water to Dublin Bay, and the remote potential for disturbance impacts on protected bird species during construction stages of development. Mitigation measures will be required to protect the conservation interests of this SPA. For this reason, it is necessary to proceed to a NIS on the effects of the project on this site in view of its conservation objectives. **Potential for significant effects - Natura Impact Statement Required**

Natura Code	Name	Screened In/Out	Details/Reason
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 (*Falco columbarius*) [A098] Peregrine (*Falco peregrinus*) [A103] **Potential Impact** The proposed development site is located within an urban environment 7.4 km from this SPA. No potential impact is foreseen. There is no direct or indirect hydrological pathway from the proposed development site to the SPA. The construction and operation of the proposed development will not impact on the conservation interests of the site. **No significant effects likely**
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 (*Sterna dougallii*) [A192] Common Tern (*Sterna hirundo*) [A193] Arctic Tern (*Sterna paradisaea*) [A194] **Potential Impact** The proposed development site is located within an urban environment 9.8 km from this SPA (Figure 12). There is no direct hydrological pathway from the proposed development to this SPA. There is an indirect pathway from the site to the SPA via the proposed foul / surface water networks. Surface water will be directed to the River Slang and an existing open channel drain after attenuation. Due to the distance (9.8 km) via the indirect pathway, any pollutants or silt will settle, be dispersed, or diluted within the marine environment. The indirect pathway of surface water is not likely to impact on the conservation objectives of this SPA. Foul wastewater will be directed to the existing public combined sewage system located to the northwest of the subject site. This network then outfalls to Ringsend WwTP for treatment. Foul wastewater from the proposed development will be processed in the existing Ringsend Treatment works. The indirect pathway of foul water to Ringsend will not result in a significant effect on this SPA. No potential impact is foreseen. There is no direct pathway from this site to the SPA. The construction and operation of the proposed development will not impact on the conservation interests of the site.

Natura Code	Name	Screened In/Out	Details/Reason
			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 (*Branta bernicla hrota*) [A046] Shelduck (*Tadorna tadorna*) [A048] Ringed Plover (*Charadrius hiaticula*) [A137] Golden Plover (*Pluvialis apricaria*) [A140] Grey Plover (*Pluvialis squatarola*) [A141] Bar-tailed Godwit (*Limosa lapponica*) [A157] Wetland and Waterbirds [A999] **Potential Impact** The proposed development site is located within an urban environment 12.9 km from this SPA (Figure 12). There is no direct hydrological pathway from the proposed development to this SPA. There is an indirect pathway from the site to the SPA via the proposed foul / surface water networks. Surface water will be directed to the River Slang and an existing open channel drain after attenuation. Due to the distance (12.9 km) via the indirect pathway, any pollutants or silt will settle, be dispersed, or diluted within the marine environment. The indirect pathway of surface water is not likely to impact on the conservation objectives of this SPA. Foul wastewater will be directed to the existing public combined sewage system located to the north west of the subject site. This network then outfalls to Ringsend WwTP for treatment. Foul wastewater from the proposed development will be processed in the existing Ringsend Treatment works. The indirect pathway of foul water to Ringsend will not result in a significant effect on this SPA. No potential impact is foreseen. There is no direct pathway from this site to the SPA. The construction and operation of the proposed development will not impact on the conservation interests of the site. **No significant effects likely**
IE004113	Howth Head Coast SPA	**OUT**	**Conservation Objectives** To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA. **Special Conservation Interest** Kittiwake (*Rissa tridactyla*) [A188] **Potential Impact**

Natura Code	Name	Screened In/Out	Details/Reason
			The proposed development site is located within an urban environment 14.1 km from this SPA (Figure 12). There is no direct hydrological pathway from the proposed development to this SPA. There is an indirect pathway from the site to the SPA via the proposed foul / surface water networks. Surface water will be directed to the River Slang and an existing open channel drain after attenuation. Due to the distance (14.1 km) via the indirect pathway, any pollutants or silt will settle, be dispersed, or diluted within the marine environment. The indirect pathway of surface water is not likely to impact on the conservation objectives of this SPA. Foul wastewater will be directed to the existing public combined sewage system located to the north west of the subject site. This network then outfalls to Ringsend WwTP for treatment. Foul wastewater from the proposed development will be processed in the existing Ringsend Treatment works. The indirect pathway of foul water to Ringsend will not result in a significant effect on this SPA. No potential impact is foreseen. There is no direct pathway from this site to the SPA. The construction and operation of the proposed development will not impact on the conservation interests of the site. **No significant effects likely**

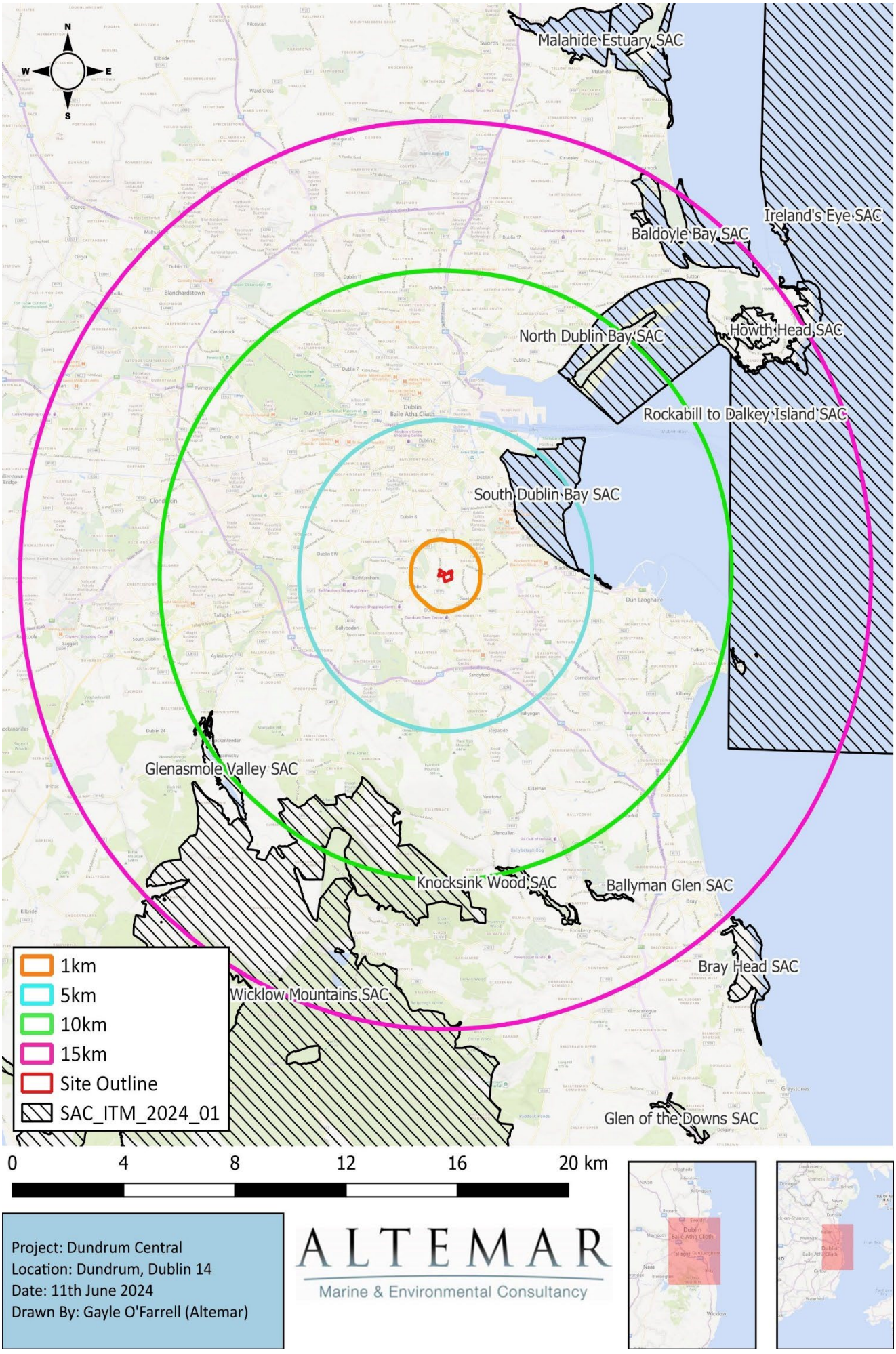

Figure 9. SACs within 15km of the proposed development

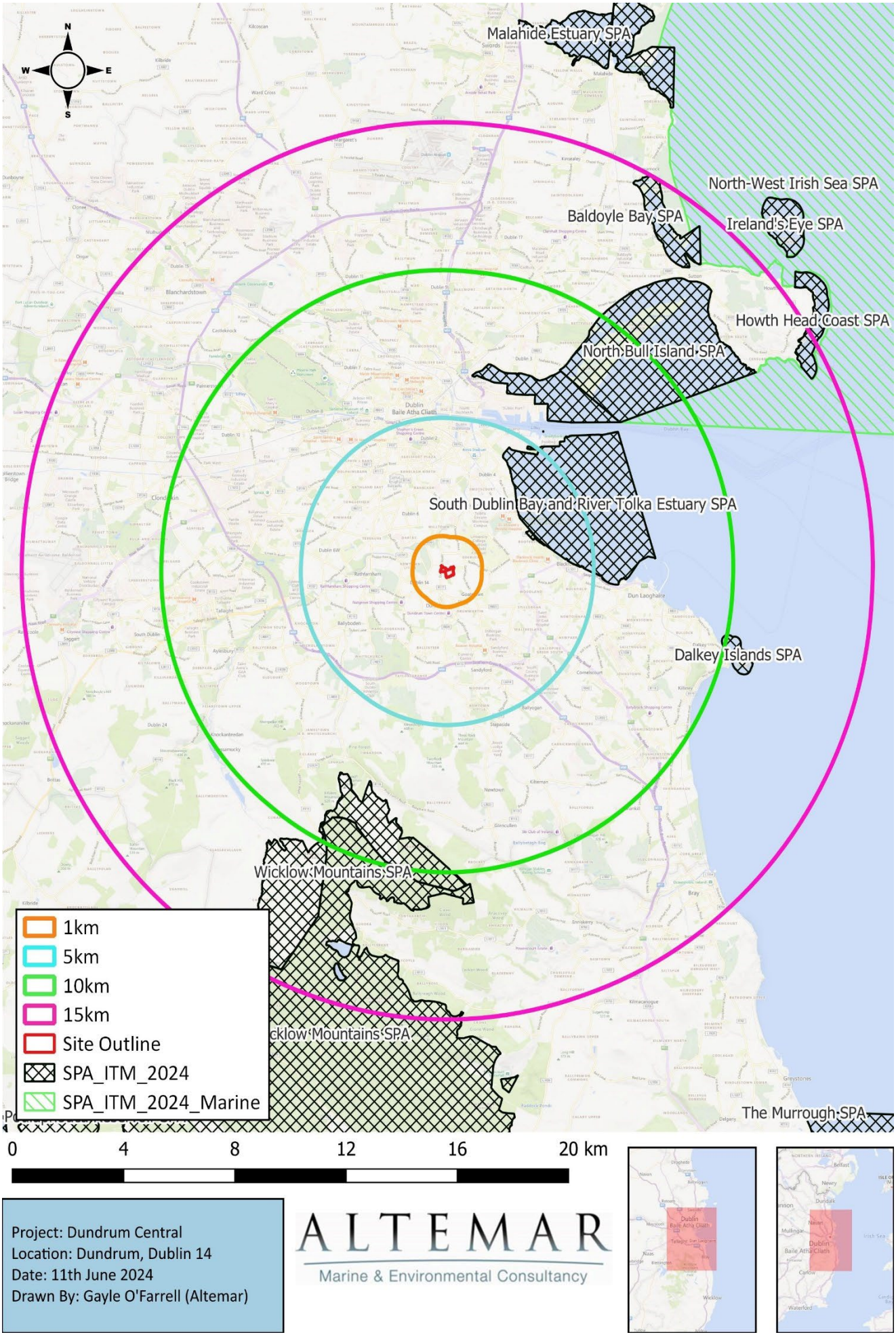

Figure 10. SPAs within 15km of the proposed development

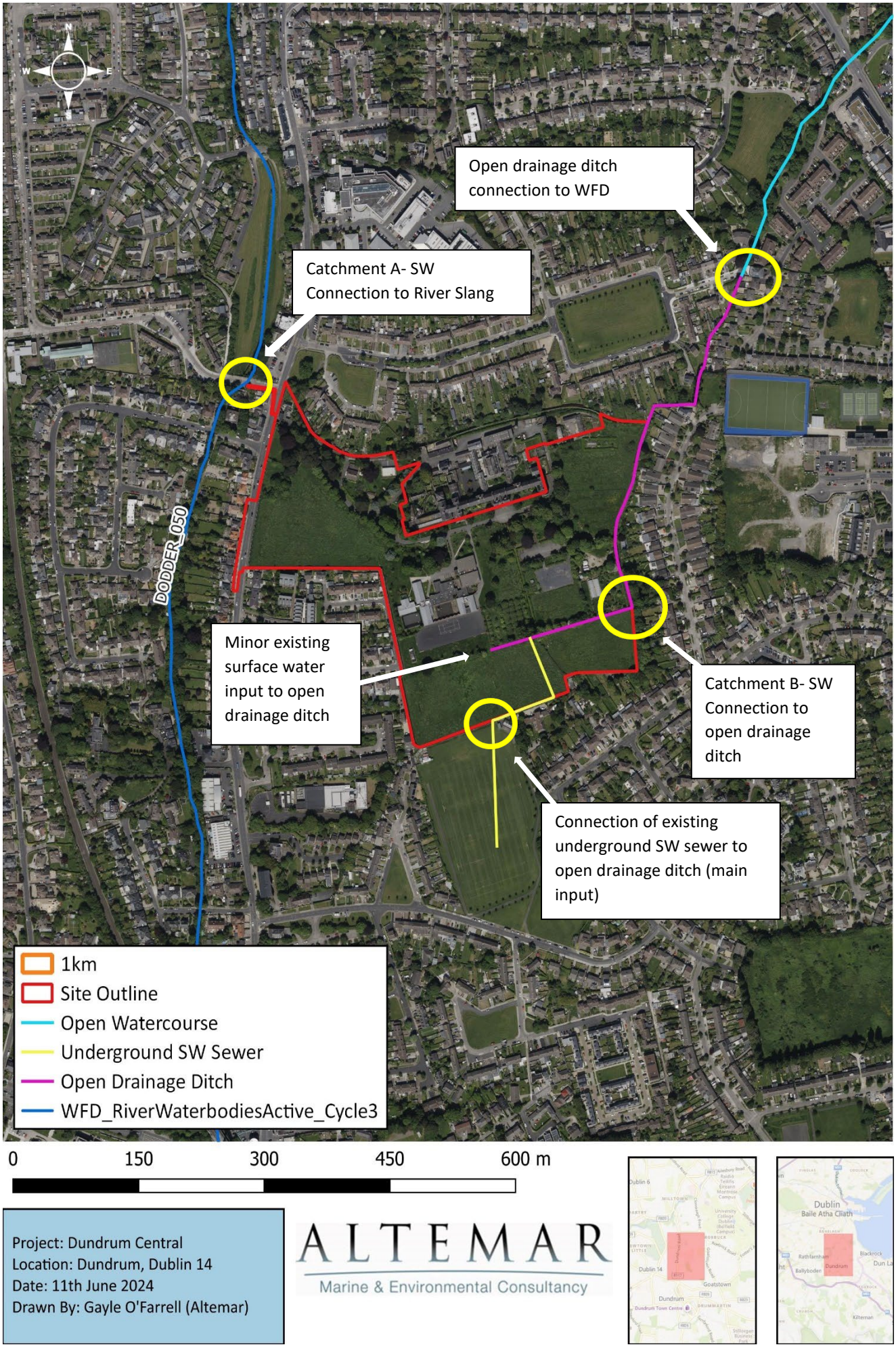

Figure 11. Outline of hydrological connections between waterbodies

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

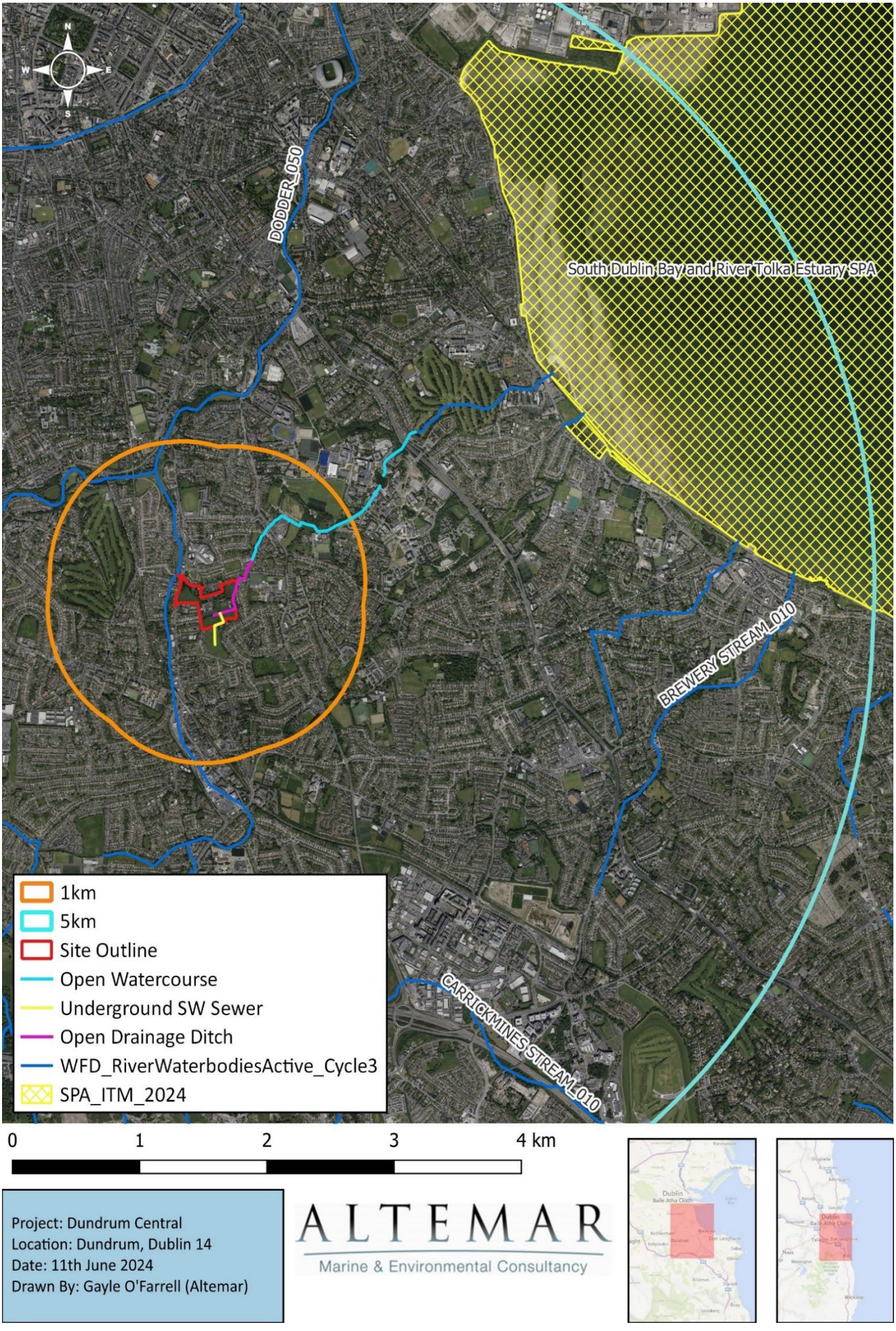

Figure 13. Watercourses and SPAs proximate of the proposed development site

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' portal[2],:

The below projects have been granted planning permission by Dún Laoghaire-Rathdown County Council (DLRCC) or An Bord Pleanála (ABP).

Table 3. In-combination effects considered

DLRCC/ ABP Reg. Ref.	Address	Decision Date	Overview of Development
ABP31293522	0.79 ha at Sommerville House, Dundrum Road, Dublin 14	Live Application	- Demolition - 111 no. apartments - 39 no. car parking spaces - 56. No. short stay bicycle storage spaces - Communal courtyard spaces
ABP31013821	Mount Saint Mary's and Saint Joseph's, Dundrum Road, Dundrum, Dublin 14	25th Aug 2021	- LRD - Demolition 2,913.8 sq m - 231 no. residential units - After school childcare facility 161 sq m - Café 83 sq m - 118 no, car parking spaces - 462 no. cycle spaces - 4 no. motorcycle spaces
D19A/0162	Former Shell Garage, Roebuck Road, Clonskeagh, Dublin 14	8th August 2019	- Demolition - 43 no. residential units - 47 no. car parking spaces - 92 no. cycle parking spaces
ABP30835320	The car sales premises currently known as Vector Motors (formerly known as Victor Motors), Goatstown Road, Dublin 14, D14FD23	3rd Feb 2021	- LRD (Student accommodation) - 960 sq m demolition - 239 no. bed spaces - 6 no car parking spaces
D20A/0328	University College Dublin, Belfield, Dublin 4	21st Jan 2021	- Extension to the existing car park to provide 239 no. additional car parking spaces, resulting in a total permanent surface car park comprising 300 no. car-parking spaces (61 no. existing spaces plus 239 no. new additional spaces). - The proposed development also seeks a modification of the Athletics Track development permitted under Dun Laoghaire Rathdown County Council Reg. Ref. D19A/0001, to omit 185 no. permitted temporary car parking spaces, resulting in a total of 70 no. temporary car parking spaces being delivered as part

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

DLRCC/ ABP Reg. Ref.	Address	Decision Date	Overview of Development
			of the permitted Athletics track development.
ABP30943021	2.12 ha at Our Lady's Grove, Goatstown Road, Dublin 14	3rd June 2021	- LRD - Student Accommodation - 698 no. bed spaces - 9 no. car parking - 4 no. motorcycle - 860 no. cycle parking
ABP31128721	c.0.9ha at No. 97A Highfield Park (D14P710), and No. 1 Frankfort Castle (D14 HY03), No. 2 Frankfort Castle (D14DE72) and Frankfort Lodge (D14C9P2), Old Frankfort, Dublin 14	20th Dec 2021	- LRD - 115 no. residential units - 80 sq m creche
ABP31182621	Lands at Knockrabo, Mount Anville Road,, Goatstown, Dublin 14	01/11/2021	- 227 no. apartments and associated site works.
ABP30768320	Green Acres Convent, Drumahill House and the Long Acre, Upper Kilmacud Road, Dundrum, Dublin 14	24/07/2020	- 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.
ABP315883	'Dunelm', Rydalmount, Milltown Road, Dublin 6	22/2/2023	- Demolition of structures, construction of Build to Rent apartments comprising of 63 apartments in 2 blocks with all associated site works
ABP305261	Building 5, Dundrum Town Centre, Sandyford Road, Dundrum, Dublin 16	23/08/2019	- 107 no. apartments, cafe and associated site works.
ABP313176	Former Central Mental Hospital Dundrum	31/03/2022	- Demolition of existing structures, 10 year permission for the construction of 977 no. residential units (20 no. houses, 957 no. apartments), creche and associated site 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 Demolition of existing structures, 10 year permission for the construction of 977 no. residential units (20 no. houses, 957 no. apartments), 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.

Following the implementation of mitigation measures, no significant effects are likely from in-combination effects

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 European sites with the potential to result in significant effects on the conservation objectives and Qualifying Interests of the European 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 European sites within 15km with a direct/indirect pathway:

Special Areas of Conservation

Site Code	NATURA 2000 Site
IE0002122	Wicklow Mountains SAC
IE0001209	Glenasmole Valley SAC
IE0000725	Knocksink Wood SAC
IE0003000	Rockabill to Dalkey Island SAC
IE0000713	Ballyman Glen SAC
IE0000202	Howth Head SAC
IE0000199	Baldoyle Bay SAC

Special Protection Areas

Site Code	NATURA 2000 Site
IE0004040	Wicklow Mountains SPA
IE004236	North-West Irish Sea SPA
IE0004172	Dalkey Islands SPA
IE0004016	Baldoyle Bay SPA
IE0004113	Howth Head Coast SPA

Having taken into consideration the proposed project, surface water strategy, the distance between the proposed development site to designated conservation sites and the direct hydrological pathway link to conservation sites located within Dublin Bay, it is concluded that this development has the potential to give rise to impacts on designated sites. The construction and operation of the proposed development has the potential to impact on the conservation objectives/features of interest of five Natura 2000 sites: South Dublin Bay SAC (2.8km), North Dublin Bay SAC (7.5 km), South Dublin Bay & River Tolka SPA (2.8 km), North Bull Island SPA (7.5 km) and North-West Irish Sea SPA (7.7 km).

Acting on a strictly precautionary basis, an NIS is required in respect of the effects of the project on these European sites 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.

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.

References

1. Department of Environment Heritage and Local Government Circular NPW 1/10 and PSSP 2/10 on Appropriate Assessment under Article 6 of the Habitats Directive – Guidance for Planning Authorities March 2010.
2. Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities, Department of the Environment, Heritage and Local Government 2009; 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
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9. NPWS (2013) Conservation Objectives: South Dublin Bay SAC 000210. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
10. NPWS (2013) Conservation Objectives: North Dublin Bay SAC 000206. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
11. NPWS (2012) Conservation Objectives: Baldoyle Bay SAC 000199. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
12. NPWS (2013) Conservation Objectives: Rockabill to Dalkey Island SAC 003000. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
13. NPWS (2016) Conservation Objectives: Howth Head SAC 000202. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.
14. NPWS (2017) Conservation Objectives: Wicklow Mountains SAC 002122. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.
15. NPWS (2021) Conservation Objectives: Glenasmole Valley SAC 001209. Version 1. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage.
16. NPWS (2021) Conservation Objectives: Knocksink Wood SAC 000725. Version 1. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage.
17. NPWS (2019) Conservation Objectives: Ballyman Glen SAC 000713. Version 1. National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht.

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 (2015) Conservation Objectives: North Bull Island SPA 004006. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
20. NPWS (2013) Conservation Objectives: Baldoyle Bay SPA 004016. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
21. NPWS (2022) Conservation objectives for Dalkey Islands SPA [004172]. First Order Sitespecific Conservation Objectives Version 1.0. Department of Housing, Local Government and Heritage.
22. NPWS (2022) Conservation objectives for Howth Head Coast SPA [004113]. First Order Sitespecific Conservation Objectives Version 1.0. Department of Housing, Local Government and Heritage.
23. NPWS (2023) Conservation Objectives: North-west Irish Sea SPA 004236. Version 1. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage.
24. NPWS (2022) Conservation objectives for Wicklow Mountains SPA [004040]. First Order Site-specific Conservation Objectives Version 1.0. Department of Housing, Local Government and Heritage.

Appendix I:

Winter Bird Survey Report 2020/2021

TPA Bird Surveys,
Dundrum, Co. Dublin

DOCUMENT DETAILS

Client:	**TPA**
Project Title:	**TPA Bird Surveys, Dundrum, Co. Dublin**
Project Number:	**200828**
Document Title:	**Winter Bird Survey Report 2020/2021**
Document File Name:	**200828 – F– Winter Bird Survey Report 2020/2021 – 2021.06.01**
Prepared By:	**MKO** **Tuam Road** **Galway** **Ireland** **H91 VW84**

Planning and Environmental Consultants

Rev	Status	Date	Author(s)	Approved By
01	Draft	16/04/2021	KS	PM
02	Draft	04/05/2021	KS/PM	DO'D
02	Final	01/06/2021	KS/PM	DO'D

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1. INTRODUCTION

McCarthy Keville O'Sullivan (MKO) was appointed to carry out bird survey works at Dundrum, County Dublin during the period from September 2020 to March 2021 inclusive. The proposed development scheme consists of a large housing development on an area of built land dominated by hospital buildings alongside areas of amenity grassland. The site is approximately 11.4 ha in area and is located between the River Dodder to the north and Dundrum Town Centre to the south (Grid reference: 53.299560, -6.242815). Figure 1 (Appendix 2) provides a map of the location of the proposed development boundary.

This report describes the ornithological survey methods employed and survey data collected at Dundrum, County Dublin for the period from September 2020 to March 2021 inclusive. This report also contains information compiled during the desktop study. Particular attention has been paid to species of conservation importance and identified target species.

The report is supported by Technical Appendix 1 which contains the raw data from the winter bird surveys in 2020/2021. This includes detail on survey times, weather conditions, surveyors, survey results and other additional information. Maps containing flight data and significant flocks observed during surveys are shown in Appendix 2.

The report is structured as follows:

- An introduction describing the background and statement of authority regarding ornithological works.
- A description of the desktop study carried out with regard to the site.
- A comprehensive description of survey methods.
- A full description of results for all ornithological surveys conducted.
- A discussion of the potential impacts.

The following defines terms used in this report:

- "Zones of Influence" (ZOI) for potential ornithological receptors refers to the zone within which potential effects are anticipated. ZOIs were assigned following the best available guidance (SNH 2016 and McGuinness et.al 2015).

1.1 Statement of Authority

This report has been prepared by Kathryn Sheridan (M.Sc.), an Ornithologist with MKO, Patrick Manley (B.Sc.), a Project Ornithologist with MKO and Project Director, Dervla O'Dowd (B.Sc. Env.). The field surveys were undertaken in the 2020/2021 winter season by Donnacha Woods and Kathryn Sheridan, both of whom are competent experts in bird surveying.

CVs for the authors of this report and all personnel who carried out survey work are provided in Appendix 3.

2. DESK STUDY

2.1 Desk Study Methods

A comprehensive desk study was undertaken prior to surveys in winter 2020 to search for any relevant information on species of conservation concern which may potentially make use of the study area. The assessment included a thorough review of the available ornithological data including:

- Review of online web-mappers: National Parks and Wildlife Service (NPWS), National Biodiversity Data Centre (NBDC), Irish Wetland Bird Survey I-WeBS.
- Review of Birds of Conservation Concern (BoCCI) in Ireland 2020-2026 (Gilbert, et al. 2021)
- Review of Special Protection Areas: including site synopsis, SCI species and conservation objectives.

2.2 Desk Study Results

2.2.1 Identification of Designated Sites within the Likely Zone of Influence

In the absence of any specific European or Irish guidance on the core foraging range, the Scottish Natural Heritage (SNH) Guidance, 'Assessing Connectivity with Special Protection Areas (SPA)' (2016) was consulted. This document provides guidance concerning the identification of connectivity between proposed development proposals and Special Protection Areas. The guidance takes into consideration the distances some species may travel beyond the boundary of their SPAs and outlines information on dispersal and foraging ranges of bird species which are frequently encountered when considering plans and projects. Using GIS software, SPAs within a potential 15km ZOI of the proposed development were identified.

The nearest SPA, South Dublin Bay and Tolka River Estuary SPA is located to the northeast of the proposed development opposite the N11. The SPA is located 2.8km from the proposed development area and comprises the intertidal area between the River Liffey and Dun Laoghaire, the River Tolka estuary to the north of the River Liffey and Booterstown Marsh. The SPA is an important foraging site for an internationally important population of Brent Geese due to the beds of Eelgrass at the Merrion Gates and serves as an important staging/passage site for several tern species in autumn.

Designated sites located within the Likely Zone of Influence are listed below in Table 2-1 and illustrated in Appendix 2, Figure 2.

Table 2-1 Designated sites within likely zone of influence

Designated site and code	Distance from proposed development (Km)	Qualifying Interests/Special Conservation Interests for which the European Site has been designated (https://www.npws.ie, last viewed 13/04/2021)	Conservation Objectives
South Dublin Bay and River Tolka Estuary SPA (004024)	2.8km northeast of the proposed development site	› Light-bellied Brent Goose (*Branta bernicla hrota*) [A046] › Oystercatcher (*Haematopus ostralegus*) [A130] › Ringed Plover (*Charadrius hiaticula*) [A137] › Grey Plover (*Pluvialis squatarola*) [A141] › Knot (*Calidris canutus*) [A143] › Sanderling (*Calidris alba*) [A144] › Dunlin (*Calidris alpina*) [A149] › Bar-tailed Godwit *(Limosa lapponica*) [A157] › Redshank (*Tringa totanus*) [A162] › Black-headed Gull (*Chroicocephalus ridibundus*) [A179] › Roseate Tern (*Sterna dougallii*) [A192] › Common Tern (*Sterna hirundo*) [A193] › Arctic Tern (*Sterna paradisaca*) [A194] › Wetland and Waterbirds [A999]	This site has detailed conservation objectives for each species listed as Qualifying Interests of the SPA: "To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests of this SPA." This site also has a second conservation objective: "To maintain the favourable conservation condition of the wetland habitat in South Dublin Bay and River Tolka Estuary SPA as a resource for the regularly occurring migratory waterbirds that utilise it." 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.
North Bull Island SPA (004006)	6km to the northeast of the proposed development site	› Light-bellied Brent Goose (*Branta bernicla hrota*) [A046] › Shelduck (*Tadorna tadorna*) [A048] › Teal (*Anas crecca*) [A052] › Pintail (*Anas acuta*) [A054] › Shoveler (*Anas clypeata*) [A056] › Oystercatcher (*Haematopus ostralegus*) [A130] › Golden Plover (*Pluvialis apricaria*) [A140] › Grey Plover (*Pluvialis squatarola*) [A141]	This site has detailed conservation objectives for each species listed as Qualifying Interests of the SPA: "To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests of this SPA." This site also has a second conservation objective:

Designated site and code	Distance from proposed development (Km)	Qualifying Interests/Special Conservation Interests for which the European Site has been designated (https://www.npws.ie, last viewed 13/04/2021)	Conservation Objectives
		› Knot (*Calidris canutus*) [A143] › Sanderling (*Calidris alba*) [A144] › Dunlin (*Calidris alpina*) [A149] › Black-tailed Godwit (*Limosa limosa*) [A156] › Bar-tailed Godwit (*Limosa lapponica*) [A157] › Curlew (*Numenius arquata*) [A160] › Redshank (*Tringa totanus*) [A162] › Turnstone (*Arenaria interpres*) [A169] › Black-headed Gull (*Chroicocephalus ridibundus*) [A179] › Wetland and Waterbirds [A999]	"To maintain the favourable conservation condition of the wetland habitat in North Bull Island SPA as a resource for the regularly occurring migratory waterbirds that utilise it" NPWS (2015) Conservation Objectives: North Bull Island SPA 004006. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
Wicklow Mountains SPA	7.4km south of the proposed development site	› Merlin (*Falco columbarius*) [A098] › Peregrine (*Falco peregrinus*) [A103]	This site has detailed conservation objectives for each species listed as Qualifying Interests of the SPA: "To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA" Citation: NPWS (2021) Conservation objectives for Wicklow Mountains SPA [004040]. Generic Version 8.0. Department of Housing, Local Government and Heritage.
Dalkey Islands SPA (004172)	9.8km east of the proposed development site	› Roseate Tern (*Sterna dougallii*) [A192] › Common Tern (*Sterna hirundo*) [A193] › Arctic Tern (*Sterna paradisaca*) [A194]	This site has detailed conservation objectives for each species listed as Qualifying Interests of the SPA: "To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA"

Designated site and code	Distance from proposed development (Km)	Qualifying Interests/Special Conservation Interests for which the European Site has been designated (https://www.npws.ie, last viewed 13/04/2021)	Conservation Objectives
			NPWS (2021) Conservation objectives for Dalkey Islands SPA [004172]. Generic Version 8.0. Department of Housing, Local Government and Heritage.
Baldoyle Bay SPA (004016)	12.9km northeast of the proposed development site	› Light-bellied Brent Goose (*Branta bernicla hrota*) [A046] › Shelduck (*Tadorna tadorna*) [A048] › Ringed Plover (*Charadrius hiaticula*) [A137] › Golden Plover (*Pluvialis apricaria*) [A140] › Grey Plover (*Pluvialis squatarola*) [A141] › Bar-tailed Godwit (*Limosa lapponica*) [A157] › Wetland and Waterbirds [A999]	This site has detailed conservation objectives for each species listed as Qualifying Interests of the SPA: "To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests of this SPA." This site also has a second conservation objective: "To maintain the favourable conservation condition of the wetland habitat in Baldoyle Bay SPA" NPWS (2013) Conservation Objectives: Baldoyle Bay SPA 004016. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
Howth Head Coast SPA (004113)	14.1km northeast of the proposed development site	› Kittiwake (*Rissa tridactyla*) [A188]	This site has detailed conservation objectives for each species listed as Qualifying Interests of the SPA: "To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA"

Designated site and code	Distance from proposed development (Km)	Qualifying Interests/Special Conservation Interests for which the European Site has been designated (https://www.npws.ie, last viewed 13/04/2021)	Conservation Objectives
			NPWS (2021) Conservation objectives for Howth Head Coast SPA [004113]. Generic Version 8.0. Department of Housing, Local Government and Heritage.

2.2.2 Irish Wetland Bird Survey (IWeBS) Records

The dataset for Dublin Bay (which incorporates the South Dublin Bay and Tolka River Estuary SPA) was downloaded from www.birdwatchireland.ie and reviewed. Data from this I-WeBS site has been used to estimate the population of waterbirds in the area surrounding the proposed development area. The most recent 5-season period and mean counts for this period are presented in Table 2-2.

Table 2-2 I-WeBS data for Dublin Bay

Species	2013/14	2014/15	2015/16	2016/17	2017/18	5- season mean 2013/14-2017/18:
Mute Swan	5	6	9	6	12	8
Light-bellied Brent Goose	3717	4862	4195	4420	3331	4105
Shelduck	961	2927	744	1811	1611	1611
Wigeon	691	2201	1106	1839	918	1351
Gadwall	2	2	-	-	-	1
Teal	1378	1233	1291	1654	1092	1330
Mallard	97	106	120	70	111	101
Pintail	200	150	124	190	222	177
Shoveler	126	97	115	116	144	120
Long-tailed Duck	1	-	-	2	-	1
Common Scoter	42	-	40	19	65	33
Goldeneye	-	2	1*	1	-	1
Red-breasted Merganser	60	57	69	80	53	64
Goosander	-	-	-	-	2	0
Red-throated Diver	7	2	7	6	5	5
Great Northern Diver	3	-	5	1	2	2
Little Grebe	1	5	-	4	4	3
Great Crested Grebe	755	143	307	193	60	292
Red-necked Grebe	1	-	-	-	-	0
Cormorant	198	41	71	170	199	136
Shag	36	3	71	19	22	30
Little Egret	59	69	59	71	87	69
Grey Heron	68	40	44	30	29	42
Moorhen	5		5	3	2	3
Oystercatcher	3074	3315	3588	4042	3521	3508
Ringed Plover	139	121	109	208	285	172
Golden Plover	1080	742	1155	1010	2501	1298
Grey Plover	310	452	240	245	248	299
Lapwing	52	54	143	25	32	61
Knot	4547	4950	2495	5850	6555	4879
Sanderling	510	266	841	374	800	558
Purple Sandpiper	2	1	2	-	-	1
Dunlin	5907	3603	3376	8280	7484	5730
Snipe	20	-	31	53	57	32

Species	2013/14	2014/15	2015/16	2016/17	2017/18	5- season mean 2013/14-2017/18:
Black-tailed Godwit	1768	873	2185	1274	1479	1516
Bar-tailed Godwit	1710	1658	2173	2653	1934	2026
Whimbrel	2	4	-	-	-	1
Curlew	932	1424	567	834	494	850
Spotted Redshank	1	-	3	-	-	1
Greenshank	34	47	78	35	47	48
Redshank	2460	1889	1648	1430	2274	1940
Turnstone	466	250	584	286	334	384
Mediterranean Gull	39	27	64	68	6	41
Black-headed Gull	2649	1259	2768	2731	3802	2642
Ring-billed Gull	-	-	-	1	-	0
Common Gull	985	272	890	213	321	536
Lesser Black-backed Gull	5	20	16	5	14	12
Herring Gull	490	261	538	461	607	471
Yellow-legged Gull	1	-	2	1	-	1
Iceland Gull	-	-	-	1	-	0
Glaucous Gull	-	-	-	1	-	0
Great Black-backed Gull	190	52	263	151	115	154
Sandwich Tern	52	-	8	-	9	14
Common Tern	39	-	1	2	2	9
Common/ Arctic Tern	-	-	-	105	-	21
Kingfisher	1	-	1	-	-	0

As previously discussed, data from I-WeBS sites in County Dublin has been used to estimate County populations of wintering waterbirds discussed in this report. Datasets for the following sites were downloaded from www.birdwatchireland.ie and reviewed:

Dublin IWeBS Sites

- Baldoyle Bay
- Brittas Pools
- Broadmeadow (Malahide) Estuary
- Delvin River – Hampton Cove
- Dublin Bay
- Dublin Zoo Ponds
- Grand Canal (Dublin)
- Hick's Tower and Robswall
- Hynestown Lake Naul
- Ireland's Eye
- Knock Lake
- Lambay Island
- Mountseskin/Gorilum
- Portmarnock Marsh

- Rockabill
- Rogerstown Estuary
- Seagrange Park
- Skerries Coast
- Skerries Islands
- Skerries, Baldongan
- South Dublin Coastline
- St. Stephen's Green
- Tymon Park

2.2.3 Method of Identification of Target Species

Following a comprehensive desk study by MKO, initial site visit and consultation, a list of "Target species" likely to occur at the site was compiled. The survey work carried out on the site was specifically designed to survey for these identified target species. The target species list was drawn from:

- Annex I of the Birds Directive,
- Special Conservation Interests (SCI) of Special Protection Areas (SPA) within the zone of likely significant effects,
- Red listed birds of Conservation Concern in Ireland,
- Species with the potential to be impacted by this type of development.

All species within these categories were considered as target species for the purpose of these surveys.

3. FIELD SURVEYS

3.1 Field Survey Methods

This section of the report describes the various field survey methods employed. Field surveys were undertaken from September 2020 – March 2021 inclusive. Field survey methodologies have been devised to survey for the bird species composition and assemblages that occur within the study area.

3.1.1 Initial Site Assessment

Based on the results of the desk study, the likely importance of the study area for bird species was determined. Based on the collated information available from the above preliminary assessment and adopting a precautionary approach, a site-specific scope for the ornithological surveys was developed.

3.1.2 Vantage Point Surveys

Vantage Point surveys were undertaken to determine the presence of bird species of high conservation concern within areas of potentially suitable habitat in the study area. These surveys were undertaken in the form of a vantage point watch overlooking the proposed development boundary. Due to the number of buildings within the proposed development site which partially obscured the view, three vantage points within the development site were required to provide good coverage of all amenity grassland habitats within the proposed development site.

The survey was undertaken (onsite) over two three-hour periods[1] (morning and afternoon), which included the two hours on either side of high tide, as this is the period when birds from the nearby SPAs are most likely to make use of terrestrial habitats, such as those present within the proposed development site. The main aim of the survey was to identify if SCIs from the nearby SPAs were utilising areas onsite for foraging or roosting. Along with target species, all additional species observed were recorded to inform the evaluation of supporting habitat.

Survey effort, including details of survey duration and weather condition, is presented in Appendix 1, Table 1-1. Figure 1 in Appendix 1 shows the survey study area.

3.1.3 Walkover and Habitat Surveys

Transect routes were walked during each survey to assess the quality and composition of habitats at various points (10 maximum) within the proposed development boundary. Transect routes were devised to ensure coverage of different habitat complexes within the study area, during each survey visit. At each point grass sward height, percentage of grass, percentage of forb species and percentage of bare ground was recorded. The abundance of brent geese droppings present at each transect point was also recorded during these surveys. Results of these habitat transects are presented in Table 3-4 below.

A further consideration during the walkover was to identify signs (e.g. droppings) of bird species of high conservation concern within areas of potentially suitable habitat in the study area. The walkover survey was undertaken within the redline boundary.

The survey was undertaken (onsite) within two hours of high tide, as this is the period when birds from the nearby SPAs are most likely to make use of terrestrial habitats, such as those present within the proposed development area. The main aim of the survey was to identify if SCIs from the adjacent SPA

[1] *With the exception of the September and the first visit in October, these surveys focused on a two hour period overlapping with high/low tides.*

were utilising areas onsite for foraging or roosting. Along with target species, all additional species observed were recorded to inform the evaluation of supporting habitat.

Survey effort, including details of survey duration and weather condition, is presented in Appendix 1, Table 1-1. Figure 1 in Appendix 1 shows the survey study area.

3.1.4 Survey Justification

A comprehensive suite of bird surveys was undertaken at the site between September 2020 and March 2021, as detailed in this report.

The surveys undertaken provide the information necessary to allow a complete, comprehensive and robust assessment of the potential impacts of the proposed development on avian receptors.

3.2 Field survey results

3.2.1 Survey Effort

Surveys were undertaken between the 16th of September 2020 and the 24th of March 2021. Two visits a month were undertaken during this period, with 12 surveys carried out in total. Table 3-1 shows the survey effort for the 2020/2021 winter season.

Table 3-1 Survey Effort

Survey Date	Survey Duration	Surveyor
16/09/2020	2:00 starting at 11:00	DW
28/09/2020	2:00 starting at 09:30	DW
14/10/2020	2:00 starting at 09:15	DW
30/10/2020	6:00 starting at 09:15	DW
13/11/2020	6:00 starting at 09:30	DW
26/11/2020	6:00 starting at 09:30	DW
18/12/2020	6:45 starting at 09:00	KS
04/01/2021	6:00 starting at 09:00	KS
18/01/2021	3:00 starting at 09:00	KS
18/01/2021	3:00 starting at 13:00	KS
29/01/2021	3:00 starting at 09:00	KS
29/01/2021	3:00 starting at 13:00	KS
12/02/2021	3:00 starting at 09:00	KS
12/02/2021	3:00 starting at 13:00	KS
26/02/2021	3:00 starting at 09:00	KS
26/02/2021	3:00 starting at 13:00	KS
12/03/2021	3:00 starting at 09:00	KS
12/03/2021	3:00 starting at 13:00	KS
24/03/2021	3:00 starting at 09:00	KS
24/03/2021	3:00 starting at 13:00	KS

3.2.2 Vantage Point Survey Results

As previously discussed, surveys were undertaken at the proposed development between September 2020 and March 2021 inclusive. Summary results from the vantage point surveys are presented below in Table 3-2 and Table 3-3, and discussed in further detail in Section 4 of this report. Figure numbers refer to figures provided in Appendix 2.

Table 3-2 Total number of each species recorded commuting over the proposed development site during surveys (Peak Counts for each species are presented in bold)

Species	Conservation Status	September		October		November		December	January			February		March		Figure No.
		16th	28th	14th	30th	13th	26th	18th	4th	18th	29th	12th	26th	12th	24th	
Black-headed Gull	BoCCI Red Listed (Breeding Populations)	-	-	-	-	-	-	**505**	198	77	185	215	73	3	4	Figure 1
Brent Goose	BoCCI Amber Listed	-	-	-	-	-	-	-	**-**	-	-	-	-	**106**	-	Figure 2
Common Gull	BoCCI Amber Listed (Breeding Populations)	-	-	-	-	**-**	-	13	3	3	5	13	**16**	12	-	Figure 3
Curlew	BoCCI Red Listed	-	-	-	-	-	-	**70**	35	-	**-**	-	-	-	-	Figure 4
Little Egret	Annex I; BoCCI Green Listed	-	-	-	-	-	-	-	**1**	-	**-**	-	-	-	-	Figure 5
Great Black-backed Gull	BoCCI Amber Listed (Breeding Populations)	-	-	-	-	-	-	-	-	**1**	-	-	-	-	**-**	Figure 6
Herring Gull	BoCCI Red Listed (Breeding Populations)	-	-	-	-	-	**-**	**220**	62	190	112	55	56	78	79	Figure 7
Lesser Black-backed Gull	BoCCI Amber Listed (Breeding Populations)	-	-	-	-	-	-	-	-	-	-	3	4	7	**22**	Figure 8
Mallard	BoCCI Amber Listed	-	-	-	-	-	-	-	**6**	-	-	**-**	-	2	**6**	Figure 9

Table 3-3 Total number of each species recorded on, or within 500m of, the proposed development site (i.e. observed foraging/roosting) (Peak Counts for each species are presented in bold)

Species	Conservation Status	September		October		November		December	January			February		March		Figure No.
		16th	28th	14th	30th	13th	26th	18th	4th	18th	29th	12th	26th	12th	24th	
Black-headed Gull	BoCCI Red Listed (Breeding Populations)	**-**	**-**	9	5	46	23	13	36	38	15	**46**	21	-	-	Figure 1.1.1
Common Gull	BoCCI Amber Listed (Breeding Populations)	-	-	1	3	**5**	1	-	2	-	2	4	-	-	-	Figure 1.3.1

Species	Conservation Status	September		October		November		December	January			February		March		Figure No.
		16th	28th	14th	30th	13th	26th	18th	4th	18th	29th	12th	26th	12th	24th	
Curlew	BoCCI Red Listed	-	-	-	-	-	-	-	**24**	**-**	-	-	-	-	-	Figure 1.4.1
Little Egret	Annex I; BoCCI Green Listed	-	-	-	-	-	**1**	-	**-**	**-**	-	-	-	-	-	
Herring Gull	BoCCI Red Listed (Breeding Populations)	2	20	-	-	**95**	28	94	15	9	-	-	5	-	1	Figure 1.7.1
Lesser Black-backed Gull	BoCCI Amber Listed (Breeding Populations)	-	-	-	-	-	-	-	-	-	-	-	-	1	**2**	Figure 1.8.1

3.2.3 Walkover and Habitat Survey Results

Habitat quality and composition were recorded along walked transects within the proposed development were assessed at visits between November and March inclusive. The monthly range and averages of habitat compositions are detailed in Table 3-4 below. Also included are average monthly sward heights and the abundance of brent goose droppings.

Table 3-4 Habitat quality and composition of walked transects within the proposed development. Also included is the abundance of brent geese droppings observed on transects.

Month	Sward Height (cm)	Grass (%)		Forbs (%)		Bare Ground (%)		Number of Droppings
		Range	Average	Range	Average	Range	Average	
November	9.3	60-100	86	0-40	13.5	0-5	0.2	0
December	8.9	80-100	94.8	0-20	5.2	0	0	0
January	11	80-100	93.9	0-20	6	0	0	0
February	7.5	90-100	97.1	0-10	2.9	0	0	0
March	6.9	80-100	96.2	0-20	3.8	0	0	0

4. DISCUSSION

The following provides a synopsis of the findings of the surveys undertaken between September 2020 and March 2021.

Within the proposed development site and/or within 500m of the site, the following key observations were noted:

- On the 4th of January, curlew were observed using an area of amenity grassland within the proposed development site for foraging.
- Herring gull, black-head gull, lesser black-backed gull and common gull were frequently observed using the proposed development site for foraging and roosting.
- Black-headed gull and herring gull were observed regularly commuting over the proposed development.
- Curlew and brent geese were observed commuting over the proposed development site infrequently.

Key impacts that could result from the proposed development on local avian receptors include habitat loss, disturbance/displacement and water pollution.

The proposed development is currently in use as a hospital facility, with amenity grasslands regularly maintained and mown by gardeners on-site. These grasslands have a short grass sward length (6.9-11cm; see Table 3-4) which would be favourable to SCI species, however, these grasslands are frequently accessed for recreational use leading to a high level of disturbance. Curlew were observed twice on an amenity grassland used as a walking area/football pitch within the proposed development, however, the flocks were flushed due to disturbance on both occasions.

Of the SCI species listed for the SPAs within the ZOI, black-headed gull, brent goose and curlew were observed on, or within 500m of, the proposed development site. There were no flocks of county importance observed roosting or foraging within the proposed development site for any of these species (see Table 3-3).

Black-headed gull flocks of county importance (>90 birds; 1% of the county population) were observed on one occasion commuting over the proposed development site. Brent goose flocks of county importance (>84 birds; 1% of the county population) were observed on one occasion commuting over the proposed development site and curlew flocks of county importance (>29 birds; 1% of the county population) were observed on two occasions commuting over the proposed development site. Flocks of importance relative to the local population (1% of the Dublin Bay I-WeBS site population) were recorded for black-headed gull on fifteen occasions, brent goose on one occasion and curlew on four occasions.

The potential for birds commuting over the site to be impacted by construction activities is considered to be limited. There is the potential for disturbance/displacement and habitat loss for species observed utilising habitats within the proposed development site during the construction phase. If impacts are assessed to be significant, the likelihood is that disturbance/displacement impacts can be avoided or reduced by imposing suitable mitigation measures. Such mitigation could include limiting construction activities to the summer when wintering birds are not present.

5. CONCLUSION

There are six SPAs within the ZOI, the nearest SPA to the proposed development is South Dublin Bay and River Tolka Estuary SPA (2.8km to the northeast). Of the SCI species listed for the SPAs within the ZOI, black-headed gull, brent goose and curlew were the only species recorded commuting or foraging on, or within 500m of, the proposed development.

The proposed development site is not within a SPA, however, given the proximity of several SPAs, there may be potential for impacts to result during construction and operational phases of the proposed development on birds that are associated with these SPAs. Potential impacts could include:

- Loss of potential foraging/roosting habitat within the proposed development site.
- Disturbance/displacement during construction works and the operational phase, including through movement of machinery, personnel, noise, vibration and/or noise associated with domestic dwellings.
- Water pollution of downstream SPAs.

The maximum likely distance at which disturbance will impact SCIs from a SPA is 300m (Cutts et al., 2013) from the proposed development boundary. Given the separation distance from the SPAs, disturbance impacts within SPAs are not anticipated. However, given the level of activity of black-headed gull at the development site, disturbance/displacement and habitat loss impacts during the construction phase cannot be ruled out. The peak number of black-headed gull observed foraging within the proposed development were not of county importance for this species, therefore it is unlikely that disturbance to this species will be ecologically significant. It is unlikely that there will be any significant disturbance/displacement of curlew in the proposed development site, given the lack of evidence that the site is used with any regularity. Brent geese were not observed foraging or roosting within the proposed development (Table 3-3) nor was there any evidence of geese on the proposed development (Table 3-4). Therefore significant disturbance/displacement of brent geese are not anticipated at the proposed development site.

When built, the proposed housing scheme may result in disturbance of SCIs of the SPAs within the likely ZOI of the proposed development site. However, habituation will likely occur to this new source of disturbance given that the SCIs of the SPA are already accustomed to the disturbance associated with Dundrum town and existing surrounding housing developments.

A wide range of environmental factors are required to support water bird species including good water quality and clarity and a good supply of food resources. Thus, water quality impacts resulting from the proposed development (i.e. during the construction and operational phases) could result in a reduction in the availability of suitable habitat for water bird species at downstream wetland sites. The effect of such a reduction in water quality has the potential to be ecologically significant. However, it is likely that best practice design and mitigation can be implemented that would avoid or reduce such impacts.

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Appendix II

Issue Date: 15 April 2024

Winter Bird Survey Report 2023-2024

Dundrum Central Mental Hospital LRD

Prepared for: TPA

By: Flynn Furney Environmental Consultants

Table of Contents

1. INTRODUCTION

1.1 This Report

Flynn Furney Environmental Consultants have been commissioned by TPA to carry out bird survey work at a site in Dundrum, Co. Dublin and prepare a report of this. These surveys were carried out over winter months in 2023 and 2024. The purpose of these surveys was to complete a suite of surveys previously carried out by consultants MKO during winter months in 2020 and 2021 (MKO, 2021) and the present authors in 2021 and 2022 (see Appendix C) and to compare results from the present surveys with the previous work.

1.2 Site under Survey

The site under survey comprises the grounds of the Central Mental Hospital at the townland of Churchtown, Co. Dublin, c. 0.5 km north of Dundrum Village. The centre of the site is at 717162 729156 (ITM). The site contains a number of hospital and associated buildings as well as extensive green areas which include lawns, playing fields and a small amount of pasture. A portion of the playing fields have been given over to temporary accommodation for asylum seekers. The site location is shown graphically in Appendix A. Given the sensitive nature of the site, the surveyor did not take any photographs during survey.

1.3 Statement of Authority

The survey work was carried out by Eric Dempsey. Eric has around 40 years' experience in ornithology and is a leading authority on Irish birds. He is the author of 8 books on Irish birds including the *Complete Field Guide to Irish Birds*. He is a listed Heritage Expert with The Heritage Council.

The report was written by Billy Flynn. Billy is a Chartered Environmental Scientist and Ecologist with over 25 years' experience. He has worked on a wide range of projects including national infrastructure such as motorway and rail projects. He is Lead Ecologist on a number of ongoing survey projects including greenways, lakes and sites of heritage significance.

2. METHODOLOGY

2.1 Desk Study

A review of the reporting by consultants MKO (2021) and by FFEC (2022) was carried out. A review of Irish Wetland Birds data (IWeBS) records as reported in the above was also carried out as well as a review of the Special Conservation Interests (SCIs) of the Special Protection Areas (SPAs) within the zone of influence (ZOI) of the project as identified by MKO.

As detailed in the above reporting, there are several SPAs within the possible zone of influence of the site under survey. These are shown in Appendix A. Species that are Special Conservation Interests of the SPAs were specifically targeted by the survey as were birds of greatest conservation concern (the 'Red Listed' species, see Gilbert et al., 2021) and any other birds that are on Annex I of the EU Birds Directive (see Nelson et al, 2019).

The nearest SPA, South Dublin Bay and Tolka River Estuary SPA is located to the northeast of the proposed development opposite the N11. The SPA is located 2.8km from the proposed development area and comprises the intertidal area between the River Liffey and Dun Laoghaire, the River Tolka estuary to the north of the River Liffey and Booterstown Marsh. The SPA is an important foraging site for an internationally important population of Brent Geese due to the beds of Eelgrass at the Merrion Gates and serves as an important staging/passage site for several tern species in autumn.

The survey work carried out on the site was specifically designed to survey for these identified target species. The target species list was drawn from:

- Annex I of the Birds Directive,
- Special Conservation Interests (SCI) of Special Protection Areas (SPA) within the zone of likely significant effects,
- Red listed birds of Conservation Concern in Ireland,
- Species with the potential to be impacted by this type of development.

All species within these categories were considered as target species for the purpose of these surveys.

2.2 Field Survey

2.2.1 Vantage Point Surveys

Field survey methodology followed that utilised by MKO (2021) and present authors (2022). Vantage Point surveys as detailed by Bibby et al. (2000) were carried out. This is an accepted standard best practice for surveys of this kind. As per the previous MKO work, these were carried out from 3 no. points within the grounds of the site. They were chosen for the maximum field of view of the grassland areas of the site. Surveys were undertaken over 2 no. 3 hour periods (morning & afternoon) which includes a 2-hour period either side of the high tide on these days. This would capture the time period when the target species of the SPAs would be most likely to utilise the site at Dundrum.

2.2.2 Walkover/Habitat Surveys

A walkover survey of the site was carried out in order to confirm the location, character and extent of habitats as recorded in previous surveys. Further, more targeted walkover surveys were carried out throughout the duration of the project in order to identify droppings of target species birds (e.g. geese) within the grassland areas of the site. This would assist in determining whether any of the target species were utilising the habitat within the grounds. These surveys were undertaken within a 2-hour period either side of the high tide on each of the survey days. This would capture the time period when the target species of the SPAs would be most likely to utilise the site at Dundrum.

2.2.3 Survey Effort

Surveys as described above were carried out at Dundrum between 14 November 2023 and 15 March 2024. This amounted to 10 no. survey days of 6 hour's duration, a total of 60 hours of survey time. This is believed to be a robust sample of the site over the season under survey.

3. RESULTS

3.1 Vantage Point Surveys

The results of the target species recorded during surveys undertaken between November 2023 and March 2024 are summarised in the table below:

Table 1. Monthly totals of hourly peak species counts for each species recorded.

Species	Conservation status	November	December	January	February	March
Black-headed Gull	Greatest Conservation Concern (Red list)	18	12	20	12	12
Herring Gull	Greatest Conservation Concern (Red List)	72	78	86	77	64

Table 2. Peak species counts for each species recorded.

Species	Conservation status	November	December	January	February	March
Black-headed Gull	Greatest Conservation Concern (Red list)	3	3	4	5	4
Herring Gull	Greatest Conservation Concern (Red List)	9	13	12	11	8

3.2 Walkover / Habitat Surveys

The results of the walkover survey and habitat description are summarised in the table below.

Table 3. Species composition per month

Month	Grass	Forb	Bare Ground
	(approximate % surface area)		
November	>90	<10	<1
December	>90	<10	<1
January	>90	<10	<1
February	>90	<10	<1

The results of the search for droppings of geese are shown in the table below.

Table 4. Droppings found per month

Month	No of Droppings
November	0
December	0
January	0
February	0
March	0

4. DISCUSSION

This section of the report summarises the results of the surveys carried out between 14 November 2023 and 15 March 2024. The results may be seen in full in Appendix B of this report.

A total of two of the target species were recorded foraging and/or roosting within the site proposed for development. These were: Herring Gull *Larus argentatus* and Black-headed Gull *Larus ridibundus*.

Of these, Herring Gull was recorded in greatest numbers. The highest peak count for this species being 13 no. on the 7 December 2023. Of the above, Black-headed Gull is the only Special Conservation Interest (SCI) species of any of the SPAs within the likely zone of influence (ZOI) of the project. Brent Goose was not recorded within the survey period, nor evidence of this species found. No Curlew *Numenius arquata* were recorded utilising or overflying the site. Numbers of both Herring Gulls and Black-headed Gulls recorded were significantly lower than those recorded during the 2021-2022 survey period. Common Gull and Little Egret were not recorded during the most recent survey period.

The habitat surveys carried out showed results consistent with the results of the MKO surveys (2021) and the later FFEC (2023) survey which showed a dominance of grass species (>90%) across the areas surveyed and non-grass species (forbs) being consistently less than 10% of surface area. The grass was seen to be well-maintained throughout the site and areas of bare ground were rare (<1%). Consistent with the previous surveys (MKO, 2021; FFEC, 2023), no droppings of any goose species were found during the survey period.

The findings of the bird surveys would indicate that there is only limited potential for disturbance or displacement of the SCI species of the SPAs within the ZOI arising from the proposed development. It is not predicted that the proposed development would result in any habitat loss of any significance to any SCI species. This is based upon the low numbers of the only SCI species recorded and the availability of similar habitat type (amenity grassland) within the immediate and wider areas.

Surveys of the site are now completed. It is believed that given the consistent results garnered over 3 years that the above findings of this report are robust.

5. CONCLUSION

Of the target species of the bird survey, only one SCI species listed for the Special Protection Areas within the ZOI of the proposed development was recorded. This was Black-headed Gull. This species was also recorded in the previous surveys by MKO (2021) and FFEC (2022). Two other SCI species recorded in the 2021 survey (Curlew and Brent Goose) were not recorded within the survey period of this present survey.

No direct impacts to any of the SPAs within the ZOI may be expected. This is given the remove of these sites from the area proposed for development and the lack of connectivity between this and the protected sites. Indirect effects on the SPAs (e.g. on water quality) are considered unlikely given the nature of the proposed development and the lack of connectivity to these designated sites. As described in the MKO report (2021), best practice design and site practices would prevent such impacts from arising.

While some disturbance and displacement impacts may occur to the SCI species recorded, this would not be deemed to be of potential significance. This is due to the habituation of this species to anthropogenic disturbance within the site and wider urban area and its likely habitation to any disturbance resulting from the proposed development.

Some loss of foraging habitat for these species will occur. However, this is not considered significant given the relative abundance of this habitat type (amenity grassland) within both the immediate and wider areas surrounding the site.

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Web Resources

www.npws.ie National Parks and Wildlife Service: Designated site data and shapefiles.

www.birdwatchireland.ie & http: c0amf055.caspio.com: Species data and iWeBS (wetland birds) records.

Appendix A: Site Location & Designated Sites

Fig. 1. Site Location and Survey Area

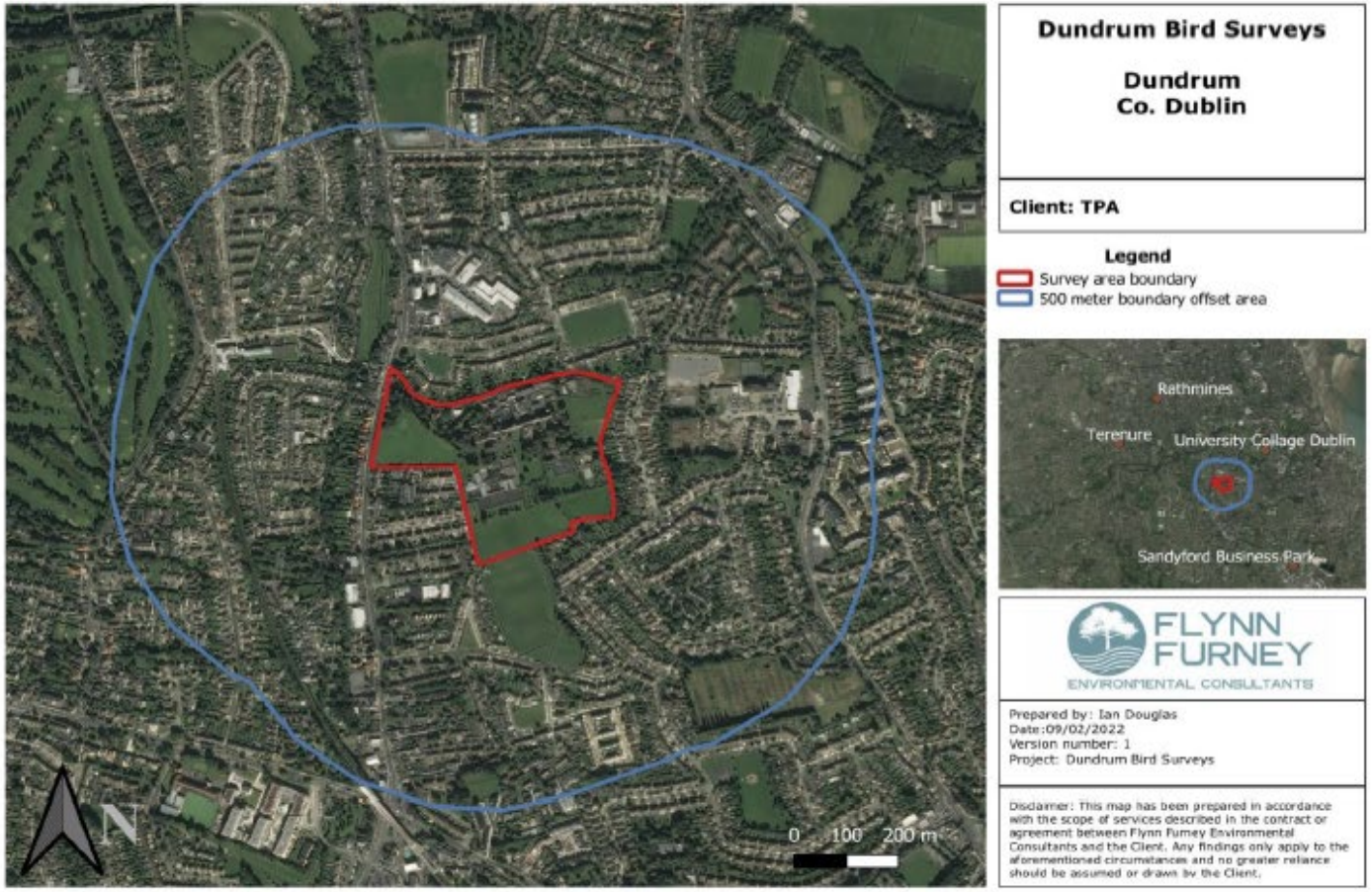
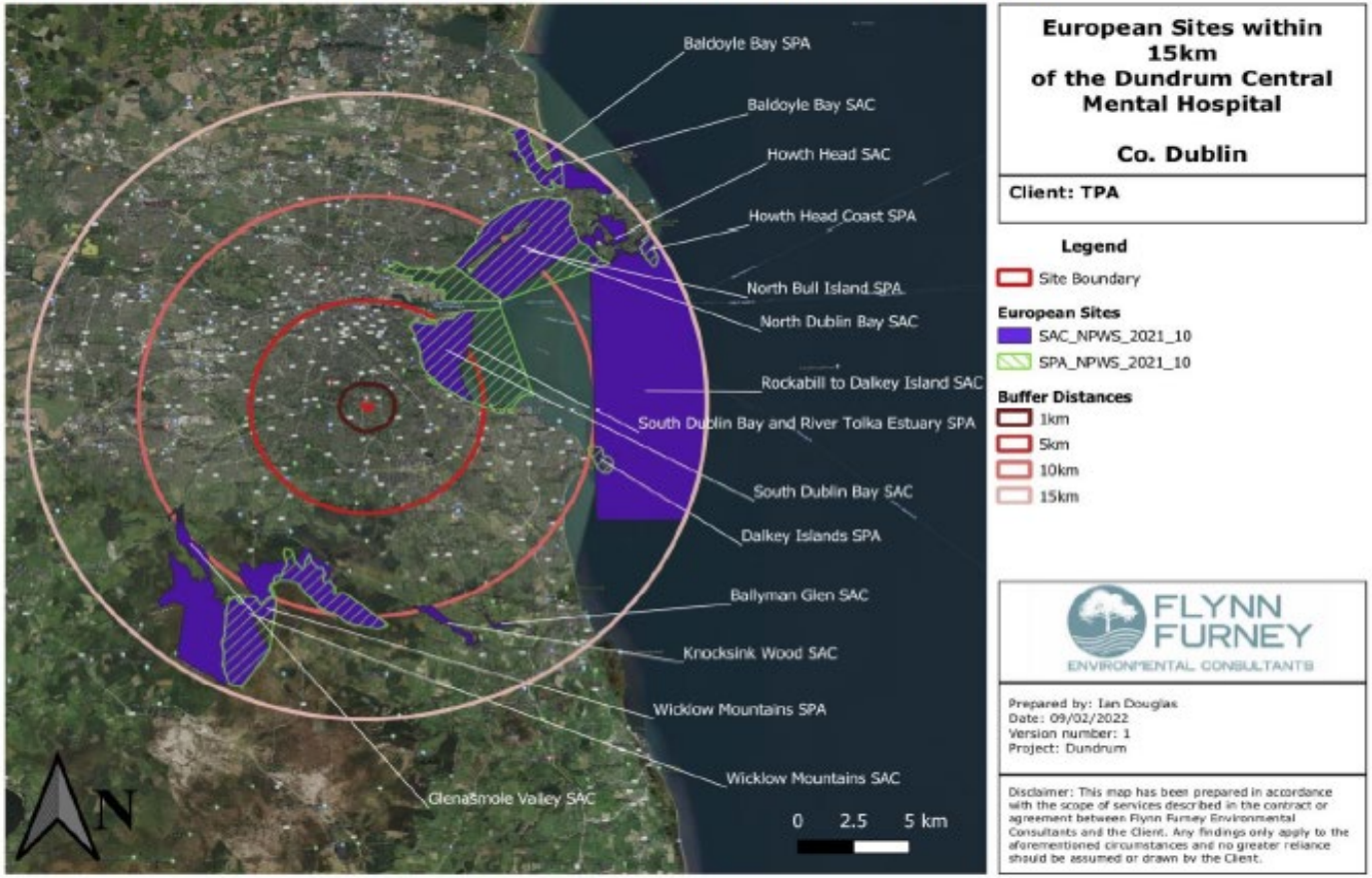


Fig. 2. Location of Natura 2000 sites within Likely Zone of Influence of Proposed Development



Appendix B: Survey Data

November 2023

Dundrum Survey - 2023/24				Species - Peak Counts per hour												
Date	Observer	Start time	End time	BG	CU	OC	LB	BH	HG	CM	BG droppings	Wind	Cloud	Precip	Vis	Dublin High Tide
14/11/2023	ED	09:20	10:20	0	0	0	0	2	6	0	N	4	3	1	5	11:37
14/11/2023	ED	10:20	11:20	0	0	0	0	2	4	0	N	4	3	1	5	11:37
14/11/2023	ED	11:20	12:20	0	0	0	0	3	8	0	N	4	3	1	5	11:37
14/11/2023	ED	12:20	13:20	0	0	0	0	0	7	0	N	4	3	1	5	11:37
14/11/2023	ED	13:20	14:20	0	0	0	0	3	5	0	N	4	3	1	5	11:37
14/11/2023	ED	14:20	15:20	0	0	0	0	1	4	0	N	4	3	1	5	11:37
24/11/2023	ED	09:40	10:40	0	0	0	0	1	4	0	N	2	3	1	5	09:05
24/11/2023	ED	10:40	11:40	0	0	0	0	3	7	0	N	2	3	1	5	09:05
24/11/2023	ED	11:40	12:40	0	0	0	0	2	8	0	N	2	3	1	5	09:05
24/11/2023	ED	12:40	13:40	0	0	0	0	0	7	0	N	2	3	1	5	09:05
24/11/2023	ED	13:40	14:40	0	0	0	0	1	9	0	N	2	3	1	5	09:05
24/11/2023	ED	14:40	15:40	0	0	0	0	0	3	0	N	2	3	1	5	09:05

British Trust for Ornithology Species Codes: BG-Brent Goose, CU-Curlew, OC-Oystercatcher, LB-Lesser Black-backed Gull, BH-Black-headed Gull, HG-Herring Gull, CM-Common Gull, ET-Little Egret.

December 2023

Dundrum Survey - 2023/24				Species - Peak Counts per hour												
Date	Observer	Start time	End time	BG	CU	OC	LB	BH	HG	CM	BG droppings	Wind	Cloud	Precip	Vis	Dublin High Tide
07/12/2023	ED	09:30	10:30	0	0	0	0	2	6	0	N	5	3	3	5	07:23
07/12/2023	ED	10:30	11:30	0	0	0	0	0	9	0	N	5	3	3	5	07:23
07/12/2023	ED	11:30	12:30	0	0	0	0	0	5	0	N	5	3	3	5	07:23
07/12/2023	ED	12:30	13:30	0	0	0	0	3	13	0	N	5	3	3	5	07:23
07/12/2023	ED	13:30	14:30	0	0	0	0	0	5	0	N	5	3	3	5	07:23
07/12/2023	ED	14:30	15:30	0	0	0	0	0	4	0	N	5	3	3	5	07:23
21/12/2023	ED	09:20	10:20	0	0	0	0	3	11	0	N	7	3	1	5	06:33
21/12/2023	ED	10:20	11:20	0	0	0	0	2	4	0	N	7	3	1	5	06:33
21/12/2023	ED	11:20	12:20	0	0	0	0	0	7	0	N	7	3	1	5	06:33
21/12/2023	ED	12:20	13:20	0	0	0	0	0	3	0	N	7	3	1	5	06:33
21/12/2023	ED	13:20	14:20	0	0	0	0	1	7	0	N	7	3	1	5	06:33
21/12/2023	ED	14:20	15:20	0	0	0	0	0	4	0	N	7	3	1	5	06:33

British Trust for Ornithology Species Codes: BG-Brent Goose, CU-Curlew, OC-Oystercatcher, LB-Lesser Black-backed Gull, BH-Black-headed Gull, HG-Herring Gull, CM-Common Gull, ET-Little Egret.

January 2024

Dundrum Survey - 2023/24				Species - Peak Counts per hour												
Date	Observer	Start time	End time	BG	CU	OC	LB	BH	HG	CM	BG droppings	Wind	Cloud	Precip	Vis	Dublin High Tide
05/01/2024	ED	09:10	10:10	0	0	0	0	3	7	0	N	3	3	1	5	06:09
05/01/2024	ED	10:10	11:10	0	0	0	0	4	3	0	N	3	3	1	5	06:09
05/01/2024	ED	11:10	12:10	0	0	0	0	2	12	0	N	3	3	1	5	06:09
05/01/2024	ED	12:10	13:10	0	0	0	0	0	5	0	N	3	3	1	5	06:09
05/01/2024	ED	13:10	14:10	0	0	0	0	3	11	0	N	3	3	1	5	06:09
05/01/2024	ED	14:10	15:10	0	0	0	0	5	6	0	N	3	3	1	5	06:09
19/01/2024	ED	09:25	10:25	0	0	0	0	1	4	0	N	2	1	1	5	05:54
19/01/2024	ED	10:25	11:25	0	0	0	0	0	7	0	N	2	1	1	5	05:54
19/01/2024	ED	11:25	12:25	0	0	0	0	0	3	0	N	2	1	1	5	05:54
19/01/2024	ED	12:25	13:25	0	0	0	0	0	11	0	N	2	1	1	5	05:54
19/01/2024	ED	13:25	14:25	0	0	0	0	2	8	0	N	2	1	1	5	05:54
19/01/2024	ED	14:25	15:25	0	0	0	0	0	9	0	N	2	1	1	5	05:54

British Trust for Ornithology Species Codes: BG-Brent Goose, CU-Curlew, OC-Oystercatcher, LB-Lesser Black-backed Gull, BH-Black-headed Gull, HG-Herring Gull, CM-Common Gull, ET-Little Egret.

February 2024

Dundrum Survey - 2023/24				Species - Peak Counts per hour												
Date	Observer	Start time	End time	BG	CU	OC	LB	BH	HG	CM	BG droppings	Wind	Cloud	Precip	Vis	Dublin High Tide
06/02/2024	ED	09:20	10:20	0	0	0	0	0	7	0	N	3	3	5	5	08:22
06/02/2024	ED	10:20	11:20	0	0	0	0	0	4	0	N	3	3	5	5	08:22
06/02/2024	ED	11:20	12:20	0	0	0	0	0	11	0	N	3	3	5	5	08:22
06/02/2024	ED	12:20	13:20	0	0	0	0	5	7	0	N	3	3	5	5	08:22
06/02/2024	ED	13:20	14:20	0	0	0	0	3	7	0	N	3	3	5	5	08:22
06/02/2024	ED	14:20	15:20	0	0	0	0	4	6	0	N	3	3	5	5	08:22
20/02/2024	ED	09:40	10:40	0	0	0	0	0	5	0	N	3	2	2	5	08:52
20/02/2024	ED	10:40	11:40	0	0	0	0	0	7	0	N	3	2	2	5	08:52
20/02/2024	ED	11:40	12:40	0	0	0	0	0	9	0	N	3	2	2	5	08:52
20/02/2024	ED	12:40	13:40	0	0	0	0	0	5	0	N	3	2	2	5	08:52
20/02/2024	ED	13:40	14:40	0	0	0	0	0	6	0	N	3	2	2	5	08:52
20/02/2024	ED	14:40	15:40	0	0	0	0	0	3	0	N	3	2	2	5	08:52

British Trust for Ornithology Species Codes: BG-Brent Goose, CU-Curlew, OC-Oystercatcher, LB-Lesser Black-backed Gull, BH-Black-headed Gull, HG-Herring Gull, CM-Common Gull, ET-Little Egret.

March 2024

Dundrum Survey - 2023/24				Species - Peak Counts per hour												
Date	Observer	Start time	End time	BG	CU	OC	LB	BH	HG	CM	BG droppings	Wind	Cloud	Precip	Vis	Dublin High Tide
04/03/2024	ED	09:30	10:30	0	0	0	0	3	6	0	N	4	3	4	5	17:50
04/03/2024	ED	10:30	11:30	0	0	0	0	2	5	0	N	4	3	4	5	17:50
04/03/2024	ED	11:30	12:30	0	0	0	0	4	8	0	N	4	3	4	5	17:50
04/03/2024	ED	12:30	13:30	0	0	0	0	1	3	0	N	4	3	4	5	17:50
04/03/2024	ED	13:30	14:30	0	0	0	0	2	6	0	N	4	3	4	5	17:50
04/03/2024	ED	14:30	15:30	0	0	0	0	0	5	0	N	4	3	4	5	17:50
15/03/2023	ED	10:15	11:15	0	0	0	0	0	5	0	N	3	2	1	5	15:02
15/03/2023	ED	11:15	12:15	0	0	0	0	0	7	0	N	3	2	1	5	15:02
15/03/2023	ED	12:15	13:15	0	0	0	0	0	3	0	N	3	2	1	5	15:02
15/03/2023	ED	13:15	14:15	0	0	0	0	0	6	0	N	3	2	1	5	15:02
15/03/2023	ED	14:15	15:15	0	0	0	0	0	5	0	N	3	2	1	5	15:02
15/03/2023	ED	15:15	16:15	0	0	0	0	0	5	0	N	3	2	1	5	15:02

Appendix III

Issue Date: 7 March 2022

Winter Bird Survey Report

Dundrum

Prepared for: TPA

By: Flynn Furney Environmental Consultants

Table of Contents

1. INTRODUCTION

1.1 This Report

Flynn Furney Environmental Consultants have been commissioned by TPA to carry out bird survey work at a site in Dundrum, Co. Dublin. These surveys were carried out over winter months in 2021 and 2022. The purpose of these surveys was to complete a suite of surveys previously carried out by consultants MKO during winter months in 2020 and 2021 and to compare results from the present survey with the previous work.

1.2 Site under Survey

The site under survey comprises the grounds of the Central Mental Hospital at the townland of Churchtown, Co. Dublin, c. 0.5 km north of Dundrum Village. The centre of the site is at 717162 729156 (ITM). The site contains a number of hospital and associated buildings as well as extensive green areas which include lawns, playing fields and a small amount of pasture. The site location is shown graphically in Appendix A. Given the sensitive nature of the site, the surveyor did not take any photographs during survey.

1.3 Statement of Authority

The survey work was carried out by Eric Dempsey. Eric has around 40 years' experience in ornithology and is a leading authority on Irish birds. He is the author of 8 books on Irish birds including the *Complete Field Guide to Irish Birds*. He is a listed Heritage Expert with The Heritage Council.

The report was written by Billy Flynn. Billy is a Chartered Environmental Scientist and Ecologist with over 20 years' experience. He has worked on a wide range of projects including national infrastructure such as motorway and rail projects. He is Lead Ecologist on a number of ongoing survey projects including greenways, lakes and sites of heritage significance.

2. METHODOLOGY

2.1 Desk Study

A review of the reporting by consultants MKO (2021) was carried out. A review of Irish Wetland Birds data (IWeBS) records as reported in the above was also carried out as well as a review of the Special Conservation Interests (SCIs) of the Special Protection Areas (SPAs) within the zone of influence (ZOI) of the project as identified by MKO.

As detailed in the above reporting, there are several SPAs within the possible zone of influence of the site under survey. These are shown in Appendix A. Species that are Special Conservation Interests of the SPAs were specifically targeted by the survey as were birds of greatest conservation concern (the 'Red Listed' species, see Gilbert et al., 2021) and any other birds that are on Annex I of the EU Birds Directive.

2.2 Field Survey

2.2.1 Vantage Point Surveys

Field survey methodology followed that utilised by MKO (2021). Vantage Point surveys as detailed by Bibby et al. (2000) were carried out. As per the previous MKO work, these were carried out from 3 no. points within the grounds of the site. They were chosen for the maximum field of view of the grassland areas of the site. Surveys were undertaken over 2 no. 3 hour periods (morning & afternoon) which includes a 2-hour period either side of the high tide on these days. This would capture the time period when the target species of the SPAs would be most likely to utilise the site at Dundrum.

2.2.2 Walkover/Habitat Surveys

A walkover survey of the site was carried out in order to confirm the location, character and extent of habitats as recorded in the survey by MKO (2021). Further, more targeted walkover surveys were carried out throughout the duration of the project in order to identify droppings of target species birds (e.g. geese) within the grassland areas of the site.

2.2.3 Survey Effort

Surveys as described above were carried out at Dundrum between 24 November 2021 and 28 February 2022. This amounted to 7 no. survey days of 6 hour's duration, a total of 42 hours survey time.

3. RESULTS

3.1 Vantage Point Surveys

The results of the target species recorded during surveys undertaken between November 2021 and January 2022 are summarised in the table below:

Table 1. Total of hourly peak species counts for each species recorded.

Species	Conservation status	November	December	January	February
Black-headed Gull	Greatest Conservation Concern (Red list)	7	64	45	29
Herring Gull	Greatest Conservation Concern (Red List)	20	136	106	161
Common Gull	Medium Conservation Concern (Amber List)	0	9	0	0
Little Egret	Least Conservation Concern (Green List), Annex I Species	0	1	0	0

Table 2. Peak species counts for each species recorded.

Species	Conservation status	November	December	January	February
Black-headed Gull	Greatest Conservation Concern (Red list)	2	11	8	7
Herring Gull	Greatest Conservation Concern (Red List)	5	51	19	36
Common Gull	Medium Conservation Concern (Amber List)	0	5	0	0
Little Egret	Least Conservation Concern (Green List), Annex I Species	0	1	0	0

3.2 Walkover / Habitat Surveys

The results of the walkover survey and habitat description are summarised in the table below.

Table 3. Species composition per month

Month	Grass	Forb	Bare Ground
	(approximate % surface area)		
November	>90	<10	<1
December	>90	<10	<1
January	>90	<10	<1
February	>90	<10	<1

The results of the search for droppings of geese are shown in the table below.

Table 4. Droppings found per month

Month	No of Droppings
November	0

December	0
January	0
February	0

4. DISCUSSION

This section of the report summarises the results of the surveys carried out between 24 November 2021 and 28 February 2022. The results may be seen in full in Appendix B of this report.

A total of four of the target species were recorded foraging or roosting within site proposed for development. These were: Herring Gull *Larus argentatus*, Black-headed Gull *Larus ridibundus,* Common Gull *Larus canus* and Little Egret *Egretta garzetta*.

Of these, Herring Gull was recorded in greatest numbers. The highest peak count for this species being 51 no. on the 8 December 2021. Of the above, Black-headed Gull is the only Special Conservation Interest (SCI) species of any of the SPAs within the likely zone of influence (ZOI) of the project.

No Curlew *Numenius arquata* were recorded utilising the site. In conversation with members of grounds staff, the ornithologist was told that Curlew has occasionally been seen within the site but not in "recent" times. Brent Goose was not recorded within the survey period.

The habitat surveys carried out were largely in line with the results of the MKO surveys (2021) which showed a dominance of grass species (>90%) across the areas surveyed and non-grass species (forbs) being consistently less than 10% of surface area. The grass was seen to be well-maintained throughout the site and areas of bare ground were rare (<1%). Consistent with the MKO survey, no droppings of any goose species were found during the survey period.

The findings of the bird surveys would indicate that there is only limited potential for disturbance or displacement of the SCI species of the SPAs within the ZOI arising from the proposed development. It is not predicted that the proposed development would result in any habitat loss of any significance to any SCI species. This is based upon the low numbers of the only SCI species recorded and the availability of similar habitat type (amenity grassland) within the immediate and wider areas.

Surveys of the site are ongoing at time of writing. It is recommended that the surveys are continued until the end of March (2022) as per the methodology of the present survey.

5. CONCLUSION

Of the target species of the bird survey, only one SCI species listed for the Special Protection Areas within the ZOI of the proposed development was recorded. This was Black-headed Gull. This species was also recorded in the previous survey by MKO (2021). Two other SCI species recorded in the previous survey (Curlew and Brent Goose) were not recorded within the survey period of this present survey.

No direct impacts to any of the SPAs within the ZOI may be expected. This is given the remove of these sites from the area proposed for development and the lack of connectivity between this and the protected sites. Indirect effects on the SPAs (e.g. on water quality) are considered unlikely given the nature of the proposed development and the lack of connectivity to these designated sites. As described in the MKO report, best practice design and site practice would prevent such impacts from arising.

While some disturbance and displacement impacts may occur to the SCI species recorded, this would not be deemed to be of potential significance. This is due to the habituation of this species to anthropogenic disturbance within the site and wider urban area and its likely habitation to any disturbance resulting from the proposed development.

Some loss of foraging habitat for this species will occur. However, this is not considered significant given the relative abundance of this habitat type (amenity grassland) within both the immediate and wider areas surrounding the site.

It is recommended that the ongoing surveys are continued until the end of March 2022.

6. REFERENCES

Print

Bibby, C.J., Burgess, N.D., Hill, D.A. and Mustoe, S (2000) *Bird Census Techniques*. Academic Press, London.

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

MKO (2021) *Winter Bird Survey Report 2020/21. TPA Bird Surveys, Dundrum, Co. Dublin*. Unpublished report by MKO for TPA.

Web Resources

www.npws.ie National Parks and Wildlife Service: Designated site data and shapefiles.

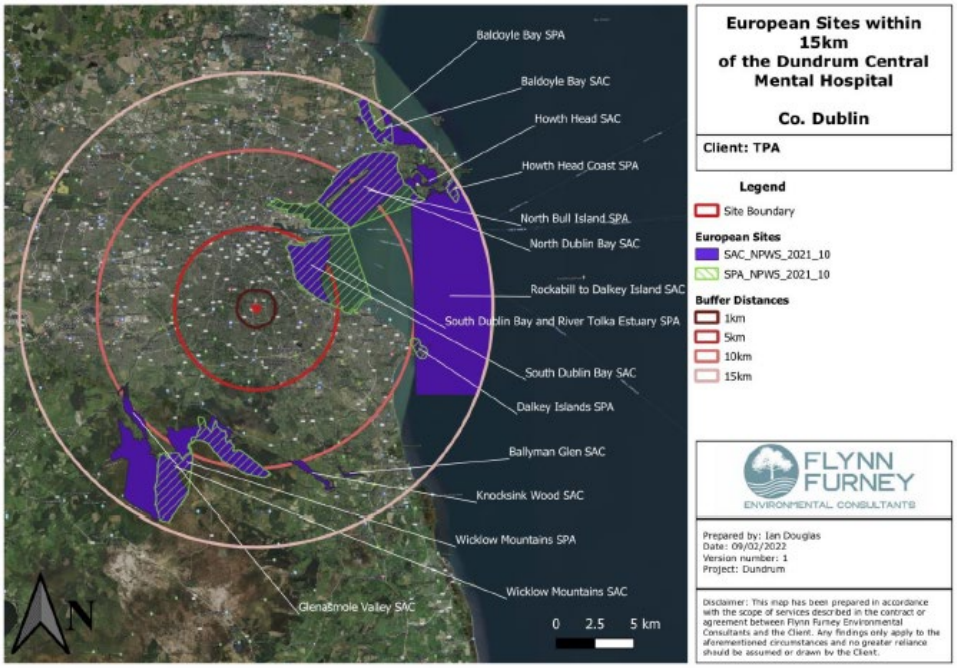
www.birdwatchireland.ie & http: c0amf055.caspio.com: Species data and iWeBS (wetland birds) records.

Appendix A: Site Location & Designated Sites

Fig. 1. Site Location and Survey Area

TPA Dundrum Winter Bird Survey

Fig. 2. Location of Natura 2000 sites within Likely Zone of Influence of Proposed Development



Appendix B: Survey Data

Dundrum Survey - 2021						Species - Peak Counts per hour											
Date	Observer	Start time	End time	BG	CU	OC	LB	BH	HG	CM	ET	BG droppings	Wind	Cloud	Precip	Vis	Dublin High Tide
24/11/2021	ED	10:30	11:30	0	0	0	0	2	3	0	0	N	3	3	1	5	14:25
24/11/2021	ED	11:30	12:30	0	0	0	0	2	2	0	0	N	3	3	1	5	14:25
24/11/2021	ED	12:30	13:30	0	0	0	0	0	5	0	0	N	3	3	1	5	14:25
24/11/2021	ED	13:30	14:30	0	0	0	0	0	5	0	0	N	3	3	1	5	14:25
24/11/2021	ED	14:30	15:30	0	0	0	0	2	2	0	0	N	3	3	1	5	14:25
24/11/2021	ED	15:30	16:30	0	0	0	0	1	3	0	0	N	3	3	1	5	14:25
08/12/2021	ED	09:55	10:55	0	0	0	0	8	12	4	0	N	7	3	3	5	14:18
08/12/2021	ED	10:55	11:55	0	0	0	0	11	12	5	0	N	7	3	3	5	14:18
08/12/2021	ED	11:55	12:55	0	0	0	0	7	4	0	0	N	7	3	3	5	14:18
08/12/2021	ED	12:55	13:55	0	0	0	0	5	8	0	1	N	7	3	3	5	14:18
08/12/2021	ED	13:55	14:55	0	0	0	0	2	6	0	0	N	7	3	3	5	14:18
08/12/2021	ED	14:55	15:55	0	0	0	0	3	51	0	0	N	7	3	3	5	14:18
22/12/2021	ED	09:40	10:40	0	0	0	0	6	3	0	0	N	4	3	2	5	13:24
22/12/2021	ED	10:40	11:40	0	0	0	0	2	0	0	0	N	4	3	2	5	13:24
22/12/2021	ED	11:40	12:40	0	0	0	0	0	4	0	0	N	4	3	2	5	13:24
22/12/2021	ED	12:40	13:40	0	0	0	0	5	2	0	0	N	4	3	2	5	13:24
22/12/2021	ED	13:40	14:40	0	0	0	0	9	3	0	0	N	4	3	2	5	13:24
22/12/2021	ED	14:40	15:40	0	0	0	0	7	31	0	0	N	4	3	2	5	13:24

British Trust for Ornithology Species Codes: BG-Brent Goose, CU-Curlew, OC-Oystercatcher, LB-Lesser Black-backed Gull, BH-Black-headed Gull, HG-Herring Gull, CM-Common Gull, ET-Little Egret.

Dundrum Survey - 2022						Species - Peak Counts per hour											
Date	Observer	Start time	End time	BG	CU	OC	LB	BH	HG	CM	ET	BG droppings	Wind	Cloud	Precip	Vis	Dublin High Tide
17/01/2022	ED	09:30	10:30	0	0	0	0	4	7	0	0	N	2	1	1	5	11:18
17/01/2022	ED	10:30	11:30	0	0	0	0	3	7	0	0	N	2	1	1	5	11:18
17/01/2022	ED	11:30	12:30	0	0	0	0	3	4	0	0	N	2	1	1	5	11:18
17/01/2022	ED	12:30	13:30	0	0	0	0	4	2	0	0	N	2	1	1	5	11:18
17/01/2022	ED	13:30	14:30	0	0	0	0	2	19	0	0	N	2	1	1	5	11:18
17/01/2022	ED	14:30	15:30	0	0	0	0	3	16	0	0	N	2	1	1	5	11:18
31/01/2022	ED	09:10	10:10	0	0	0	0	2	5	0	0	N	4	3	2	5	10:48
31/01/2022	ED	10:10	11:10	0	0	0	0	3	11	0	0	N	4	3	2	5	10:48
31/01/2022	ED	11:10	12:10	0	0	0	0	5	4	0	0	N	4	3	2	5	10:48
31/01/2022	ED	12:10	13:10	0	0	0	0	8	5	0	0	N	4	3	2	5	10:48
31/01/2022	ED	13:10	14:10	0	0	0	0	2	12	0	0	N	4	3	2	5	10:48
31/01/2022	ED	14:10	15:10	0	0	0	0	6	14	0	0	N	4	3	2	5	10:48

British Trust for Ornithology Species Codes: BG-Brent Goose, CU-Curlew, OC-Oystercatcher, LB-Lesser Black-backed Gull, BH-Black-headed Gull, HG-Herring Gull, CM-Common Gull, ET-Little Egret.

Dundrum Survey - 2022						Species - Peak Counts per hour											
Date	Observer	Start time	End time	BG	CU	OC	LB	BH	HG	CM	ET	BG droppings	Wind	Cloud	Precip	Vis	Dublin High Tide
15/02/2022	ED	09:10	10:10	0	0	0	0	0	7	0	0	N	3	3	1	5	11:18
15/02/2022	ED	10:10	11:10	0	0	0	0	0	3	0	0	N	3	3	1	5	11:18
15/02/2022	ED	11:10	12:10	0	0	0	0	0	0	0	0	N	3	3	1	5	11:18
15/02/2022	ED	12:10	13:10	0	0	0	0	1	5	0	0	N	3	3	1	5	11:18
15/02/2022	ED	13:10	14:10	0	0	0	0	3	9	0	0	N	3	3	1	5	11:18
15/02/2022	ED	14:10	15:10	0	0	0	0	5	13	0	0	N	3	3	1	5	11:18
28/02/2022	ED	08:50	09:50	0	0	0	0	3	17	0	0	N	3	4	2	5	09:50
28/02/2022	ED	09:50	10:50	0	0	0	0	0	6	0	0	N	3	4	2	5	09:50
28/02/2022	ED	10:50	11:50	0	0	0	0	0	14	0	0	N	3	4	2	5	09:50
28/02/2022	ED	11:50	12:50	0	0	0	0	4	22	0	0	N	3	4	1	5	09:50
28/02/2022	ED	12:50	13:50	0	0	0	0	7	36	0	0	N	3	4	1	5	09:50
28/02/2022	ED	13:50	14:50	0	0	0	0	6	29	0	0	N	3	4	2	5	09:50

British Trust for Ornithology Species Codes: BG-Brent Goose, CU-Curlew, OC-Oystercatcher, LB-Lesser Black-backed Gull, BH-Black-headed Gull, HG-Herring Gull, CM-Common Gull, ET-Little Egret.

Appendix IV - Breeding Bird Assessment for a proposed Part 10 development at the former Central Mental Hospital, Dundrum Road, Dublin 14.

16th September 2024

Prepared by: Frank Spellman of Altemar Ltd.
On behalf of: Dún Laoghaire Rathdown County Council and the Land Development Agency

Altemar Ltd., 50 Templecarrig Upper, Delgany, Co. Wicklow. 00-353-1-2010713. info@altemar.ie

Directors: Bryan Deegan and Sara Corcoran

Company No.427560 VAT No. 9649832U

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Document Control Sheet			
Client	Dún Laoghaire Rathdown County Council and the Land Development Agency		
Project	Breeding Bird Assessment for a proposed large-scale residential development at former Central Mental Hospital, Dundrum Road, Dublin 14		
Report	Breeding Bird Assessment		
Date	16th September 2024		
Version	Author	Reviewed	Date
Final	Frank Spellman	Bryan Deegan	16th September 2024

Summary

Structure/features:	The survey area consists primarily of grassland, scrub, treelines, mature standalone coniferous and deciduous tree, artificial buildings and surfaces, recolonised bare ground, bare ground and ornamentals.
Location:	Dundrum Road, Dublin 14.
Species breeding (2023 survey area):	Blackcap, Feral Pigeon, Goldcrest, Herring Gull, Magpie, Swallow, Wren.
Species breeding (2023 proposed site):	Magpie, Wren, Blackcap, Goldcrest.
Species breeding (2024 survey area):	Blackbird, Feral Pigeon, Herring Gull, Jackdaw, Magpie, Robin, Rook, Swallow, Woodpigeon, Wren.
Species breeding (2024 proposed site):	Blackbird, Magpie, Robin, Rook, Woodpigeon, Wren.
Impact on breeding birds:	The proposed development will result in a long-term low adverse effect on breeding birds due to habitat loss. Mitigation measures are proposed.
Surveys by:	Frank Spellman
Survey dates (2023):	7th June, 14th June, 30th June 2023.
Survey dates (2024):	23rd April, 10th May, 17th May and 7th June 2024.

Competency of assessor

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.

Frank Spellman (BSc Zoology, MSc Zoology).

This report has been prepared by Frank Spellman. Frank has extensive experience in carrying out a wide range of fauna surveys as both a sub-contractor and employee for environmental consultancies and organisations in Ireland and the US. These include both roving and static acoustic bat surveys, terrestrial non-avian mammal surveys, breeding/wintering bird surveys, and freshwater ecology surveys. Frank has been lead ornithologist on numerous development projects within Ireland carrying out full wintering bird and breeding bird 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

Breeding bird survey

This report presents the results of site visits on the 7th, 14th and 30th June 2023 and the 23rd April, 10th May, 17th May and 7th June 2024 by Frank Spellman. A breeding bird transect survey was carried out on three occasions, as well as a building check carried out on 17th May 2024. All buildings were accessible on the 7th June 2023. The site outline is seen in Figures 1 & 2.

Survey methodology

2023

This Breeding bird survey was carried out based on the BTO Common Bird Census (Bibby *et al.*, 2000 and Gilbert *et al.*, 1998) and following CIEEM guidelines. Surveys were carried out within the breeding bird survey season and initiated within 1 hour before/after sunrise. 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. Due to the large size of the site with various features such as a woodland, buildings, scrub, grassland, and hedgerows, a single winding transect roughly following the full perimeter was carried out by two surveyors, covering all areas and features available for breeding activity within the survey area. A total of three surveys were carried out across three separate dates.

Transects began at the front of the main building. As the site was subdivided into various fields/parcels of land, upon entering each section of the site, transects took rough clockwise/anti-clockwise directions throughout the site, deviating where necessary. Upon entering each section of the site, each surveyor would commence surveying the boundary of that section in opposite directions before linking up and surveying all features of interest within that section.

Progress along the transect was carried out slowly, with pauses every few meters as appropriate to locate and identify any birds, continuing once all birds observed within an area/feature had been recorded. Each survey took 1.5 – 3.5 hours to complete. Care was taken not to double count any observations. Weather conditions were optimal on each occasion.

2024

This Breeding bird survey was carried out following the methodologies of 2023. A site outline was provided for survey purposes, although the entire Central Mental Hospital site was surveyed as per 2023 surveys for comparative purposes.

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 and habitats such as artificial buildings/surfaces, scrub, grassland, treelines, mature trees, hedgerows and ornamentals were present within the survey area. A single transect following the full perimeter of the survey area was carried out on each occasion, covering all areas and features available for breeding activity within and adjacent to the survey area. General transect direction was alternated between surveys to account for potential activity level variations throughout morning hours. Each survey was carried out by a single surveyor, deemed sufficient due to the familiarity of the site by the surveyor (Frank Spellman) following the previous years' surveys. The buildings within the survey area were also assessed both from the inside (17th May) and outside for breeding activity.

The survey was carried out over 2-4 hours on 3 occasions, beginning at dawn and ending once all areas/features had been surveyed. Care was taken not to double count any observations. Weather conditions were optimal on each occasion.

Figure 1. *Proposed site outline and survey area.*

Figure 2. *Proposed site and survey location.*

Survey results

Habitats of breeding bird potential

A desk and ground level breeding habitat assessment were carried and used to examine the structures and vegetation on site for features that could provide breeding habitat. Potential nesting features include scrub, treelines, mature conifer/deciduous canopies, an abandoned building etc. All vegetated areas and man-made structures on site were assessed for breeding bird potential.

Areas of high breeding bird potential included the artificial structures, scrub, treelines, mature trees, hedgerows and ornamental gardens throughout the survey area and its boundaries.

Breeding activity survey

2023

A total of 25 species were recorded on site across three surveys. Seven of these species were confirmed breeding during at least one survey.

Five amber-listed bird species of conservation concern were recorded on site: goldcrest, herring gull, mallard, magpie, and swallow. One red listed bird species of conservation concern was recorded on site: swift.

Breeding activity was confirmed for seven species: blackcap, feral pigeon, goldcrest, herring gull, magpie, swallow, and wren.

Goldcrest is an amber listed species of conservation concern in Ireland that was confirmed breeding within a large coniferous tree along the road leading from the main entrance to the main building on 14th June 2023.

Herring gull is an amber listed species of conservation concern in Ireland that was confirmed breeding on the roof of the western end of the main building on 30th June 2023.

Swallow is an amber listed species of conservation concern in Ireland for which recent breeding activity was observed on 14th June 2023. The observation was a nest displaying signs of recent activity (droppings, fresh nest materials etc.) within a utility building to the rear of the eastern end of the main building.

No red listed species of conservation concern in Ireland were observed breeding on site.

Table 1. *Species confirmed breeding within the survey area.*

Common name	BTO	Latin name	BoCCI
Blackcap	BC	*Sylvia atricapilla*	Green
Feral Pigeon	FP	*Columba livia f. domestica*	Green
Goldcrest	GC	*Regulus regulus*	Amber
Herring Gull	HG	*Larus argentatus (hospital roof)*	Amber
Magpie	MG	*Pica pica*	Green
Swallow	SL	*Hirundo rustica (utility building)*	Amber
Wren	WR	*Troglodytes troglodytes*	Green

Table 2. *Total species recorded within the survey area.*

Common name	BTO	Latin name	BoCCI
Blackbird	B.	*Turdus merula*	Green
Blackcap	BC	*Sylvia atricapilla*	Green
Blue Tit	BT	*Cyanistes caeruleus*	Green
Bullfinch	BF	*Pyrrhula pyrrhula*	Green
Chaffinch	CH	*Fringilla coelebs*	Green
Chiffchaff	CC	*Phylloscopus collybita*	Green
Coal Tit	CT	*Periparus ater*	Green
Collared Dove	CD	*Streptopelia decaocto*	Green
Dunnock	D.	*Prunella modularis*	Green
Feral Pigeon	FP	*Columba livia f. domestica*	Green
Goldcrest	GC	*Regulus regulus*	Amber
Goldfinch	GO	*Carduelis carduelis*	Green
Herring Gull	HG	*Larus argentatus*	Amber
Hooded Crow	HC	*Corvus cornix*	Green
Jackdaw	JD	*Corvus monedula*	Green
Magpie	MG	*Pica pica*	Green
Mallard	MA	*Anas platyrhynchos*	Amber
Robin	R.	*Erithacus rubecula*	Green
Rook	RO	*Corvus frugilegus*	Green
Sparrowhawk	SH	*Accipiter nisus*	Green
Starling	SG	*Sturnus vulgaris*	Amber
Swallow	SL	*Hirundo rustica*	Amber
Swift	SI	*Apus apus*	Red
Woodpigeon	WP	*Columba palumbus*	Green
Wren	WR	*Troglodytes troglodytes*	Green

Figure 5. *Breeding locations (2023).*

2024

A total of 23 species were recorded within the survey area across three surveys as well as a building check. Of these species, goldcrest, herring gull, mallard, starling and swallow are amber listed BoCCI. The remaining species are all green listed BoCCI. No red listed BoCCI were recorded.

Ten species were recorded breeding or displaying behaviour indicative of breeding within the survey area. Two breeding species (herring gull & swallow) are amber listed BoCCI, the remaining being green-listed BoCCI.

Within the proposed site outline for submission, six species were recorded breeding or displaying behaviour indicative of breeding within the survey area. All of these breeding species are currently green-listed BoCCI.

Table 3. *Species confirmed breeding within the survey area.*

Common name	BTO	Latin name	BoCCI
Blackbird	B.	*Turdus merula*	Green
Feral Pigeon	FP	*Columba livia f. domestica*	Green
Herring Gull	HG	*Larus argentatus (Roof main building)*	Amber
Jackdaw	JD	*Corvus monedula*	Green
Magpie	MG	*Pica pica*	Green
Robin	R.	*Erithacus rubecula*	Green
Rook	RO	*Corvus frugilegus*	Green
Swallow	SL	*Hirundo rustica (Utility building)*	Amber
Woodpigeon	WP	*Columba palumbus*	Green
Wren	WR	*Troglodytes troglodytes*	Green

Table 4. *Species confirmed breeding within the proposed site outline.*

Common name	BTO	Latin name	BoCCI
Blackbird	B.	*Turdus merula*	Green
Magpie	MG	*Pica pica*	Green
Robin	R.	*Erithacus rubecula*	Green
Rook	RO	*Corvus frugilegus*	Green
Woodpigeon	WP	*Columba palumbus*	Green
Wren	WR	*Troglodytes troglodytes*	Green

Table 5. *Total species recorded within the survey area.*

Common name	BTO	Latin name	BoCCI
Blackbird	B.	*Turdus merula*	Green
Blackcap	BC	*Sylvia atricapilla*	Green
Blue Tit	BT	*Cyanistes caeruleus*	Green
Bullfinch	BF	*Pyrrhula pyrrhula*	Green
Buzzard	BZ	*Buteo buteo*	Green

Common name	BTO	Latin name	BoCCI
Chaffinch	CH	*Fringilla coelebs*	Green
Coal Tit	CT	*Periparus ater*	Green
Feral Pigeon	FP	*Columba livia f. domestica*	Green
Goldcrest	GC	*Regulus regulus*	Amber
Goldfinch	GO	*Carduelis carduelis*	Green
Great Tit	GT	*Parus major*	Green
Herring Gull	HG	*Larus argentatus*	Amber
Hooded Crow	HC	*Corvus cornix*	Green
Jackdaw	JD	*Corvus monedula*	Green
Magpie	MG	*Pica pica*	Green
Mallard	MA	*Anas platyrhynchos*	Amber
Robin	R.	*Erithacus rubecula*	Green
Rook	RO	*Corvus frugilegus*	Green
Song Thrush	ST	*Turdus philomelos*	Green
Starling	SG	*Sturnus vulgaris*	Amber
Swallow	SL	*Hirundo rustica*	Amber
Woodpigeon	WP	*Columba palumbus*	Green
Wren	WR	*Troglodytes troglodytes*	Green

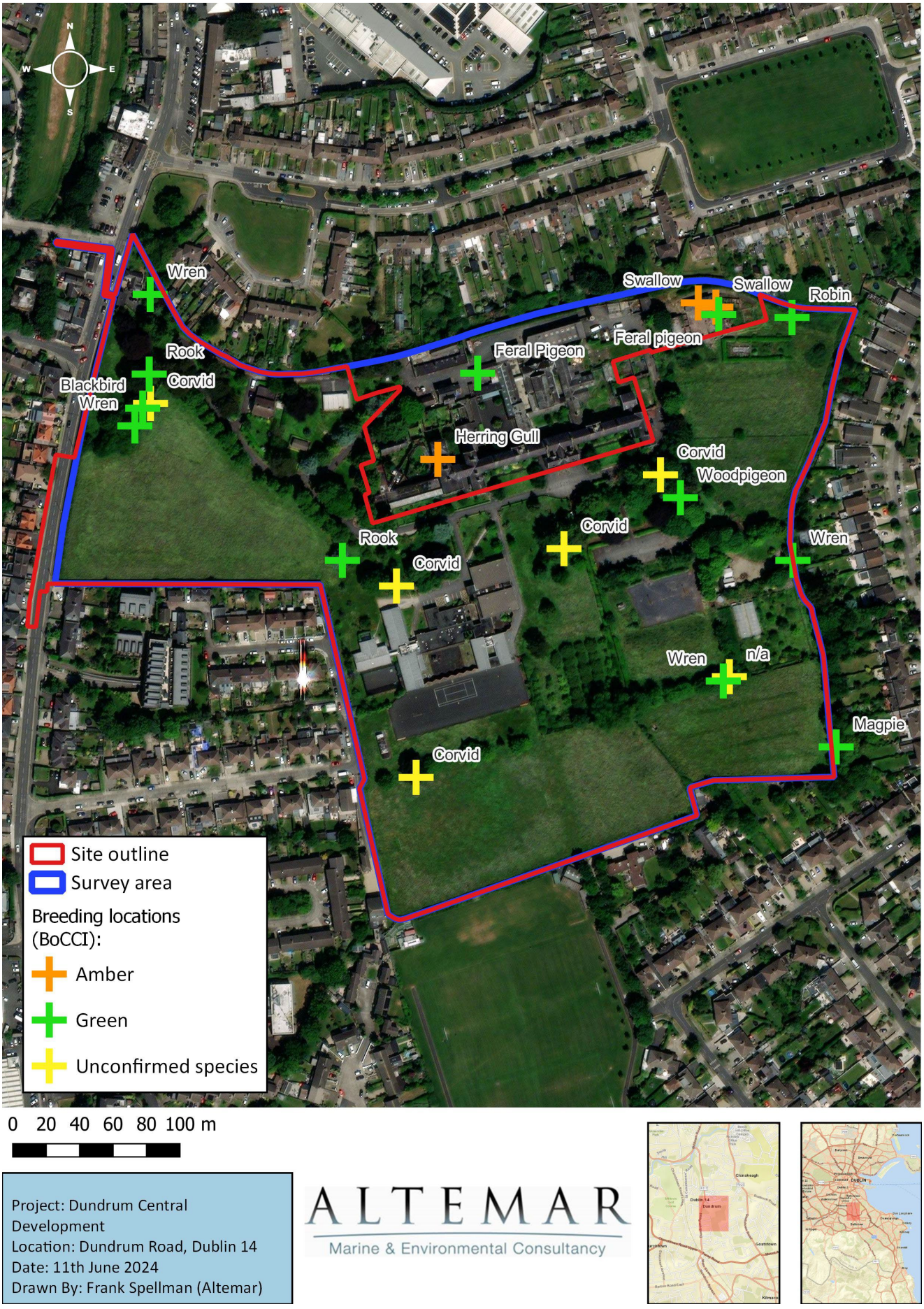
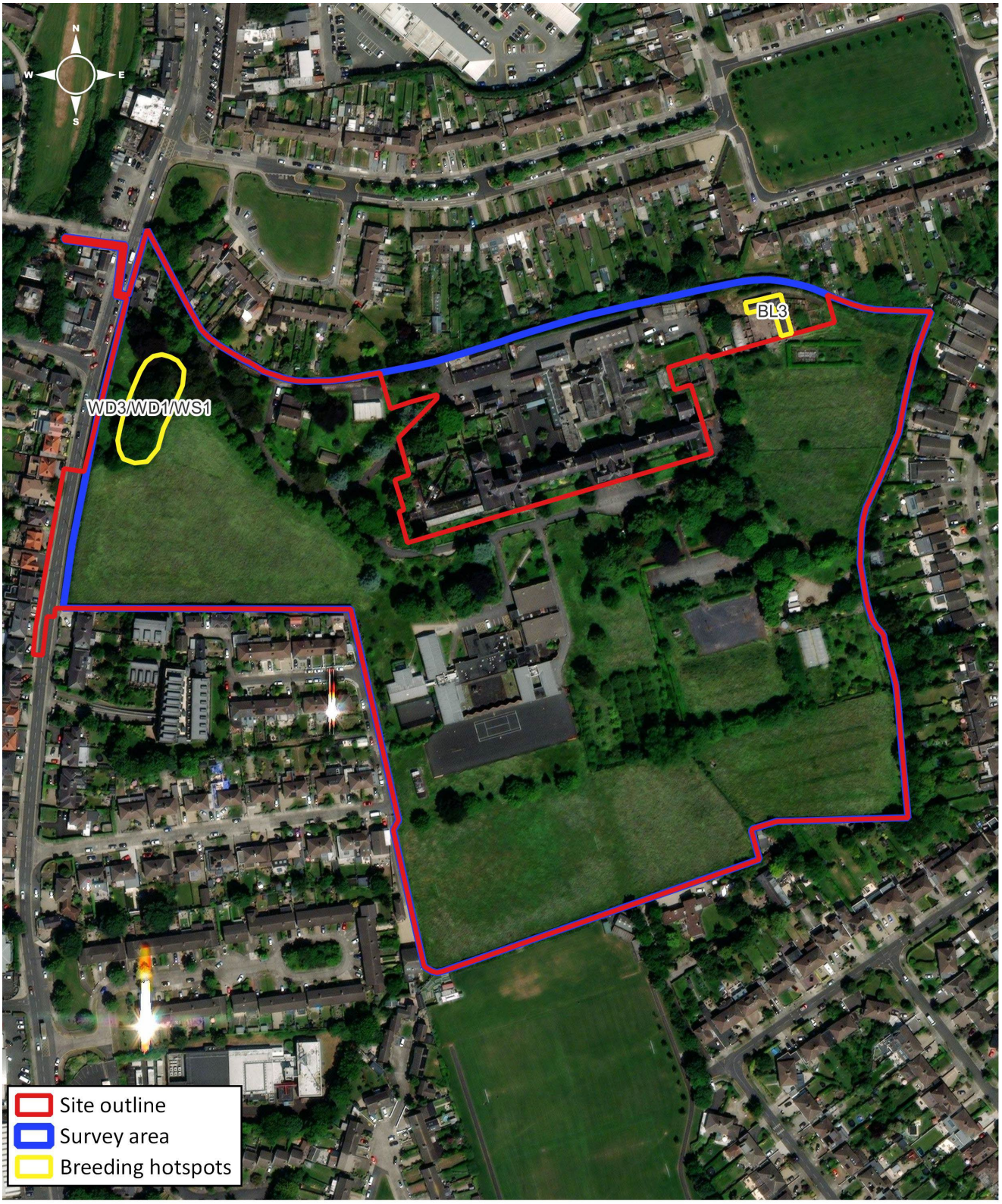


Figure 5. *Breeding locations (2024).*



Project: Dundrum Central Development
Location: Dundrum Road, Dublin 14
Date: 20th June 2024
Drawn By: Frank Spellman (Altemar)

ALTEMAR
Marine & Environmental Consultancy

Figure 6. *Breeding hotspots.*

Breeding bird assessment findings

Review of local bird records

The review of existing bird records (sourced from NBDC Database) within a 2 km^2 grid (Reference grid O12U) encompassing the study area reveals that 58 known bird species have previously been observed and recorded locally (*Table 2*).

Table 6: *Status of bird species within 2 km^2 (grid O12Z)*

Species Name	Record Count	Date of Last Record	Dataset	BoCCI Status
Barn Swallow (Hirundo rustica)	1	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts || Threatened Species: Birds of Conservation Concern || Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Black-billed Magpie (Pica pica)	6	08/01/2023	Birds of Ireland	
Blackcap (Sylvia atricapilla)	5	14/02/2017	Birds of Ireland	
Black-crowned Night Heron (Nycticorax nycticorax)	1	31/03/1904	Rare birds of Ireland	
Black-headed Gull (Larus ridibundus)	4	10/11/2022	Birds of Ireland	Protected Species: Wildlife Acts || Threatened Species: Birds of Conservation Concern || Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red List
Blue Tit (Cyanistes caeruleus)	10	08/01/2023	Birds of Ireland	
Chaffinch (Fringilla coelebs)	5	30/09/2016	Ireland's BioBlitz	
Coal Tit (Periparus ater)	7	23/02/2023	Birds of Ireland	
Common Blackbird (Turdus merula)	16	01/03/2023	Birds of Ireland	
Common Bullfinch (Pyrrhula pyrrhula)	6	03/03/2022	Birds of Ireland	
Common Buzzard (Buteo buteo)	3	30/03/2021	Birds of Ireland	
Common Chiffchaff (Phylloscopus collybita)	1	31/12/2011	Bird Atlas 2007 - 2011	
Common Kestrel (Falco tinnunculus)	1	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts || Threatened Species: Birds of Conservation Concern || Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Common Kingfisher (Alcedo atthis)	6	12/04/2023	Birds of Ireland	Protected Species: Wildlife Acts || Protected Species: EU Birds Directive || Protected Species: EU Birds Directive >> Annex I Bird Species || Threatened Species: Birds of Conservation Concern || Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Common Moorhen (Gallinula chloropus)	2	31/12/2011	Bird Atlas 2007 - 2011	
Common Pheasant (Phasianus colchicus)	1	31/07/1991	The Second Atlas of Breeding Birds in Britain and	Protected Species: Wildlife Acts || Protected Species: EU Birds Directive || Protected Species: EU Birds Directive >> Annex II, Section I Bird Species || Protected Species:

			Ireland: 1988-1991	EU Birds Directive >> Annex III, Section I Bird Species
Common Raven (Corvus corax)	2	30/09/2016	Ireland's BioBlitz	
Common Starling (Sturnus vulgaris)	13	01/03/2023	Birds of Ireland	Protected Species: Wildlife Acts || Threatened Species: Birds of Conservation Concern || Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Common Swift (Apus apus)	3	08/07/2023	Swifts of Ireland	Protected Species: Wildlife Acts || Threatened Species: Birds of Conservation Concern || Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Common Wood Pigeon (Columba palumbus)	2	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts || Protected Species: EU Birds Directive || Protected Species: EU Birds Directive >> Annex II, Section I Bird Species || Protected Species: EU Birds Directive >> Annex III, Section I Bird Species
Eurasian Collared Dove (Streptopelia decaocto)	4	11/03/2022	Birds of Ireland	
Eurasian Curlew (Numenius arquata)	1	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts || Protected Species: EU Birds Directive || Protected Species: EU Birds Directive >> Annex II, Section II Bird Species || Threatened Species: Birds of Conservation Concern || Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red List
Eurasian Jackdaw (Corvus monedula)	6	10/02/2023	Birds of Ireland	
Eurasian Oystercatcher (Haematopus ostralegus)	2	28/02/2013	Birds of Ireland	Protected Species: Wildlife Acts || Threatened Species: Birds of Conservation Concern || Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Eurasian Siskin (Carduelis spinus)	3	30/09/2016	Ireland's BioBlitz	
Eurasian Sparrowhawk (Accipiter nisus)	3	30/09/2016	Ireland's BioBlitz	
Eurasian Treecreeper (Certhia familiaris)	3	30/09/2016	Ireland's BioBlitz	
European Goldfinch (Carduelis carduelis)	4	30/09/2016	Ireland's BioBlitz	
European Greenfinch (Carduelis chloris)	6	30/09/2016	Ireland's BioBlitz	
European Robin (Erithacus rubecula)	15	01/03/2023	Birds of Ireland	
Goldcrest (Regulus regulus)	3	27/01/2016	Birds of Ireland	
Great Cormorant (Phalacrocorax carbo)	1	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts || Threatened Species: Birds of Conservation Concern || Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Great Spotted Woodpecker (Dendrocopos major)	2	17/03/2021	Birds of Ireland	
Great Tit (Parus major)	2	31/12/2011	Bird Atlas 2007 - 2011	
Grey Heron (Ardea cinerea)	4	30/09/2016	Ireland's BioBlitz	

Grey Wagtail (Motacilla cinerea)	2	31/12/2011	Bird Atlas 2007 - 2011	
Hedge Accentor (Prunella modularis)	3	31/12/2011	Bird Atlas 2007 - 2011	
Herring Gull (Larus argentatus)	2	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts || Threatened Species: Birds of Conservation Concern || Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red List
Hooded Crow (Corvus cornix)	2	19/03/2022	Birds of Ireland	
House Martin (Delichon urbicum)	1	31/07/1991	The Second Atlas of Breeding Birds in Britain and Ireland: 1988-1991	Protected Species: Wildlife Acts || Threatened Species: Birds of Conservation Concern || Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
House Sparrow (Passer domesticus)	3	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts || Threatened Species: Birds of Conservation Concern || Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Lesser Black-backed Gull (Larus fuscus)	2	30/09/2016	Ireland's BioBlitz	Protected Species: Wildlife Acts || Threatened Species: Birds of Conservation Concern || Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Lesser Redpoll (Carduelis cabaret)	3	30/09/2016	Ireland's BioBlitz	
Long-tailed Tit (Aegithalos caudatus)	4	30/09/2016	Ireland's BioBlitz	
Mallard (Anas platyrhynchos)	3	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts || Protected Species: EU Birds Directive || Protected Species: EU Birds Directive >> Annex II, Section I Bird Species || Protected Species: EU Birds Directive >> Annex III, Section I Bird Species
Mew Gull (Larus canus)	1	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts || Threatened Species: Birds of Conservation Concern || Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Mistle Thrush (Turdus viscivorus)	2	31/12/2011	Bird Atlas 2007 - 2011	
Mute Swan (Cygnus olor)	1	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts || Threatened Species: Birds of Conservation Concern || Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Pied Wagtail (Motacilla alba subsp. yarrellii)	2	30/09/2016	Ireland's BioBlitz	
Rock Pigeon (Columba livia)	10	01/03/2023	Birds of Ireland	Protected Species: Wildlife Acts || Protected Species: EU Birds Directive || Protected Species: EU Birds Directive >> Annex II, Section I Bird Species
Rook (Corvus frugilegus)	2	31/12/2011	Bird Atlas 2007 - 2011	
Sand Martin (Riparia riparia)	1	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts || Threatened Species: Birds of Conservation Concern || Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List

Snowy Owl (Bubo scandiaca)	2	08/04/2016	Birds of Ireland	Protected Species: Wildlife Acts || Protected Species: EU Birds Directive || Protected Species: EU Birds Directive >> Annex I Bird Species || Threatened Species: Birds of Conservation Concern || Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Song Thrush (Turdus philomelos)	5	30/09/2016	Ireland's BioBlitz	
Tufted Duck (Aythya fuligula)	1	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts || Protected Species: EU Birds Directive || Protected Species: EU Birds Directive >> Annex II, Section I Bird Species || Protected Species: EU Birds Directive >> Annex III, Section II Bird Species || Threatened Species: Birds of Conservation Concern || Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
White Wagtail (Motacilla alba)	1	31/12/2011	Bird Atlas 2007 - 2011	
White-throated Dipper (Cinclus cinclus)	5	11/05/2019	Birds of Ireland	
Winter Wren (Troglodytes troglodytes)	6	11/06/2022	Birds of Ireland	

Mitigation

The proposed site outline within the survey area is of low importance to the local breeding bird population. However, the impact of the development during construction phase will be a loss of existing habitats and species. The following mitigation measures relevant to birds, as well as those outlined within the accompanying NIS and EIAR, shall be implemented to minimise any potential negative impact on biodiversity:

- An Ecological Clerk of Works (ECoW) will be appointed to oversee the construction phase and to oversee the implementation of all mitigation including compliance with Wildlife Acts and Water Pollution Acts and ensure that biodiversity in neighbouring areas including birds will not be impacted.
- Lighting during construction should not spill outside the proposed development.
- Relevant guidelines and legislation (Section 40 of the Wildlife Acts, 1976 to 2012) in relation to the removal of trees and timing of nesting birds will need be followed e.g. do not remove trees or shrubs during the nesting season (1st March to 31st August). Should this not be possible a pre-clearance inspection will be carried out by an ecologist and clearance will not take place if nests are present.

Conclusion

This report presents the results of three breeding bird surveys on the site by Frank Spellman in 2023 and 2024. Three breeding bird transect surveys were carried out in each season. The surveys comply with bird survey guidance documentation including BTO Common Bird Census (Bibby *et al.*, 2000 and Gilbert *et al.*, 1998) following CIEEM guidelines. Weather conditions were favourable on each occasion.

A total of 25 species in 2023 and 23 species in 2024 were recorded within the overall survey area. Seven species in 2023 and ten species (six within the proposed site outline) in 2024 were recorded breeding or displaying behaviour indicative of breeding.

In 2023, four green-listed species (blackcap, feral pigeon, magpie and wren) and three amber-listed species (goldcrest, herring gull, swallow) were confirmed breeding within the survey area.

In 2024, six green-listed bird species of conservation concern were recorded breeding within the proposed site outline; blackbird, magpie, robin, rook, woodpigeon and wren. No amber-listed bird species of conservation concern were recorded breeding within the proposed site outline.

A hotspot of breeding activity observed within the proposed site outline consists of a mature coniferous canopy and a deciduous (mostly ash) stand with a scrub understory, in the west of the survey area south of the main entrance. Another hotspot outside of the proposed site outline exists in an area of old stone buildings/sheds in the northeast of the site, where nests of swallow (amber BoCCI) were confirmed. Although no other specific areas of high breeding value for birds exists, standalone mature trees (coniferous and deciduous) throughout the site provide valuable breeding habitat for corvid species. Mitigation measures are proposed.

References

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3. **Chartered Institute of Ecology and Environmental Management (2018).** *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal, and Marine.* Chartered Institute of Ecology and Environmental Management, Winchester.
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8. **EC Directive on The Conservation of Natural habitats and of Wild Fauna and Flora (Habitats Directive) 1992**
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10. **Gilbert, G., Gibbons, D.W., & Evans, J. (1998)** Bird Monitoring Methods: A Manual of Techniques for UK Key Species. The Royal Society for the protection of Birds, Sandy, Bedfordshire, England.
11. **Gilbert G, Stanbury A and Lewis L (2021)**, "Birds of Conservation Concern in Ireland 2020 –2026". Irish Birds 9: 523—544
12. **Wildlife Act 1976 and Wildlife [Amendment] Act 2000**. Government of Ireland.

Appendix IVa – Breeding bird survey data 2024

(Breeding observations highlighted in yellow)

Survey	Date	Redline	Time	Species	No.	Behaviour	Height (m)	Details
1	23/04/2024	Y	05:32	Blackbird	1	Foraging		Ivy within treeline to southeast of main CMH building.
1	23/04/2024	Y	05:33	Wren	1	Calling		Within treeline to southeast of main CMH building.
1	23/04/2024	Y	05:34	Magpie	3	Roosting		Within treeline to southeast of main CMH building.
1	23/04/2024	Y	05:34	Woodpigeon	8	Roosting		Within treeline to southeast of main CMH building.
1	23/04/2024	Y	05:36	Robin	1	Singing		Within treeline to southeast of main CMH building.
1	23/04/2024	Y	05:38	Bullfinch	1	Singing		Within treeline to southeast of main CMH building.
1	23/04/2024	Y	05:44	Magpie	1	Breeding		In sycamore in residential garden adjacent to southeast boundary wall.
1	23/04/2024	Y	05:48	Hooded Crow	2	Perched		In treeline along southern boundary of orchard.
1	23/04/2024	Y	05:50	Herring Gull	1	Flight Path	60	West flight across centre of CMH site.
1	23/04/2024	Y	05:52	Woodpigeon	5	Roosting		In large mature deciduous tree to south of main building entrance.
1	23/04/2024	Y	05:55	Coal Tit	1	Calling		In mature conifer canopy to south of main entrance to CMH building.
1	23/04/2024	Y	05:55	Woodpigeon	6	Roosting		In mature conifer canopy to south of main entrance to CMH building.
1	23/04/2024	Y	05:57	Woodpigeon	1	Roosting		In standalone tree to north of orchard.
1	23/04/2024	Y	05:58	Woodpigeon	2	Roosting		In standalone tree to north of orchard.
1	23/04/2024	Y	05:59	Herring Gull	1	Flight Path	20	South flight across centre of site.
1	23/04/2024	Y	06:00	Hooded Crow	2	Flight Path	10	Southeast flight across centre of site.
1	23/04/2024	Y	06:00	Woodpigeon	1	Flight Path	20	Northeast flight across south of site.
1	23/04/2024	Y	06:01	Herring Gull	1	Flight Path	20	North flight across centre of site.
1	23/04/2024	Y	06:02	Blackbird	1	Foraging		In south of orchard.
1	23/04/2024	Y	06:04	Wren	1	Calling		Within vegetation along east boundary of orchard.
1	23/04/2024	Y	06:05	Herring Gull	1	Flight Path	30	West flight across centre of CMH site.
1	23/04/2024	Y	06:07	Goldcrest	1	Calling		In mature conifer canopy to south of main entrance to CMH building.
1	23/04/2024	Y	06:07	Jackdaw	1	Perched		In large deciduous tree canopy to south of main building entrance.
1	23/04/2024	Y	06:10	Magpie	2	Foraging		On open grassland to northwest of buildings in southwest of site.
1	23/04/2024	Y	06:16	Hooded Crow	2	Perched		Treeline along drive to front of CMH.
1	23/04/2024	Y	06:18	Magpie	2	Perched		In large conifer adjacent to entrance.
1	23/04/2024	Y	06:20	Corvid nest	1	Breeding		In large conifer adjacent to entrance.
1	23/04/2024	Y	06:22	Hooded Crow	1	Perched		Moving around canopy of large coniferous tree adjacent to entrance.
1	23/04/2024	Y	06:24	Blackcap	1	Calling		From ash stand along west boundary wall.
1	23/04/2024	Y	06:26	Blackbird	1	Perched		On west boundary wall.
1	23/04/2024	Y	06:28	Woodpigeon	1	Flight Path	10	Southeast flight over northwest of site.
1	23/04/2024	Y	06:31	Blackbird	1	Perched		In treeline adjacent to house in northwest of site.
1	23/04/2024	Y	06:33	Hooded Crow	2	Perched		On pre-fab in northwest of site.
1	23/04/2024	Y	06:35	Chaffinch	1	Singing		Vegetation along northwest boundary wall.
1	23/04/2024		06:37	Herring Gull	2	Breeding		Mating on roof of CMH adjacent to church.
1	23/04/2024		06:45	Feral Pigeon	3	Perched		On roof of CMH main building.

Survey	Date	Redline	Time	Species	No.	Behaviour	Height (m)	Details
1	23/04/2024		06:46	Feral Pigeon	3	Breeding		Male harassing females on roof to rear of main CMH building.
1	23/04/2024		06:50	Blue Tit	1	Calling		From boundary wall to north of main CMH building.
1	23/04/2024		06:51	Feral Pigeon	2	Perched		On roof of boarded-up sheds in northeast.
1	23/04/2024		06:53	Blue Tit	2	Foraging		In vegetation along boundary wall.
1	23/04/2024		07:01	Feral Pigeon	1	Perched		On roof of easternmost wing of main CMH building.
1	23/04/2024		07:01	Hooded Crow	1	Perched		On roof of easternmost wing of main CMH building.
1	23/04/2024		07:01	Jackdaw	3	Perched		On roof of easternmost wing of main CMH building.
1	23/04/2024	Y	07:04	Corvid nest	1	Breeding		In mature tree canopy to front of Main CMH building entrance.
1	23/04/2024	Y	07:14	Herring Gull	2	Flight Path	10	Southeast flight across northeast of site.
1	23/04/2024	Y	07:28	Herring Gull	2	Large Flight		Over east boundary of site.
1	23/04/2024	Y	07:30	Blue Tit	1	Foraging		In scrub in west of gardens in east of site.
1	23/04/2024	Y	07:31	Great Tit	1	Foraging		In southeast corner of gardens in east of site.
1	23/04/2024	Y	07:31	Robin	1	Foraging		In southeast corner of gardens in east of site.
1	23/04/2024	Y	07:32	Goldfinch	4	Foraging		In treeline canopy from domestic gardens overhanging boundary wall in southeast.
1	23/04/2024	Y	07:37	Nest	1	Breeding		Nest of unidentified species in treeline along drainage ditch to southeast of gardens.
1	23/04/2024		07:47	Blue Tit	1	Foraging		In ornamentals to front of CMH.
1	23/04/2024	Y	07:57	Herring Gull	1	Foraging		Adjacent to asylum seeker accommodation.
1	23/04/2024	Y	07:57	Hooded Crow	2	Foraging		Adjacent to asylum seeker accommodation.
1	23/04/2024	Y	07:57	Jackdaw	6	Foraging		Adjacent to asylum seeker accommodation.
1	23/04/2024	Y	07:57	Magpie	5	Foraging		Adjacent to asylum seeker accommodation.
1	23/04/2024	Y	07:58	Corvid nest	1	Breeding		Corvid nest in treeline within refugee accommodation area.
1	23/04/2024	Y	08:03	Jackdaw	3	Foraging		On artificial surface between asylum seeker accommodation.
1	23/04/2024	Y	08:03	Starling	3	Foraging		On artificial surface between asylum seeker accommodation.
2	10/05/2024	Y	05:18	Chaffinch	1	Perched		On west of north boundary wall.
2	10/05/2024		05:24	Feral Pigeon	2	Perched		On roof of main CMH building.
2	10/05/2024		05:24	Woodpigeon	1	Perched		On roof of main CMH building.
2	10/05/2024		05:28	Woodpigeon	1	Perched		On north boundary wall.
2	10/05/2024		05:32	Goldfinch	3	Foraging		Adjacent to sheds in northeast.
2	10/05/2024		05:35	Blackbird	1	Perched		On east of north boundary wall.
2	10/05/2024	Y	05:39	Herring Gull	1	Flight Path	20	Southeast flight across northeast of site.
2	10/05/2024	Y	05:45	Great Tit	1	Flight Path	10	Northeast flight across northeast of site.
2	10/05/2024	Y	05:49	Hooded Crow	1	Perched		Treeline to southwest of sheds in northeast.
2	10/05/2024	Y	05:53	Blackbird	2	Foraging		On lane between main building and sheds in northeast.
2	10/05/2024		05:56	Herring Gull	1	Flight Path	20	East flight over northeast of site.
2	10/05/2024	Y	05:58	Robin	1	Breeding		Agitated calls from scrub along ditch in northeast.
2	10/05/2024	Y	06:06	Blackcap	1	Foraging		In tree canopy overhanging boundary wall in northeast.
2	10/05/2024	Y	06:06	Robin	1	Foraging		In tree canopy overhanging boundary wall in northeast.
2	10/05/2024	Y	06:08	Blackcap	1	Perched		In scrub in northeast of site.
2	10/05/2024		06:12	Herring Gull	2	Flight Path	20	East flight over north boundary wall.
2	10/05/2024	Y	06:18	Woodpigeon	1	Breeding		In ivy-clad chestnut in treeline to southeast of main CMH building.
2	10/05/2024	Y	06:25	Robin	1	Singing		In treeline to southeast of main CMH building.
2	10/05/2024	Y	06:35	Wren	1	Breeding		In scrub to east of gravel area along east boundary wall.

Survey	Date	Redline	Time	Species	No.	Behaviour	Height (m)	Details
2	10/05/2024	Y	06:38	Feral Pigeon	2	Flight Path	20	Southeast flight across east of site.
2	10/05/2024	Y	06:40	Song Thrush	1	Perched		On scrub in gravel area in east of site.
2	10/05/2024	Y	06:50	Mallard	1	Perched		On east boundary wall in gravel garden.
2	10/05/2024	Y	07:00	Blue Tit	2	Foraging		In scrub in west of garden.
2	10/05/2024	Y	07:09	Rook	1	Flight Path	10	Southeast flight across southeast of site.
2	10/05/2024	Y	07:11	Woodpigeon	1	Roosting		In treeline to west of gravel garden.
2	10/05/2024	Y	07:14	Magpie	2	Perched		In canopy of mature deciduous tree to south of CMH main building.
2	10/05/2024	Y	07:16	Corvid nest	1	Breeding		Inactive corvid nest in large coniferous canopy to south of CMH main building.
2	10/05/2024	Y	07:18	Woodpigeon	1	Perched		In canopy of young deciduous tree to front of main CMH building entrance.
2	10/05/2024	Y	07:20	Jackdaw	3	Breeding		Defensive behaviour under canopy to south of front of CMH building.
2	10/05/2024	Y	07:27	Hooded Crow	1	Perched		On artificial structure in northeast of southeastern field.
2	10/05/2024	Y	07:28	Wren	1	Singing		Treeline along drainage ditch in southeast of site.
2	10/05/2024	Y	07:32	Nest	1	Breeding		Nest of unidentified species in treeline along drainage ditch to southeast of gardens.
2	10/05/2024	Y	07:33	Wren	2	Breeding		1 x nests in ivy-clad evergreen in treeline along drainage ditch to southeast of gardens.
2	10/05/2024	Y	07:39	Hooded Crow	1	Foraging		In orchard.
2	10/05/2024	Y	07:40	Herring Gull	1	Perched		On roof of building in southwest of site.
2	10/05/2024		07:45	Feral Pigeon	1	Perched		On roof of main CMH building.
2	10/05/2024		07:46	Feral Pigeon	6	Perched		On roof of main CMH building.
2	10/05/2024		07:46	Herring Gull	1	Perched		On roof of main CMH building.
2	10/05/2024		07:46	Magpie	1	Perched		On roof of main CMH building.
2	10/05/2024	Y	07:52	Feral Pigeon	2	Foraging		Adjacent to house in northeast of site.
2	10/05/2024	Y	07:54	Hooded Crow	1	Foraging		In northwest of site.
2	10/05/2024	Y	07:57	Corvid nest	1	Breeding		In conifer canopy in northwest of site.
2	10/05/2024	Y	07:58	Woodpigeon	1	Perched		In conifer canopy in northwest of site.
2	10/05/2024	Y	08:01	Rook	1	Breeding		Sitting on nest in canopy of conifer in northwest of site.
2	10/05/2024	Y	08:05	Herring Gull	1	Flight Path	10	West flight over west of survey area.
2	10/05/2024	Y	08:06	Woodpigeon	1	Roosting		In lime tree along drive to building in southwest of site.
2	10/05/2024	Y	08:08	Rook	1	Breeding		Active nest in conifer to northwest of building in southwest of site.
2	10/05/2024	Y	08:09	Corvid nest	1	Breeding		In tree canopy to north of building in southwest of site.
2	10/05/2024	Y	08:12	Magpie	1	Foraging		On grass adjacent to building in southwest of site.
3	17/05/2024			Feral Pigeon	1	Breeding		In old livestock shed along east of courtyard in northeast of survey area.
3	17/05/2024			Feral Pigeon	1	Breeding		At least one active nest in 2 storey shed to northwest of courtyard in northeast of survey area.
3	17/05/2024			Swallow	3	Breeding		1 nest in attic and two nests downstairs of shed in along north of courtyard in northeast of survey area.
3	17/05/2024			Swallow	1	Breeding		Inactive nest in old livestock shed along east of courtyard in northeast of survey area.
4	07/06/2024	Y	05:17	Jackdaw	1	Flight Path	20	Southwest flight across northwest of site.
4	07/06/2024	Y	05:22	Chaffinch	1	Singing		In treeline overhanging boundary wall north of prefab in northwest of site.
4	07/06/2024	Y	05:29	Coal Tit	1	Calling		From scrub along boundary wall to east of CMH entrance.
4	07/06/2024	Y	05:32	Goldfinch	3	Foraging		Foraging in scrub along boundary wall to east of CMH entrance.
4	07/06/2024	Y	05:40	Wren	1	Breeding		Nest with fledgling beneath in bay bush.
4	07/06/2024	Y	06:12	Goldcrest	3	Foraging		In conifer canopy in northwest of site.
4	07/06/2024	Y	06:16	Hooded Crow	1	Perched		In treeline along drive adjacent to CMH main entrance.

Survey	Date	Redline	Time	Species	No.	Behaviour	Height (m)	Details
4	07/06/2024	Y	06:21	Herring Gull	1	Flight Path	20	Southeast flight across northwest of survey area.
4	07/06/2024	Y	06:25	Blackbird	1	Breeding		Fledgling in scrub to south of CMH main entrance.
4	07/06/2024	Y	06:28	Wren	1	Breeding		Fledgling in scrub to south of CMH main entrance.
4	07/06/2024	Y	06:36	Hooded Crow	1	Perched		In treeline along lane in northwest of site.
4	07/06/2024	Y	06:38	Corvid nest	1	Breeding		In mature pine canopy in northwest of survey area.
4	07/06/2024	Y	06:40	Woodpigeon	1	Perched		In lime tree along drive to building in southwest of site.
4	07/06/2024		06:57	Woodpigeon	1	Flight Path		North flight from main CMH building over northern boundary wall.
4	07/06/2024	Y	07:02	Magpie	1	Foraging		Along drive between CMH entrance and main building.
4	07/06/2024	Y	07:09	Buzzard	1	Perched		In large horse chestnut prior to flying southeast over site boundary.
4	07/06/2024	Y	07:13	Robin	1	Foraging		In gravel garden.
4	07/06/2024	Y	07:45	Chaffinch	1	Singing		From treeline/scrub adjacent to gravel garden.
4	07/06/2024	Y	07:49	Blackcap	1	Singing		From scrub along boundary wall adjacent to gravel garden.
4	07/06/2024	Y	07:50	Magpie	1	Calling		Canopy of horse chestnut adjacent to gravel garden.
4	07/06/2024	Y	08:11	Buzzard	1	Flight Path	20	Southwest flight across southeast of site being harassed by herring gull.
4	07/06/2024	Y	08:11	Herring Gull	1	Flight Path	20	Southwest flight across southeast of site harassing buzzard.
4	07/06/2024	Y	08:18	Wren	1	Singing		In treeline along drainage ditch in southeast.
4	07/06/2024	Y	08:18	Wren	1	Singing		In treeline along drainage ditch in southeast corner of orchard.
4	07/06/2024		08:25	Jackdaw	2	Perched		On roof of main CMH building.
4	07/06/2024	Y	08:27	Magpie	1	Perched		In canopy of copper beech to south of main CMH building entrance.
4	07/06/2024	Y	08:35	Blackcap	1	Singing		From treeline along drive to east of main CMH building.
4	07/06/2024	Y	08:35	Chaffinch	1	Singing		From treeline along drive to east of main CMH building.
4	07/06/2024		08:40	Feral Pigeon	2	Foraging		On artificial surface to rear of main CMH building.
4	07/06/2024		08:42	Feral Pigeon	3	Perched		On roof of building to rear of main CMH building.
4	07/06/2024		08:45	Feral Pigeon	5	Perched		On roof of main CMH building.
4	07/06/2024		08:45	Magpie	2	Perched		On roof of main CMH building.
4	07/06/2024		08:45	Woodpigeon	4	Perched		On roof of main CMH building.
4	07/06/2024	Y	08:50	Magpie	1	Perched		On boundary wall to northwest of main building.
4	07/06/2024		08:56	Herring Gull	2	Perched		On west roof of main CMH building.
4	07/06/2024	Y	09:02	Magpie	2	Foraging		In amenity grass to northwest of buildings in southwest of survey area.
4	07/06/2024	Y	09:08	Goldcrest	1	Singing		From treeline along drive between main building and entrance.

Appendix IVb – Breeding bird survey data 2023

(Breeding observations highlighted in yellow)

Survey	Date	Time	Species	No.	Behaviour	Details
1	07/06/2023	05:17	Unidentified gull	1	Flight path	Northeast flight path across main building.
1	07/06/2023	05:17	Blackbird	1	Foraging	On grass verge north of high security building on west of the site.
1	07/06/2023	05:17	Woodpigeon	1	Calling	Coniferous tree to the north of the high security building on the west of the site.
1	07/06/2023	05:20	Magpie	1	Flight path	Northerly flight across centre of site.
1	07/06/2023	05:20	Collared dove	1	Calling	Coniferous tree to the north of the high security building on the west of the site.
1	07/06/2023	05:30	Chaffinch	1	Calling	From canopy of large coniferous trees immediately south of main building.
1	07/06/2023	05:31	Blackbird	1	Flight path	Northerly flight path across main building.
1	07/06/2023	05:36	Magpie	1	Breeding	Active nest within large coniferous tree between car park and main building.
1	07/06/2023	05:43	Starling	15	Flight path	Northeast flight path across centre of site.
1	07/06/2023	05:45	Robin	1	Foraging	North of high security building
1	07/06/2023	05:55	Wren	1	Calling	In orchard in centre of site.
1	07/06/2023	06:00	Magpie	1	Breeding	Within coniferous tree adjacent to orchard.
1	07/06/2023	06:02	Coal Tit	1	Foraging	Within coniferous tree adjacent to orchard.
1	07/06/2023	06:15	Woodpigeon	1	Flight path	Southerly route over southeast of site.
1	07/06/2023	06:22	Swift	1	Foraging	On the wing over southeast area of site.
1	07/06/2023	06:42	Blackbird	1	Foraging	On grass verge of car park between orchard and ornamental garden.
1	07/06/2023	07:07	Robin	1	Singing	Song from within treeline directly northeast of ornamental gardens.
1	07/06/2023	07:08	Dunnock	1	Calling	Calling within hedgerow adjacent to polytunnels in east of site.
1	07/06/2023	07:14	Blue Tit	1	Foraging	Among ornamentals adjacent to polytunnels.
1	07/06/2023	07:15	Bullfinch	1	Foraging	Among ornamentals adjacent to polytunnels.
1	07/06/2023	07:17	Blue Tit	1	Foraging	Among ornamentals adjacent to polytunnels.
1	07/06/2023	07:39	Blackbird	1	Foraging	In northeast of site adjacent to northern site border.
1	07/06/2023	07:51	Mallard	1	Flight path	Northerly flight path across centre of site originating and ending off site.
1	07/06/2023	07:55	Jackdaw	1	Calling	In treeline adjacent west of greenhouse in northeast of site.
1	07/06/2023	07:57	Chaffinch	1	Foraging	In ornamentals in front of main building.
1	07/06/2023	08:03	Goldfinch	1	Foraging	Within ornamentals along front of main building.
1	07/06/2023	08:11	Woodpigeon	1	Perching	In tree on northern boundary of site.
1	07/06/2023	08:16	Woodpigeon	1	Flight path	Southeast flight across western end of site.
1	07/06/2023	08:19	Wren	1	Breeding	Within dense ivy within woodland on western boundary.
1	07/06/2023	08:31	Blackbird	1	Foraging	Adjacent to caged courtyard in west of site.
1	07/06/2023	08:34	Woodpigeon	1	Perching	Within treeline adjacent to playing pitches in southwest of site.
2	14/06/2023	04:32	Blackbird	1	Foraging	Foraging below treeline along road to southwest of main building.
2	14/06/2023	04:33	Wren	1	Foraging	In treeline along road from entrance to main building.
2	14/06/2023	04:34	Goldcrest	1	Breeding	Within canopy of conifer within treeline along road to main building from entrance.
2	14/06/2023	04:37	Hooded Crow	1	Perching	In treeline along road from entrance to main building.
2	14/06/2023	04:40	Blackbird	1	Foraging	Foraging in woodland on west of site.

Survey	Date	Time	Species	No.	Behaviour	Details
2	14/06/2023	04:44	Woodpigeon	1	Perching	In canopy of woodland on west of site.
2	14/06/2023	04:44	Wren	1	Singing	In woodland on west of site.
2	14/06/2023	04:44	Blackcap	1	Singing	In woodland on west of site.
2	14/06/2023	04:47	Magpie	1	Flight path	Northerly flight path along northwest boundary of site.
2	14/06/2023	04:48	Chiffchaff	1	Flight path	Easterly flight across northwestern portion of site.
2	14/06/2023	04:54	Blackcap	2	Breeding	Active nest in ash tree in wood in northwest of site.
2	14/06/2023	04:57	Goldfinch	1	Foraging	Woodland canopy in northeast of site.
2	14/06/2023	05:02	Wren	1	Flight path	Northerly flight path across northwest of site.
2	14/06/2023	05:04	Woodpigeon	1	Perching	Along northern boundary wall.
2	14/06/2023	05:13	Magpie	1	Perching	In tree canopy adjacent west to main building.
2	14/06/2023	05:28	Swallow	1	Breeding	Inactive nest within building adjacent to chimney directly adjacent northwest to the main building.
2	14/06/2023	05:30	Blackbird	1	Foraging	In green adjacent south to chimney.
2	14/06/2023	05:31	Feral Pigeon	3	Perching	On roof of building within green adjacent to chimney.
2	14/06/2023	05:35	Feral Pigeon	1	Breeding	Second floor of building adjacent east of chimney stack.
2	14/06/2023	05:40	Jackdaw	2	Flight path	Southerly flight path across northeast of site.
2	14/06/2023	05:51	Blue Tit	1	Foraging	In overgrown ammenity grass/scrub in northeast of site.
2	14/06/2023	05:56	Sparrowhawk	1	Perching	Perched in treeline overlooking overgrown grassland in northeast of site.
2	14/06/2023	06:12	Jackdaw	2	Perching	On roof of main building.
2	14/06/2023	06:36	Coal Tit	1	Foraging	In orchard.
3	30/06/2023	04:45	Magpie	2	Perched	In tree to south of main building.
3	30/06/2023	04:51	Rook	1	Flight Path	Southwest flight path across southwest of site.
3	30/06/2023	05:08	Wren	1	Singing	From treeline adjacent to field in southeast of the site.
3	30/06/2023	05:10	Woodpigeon	1	Flight path	Southwest flight path across southeast of site.
3	30/06/2023	05:15	Herring Gull	1	Flight Path	Northeast flight across east of site.
3	30/06/2023	05:17	Wren	1	Foraging	Amongst ornamentals adjacent to polytunnels.
3	30/06/2023	05:19	Goldfinch	1	Foraging	Amongst ornamentals adjacent to polytunnels.
3	30/06/2023	05:23	Woodpigeon	1	Flight path	Southerly flight path across southeast of site.
3	30/06/2023	05:26	Woodpigeon	1	Foraging	On grass to the north of polytunnels.
3	30/06/2023	05:28	Herring Gull	1	Flight Path	Northerly flight across northeast of site.
3	30/06/2023	05:29	Magpie	1	Perching	Perched in treeline in east of site.
3	30/06/2023	05:29	Woodpigeon	1	Perched	Perched in treeline in east of site.
3	30/06/2023	05:30	Feral Pigeon	8	Breeding	Displaying breeding behaviour around entrances on boarded up building in northeast.
3	30/06/2023	05:30	Herring Gull	1	Perching	Perched on roof on main building.
3	30/06/2023	05:32	Feral Pigeon	6	Breeding	Open steel shed, nests built in wire mesh on roof ends.
3	30/06/2023	05:42	Blue Tit	1	Foraging	In canopy of tree along northern site boundary to the east of the main building.
3	30/06/2023	05:43	Herring Gull	1	Breeding	On rooftop utilising chimney on roof of building.
3	30/06/2023	05:44	Feral Pigeon	24	Perched	Perched on rooftops behind main building.
3	30/06/2023	05:44	Goldcrest	1	Singing	In large trees lining road to west of main building.
3	30/06/2023	05:47	Wren	1	Singing	In woodland on western boundary of site.
3	30/06/2023	05:50	Goldcrest	1	Singing	In large coniferous trees at entrance of the site (west).