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Appropriate Assessment Screening for the Proposed Residential Development at Knockrabo, Goatstown, Co. Dublin.

01st November 2024

Prepared by: Bryan Deegan (MCIEEM) of Altemar Ltd.
On behalf of: Knockrabo Investments DAC

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Document Control Sheet			
Project	Appropriate Assessment Screening for the Proposed Residential Development at Knockrabo, Goatstown, Dublin 14		
Report	Appropriate Assessment Screening		
Date	01st November 2024		
Version	Author	Reviewed	Date
Draft 01	Bryan Deegan	Gayle O'Farrell	6th September 2024
Final	Bryan Deegan		01st November 2024

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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)) in light of their conservation objectives.

The following Appropriate Assessment (AA) (Screening Stage) has been prepared by **Altemar Ltd.** at the request of Knockrabo Investments DAC. The project relates to the proposed development at Knockrabo, Goatstown, 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.

Altemar Ltd.

Since its inception in 2001, Altemar has been delivering ecological and environmental services to a broad range of clients. Operational areas include residential, infrastructural, renewable, oil & gas, private industry, local authorities, EC projects and State/semi-State Departments. Bryan Deegan is the managing director of Altemar. Bryan is an environmental scientist and marine biologist with 30 years' experience working in Irish terrestrial and aquatic environments, providing services to the State, Semi-State and industry. Bryan Deegan (MCIEEM) holds a MSc in Environmental Science, BSc (Hons.) in Applied Marine Biology, NCEA National Diploma in Applied Aquatic Science and a NCEA National Certificate in Science (Aquaculture).

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 [EUROPEAN] 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 "OPR Practice Note PN01 - Appropriate Assessment Screening for Development Management" (OPR, 2021):

'Appropriate assessment comes from the Habitats Directive (92/43/EEC), which seeks to safeguard the long-term survival of Europe's most valuable and threatened species and habitats. The geographical areas of particular importance to these species and habitats have been selected as Special Areas of Conservation (SAC) and Special Protection Areas (SPA) which are collectively referred to (in Ireland) as European sites. Together, these sites comprise the pan-European Natura 2000 network of protected areas.

One of the measures which protects these areas is the requirement that every project must undergo an assessment of its implications for any European site before consent for the project is given. Consent for the project can only be given after determining that it will not adversely affect the integrity of the site(s) concerned in view of the conservation objectives of that site.

In order to determine if an appropriate assessment is required, a screening process must be carried out for all applications for planning permission.

The Habitats Directive (92/43/EEC) and the associated Birds Directive (2009/147/EC) are transposed into Irish legislation by Part XAB of the 2000 Act and the Birds and Natural Habitats Regulations 2011.2 The legislative provisions for appropriate assessment screening for planning applications are set out in Section 177U of the 2000 Act.'

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.*

[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;

- *It should include a comprehensive identification of all the potential impacts of the plan or project likely to be significant on the site, taking into account cumulative impacts and other impacts likely to arise as a result of the combined action of the plan or project under assessment and other plans or projects.*
- *The assessment under Article 6(3) applies the best available techniques and methods, to estimate the extent of the effects of the plan or project on the biological integrity of the site(s) likely to be damaged.*
- *The assessment provides for the incorporation of the most effective mitigation measures into the plan or project concerned, in order to avoid, reduce or even cancel the negative impacts on the site.*
- *The characterisation of the biological integrity and the impact assessment should be based on the best possible indicators specific to the European assets which must also be useful to monitor the plan or project implementation."*

Stages of the Appropriate Assessment

This Appropriate Assessment screening was undertaken in accordance with the European Commission Methodological Guidance on the provision of Article 6(3) and 6(4) of the 'Habitats' Directive 92/43/EEC (EC, 2001), Part XAB of the Planning and Development Act 2000, as amended, in addition to the December 2009 publication from the Department of Environment, Heritage and Local Government; 'Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities' and the European Communities (Birds and Natural Habitats) Regulations 2011 and OPR (2021) Practice Note PN01 on Appropriate Assessment Screening. In order to comply with the above Guidelines and legislation, the Appropriate Assessment process must be structured as follows:

1) Screening stage:
    - Description of plan or project, and local site or plan area characteristics;
    - Identification of relevant European sites, and compilation of information on their qualifying interests and conservation objectives
    - Identification and description of individual in combination effects likely to result from the proposed project;
    - Assessment of the likely significance of the effects identified above. Exclusion of sites where it can be objectively concluded that there will be no likely significant effects; and,

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

If it can be demonstrated during the AA screening phase (Stage 1), that the proposed project will not have a significant effect, whether alone or in combination with other plans or projects, on the conservation objectives of a European 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.

The following Steps and Matters to be considered in the Screening Process for Appropriate Assessment is outlined in the "OPR Practice Note PN01 - Appropriate Assessment Screening for Development Management" (OPR, 2021):

1. **Describe** the proposed development and local site characteristics.
2. **Identify** the relevant European sites and compile information on Qualifying Interests and conservation objectives.
    a) Identify all European sites that might be affected using the Source-Pathway-Receptor model.
    b) Identify the Qualifying Interests of the site concerned and the conservation objectives.
    c) Determine which of those Qualifying Interests/conservation objectives could be affected by the proposed development.
3. Assess the likely significant direct and indirect effects on the conservation objectives of the site(s) in relation to:
    a) the project alone, and
    b) In-combination with other plans and projects.
4. **Screening determination**: In the absence of mitigation measures, determine if the project alone or in-combination with other plans and projects could undermine the conservation objectives of the site(s) and give rise to likely significant effects.

Stage 1 Screening Assessment

Management of the Site

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

Description of the Proposed Project

Knockrabo Investments DAC intend to apply for permission for a Large-scale Residential Development (for a period of 7 years) with a total application site area of c. 2.54 hectares, at Knockrabo, Mount Anville Road, Goatstown, Dublin 14. The proposed development relates to Phase 2 of the development on the 'Knockrabo' lands. Phase 1 of 'Knockrabo' was granted under Dún Laoghaire-Rathdown County Council (DLRCC) Reg. Ref. D13A/0689/An Bord Pleanála (ABP) Ref. PL06D.243799 and DLRCC Reg. Ref. D16A/0821 (Phase 1) and DLRCC Reg. Ref. D16A/0960 (Phase 1A) and comprises a total of 119 No. units.

The site is bounded to the south-east by Mount Anville Road; to the south by 'Mount Anville Lodge' and by the rear boundaries of 'Thendara' (a Protected Structure – RPS Ref. 812), 'The Garth' (a Protected Structure – RPS Ref. 819), 'Chimes', 'Hollywood House' (a Protected Structure – RPS Ref. 829); to the south-west by existing allotments; to the north by the reservation corridor for the Dublin Eastern By-Pass (DEBP); and to the east by the site of residential development 'Knockrabo' (Phase 1, permitted under DLRCC Reg. Ref. D13A/0689 / An Bord Pleanála (ABP) Ref. PL.06D.243799 and DLRCC Reg. Ref. D16A/0821 (Phase 1); and DLRCC Reg. Ref. D16A/0960 (Phase 1A)). The site includes 'Cedar Mount' (a Protected Structure- RPS Ref. 783), 'Knockrabo Gate Lodge (West)' (a Protected Structure RPS Ref. 796), including Entrance Gates and Piers.

The development with total of c.17,312.2 sq.m. gross internal area (GIA) will consist of the construction of 158 No. residential units (12 No. houses and 146 No. apartments (35 No. 1 beds, 81 No. 2 beds, 3 No. 3 beds and 27 No. 3 bed duplex units), a childcare facility (c.400 sq.m. GIA) and Community / Leisure Uses (c. 223 sq.m. GIA), as follows:

- Block E (c.1,077 sq.m. GIA): a 5-storey including semi-basement podium level apartment block, comprising 8 No. apartments (1 No. 1 bed and 7 No. 2 beds);
- Block F: (c.8,390.8 sq.m. GIA): a part 2 to part 8 storeys including semi basement podium apartment block, comprising 84 No. units (31 No. 1 beds, 50 No. 2 beds and 3 No. 3 bed duplex units);
- Block G: (c.2,022.1 sqm GIA): a part 4 to part 5-storey apartment block, comprising 20 No. units (3 No. 1 bed units, 14 No. 2 bed units and 3 No. 3 bed units); (with sedum roof/PV panels at roof level of Blocks E, F and G; a communal Roof Terrace of c. 198 sqm on Block F; and balconies/wintergardens on all elevations of Blocks E, F and G);
- Duplex Blocks: (c. 3,292.6 sqm GIA): 1 No. 3 storey and 1 No. 4 storey block, comprising a total of 32 No. units (8 No. 2 bed units and 24 No. 3 bed duplex units);
- 10 No. (new build) houses: 6 No. 4 bed 2.5-3 storey terraced/semi-detached units (ranging in size from c.162.1 sqm GIA to c.174.2 sq.m. GIA); 1 No. 3 bed 2 storey detached unit (126.2 sq.m. GIA); 1 No. 3 bed 2 storey mid terrace unit (c.127.4 sq.m. GIA); 1 No. 3 bed 2 storey end of terrace unit (c.127.9 sq.m. GIA); and 1 No. 1 - 2 storey 'Gate House' (c. 122.6 sq.m. GIA) to the west of proposed repositioned entrance to Cedar Mount from Mount Anville Road;
- The use of existing 'Coach House' as a residential dwelling and for internal / external repair / refurbishment works at ground and first floor levels, including the removal of 3 No. roof lights, 1 No. metal clad dormer roof window and external water tank; the construction of 2 No. single storey flat roof extensions (c.35.5 sq.m. GIA), revisions to the external facade including the addition of 1 No. new window ope on the south facade and rendered finish to all original facades, solar panels at roof level; removal / re-use of stone to form new garden wall; to provide 1 No. 2 bed house (c. 99.5 sq.m. GIA) with refurbished stone shed (c. 13.9 sq.m. for storage GIA).
- The use of Knockrabo Gate Lodge (West) (a Protected Structure) as a residential dwelling; and for repair / refurbishment works including demolition of existing section of extension on top of stone boundary wall; removal of 1 No. roof light and 1 No. internal partition wall; construction of replacement extension (c.77.5 sq.m. GIA) to provide 1 No. 3-bed unit (c. 128 sq.m. GIA) with solar panels at roof level, bin storage, landscaping, all repair works to the existing Gate and Piers, and all associated internal and external elevational changes.
- The proposed development comprises works to Cedar Mount (a Protected Structure) to provide: 1 No. Childcare Facility at Lower Ground Floor level (c.400 sq.m. GIA) with associated external play and bin

storage areas; Community / Leisure Uses at Ground Floor Level (c. 223 sq.m. GIA), comprising Gym / Studio (c.35.6 sq.m. GIA), Library / Office (c. 35.9 sq.m. GIA), Meeting room (c.28.4 sq.m. GIA) and Conservatory room (c. 21.6 sq.m. GIA); and 2 No. 2 bed apartments at 1st floor level, (c.77.6 sq.m. GIA and c.88.2 sq.m. GFA). The works to Cedar Mount to consist of: o At lower ground floor/ basement level, the removal of internal walls and sections of external and internal walls and access doors; insertion of openings through external and internal walls; repair of existing "loggia" (covered external corridor) on northern, north-western and north-eastern facades, with revised elevations comprising glazed panels / glazed entrance doors located within loggia opes; the additional area (c. 58 sq.m. GIA) to form part of proposed Childcare Facility;

- At ground floor level removal of wooden staircase to 1st floor level and replacement with open-tread staircase, and construction of conservatory room (c. 21.6 sqm GIA) with flat roof on south - western side of Cedar Mount with sedum roof; removal of 1 No. WC;
- At 1st floor level removal of sections of internal walls; insertion of doors through internal walls;
- Re-instatement of 1 no. new chimney stack on the western end of the existing roof; replacement of rubble masonry finish with lime and sand plaster finish on all elevations relating to sections of original façade; removal of security bars from existing windows in front porch; replacement / reconfiguration of rainwater downpipes, hopper heads and associated roof outlets; Re-modelling of extension on northern side including replacement of timber / pressed metal cladding with brick / zinc cladding and glazing at ground and 1st floor levels, removal / replacement of external doors and windows; replacement of flat roof deck, parapet, eaves and roof-light with flat roof comprising brick / zinc clad parapet and removal of internal link at 1st floor level; repair works to external walls at ground floor level; Construction of rendered blockwork wall and steel handrail to terrace and associated repair works to section of existing parapet wall on eastern side of Cedar Mount; all hard and soft landscaping; revisions to garden wall and pillars on western side of Cedar Mount; and all associated internal and elevational changes; and
- The repositioning of existing access (including gates and piers) to Cedar Mount (a Protected Structure) on Mount Anville Road to the northeast with associated works to boundary wall to Mount Anville Road.

The development will also provide 130 No. car parking spaces consisting of 117 No. residential spaces (comprising 54 No. at podium level, 63 No. on-street and on curtilage spaces, 6 No. visitor spaces and 2 No. on-street car sharing spaces); and 5 No. non-residential spaces; provision of 366 No. bicycle parking spaces (consisting of: 288 No. residential spaces, 70 No. (residential) visitor spaces, 6 No. (non-residential) spaces and 2 No. visitor (non-residential) spaces); and 9 No. motorcycle parking spaces.

All other ancillary site development works to facilitate construction, site services, piped infrastructure, 1 No. sub-station, plant, public lighting, bin stores, bike stores, boundary treatments, provision of public, communal and private open space areas comprising hard and soft landscaping, site services all other associated site excavation, infrastructural and site development works above and below ground. In addition to the repositioned access to Cedar Mount (a Protected Structure) as referenced above, the development will be served by the permitted access road 'Knockrabo Way' (DLRCC Reg. Ref. D13A/0689; ABP Ref. PL.06D.243799, DLRCC Reg. Ref. D16A/0821 and DLRCC Reg. Ref. D16A/0960). The application does not impact on the future access to the Reservation for the Dublin Eastern Bypass.

The proposed site outline, site location, site plan, and landscape plan are seen in Figures 1-4.

Drainage

An Engineering Assessment Report has been prepared by Waterman Moylan Consulting Engineers Ltd. to accompany this planning application. This report outlines the following drainage strategy for the proposed development:

Existing Surface Water Network

'The following section deals with surface water drainage design including details of the SUDS measures proposed as part of the development.

The existing site is greenfield. It is proposed that the development will attenuate the surface water on site before discharging it, at a restricted rate, to an outfall pipe in the north-eastern corner of the development, constructed as part of the adjacent Knockrabo Phase 1 development and installed to facilitate development of the subject lands.

The Surface Water design calculations, reports and drawings had been audited (Stage 1 Audit) by JBA consulting, as required by Dun Laoghaire Rathdown County Council.

This Stormwater Audit required a Flow Model to be provided which now has been completed and informs the surface water design.'

'The Stormwater Audit and Flow Model supports and addresses several of the drainage items raised in Dun Laoghaire Rathdown County Council's Pre-Planning Opinion report as follows:

1. *Proposed surface water management system including attenuation features and cross sections of all SuDS features proposed on site in the context of surface water management on the site, discharge rates equal to greenfield sites, integration of appropriate phased works.*
2. *SOIL value 4 has been justified for this application. We now propose an overall flow restriction of 8.56 l/s for contributing site area of 1.441 ha. This has been supported by infiltration test failing on the subject site, indicating very poor permeability.*
3. *The design now incorporate SuDS measures appropriate to the scale of the proposed development such as green roofs, bioretention areas, permeable paving, rainwater harvesting, swales, etc. that minimise flows to the public drainage system and maximises local infiltration potential for low flows as the soil is not suitable for full infiltration SuDS devices.*
4. *We now confirm the drainage arrangements for the Gate Lodge West is positively drained via infiltration drains.*
5. *We have used a SAAR of 836mm as site specific SAAR for analysis and modelling.'*

SuDS

'*Sustainable Drainage System (SuDS) are a collection of water management practices that aim to align modern drainage systems with natural water processes.*

By using SuDS techniques, water is either infiltrated or conveyed more slowly to the drainage system and ultimately more slowly to water courses via permeable paving, swales, & detention basins.

The SuDS strategies employed within this development align with the Dun Laoghaire Rathdown County Council's document titled 12.8.6.2 SuDS (Sustainable Drainage Systems) and the National Guidance Document 'Nature Based Solutions to the Management of Rainwater, Surface Water Runoff in Urban Areas. The latter reflects the provisions of the EU Water Framework Directive (2000/60/EC) (WFD).

In the following sections of the surface water chapter, it will be outlined in detail how SuDS devices have been utilised and incorporated to the overall plan for the proposed development, and how their inclusion will mitigate the risk of localised and downstream flooding, while also promoting residential amenity and biodiversity.'

Proposed Surface Water Network and SuDS Strategy

'It is proposed to construct a surface water drainage network that will service and attenuate the development internally before discharging at the current greenfield (or allowable) rates to the local natural ditch systems. For surface water drainage layout and attenuation strategy details please see drawings 20-086-P121A and 20-086-P140B. The subject site includes a single catchment.

The following parameters have been used in greenfield run-off rate calculations, which are also provided in the GDSDS Calculations, supplied in Appendix D.

| Surface Water Catchment Details

	Catchment
Site Redline Area (Gross) – Ha	2.54
Site Hardstanding and positively drained Area (Net) - Ha	1.441
SAAR - mm*1	836
SOIL Index*2	0.47
Climate Change	20%

**1 – From MetEireann data*

**2 – The soil type map of Ireland indicated Soil Type 2 however the SI would suggest this is not correct for this particular site with soil conditions being compacted clay/silt above weathered bedrock in the southern part of the site and shallow bedrock in the northern end of the site, expected for Soil Type 4. Therefore 0.47 is used as the Soil Index for this site. In addition, there is a natural steep slope of c. 1:12 across the site which will increase the rate of run-off from the site, even in its greenfield state.'*

Greenfield Run-off Rates

'The Local Authority requirements are that post-development run-off rates are limited to greenfield run-off rates for the site. The greenfield run-off rates for the site have been calculated in accordance with the Institute of Hydrology report No 124 "Flood Estimation for Small Catchments", using the UK SUDS Website. As outlined above, a Soil Index of 0.47 was used in our drainage design calculations. The Greenfield run-off for the site is 8.56 l/s (Qbar). These calculations have been provided in Appendix D of this report. Site investigations have been undertaken to determine the soil infiltration values and to verify the above Soil Index value, and are included as Appendix B. It was determined that it is not viable to use soakaways to infiltrate the surface water at source for this site and that the ground conditions would be typical of Soil Type 4.'

Proposed Surface Water Strategy

'It is proposed to drain surface water from the development by gravity to the existing public surface water drainage outfall pipe in the north-eastern corner of the development site. Storm water will discharge to the outfall at a controlled rate, limited to the greenfield equivalent runoff. Excess surface water runoff during storm events will be attenuated in new below ground stormwater attenuation tanks within the open space at the northern end of the site, as shown on Waterman Moylan Drainage Layout Drawing No. 20-086-P121A. As noted in section 3.4 above, the suitability of the soil for infiltration soakaways has been explored through site investigation, however the ground conditions are not favourable to this means of surface water design. As such, alternative SuDS measures including attenuation tanks are proposed, as further explained below.

The proposed surface water outfall pipe from the development is a 225mm diameter pipe laid at a gradient of 1:100, giving a capacity of 51.9 l/s. Therefore, the proposed outfall has more than adequate capacity to cater for restricted greenfield rate flows from the development lands.

Furthermore, the adjacent Stage 1 development lands are similarly attenuated. The Stage 1 lands are restricted to 13l/s, which, when combined with phase 2 equates to a combined flow rate of 21.56l/s, still within the capacity limits of permitted combined surface water outfall drainage through the Phase 1 Lands.

Strict separation of surface water and wastewater will be implemented throughout the development. Internal private surface water will consist of uPVC (to IS 123) or concrete socket and spigot pipes (to IS 6). These drains will be laid to comply with the Building Regulations 2010, and in accordance with the recommendations

contained in the Technical Guidance Documents, Section H. Surface water sewers will consist of uPVC or concrete socket and spigot pipes (to IS 6) and will be laid strictly in accordance with Dun Laoghaire Rathdown Council requirements for taking in charge.

The proposed development has been designed to incorporate best drainage practice. Section 3.4, above, sets out the methodology used in determining the existing greenfield runoff rate and calculating attenuation storage requirements for the site.

It is proposed to incorporate a Storm Water Management Plan through the use of various SuDS techniques to treat and minimise surface water runoff from the site. The methodology involved in developing a Storm Water Management Plan for the subject site is in accordance with the requirements of Dun-Laoghaire Rathdown County Council and is based on recommendations set out in the Greater Dublin Strategic Drainage Study (GDSDS) and in the SuDS Manual (Ciria C753).

As stated in Section 3.2, the SuDS strategies employed within this development align with the Dun Laoghaire Rathdown County Council's document titled 12.8.6.2 SuDS (Sustainable Drainage Systems) and the National Guidance Document 'Nature Based Solutions to the Management of Rainwater, Surface Water Runoff in Urban Areas. The latter reflects the provisions of the EU Water Framework Directive (2000/60/EC) (WFD).

Based on three key elements – Water Quantity, Water Quality and Amenity – the targets of the SuDS train concept have been implemented in the design, providing SuDS devices for each of the following:

- *Source Control*
- *Site Control*
- *Regional Control'*

The following drainage hierarchy was used to determine the most suitable and sustainable SUDS strategy. This is in accordance with the GDSDS initiative that all new developments will conform to Best Management Practices for urban storm water drainage:

1. The use of green roofs;

2. Store rainwater for later use;

3. Use infiltration techniques, such as porous surfaces in non-clay areas;

4. Attenuate rainwater in ponds or open water features for gradual release;

5. Attenuate rainwater by storing in tanks or sealed water features for gradual release;

6. Discharge rainwater direct to a watercourse;

7. Discharge rainwater to a surface water sewer/drain;

8. Discharge rainwater to the combined sewer.'

Existing Foul Water Network

'A Pre-Connection Enquiry was submitted to Uisce Eireann (formerly Irish Water) and received a reference number of CDS24002545 in May 2024. The Confirmation of Feasibility Letter (CoF) dated 4 June 2024 is included in appendix F. The letter notes that connection to the 225mm sewer adjacent to the site on Mount Anville Road is feasible without infrastructure upgrades to the foul water network.

Further, an Uisce Eireann Statement of Design Acceptance (SoDA) was received on 18 September 2024. The SoDA confirms Uisce Eireann has no objection to the proposed development foul water drainage connection.'

Proposed Foul Water Network

'There is an existing 225mm diameter foul sewer outfall in the northeast of the subject site which was constructed under Phase 1 of the Knockrabo development and was designed and built to drain the Phase 1 and 2 lands.

It is proposed to serve the subject site with a drainage network containing a series of 150mm and 225mm diameter pipes, which will outfall to the existing outfall in the northeast of the site as mentioned above.

The proposed internal foul drainage network has been designed and sized in accordance with the Uisce Eireann Code of Practice for Wastewater Infrastructure and Standard Details. Please refer to drawings 20-086-P121A which shows the proposed foul drainage layout to serve the subject site.'

The Confirmation of Feasibility Letter and Statement of Design Acceptance issued by Uisce Eireann for the proposed development is demonstrated in Appendix II. The proposed drainage layout and SuDS strategy plan are demonstrated in Figures 5 & 6.

Flood Risk Assessment

A Site-Specific Flood Risk Assessment has also been prepared by Waterman Moylan Consulting Engineers Limited to accompany this planning application. This report concludes with the following:

Tidal Flooding

'Given that the site is located 3 kilometres inland from the Irish Sea, that there is at large level difference between the proposed buildings and the high tide, and given that the site is outside of the 1-in-1,000 year flood plain, it is evident that a pathway does not exist between the source and the receptor. The risk from tidal flooding is therefore extremely low and no flood mitigation measures need to be implemented.'

Fluvial Flooding

'The OPW's National Flood Information Portal indicates that the subject site is a significant distance away from the flood zone of the local river systems, including that of the Carysfort/Maretimo fluvial flood extents to the southeast and the Dodder catchment fluvial flood extents to the west. Similarly, Dun Laoghaire Rathdown County Development Plan Flood Zone Maps have been referenced, and these too indicate that that the development site lies outside of the local fluvial flood extents.'

'Given that the site is outside of the 1-in-1,000 year flood plain, the likelihood of fluvial flooding is low.'

Pluvial Flooding

- *'With a high likelihood and moderate consequence of flooding the site from surcharging the on-site drainage system, the resultant risk is high.*
- *With a low likelihood and moderate consequence of flooding the site from the existing surface water network, the resultant risk is low.*
- *With a moderate likelihood and moderate consequence of surface water discharge from the subject site, the resultant risk is moderate.*
- *With a low likelihood and moderate consequence of overland flooding from the surrounding areas, the resultant risk is low.*
- *With a moderate likelihood and moderate consequence of overland flooding from the subject site, the resultant risk is moderate.'*

Hydrological Risk Assessment

A Hydrological & Hydrogeological Qualitative Risk Assessment Report has been prepared by AWN Consulting to accompany this planning application. This report concludes with the following:

'A conceptual site model (CSM) has been prepared following a desk top review of the site and surrounding environs. Based on this CSM, plausible Source-Pathway-Receptor linkages have been assessed assuming an absence of any measures intended to avoid or reduce harmful effects of the proposed project (i.e. mitigation measures) in place at the proposed development site.

During construction and operation phases there is no direct source pathway linkage between the proposed development site and open water (i.e. South Dublin Bay SAC/pNHA and South Dublin Bay and River Tolka SPA). There are indirect source pathway linkages from the proposed development through public sewers which discharge to the Elm Park Stream which ultimately outfalls into Dublin Bay (2.4 km downgradient of the site). There is also an indirect connection through the foul sewer which will eventually discharge to the Ringsend WWTP and ultimately discharges to Dublin Bay. The future development has a peak foul discharge that would equate to 0.063% of the licensed discharge at Ringsend WWTP (peak hydraulic capacity).

It is concluded that there are no pollutant linkages as a result of the construction or operation (without mitigation) of the proposed development which could result in a water quality impact which could alter the habitat requirements of the Natura 2000 sites within Dublin Bay.

Finally, in line with good practice, preventive measures are included during construction to minimise the potential for any accidental releases off site. These measures are to be included in the design of any such developments. During operation, the potential for an impact to ground or storm water is negligible and there are design measures incorporated within the proposed development to manage stormwater run-off quality. These specific measures will provide further protection to the receiving soil and water environments. However, the protection of downstream European sites is in no way reliant on these measures.'

Wintering Bird Assessment

A wintering bird assessment was carried out by Altemar during the wintering bird season from November 2023 to March 2024 (detailed in Appendix I of this report). A total of 8 surveys were carried out: 27th/29th November 2023, 05th/07th December 2023, 08th/11th January 2024, 29th February 2024, 12th March 2024.

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

The conclusions of this assessment outlines that "*A total of 30 species were recorded within and above the survey areas across 8 surveys. 22 green, 6 amber and 2 red species of conservation concern were recorded either within, over or immediately adjacent to the survey area boundary. Herring Gull, Black-headed Gull and Common Gull were species listed as Qualifying Interests of designated sites within 15 km of Knockrabo. Sightings of these species during surveys almost entirely consisted of flights. Only one foraging sighting of these species (individual Herring Gull) was recorded within the survey area. Two red-listed species were only recorded during one survey each. Other amber-listed species were recorded on no more than two occasions each.*"

Figure 1. *Proposed site outline and location*

Figure 2. *Proposed site outline*

Figure 3. *Proposed site plan*

Figure 4. *Landscape Plan*

Figure 5. *Proposed drainage layout*

Figure 6. *Proposed SuDS Strategy Plan*

Identification of Relevant European Sites

The following 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 site to the proposed development is 2.4 km away (South Dublin Bay and River Tolka Estuary SPA). 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 take into account and the assessment was extended.

The proposed development site is located within a densely populated urban environment. The nearest European site is South Dublin Bay and River Tolka Estuary SPA (2.4 km) (Figure 7). The nearest waterbody to the subject site is the River Dodder, located 1.3 km to the west of the site boundary (Figure 9). There is currently no drainage network on site. During operation surface water discharge from the site will connect to an existing public surface water network that outfalls to the Elm Park Stream and ultimately the marine environment at Dublin Bay. Foul water discharge from the site will connect to a foul water network and will then be treated at Ringsend WwTP, prior to being discharged to Dublin Bay. There is, therefore, an indirect hydrological pathway from the proposed development site via foul and surface water drainage to the European sites located within Dublin Bay (South Dublin Bay SAC, North Dublin Bay SAC, South Dublin Bay and River Tolka Estuary SPA, North Bull Island SPA, and North-West Irish Sea SPA). However, given the minimum distance from the proposed development site to European sites at Dublin Bay, and the fact that foul will be treated at Ringsend WwTP via the foul sewer network, any pollutants, dust or silt laden run off will be dispersed, diluted, and ultimately treated within the public network prior to reaching the marine environment. As a result, the ZoI of the proposed project would be seen to be restricted to the site outline, with potential for minor localised noise and lighting impacts during construction which do not extend significantly beyond the site outline nor are they likely to have any significant effects on any European sites.

Despite a lack of direct hydrological connection to European Sites, but in the interest of carrying out a thorough assessment in line with both the Habitats Directive, and the precautionary principle, the area of assessment was expanded beyond the ZoI to include designated sites within 15km of the proposed development site, and sites beyond 15km with the potential for a hydrological connection. This was done in the interest of ensuring that any pathways, however indirect or remote, were taken into account. All European sites within 15km are listed in Table 1. The qualifying interests, and the potential impact of the proposed development on each European site and qualifying interest, are screened out in Table 2. No potential impacts are foreseen on European sites beyond 15km as there is no direct or indirect pathways to these sites.

SACs and SPAs within 15km of the works site are demonstrated in Figures 6 and 7. Waterbodies located proximate to the proposed development are demonstrated in Figure 8.

Table 1. Proximity to designated sites of conservation importance

Code	NATURA 2000 Site	Distance	Direct Hydrological / Biodiversity Connection
Special Areas of Conservation			
IE0000210	South Dublin Bay SAC	2.5 km	No
IE0002122	Wicklow Mountains SAC	7.3 km	No
IE0000206	North Dublin Bay SAC	7.4 km	No
IE0003000	Rockabill to Dalkey Island SAC	8.8 km	No
IE000725	Knocksink Wood SAC	9.1 km	No
IE001209	Glenasmole Valley SAC	10.2 km	No
IE000713	Ballyman Glen SAC	10.2 km	No
IE0000202	Howth Head SAC	11.8 km	No
IE000199	Baldoyle Bay SAC	12.9 km	No
IE000714	Bray Head SAC	14.0 km	No
Special Protection Area			
IE0004024	South Dublin Bay and River Tolka Estuary SPA	2.4 km	No
IE0004006	North Bull Island SPA	7.4 km	No
IE0004040	Wicklow Mountains SPA	7.5 km	No
IE004236	North West Irish Sea cSPA	7.5 km	No
IE0004172	Dalkey Islands SPA	8.7 km	No
IE0004016	Baldoyle Bay SPA	12.9 km	No
IE0004113	Howth Head Coast SPA	13.7 km	No

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

European Site Code	Name	Screened IN/OUT	Details/Reason
Special Areas of Conservation			
IE000210	South Dublin 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. **Features of Interest** Mudflats and sandflats not covered by seawater at low tide [1140] Annual vegetation of drift lines [1210] Salicornia and other annua ls colonising mud and sand [1310] Embryonic shifting dunes [2110] **Potential Impact** The proposed development site is located within a suburban area 2.5 km from the South Dublin Bay SAC. There is no direct hydrological pathway from the proposed development to this SAC. There is currently no drainage network on site. There is an indirect pathway from the proposed development to this SAC via the public surface water drainage networks and the Elm Park Stream during operation. In addition, there is an indirect pathway via the foul water network. Foul water drainage from the site will discharge to Ringsend WwTP, via the foul sewer network, for treatment prior to ultimate discharge to Dublin Bay, proximate to this SAC (see Appendix II for Confirmation of Feasibilty received from Uisce Eireann for the proposed development). Given the distance from the proposed development site

European Site Code	Name	Screened IN/OUT	Details/Reason
			to this SAC (2.5 km) and that foul water drainage will be treated prior to being discharged into Dublin Bay, any pollutants, dust or silt laden run off that enters the drainage system will be dispersed, diluted, and ultimately treated along the public networks and within the Elm Park Stream. In the absence of mitigation, no significant effects on the qualifying interests of this SAC are likely. 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 are likely.**
IE002122	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. **Features of Interest** 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] *Lutra lutra* (Otter) [1355] **Potential Impact** The proposed development site is located within a densely populated urban environment, 7.3 km from this SAC. There is no 'direct' or 'indirect' Source-Pathway linkage between the proposed development site and the SAC. No potential impact is foreseen. There is no direct or indirect 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 are likely.**
IE000206	North Dublin 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. **Features of Interest** Mudflats and sandflats not covered by seawater at low tide [1140] Annual vegetation of drift lines [1210]

European Site Code	Name	Screened IN/OUT	Details/Reason
			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] *Petalophyllum ralfsii* (Petalwort) [1395] **Potential Impact** The proposed development site is located approximately 7.4 km from the North Dublin Bay SAC. There is no direct hydrological pathway from the proposed development to this SAC. There is currently no drainage network on site. There is an indirect pathway from the proposed development to this SAC via the public surface water drainage networksand the Elm Park Stream. In addition, there is an indirect pathway via the foul water network. Foul water drainage from the site will discharge to Ringsend WwTP, via the foul sewer network, for treatment prior to ultimate discharge to Dublin Bay, proximate to this SAC (see Appendix II for Confirmation of Feasibilty received from Uisce Eireann for the proposed development). Given the distance from the proposed development site to this SAC (7.4 km) and that foul and surface water drainage will be treated prior to being discharged into Dublin Bay, any pollutants, dust or silt laden run off that enters the drainage system will be dispersed, diluted, and ultimately treated along the public networks and within the Elm Park Stream. In the absence of mitigation, no significant effects on the qualifying interests of this SAC are likely. 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 are likely.**
IE003000	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. **Features of Interest** 1170 Reefs 1351 Harbour porpoise Phocoena phocoena **Potential Impact** The proposed development site is located approximately 8.8 km from this SAC. There is no direct hydrological pathway from the proposed development to this SAC. There is currently no drainage network on site. There is an indirect pathway from the proposed development to this SAC via the public surface water drainage networksand the Elm Park Stream. In addition, there is an indirect pathway via the foul water network. Foul water drainage from the site will discharge to Ringsend WwTP, via the foul sewer network, for treatment prior to ultimate discharge to Dublin

European Site Code	Name	Screened IN/OUT	Details/Reason
			Bay, proximate to this SAC (see Appendix II for Confirmation of Feasibilty received from Uisce Eireann for the proposed development). Given the distance from the proposed development site to this SAC (8.8 km) and that foul water drainage will be treated prior to being discharged into Dublin Bay, any pollutants, dust or silt laden run off that enters the drainage system will be dispersed, diluted, and ultimately treated along the public networks and within the Elm Park Stream. In the absence of mitigation, no significant effects on the qualifying interests of this SAC are likely. 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 are likely.**
IE001209	Knocksink Wood SAC	**OUT**	**Conservation Objectives** To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected. **Features of Interest** Petrifying springs with tufa formation (Cratoneurion) [7220] Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (Alno-Padion, Alnion incanae, Salicion albae) [91E0]. **Potential Impact** The proposed development site is located within a suburban environment, 9.1 km from this SAC. There is no 'direct' or 'indirect' Source-Pathway linkage between the proposed development site and the SAC. No potential impact is foreseen. There is no direct or indirect 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 are likely.**
IE001209	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. **Features of Interest** 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 a suburban area, 10.2 km from this SAC. There is no 'direct' or 'indirect' Source-Pathway linkage between the proposed development site and the SAC. No potential impact is foreseen. There is no direct or indirect 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.

European Site Code	Name	Screened IN/OUT	Details/Reason
			No significant effects are likely.
IE000713	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. **Features of Interest** Petrifying springs with tufa formation (Cratoneurion) [7220] Alkaline fens [7230] **Potential Impact** The proposed development site is located within a suburban area, 10.2 km from this SAC. There is no 'direct' or 'indirect' Source-Pathway linkage between the proposed development site and the SAC. No potential impact is foreseen. There is no direct or indirect 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 are likely.**
IE000199	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. **Features of Interest** 1140 Mudflats and sandflats not covered by seawater at low tide 1310 Salicornia and other annuals colonizing mud and sand 1330 Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) 1410 Mediterranean salt meadows (*Juncetalia maritimi*) **Potential Impact** The proposed development site is located within a suburban area, 12.9 km from this SAC. There is no 'direct' or 'indirect' Source-Pathway linkage between the proposed development site and the SAC. No potential impact is foreseen. There is no direct or indirect 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 are likely.**
IE000202	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. **Features of Interest** 1230 Vegetated sea cliffs of the Atlantic and Baltic coasts 4030 European dry heaths **Potential Impact**

European Site Code	Name	Screened IN/OUT	Details/Reason
			The proposed development site is located within a suburban area, 11.8 km from this SAC. There is no 'direct' or 'indirect' Source-Pathway linkage between the proposed development site and the SAC. No potential impact is foreseen. There is no direct or indirect 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 are likely.**
IE000714	Bray Head SAC	**OUT**	**Conservation Objectives** The maintenance of habitats and species within Natura 2000 sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level. **Features of Interest** Vegetated sea cliffs of the Atlantic and Baltic coasts [1230] European dry heaths [4030] **Potential Impact** The proposed development site is located within a suburban area, 14.0km from this SAC. There is no 'direct' or 'indirect' Source-Pathway linkage between the proposed development site and the SAC. No potential impact is foreseen. There is no direct or indirect 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 are likely.**
Special Protection Areas			
IE004024	South Dublin Bay and River Tolka Estuary 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**.** **Features of Interest** 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]

European Site Code	Name	Screened IN/OUT	Details/Reason
			Potential Impact The proposed development site is located approximately 2.4 km from this SPA. There is no direct hydrological pathway from the proposed development to this SPA. There is currently no drainage network on site. There is an indirect pathway from the proposed development to this SPA via the public surface water drainage networksand the Elm Park Stream. In addition, there is an indirect pathway via the foul water network. Foul water drainage from the site will discharge to Ringsend WwTP, via the foul sewer network, for treatment prior to ultimate discharge to Dublin Bay, proximate to this SPA (see Appendix II for Confirmation of Feasibilty received from Uisce Eireann for the proposed development). Given the distance from the proposed development site to this SPA (2.4 km) and that foul water drainage will be treated prior to being discharged into Dublin Bay, any pollutants, dust or silt laden run off that enters the drainage system will be dispersed, diluted, and ultimately treated along the public networks and within the Elm Park Stream. In the absence of mitigation, no significant effects on the qualifying interests of this SPA are likely. Given the minimum distance to this SPA (2.4 km) across a populated urban environment, no significant noise or vibration impacts on the bird species protected as qualifying interests of this SPA are foreseen. In the absence of mitigation measures, no significant impacts on this SPA are likely. 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 are likely.**
IE004006	North Bull Island 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**.** **Features of Interest** 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]

European Site Code	Name	Screened IN/OUT	Details/Reason
			Wetland and Waterbirds [A999] **Potential Impact** The proposed development site is located approximately 7.4 km from this SPA. There is no direct hydrological pathway from the proposed development to this SPA. There is currently no drainage network on site. There is an indirect pathway from the proposed development to this SPA via the public surface water drainage networksand the Elm Park Stream. In addition, there is an indirect pathway via the foul water network. Foul water drainage from the site will discharge to Ringsend WwTP, via the foul sewer network, for treatment prior to ultimate discharge to Dublin Bay, proximate to this SPA (see Appendix II for Confirmation of Feasibilty received from Uisce Eireann for the proposed development). Given the distance from the proposed development site to this SPA (7.4 km) and that foul water drainage will be treated prior to being discharged into Dublin Bay, any pollutants, dust or silt laden run off that enters the drainage system will be dispersed, diluted, and ultimately treated along the public networks and within the Elm Park Stream. In the absence of mitigation, no significant effects on the qualifying interests of this SPA are likely. Given the minimum distance to this SPA (7.4 km) across a densely populated urban environment, no significant noise or vibration impacts on the bird species protected as qualifying interests of this SPA are foreseen. In the absence of mitigation measures, no significant impacts on this SPA are likely. 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 are likely.**
IE004236	North-West Irish Sea 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**.** **Features of Interest** Common Scoter (*Melanitta nigra*) [A065] Red-throated Diver (*Gavia stellata*) [A001] Great Northern Diver (*Gavia immer*) [A003] Fulmar (*Fulmarus glacialis*) [A009] Manx Shearwater (*Puffinus puffinus*) [A013] Shag (*Phalacrocorax aristotelis*) [A018] Cormorant (*Phalacrocorax carbo*) [A017] Little Gull (*Larus minutus*) [A177] Kittiwake (*Rissa tridactyla*) [A188] 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]

European Site Code	Name	Screened IN/OUT	Details/Reason
			Little Tern (*Sterna albifrons*) [A195] Roseate Tern (*Sterna dougallii*) [A192] Common Tern (*Sterna hirundo*) [A193] Arctic Tern (*Sterna paradisaea*) [A194] Puffin (*Fratercula arctica*) [A204] Razorbill (*Alca torda*) [A200] Guillemot (*Uria aalge*) [A199] **Potential Impact** The proposed development site is located approximately 7.5 km from this SPA. There is no direct hydrological pathway from the proposed development to this SPA. There is currently no drainage network on site. There is an indirect pathway from the proposed development to this SPA via the public surface water drainage networksand the Elm Park Stream. In addition, there is an indirect pathway via the foul water network. Foul water drainage from the site will discharge to Ringsend WwTP, via the foul sewer network, for treatment prior to ultimate discharge to Dublin Bay, proximate to this SPA (see Appendix II for Confirmation of Feasibilty received from Uisce Eireann for the proposed development). Given the distance from the proposed development site to this SPA (7.5 km) and that foul water drainage will be treated prior to being discharged into Dublin Bay, any pollutants, dust or silt laden run off that enters the drainage system will be dispersed, diluted, and ultimately treated along the public networks and within the Elm Park Stream. In the absence of mitigation, no significant effects on the qualifying interests of this SPA are likely. Given the minimum distance to this SPA (7.5 km) across a densely populated urban environment, no significant noise or vibration impacts on the bird species protected as qualifying interests of this SPA are foreseen. In the absence of mitigation measures, no significant impacts on this SPA are likely. 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 are likely.**
IE004040	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. **Features of Interest** A098 Merlin *Falco columbarius* A103 Peregrine *Falco peregrinus* **Potential Impact** The proposed development site is located within a densely populated urban environment 7.5 km from the Wicklow Mountains SPA. There is no 'direct' or 'indirect' Source-Pathway linkage between the proposed development site and the SPA. Given the minimum distance to this SPA (7.5 km) across a populated urban environment, no significant noise or vibration impacts on the bird

European Site Code	Name	Screened IN/OUT	Details/Reason
			species protected as qualifying interests of this SPA are foreseen. In the absence of mitigation measures, no significant impacts on this SPA are likely. 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 are likely.**
IE004172	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. **Features of Interest** A192 Roseate Tern *Sterna dougallii* A193 Common Tern *Sterna hirundo* A194 Arctic Tern *Sterna paradisaea* **Potential Impact** The proposed development site is located approximately 8.7 km from this SPA. There is no direct hydrological pathway from the proposed development to this SPA. There is an indirect pathway from the proposed development to this SPA via the public surface water drainage networksand the Elm Park Stream. In addition, ther is an indirect pathway via the foul water network, Foul water drainage from the site will be discharged to Ringsend WwTP, via the foul sewer network where it will be treated under licence prior to being discharged to Dublin Bay, proximate to this SPA. Given the distance from the proposed development site to this SPA (8.7 km) and that foul water drainage will be treated prior to being discharged into Dublin Bay, any pollutants, dust or silt laden run off that enters the drainage system will be dispersed, diluted, and ultimately treated along the public networks and within the Elm Park Stream. In the absence of mitigation, no significant effects on the qualifying interests of this SPA are likely. Given the minimum distance to this SPA (8.7 km) across a densely populated urban environment, no significant noise or vibration impacts on the bird species protected as qualifying interests of this SPA are foreseen. In the absence of mitigation measures, no significant impacts on this SPA are likely. 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 are likely.**
IE004016	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. **Features of Interest** Light-bellied Brent Goose (*Branta bernicla hrota*) [A046] Shelduck (*Tadorna tadorna*) [A048]

European Site Code	Name	Screened IN/OUT	Details/Reason
			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 a densely populated urban environment 12.9 km from Baldoyle Bay SPA. There is no 'direct' or 'indirect' Source-Pathway linkage between the proposed development site and the SPA. Given the minimum distance to this SPA (12.9 km) across a populated urban environment, no significant noise or vibration impacts on the bird species protected as qualifying interests of this SPA are foreseen. In the absence of mitigation measures, no significant impacts on this SPA are likely. 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 are likely.**
IE0004113	Howth Head Coast SPA	**OUT**	**Conservation Objectives** The maintenance of habitats and species within Natura 2000 sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level. **Qualifying Interests** A188 Kittiwake (*Rissa tridactyla*) **Potential Impact** The proposed development site is located within a suburban area, 14.0km from this SPA. There is no 'direct' or 'indirect' Source-Pathway linkage between the proposed development site and the SPA. No potential impact is foreseen. There is no direct or indirect 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 are likely.**

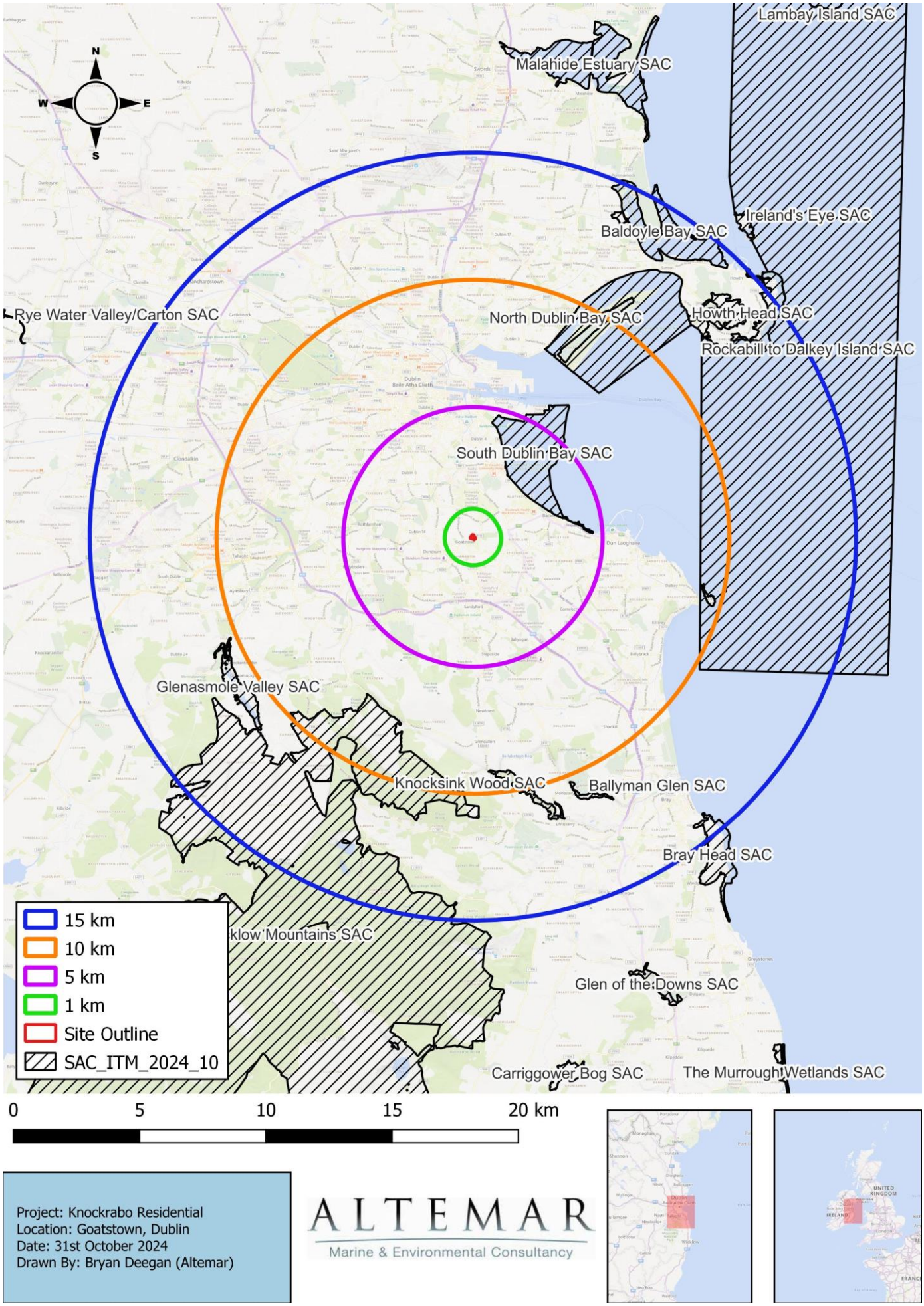

Figure 7. *Special Areas of Conservation (SAC) within 15km of the subject site*

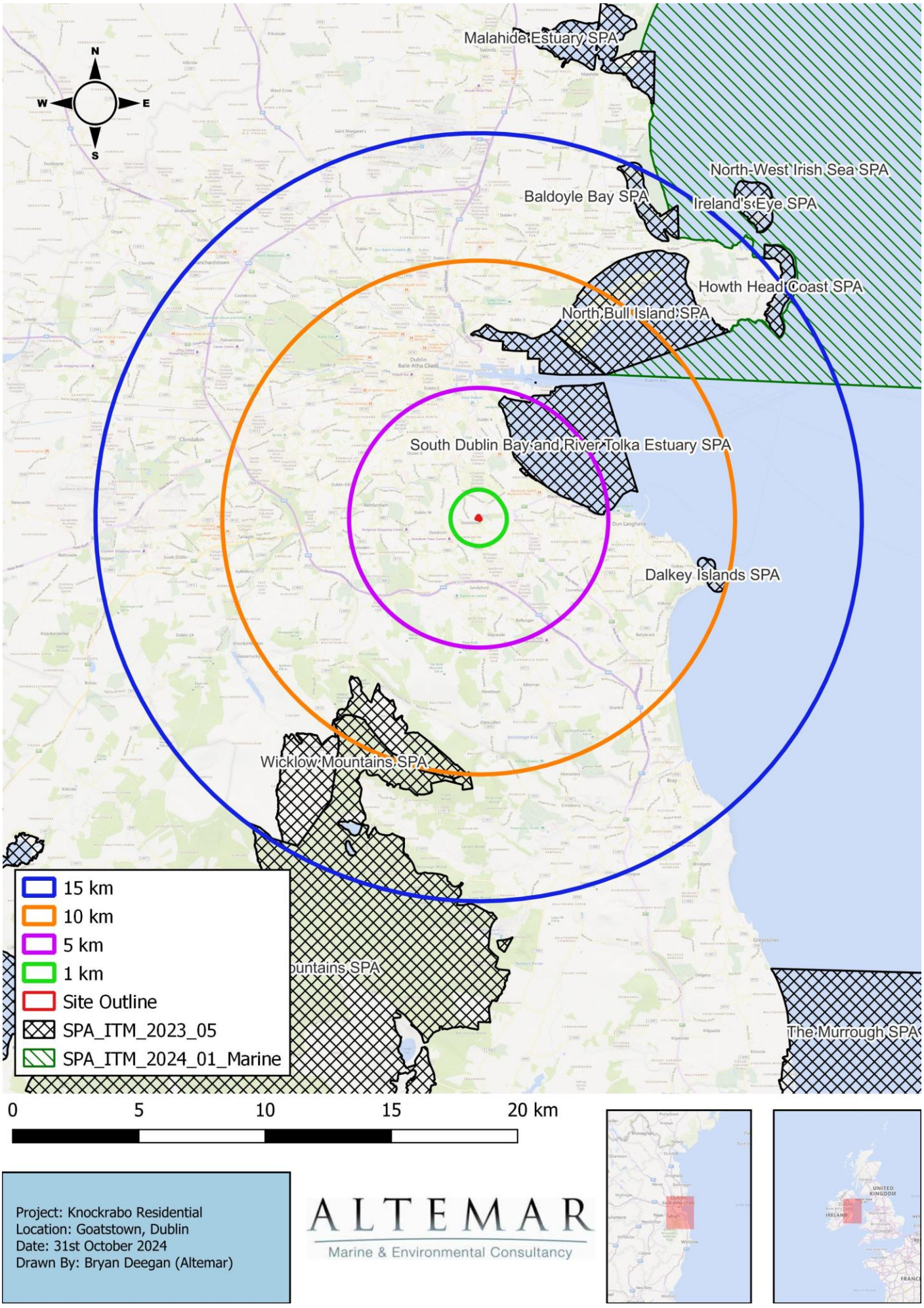

Figure 8. *Special Protection Areas (SPA) within 15km of the subject site*

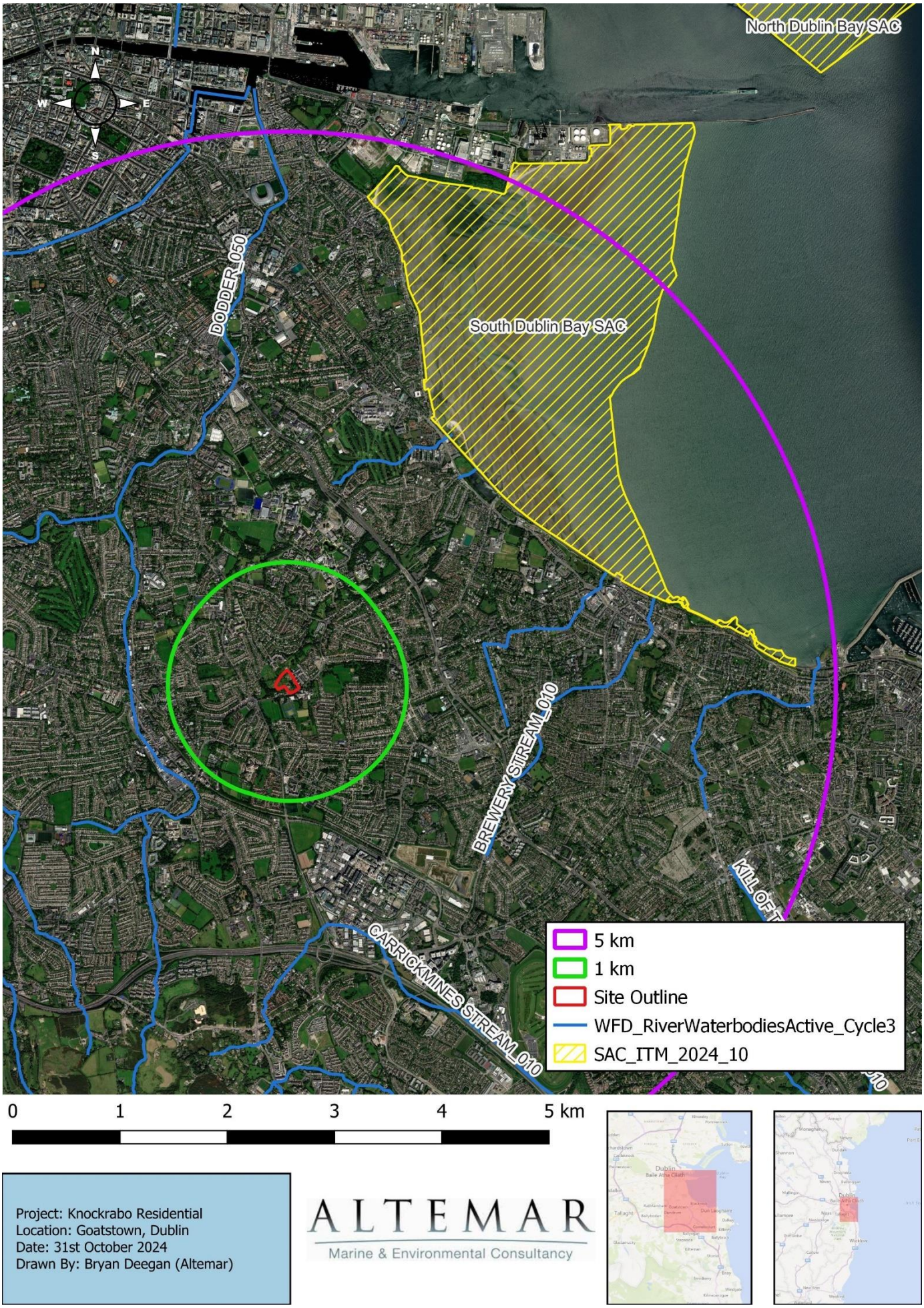

Figure 9. *Watercourses and Special Areas of Conservation (SACs) proximate to the subject site*

Figure 10. *Watercourses and Special Protection Areas (SPAs) proximate to the subject site*

In-Combination Effects

A search of the DLRCC and ABP planning application databases has been carried out to identify any recent existing or approved projects in the site area. Selected projects represent approved SHD or LRD schemes.

There are several development proposals located in the areas surrounding the subject site and within the potential Zone of Influence (ZoI). These have been assessed for potential in combination effects. The following is a list of relevant planning application(s) as identified on the Department of Housing, Local Government and Heritage's 'National Planning Application Database' portal:

Table 3. Planning applications proximate to the subject site

DLRCC Reg. Ref. / ABP Ref. No.	Address	Proposal
ABP 313176	Lands at the Central Mental Hospital, Dundrum Road, Dundrum, Dublin 14.	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.
JA06D.320912	Lands at the Central Mental Hospital, Dundrum Road, Dundrum, Dublin 14.	Demolition of existing structures and permission for the construction of 934 No. residential units, creche, restaurant, community centre and associated site works.
ABP TA0001	University College Dublin, Belfield, Dublin 4.	10 year permission for 512 student accommodation units (3006 no. bed spaces) including student facility centre, car parking and all associated site works.
D16A/0818 / ABP 248265	Greenacres, Kilmacud Road Upper, Dublin 14.	Demolition of the former Green Acres Convent and the construction of 120 no. apartments in 2 blocks ranging in height from 2 to 5 storeys with all associated site works.
ABP 304469	Greenacres, Longacre and Drumahill House, Upper Kilmacud Road, Dundrum, Dublin 14.	253 no. apartments and associated works. (Amended by ABP 307683 to add 54 no. additional apartments).
ABP 312170	Marmalade Lane, Wyckham Avenue, Dundrum, Dublin 16.	531 no. Build to Rent apartments, creche and associated site works.
ABP 304405	Rockbrook, Carmanhall Road, Sandyford Business District, Sandyford, Dublin 18.	428 no. apartments, creche, 4 no. local/neighbourhood retail units and associated site works.
ABP 305940	Former Aldi Site, Carmanhall Road, Sandyford Business District, Dublin 18.	Demolition of existing structures on site and construction of 564 no. build to rent apartments, creche and associated site works.
ABP 311722	Former Siemens Site, Corner of Blackthorn Avenue and Ballymoss Road, Sandyford Industrial Estate, Dublin 18.	Demolition of the existing building on site, construction of 190 no. Build to Rent apartments and associated site works.
ABP 310138	Mount Saint Mary's and Saint Joseph's, Dundrum Road, Dundrum, Dublin 14.	Demolition of existing buildings on site and part of the granite wall along Dundrum Road, excluding Small Hall, construction of 231 no. apartments, childcare facility and associated site works.

The above developments have been assessed for in-combination effects. Following this assessment, it is considered that 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. Any impacts due to the overlap of the construction phases of these or other projects in the site area will be short term. Taking into account the location of the development, it is not considered likely that it would result in combination effects with other existing and/ or approved plans or projects.

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

No significant effects on Natura 2000 sites are likely from in-combination effects.

Conclusions

The proposed development site is located within a populated urban environment. The nearest European site is South Dublin Bay and River Tolka Estuary SPA (2.4 km) (Figure 7). The nearest waterbody to the subject site is the River Dodder, located 1.3 km to the west of the site boundary (Figure 9). Surface water discharge from the site will connect to an existing public surface water network that outfalls to the Elm Park Stream and ultimately the marine environment at Dublin Bay. Foul water drainage from the site will be directed to a public foul sewer network and ultimately discharge to the Ringsend WwTP where it will then be treated, prior to being discharged to Dublin Bay. There is, therefore, an indirect hydrological pathway from the proposed development site to the European sites located within Dublin Bay (South Dublin Bay SAC, North Dublin Bay SAC, South Dublin Bay and River Tolka Estuary SPA, North Bull Island SPA, and North-West Irish Sea SPA). However, given the minimum distance from the proposed development site to European sites at Dublin Bay, and the fact that foul will be treated at Ringsend WwTP via the foul sewer network, any pollutants, dust or silt laden run off will be dispersed, diluted, and ultimately treated within the public network prior to reaching the marine environment. In the absence of mitigation, no significant effects on European sites are likely. No specific mitigation is required to prevent impacts on European sites.

Having taken into consideration foul and surface water drainage from the proposed development, the distance between the proposed development to designated conservation sites, lack of direct hydrological pathway or biodiversity corridor link to conservation sites, and the dilution effect with other effluent and surface runoff, it is concluded that there is no potential for significant effect on any European Sites in light of their conservation objectives.

This report presents a Stage 1 Appropriate Assessment Screening for the Proposed Development. The purpose of the report is to describe identify and assess any likely significant direct or indirect effects on the European Sites either alone or in combination and in light of the conservation objectives.

On the basis of the content of this report, the competent authority an conclude based on best available information that the project either alone or in combination is not likely to have a significant direct or indirect effect on any European Site in light of their conservation objectives.

Data Used for AA Screening- NPWS site synopses and Conservation objectives of sites within 15km were assessed. The most recent SAC and SPA boundary shapefiles were downloaded and overlaid on Bing road maps and satellite imagery.

Findings of No Significant Effects Report

Details of Project	Appropriate Assessment Screening for a Proposed Development at Knockrabo, Goatstown, Co. Dublin.
Name and Location of EUROPEAN Sites Within 15km	South Dublin Bay SAC North Dublin Bay SAC Knocksink Wood SAC Baldoyle Bay SAC Glenasmole Valley SAC Ballyman Glen SAC Wicklow Mountains SAC Howth Head SAC Rockabill to Dalkey Island SAC South Dublin Bay and River Tolka Estuary SPA North Bull Island SPA North-West Irish Sea cSPA Baldoyle Bay SPA Wicklow Mountains SPA Dalkey Islands SPA Howth Head Coast SPA
Project Description	Proposed Residential Development at Knockrabo, Goatstown, Dublin 14.
Is the Project directly connected with the management of the European site?	No
Details of any other projects or plans that together with this project could affect the EUROPEAN site	None
The assessment of significant effects	
Describe how the project is likely to affect the EUROPEAN site	Not likely to have significantly effect
Response to consultation	N/A
Data collected to carry out the assessment	Site Visit and Supporting NPWS data.
Who carried out the assessment	Altemar Ltd.
Sources of data	NPWS website, standard data form, conservation objectives data of the site and references outlined in the AA Screening Report.
Explain why the effects are not considered significant	No European sites are within the zone of influence of these works. There is currently no drainage network on site. There is no direct hydrological pathway to European sites. Having taken into consideration foul and surface water drainage from the proposed development, the distance between the proposed development to designated conservation sites, lack of direct hydrological pathway or biodiversity corridor link to conservation sites, and the dilution effect with other effluent and surface runoff, it is concluded that there is no potential for significant effect on any European Sites in light of their conservation objectives.
Level of assessment completed	Stage 1 Screening
Overall conclusions	On the basis of the content of this report, the competent authority an conclude based on best available information that the project either alone or in combination is not likely to have a significant direct or indirect effect on any European Site in light of their conservation objectives.

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 EUROPEAN Sites: the provisions of Article 6 of the Habitats Directive 92/43/EEC, European Commission 2000;
4. Assessment of Plans and Projects Significantly Affecting EUROPEAN Sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC;
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;
6. Guidance document on the implementation of the birds and habitats directive in estuaries and coastal zones with particular attention to port development and dredging; http://ec.europa.eu/environment/nature/Natura2000/management/docs/guidance_doc.pdf
7. The Status of EU Protected Habitats and Species in Ireland. http://www.npws.ie/publications/euconservationstatus/NPWS_2007_Conservation_Status_Report.pdf
8. NPWS (2013) Conservation Objectives: South Dublin Bay SAC 000210. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
9. NPWS (2013) Conservation Objectives: North Dublin Bay SAC 000206. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
10. NPWS (2017) Conservation Objectives: Wicklow Mountains SAC 002122. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.
11. NPWS (2021) Conservation Objectives: Glenasmole Valley SAC 001209. Version 1. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage.
12. NPWS (2012) Conservation Objectives: Baldoyle Bay SAC 000199. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
13. NPWS (2013) Conservation Objectives: Rockabill to Dalkey Island SAC 003000. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
14. NPWS (2016) Conservation Objectives: Howth Head SAC 000202. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.
15. NPWS (2017) Conservation Objectives: Wicklow Mountains SAC 002122. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.
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 (2017) Conservation Objectives: Bray Head SAC 000714. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.
19. 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.
20. NPWS (2015) Conservation Objectives: North Bull Island SPA 004006. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
21. NPWS (2023) Conservation Objectives: North-west Irish Sea SPA 004236. Version 1. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage.
22. NPWS (2022) Conservation objectives for Wicklow Mountains SPA [004040]. First Order Site-specific Conservation Objectives Version 1.0. Department of Housing, Local Government and Heritage.
23. NPWS (2013) Conservation Objectives: Baldoyle Bay SPA 004016. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
24. NPWS (2022) Conservation objectives for Dalkey Islands SPA [004172]. First Order Sitespecific Conservation Objectives Version 1.0. Department of Housing, Local Government and Heritage.
25. 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.
26. OPR (2021) *OPR Practice Note PN01 – Appropriate Assessment Screening for Development Management.* Office of the Planning Regulator: https://www.opr.ie/wp-content/uploads/2021/03/9729-Office-of-the-Planning-Regulator-Appropriate-Assessment-Screening-booklet-15.pdfv

Appendix I. Wintering Bird Assessment at Knockrabo, Mount Anville Road, Goatstown, Dublin 14

01ST NOVEMBER 2024

Prepared by: Frank Spellman of Altemar Ltd.
On behalf of: Knockrabo Investments DAC

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Document Control Sheet			
Client	Knockrabo Investments DAC		
Project	Wintering Bird Assessment at Knockrabo, Mount Anville Road, Goatstown, Dublin 14		
Report	Wintering Bird Assessment		
Date	01st November 2024		
Version	Author	Reviewed	Date
Draft 01	Frank Spellman	Bryan Deegan	10th June 2024
Final	Frank Spellman	Bryan Deegan	01st November 2024

Summary

Structure/features:	The survey area consists primarily of grassland, scrub, treelines, mature standalone coniferous and deciduous tree, derelict buildings, recolonised bare ground, bare ground and some planted ornamentals.
Location:	Mount Anville Road, Goatstown, Dublin 14.
Bird species present:	Blackbird, Blackcap, Black-headed Gull, Blue Tit, Chaffinch, Coal Tit, Common Gull, Dunnock, Feral Pigeon, Goldcrest, Goldfinch, Great Tit, Greenfinch, Grey Wagtail, Herring Gull, Hooded Crow, Jackdaw, Jay, Linnet, Long-tailed Tit, Magpie, Pied Wagtail, Raven, Redwing, Robin, Rook, Siskin, Treecreeper, Woodpigeon, Wren.
Proposed work:	Housing Development
Surveys by:	Frank Spellman (MSc Zoology, BSc Zoology). Emma Peters (BSc Environmental Science)
Survey dates:	27th/29th November 2023, 05th/07th December 2023, 08th/11th January 2024, 29th February 2024, 12th March 2024.

Receiving Environment

Development Description

Knockrabo Investments DAC intend to apply for permission for a Large-scale Residential Development (for a period of 7 years) with a total application site area of c. 2.54 hectares, at Knockrabo, Mount Anville Road, Goatstown, Dublin 14. The proposed development relates to Phase 2 of the development on the 'Knockrabo' lands. Phase 1 of 'Knockrabo' was granted under Dún Laoghaire-Rathdown County Council (DLRCC) Reg. Ref. D13A/0689/An Bord Pleanála (ABP) Ref. PL06D.243799 and DLRCC Reg. Ref. D16A/0821 (Phase 1) and DLRCC Reg. Ref. D16A/0960 (Phase 1A) and comprises a total of 119 No. units.

The site is bounded to the south-east by Mount Anville Road; to the south by 'Mount Anville Lodge' and by the rear boundaries of 'Thendara' (a Protected Structure – RPS Ref. 812), 'The Garth' (a Protected Structure – RPS Ref. 819), 'Chimes', 'Hollywood House' (a Protected Structure – RPS Ref. 829); to the south-west by existing allotments; to the north by the reservation corridor for the Dublin Eastern By-Pass (DEBP); and to the east by the site of residential development 'Knockrabo' (Phase 1, permitted under DLRCC Reg. Ref. D13A/0689 / An Bord Pleanála (ABP) Ref. PL.06D.243799 and DLRCC Reg. Ref. D16A/0821 (Phase 1); and DLRCC Reg. Ref. D16A/0960 (Phase 1A)). The site includes 'Cedar Mount' (a Protected Structure- RPS Ref. 783), 'Knockrabo Gate Lodge (West)' (a Protected Structure RPS Ref. 796), including Entrance Gates and Piers.

The development with total of c.17,312.2 sq.m. gross internal area (GIA) will consist of the construction of 158 No. residential units (12 No. houses and 146 No. apartments (35 No. 1 beds, 81 No. 2 beds, 3 No. 3 beds and 27 No. 3 bed duplex units), a childcare facility (c.400 sq.m. GIA) and Community / Leisure Uses (c. 223 sq.m. GIA), as follows:

- Block E (c.1,077 sq.m. GIA): a 5-storey including semi-basement podium level apartment block, comprising 8 No. apartments (1 No. 1 bed and 7 No. 2 beds);
- Block F: (c.8,390.8 sq.m. GIA): a part 2 to part 8 storeys including semi basement podium apartment block, comprising 84 No. units (31 No. 1 beds, 50 No. 2 beds and 3 No. 3 bed duplex units);
- Block G: (c.2,022.1 sqm GIA): a part 4 to part 5-storey apartment block, comprising 20 No. units (3 No. 1 bed units, 14 No. 2 bed units and 3 No. 3 bed units); (with sedum roof/PV panels at roof level of Blocks E, F and G; a communal Roof Terrace of c. 198 sqm on Block F; and balconies/wintergardens on all elevations of Blocks E, F and G);
- Duplex Blocks: (c. 3,292.6 sqm GIA): 1 No. 3 storey and 1 No. 4 storey block, comprising a total of 32 No. units (8 No. 2 bed units and 24 No. 3 bed duplex units);
- 10 No. (new build) houses: 6 No. 4 bed 2.5-3 storey terraced/semi-detached units (ranging in size from c.162.1 sqm GIA to c.174.2 sq.m. GIA); 1 No. 3 bed 2 storey detached unit (126.2 sq.m. GIA); 1 No. 3 bed 2 storey mid terrace unit (c.127.4 sq.m. GIA); 1 No. 3 bed 2 storey end of terrace unit (c.127.9 sq.m. GIA); and 1 No. 1 - 2 storey 'Gate House' (c. 122.6 sq.m. GIA) to the west of proposed repositioned entrance to Cedar Mount from Mount Anville Road;
- The use of existing 'Coach House' as a residential dwelling and for internal / external repair / refurbishment works at ground and first floor levels, including the removal of 3 No. roof lights, 1 No. metal clad dormer roof window and external water tank; the construction of 2 No. single storey flat roof extensions (c.35.5 sq.m. GIA), revisions to the external facade including the addition of 1 No. new window ope on the south facade and rendered finish to all original facades, solar panels at roof level; removal / re-use of stone to form new garden wall; to provide 1 No. 2 bed house (c. 99.5 sq.m. GIA) with refurbished stone shed (c. 13.9 sq.m. for storage GIA).
- The use of Knockrabo Gate Lodge (West) (a Protected Structure) as a residential dwelling; and for repair / refurbishment works including demolition of existing section of extension on top of stone boundary wall; removal of 1 No. roof light and 1 No. internal partition wall; construction of replacement extension (c.77.5 sq.m. GIA) to provide 1 No. 3-bed unit (c. 128 sq.m. GIA) with solar panels at roof level, bin storage, landscaping, all repair works to the existing Gate and Piers, and all associated internal and external elevational changes.
- The proposed development comprises works to Cedar Mount (a Protected Structure) to provide: 1 No. Childcare Facility at Lower Ground Floor level (c.400 sq.m. GIA) with associated external play and bin storage areas; Community / Leisure Uses at Ground Floor Level (c. 223 sq.m. GIA), comprising Gym / Studio (c.35.6 sq.m. GIA), Library / Office (c. 35.9 sq.m. GIA), Meeting room (c.28.4 sq.m. GIA) and Conservatory room (c. 21.6 sq.m. GIA); and 2 No. 2 bed apartments at 1st floor level, (c.77.6 sq.m. GIA and c.88.2 sq.m.

GFA). The works to Cedar Mount to consist of: o At lower ground floor/ basement level, the removal of internal walls and sections of external and internal walls and access doors; insertion of openings through external and internal walls; repair of existing "loggia" (covered external corridor) on northern, north-western and north-eastern facades, with revised elevations comprising glazed panels / glazed entrance doors located within loggia opes; the additional area (c. 58 sq.m. GIA) to form part of proposed Childcare Facility;

- At ground floor level removal of wooden staircase to 1st floor level and replacement with open-tread staircase, and construction of conservatory room (c. 21.6 sqm GIA) with flat roof on south - western side of Cedar Mount with sedum roof; removal of 1 No. WC;
- At 1st floor level removal of sections of internal walls; insertion of doors through internal walls;
- Re-instatement of 1 no. new chimney stack on the western end of the existing roof; replacement of rubble masonry finish with lime and sand plaster finish on all elevations relating to sections of original façade; removal of security bars from existing windows in front porch; replacement / reconfiguration of rainwater downpipes, hopper heads and associated roof outlets; Re-modelling of extension on northern side including replacement of timber / pressed metal cladding with brick / zinc cladding and glazing at ground and 1st floor levels, removal / replacement of external doors and windows; replacement of flat roof deck, parapet, eaves and roof-light with flat roof comprising brick / zinc clad parapet and removal of internal link at 1st floor level; repair works to external walls at ground floor level; Construction of rendered blockwork wall and steel handrail to terrace and associated repair works to section of existing parapet wall on eastern side of Cedar Mount; all hard and soft landscaping; revisions to garden wall and pillars on western side of Cedar Mount; and all associated internal and elevational changes; and
- The repositioning of existing access (including gates and piers) to Cedar Mount (a Protected Structure) on Mount Anville Road to the northeast with associated works to boundary wall to Mount Anville Road.

The development will also provide 130 No. car parking spaces consisting of 117 No. residential spaces (comprising 54 No. at podium level, 63 No. on-street and on curtilage spaces, 6 No. visitor spaces and 2 No. on-street car sharing spaces); and 5 No. non-residential spaces; provision of 366 No. bicycle parking spaces (consisting of: 288 No. residential spaces, 70 No. (residential) visitor spaces, 6 No. (non-residential) spaces and 2 No. visitor (non-residential) spaces); and 9 No. motorcycle parking spaces.

All other ancillary site development works to facilitate construction, site services, piped infrastructure, 1 No. sub-station, plant, public lighting, bin stores, bike stores, boundary treatments, provision of public, communal and private open space areas comprising hard and soft landscaping, site services all other associated site excavation, infrastructural and site development works above and below ground. In addition to the repositioned access to Cedar Mount (a Protected Structure) as referenced above, the development will be served by the permitted access road 'Knockrabo Way' (DLRCC Reg. Ref. D13A/0689; ABP Ref. PL.06D.243799, DLRCC Reg. Ref. D16A/0821 and DLRCC Reg. Ref. D16A/0960). The application does not impact on the future access to the Reservation for the Dublin Eastern Bypass.

The proposed site and survey area outline and location are demonstrated in figures 1 & 2.

Landscape

The landscape strategy for the proposed development has been prepared by DFLA to accompany this planning application. The proposed landscape plan is demonstrated in figure 3.

Figure 1. *Wintering bird survey area and proposed site outline.*

Figure 2. *Wintering bird survey area and proposed site outline location.*

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).

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.

Emma Peters (BSc Environmental Science)

This Report has been contributed to by Emma Peters. Emma has carried out a range of wintering and breeding ornithological surveys in Ireland. Emma has experience in bat detection through static detector surveys, dusk emergence, and down re-entry surveys and is a member of Bat Conservation Ireland. She is also skilled in habitat identification, native and non-native species identification and terrestrial mammal surveys.

Legislative context

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

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

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

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

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

- deliberately captures or kills any specimen of these species in the wild,
- deliberately disturbs these species particularly during the period of breeding, rearing, hibernation and migration,
- deliberately takes or destroys eggs of those species from the wild,
- damages or destroys a breeding site or resting place of such an animal, or
- keeps, transports, sells, exchanges, offers for sale or offers for exchange any specimen of these species taken in the wild, other than those taken legally as referred to in Article 12(2) of the Habitats Directive, shall be guilty of an offence.

Wintering bird surveys

This report presents the methodology and results of 6 surveys by Frank Spellman and 2 surveys by Emma Peters during the wintering bird season from November 2023 to March 2024.

Survey methodology

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

A 15-minute settlement period was given following arrival to allow resumption of bird activity after any possible disturbance caused by arrival to the site. Various features such as grassland, treelines, standalone mature trees, scrub, built land, spoil and bare ground were present within the survey area. A roving transect survey around the perimeter of the survey area, circumnavigating features within that area, was carried out on each occasion, providing clear views of all areas within and over that survey area. A vantage point in the south of the survey area was also used (figure 3.) for at least 30 minutes during each survey where the higher altitude provided the most advantageous views. Flight lines, large flights, foraging, perching and any other observed behaviour by wintering bird species within and over the survey area were recorded. Each survey was carried out by a single surveyor.

A pair of binoculars were used by the surveyor to identify and count birds at distance. Care was taken not to double count any observations. Surveys were initiated at varying times (morning/midday/afternoon) and at varying tide levels to account for potential associated fluctuations in bird activity and birds transiting to/from foraging and roosting areas. Local temperatures varied from 4 - 14°C. Winds varied from 1 – 3 on the Beaufort scale. Light rain occurred throughout the 5th December survey. Weather conditions were considered favourable on all occasions. Weather postponements resulted in only one survey being carried out in both February and March.

Peak counts for the overall survey area were calculated by adding the total abundance of each species within each survey and selecting the highest total count.

Figure 3. *Vantage point location.*

Survey results/discussion

Habitats of wintering bird potential

Desk and ground level wintering bird habitat assessments were carried and used to examine the structures, features and vegetation on site that could provide wintering bird habitat.

Grassland in the north, northwest and west of the survey area were of low to moderate foraging potential for wintering birds given the unmanaged nature of the grass. Buildings within and adjacent to the site were of roosting potential for gull species. The survey area is located between a number of known wintering bird foraging and roosting areas, including a number of SPAs, and so there is a high potential for birds of various species to fly over the site.

Wintering bird activity survey

A total of 30 species were recorded within and above the survey areas across 8 surveys (see Appendix 1a for individual observations). In total, 22 green, 6 amber and 2 red species of conservation concern in Ireland were recorded either within, over or immediately adjacent to the overall survey area boundary. Details regarding the status, behaviour and abundances of species recorded on/over the site relevant to the conservation interests of Special Protected Areas (SPAs) and red listed Birds of Conservation Concern in Ireland (BoCCI) are discussed.

Herring gull (amber BoCCI) - Average altitude of flights by this species over the survey area was approximately 25 m (based on observation estimates). Flights of this species were observed originating from almost all directions. Large flights predominantly occurred over the Knockrabo Apartments to the southeast of the survey area, and over adjacent areas of the survey area. This species was observed foraging within the survey area on only one occasion (single individual on 29/02/2024). Peak count was 4 individuals. This species is a Qualifying Interest for North-West Irish Sea cSPA. The peak number is below 1% of the international population (table 2).

Black-headed gull (amber BoCCI) - Average altitude of flights by this species over the survey area was approximately 16 m (based on observation estimates). Flights of this species were observed on only three occasions (survey 1, 2 and 8). This species was not observed foraging within the survey area. Peak count was 1 individual. This species is a Qualifying Interest for South Dublin Bay and River Tolka Estuary SPA, North Bull Island SPA and North-West Irish Sea cSPA. The peak number is below 1% of the international population (table 2).

Common gull (amber BoCCI) - Only one observation of this species was recorded within the overall survey area, a single southern flight across the centre of the survey area. Estimated altitude of this species over the survey area was approximately 20 m. This species was not observed foraging within the overall survey area. Peak count was 2 individuals. This species is a Qualifying Interest for North-West Irish Sea cSPA. The peak number is below 1% of the international population (table 2).

Grey wagtail (red BoCCI) was observed within the survey area. Two observations were made during survey 1, foraging in the southeast to the west of Knockrabo Apartments and flying southwest across the centre of the site. It is likely these observations were of the same individual.

Redwing (red BoCCI) was observed within the survey area. Two observations were made during survey 8, identified by calls and visual confirmation in the treeline dividing the northern and southern portions of the survey area. Two individuals were confirmed by visual confirmation, and It is likely one of these individuals was responsible for the call observation.

Goldcrest (amber BoCCI) was observed within the survey area. One observation was made during survey 8, flying west along the north boundary of the survey area.

Greenfinch (amber BoCCI) was observed within the survey area. Four observations were made across surveys 7 and 8, in the centre and northwest of the site.

Linnet (amber BoCCI) was observed within the survey area. One observation was made during survey 8, calling from trees to the north of the abandoned house in the south of the survey area.

Table 1. *Species observed on, above and immediately adjacent to the survey area.*

Common name	BTO	Latin name	BoCCI
Blackbird	B.	*Turdus merula*	Green
Blackcap	BC	*Sylvia atricapilla*	Green
Black-headed Gull	BH	*Larus ridibundus*	Amber
Blue Tit	BT	*Cyanistes caeruleus*	Green
Chaffinch	CH	*Fringilla coelebs*	Green
Coal Tit	CT	*Periparus ater*	Green
Common Gull	CM	*Larus canus*	Amber
Dunnock	D.	*Prunella modularis*	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
Greenfinch	GR	*Chloris chloris*	Amber
Grey Wagtail	GL	*Motacilla cinerea*	Red
Herring Gull	HG	*Larus argentatus*	Amber
Hooded Crow	HC	*Corvus cornix*	Green
Jackdaw	JD	*Corvus monedula*	Green
Jay	J.	*Garrulus glandarius*	Green
Linnet	LI	*Carduelis cannabina*	Amber
Long-tailed Tit	LT	*Aegithalus caudatus*	Green
Magpie	MG	*Pica pica*	Green
Pied Wagtail	PW	*Motacilla alba yarrellii*	Green
Raven	RN	*Corvus corax*	Green
Redwing	RE	*Turdus iliacus*	Red
Robin	R.	*Erithacus rubecula*	Green
Rook	RO	*Corvus frugilegus*	Green
Siskin	SK	*Spinus spinus*	Green
Treecreeper	TC	*Certhia familiaris*	Green
Woodpigeon	WP	*Columba palumbus*	Green
Wren	WR	*Troglodytes troglodytes*	Green

Table 2. *Peak counts of species recorded on, over and immediately adjacent to the survey area.*

Species	Peak count (2023/24)	1% national	1% international
Blackbird	2		
Blackcap	1		
Black-headed Gull	1		>10,000
Blue Tit	3		
Chaffinch	3		
Coal Tit	2		
Common Gull	2		>10,000
Dunnock	1		
Feral Pigeon	18		

Species	Peak count (2023/24)	1% national	1% international
Goldcrest	2		
Goldfinch	3		
Great Tit	1		
Greenfinch	2		
Grey Wagtail	1		
Herring Gull	4		>1000
Hooded Crow	3		
Jackdaw	4		
Jay	1		
Linnet	1		
Long-tailed Tit	3		
Magpie	7		
Pied Wagtail	1		
Raven	2		
Redwing	2		
Robin	2		
Rook	1		
Siskin	2		
Treecreeper	1		
Woodpigeon	10		
Wren	1		

Wintering 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 O12Z) encompassing the study area reveals that 63 known bird species have previously been observed and recorded locally (*Table 2*).

Table 3: *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)	9	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 Redstart (Phoenicurus ochruros)	1	08/04/2023	Birds of Ireland	
Black-billed Magpie (Pica pica)	20	31/05/2023	Birds of Ireland	
Blackcap (Sylvia atricapilla)	7	31/05/2023	Birds of Ireland	
Black-headed Gull (Larus ridibundus)	3	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 - Red List
Blue Tit (Cyanistes caeruleus)	22	02/05/2023	Birds of Ireland	
Brambling (Fringilla montifringilla)	1	31/12/2011	Bird Atlas 2007 - 2011	
Chaffinch (Fringilla coelebs)	15	02/05/2023	Birds of Ireland	
Coal Tit (Periparus ater)	7	30/09/2016	Ireland's BioBlitz	

Species Name	Record Count	Date of Last Record	Dataset	BoCCI Status
Common Blackbird (Turdus merula)	19	31/05/2023	Birds of Ireland	
Common Bullfinch (Pyrrhula pyrrhula)	2	31/12/2011	Bird Atlas 2007 - 2011	
Common Buzzard (Buteo buteo)	1	01/05/2021	Birds of Ireland	
Common Chiffchaff (Phylloscopus collybita)	10	29/09/2016	Ireland's BioBlitz	
Common Coot (Fulica atra)	3	08/04/2023	Birds of Ireland	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
Common Kestrel (Falco tinnunculus)	3	17/08/2012	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 Linnet (Carduelis cannabina)	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 Moorhen (Gallinula chloropus)	12	01/03/2023	Birds of Ireland	
Common Redshank (Tringa totanus)	1	04/12/2022	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
Common Starling (Sturnus vulgaris)	16	29/09/2016	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
Common Swift (Apus apus)	11	28/06/2023	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)	21	02/05/2023	Birds of Ireland	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)	13	31/12/2011	Bird Atlas 2007 - 2011	
Eurasian Curlew (Numenius arquata)	2	09/03/2018	Birds of Ireland	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)	24	31/05/2023	Birds of Ireland	
Eurasian Jay (Garrulus glandarius)	1	28/03/2022	Birds of Ireland	
Eurasian Oystercatcher (Haematopus ostralegus)	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
Eurasian Sparrowhawk (Accipiter nisus)	3	01/04/2023	Birds of Ireland	
Eurasian Treecreeper (Certhia familiaris)	2	31/12/2011	Bird Atlas 2007 - 2011	

Species Name	Record Count	Date of Last Record	Dataset	BoCCI Status
European Goldfinch (Carduelis carduelis)	12	02/05/2023	Birds of Ireland	
European Greenfinch (Carduelis chloris)	13	31/12/2011	Bird Atlas 2007 - 2011	
European Robin (Erithacus rubecula)	21	02/05/2023	Birds of Ireland	
Fieldfare (Turdus pilaris)	2	31/12/2011	Bird Atlas 2007 - 2011	
Gadwall (Anas strepera)	2	20/04/2023	Birds of Ireland	Protected Species: Wildlife Acts || Protected Species: EU Birds Directive || Protected Species: EU Birds Directive >> Annex II, Section I Bird Species || Threatened Species: Birds of Conservation Concern || Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Goldcrest (Regulus regulus)	21	02/05/2023	Birds of Ireland	
Great Cormorant (Phalacrocorax carbo)	3	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
Great Tit (Parus major)	9	01/03/2023	Birds of Ireland	
Grey Heron (Ardea cinerea)	7	01/03/2023	Birds of Ireland	
Grey Wagtail (Motacilla cinerea)	2	08/03/2023	Birds of Ireland	
Hedge Accentor (Prunella modularis)	14	01/03/2023	Birds of Ireland	
Herring Gull (Larus argentatus)	7	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 - Red List
Hooded Crow (Corvus cornix)	16	01/03/2023	Birds of Ireland	
House Martin (Delichon urbicum)	10	18/05/2001	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
House Sparrow (Passer domesticus)	12	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 Redpoll (Carduelis cabaret)	2	31/12/2011	Bird Atlas 2007 - 2011	
Long-eared Owl (Asio otus)	1	09/02/2009	Birds of Ireland	
Long-tailed Tit (Aegithalos caudatus)	10	30/09/2016	Ireland's BioBlitz	
Mallard (Anas platyrhynchos)	15	08/04/2023	Birds of Ireland	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)	3	31/12/2011	Bird Atlas 2007 - 2011	
Mute Swan (Cygnus olor)	4	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

Species Name	Record Count	Date of Last Record	Dataset	BoCCI Status
Northern Goshawk (Accipiter gentilis)	1	30/08/1998	Rare 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
Peregrine Falcon (Falco peregrinus)	1	06/06/2014	Birds of Ireland	Protected Species: Wildlife Acts || Protected Species: EU Birds Directive || Protected Species: EU Birds Directive >> Annex I Bird Species
Pied Wagtail (Motacilla alba subsp. yarrellii)	5	01/03/2023	Birds of Ireland	
Redwing (Turdus iliacus)	1	31/12/2011	Bird Atlas 2007 - 2011	
Rock Pigeon (Columba livia)	3	29/09/2016	Ireland's BioBlitz	Protected Species: Wildlife Acts || Protected Species: EU Birds Directive || Protected Species: EU Birds Directive >> Annex II, Section I Bird Species
Rook (Corvus frugilegus)	21	01/03/2023	Birds of Ireland	
Sand Martin (Riparia riparia)	1	14/05/2001	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
Song Thrush (Turdus philomelos)	13	02/05/2023	Birds of Ireland	
Spotted Flycatcher (Muscicapa striata)	1	31/05/2023	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
Tufted Duck (Aythya fuligula)	9	08/04/2023	Birds of Ireland	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)	2	31/12/2011	Bird Atlas 2007 - 2011	
Willow Warbler (Phylloscopus trochilus)	1	31/12/2011	Bird Atlas 2007 - 2011	
Winter Wren (Troglodytes troglodytes)	20	31/05/2023	Birds of Ireland	

Historical Surveys

Dr. Tess Handby

As part of PhD research by Dr. Tess Handby (2022), multiple roosting sites were recorded for Brent geese of the East Canadian High Arctic population within approximately 15km of the wintering bird survey area. As this species' preferred inland foraging habitat consists mainly of amenity grassland, the survey area under this reports assessment would not be a preferential foraging area for Brent geese. Multiple area in the vicinity of the survey area such as Deer Park, Mount Anville Secondary School and Blackrock College/Willow Park grounds would be preferential to the survey area for foraging by this species. This species was neither observed flying over or heard in the vicinity during any surveys. Core/buffer/transition zones, roost sites, suitable/unsuitable foraging areas, and overall foraging ranges of wintering Brent Geese in Dublin, identified by Dr. Handby, are demonstrated below in figure 4.

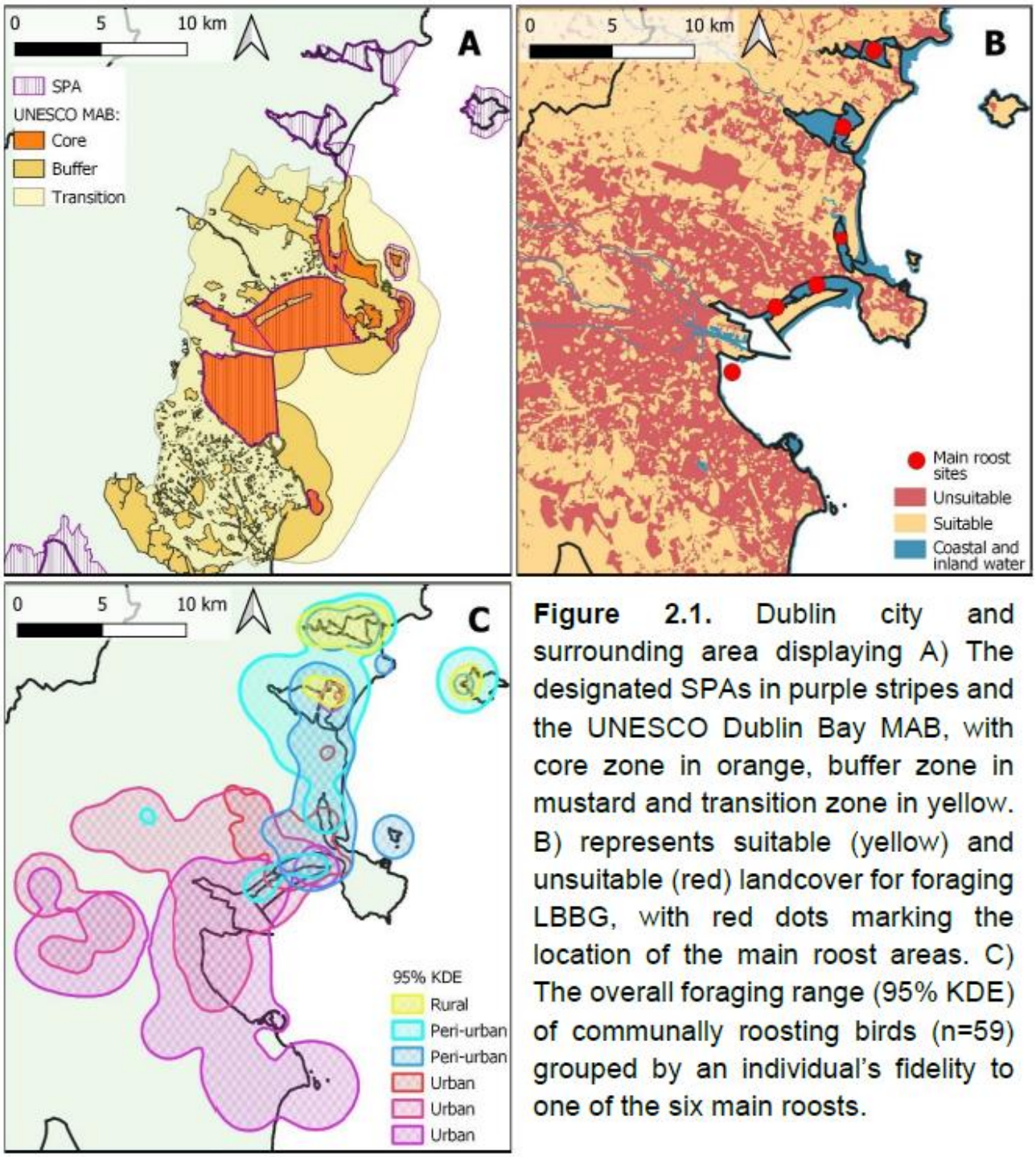


Figure 2.1. Dublin city and surrounding area displaying A) The designated SPAs in purple stripes and the UNESCO Dublin Bay MAB, with core zone in orange, buffer zone in mustard and transition zone in yellow. B) represents suitable (yellow) and unsuitable (red) landcover for foraging LBBG, with red dots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

Figure 4. *Designated areas and identified brent goose habitat and use areas (Handby, 2022).*

I-WeBS

I-WeBS National and Site Trends Report 1994/95 – 2019/20 report presents national and site-specific trends of wetland birds in Ireland. This report was used to assess the trends of species recorded during wintering bird surveys at Howth Demesne and Castle grounds. The survey area is proximate to Dublin Bay (OU404).

No species considered in the I-WeBS National and Site Trends Report 1994/95 – 2019/20 report were recorded on, above or immediately adjacent to the survey area.

The national wetland bird trend summary and trends for individual species in Dublin Bay are included in appendix 1b and 1c of this report.

National Summary

Species	Trend (%) National - 5 Year	National - 12 Year	National - 23 Year	Long Term Trend
Scaup	-33.6	-82.9	-89.2	Large Decline
Pochard	-19.8	-60.4	-79.1	Large Decline
Goldeneye	-32.5	-39.0	-66.9	Large Decline
Lapwing	-6.5	-45.1	-63.9	Large Decline
Grey Plover	-30.6	-39.4	-57.8	Large Decline
Golden Plover	-16.9	-58.1	-54.1	Large Decline
Dunlin	5.9	-21.2	-45.2	Moderate Decline
Curlew	-9.4	-23.7	-43.1	Moderate Decline
Turnstone	-33.6	-46.0	-23.7	Intermediate Decline
Coot	-10.1	1.1	-23.2	Intermediate Decline
Mallard	-11.3	-19.7	-19.1	Intermediate Decline
Wigeon	0.9	-17.0	-18.2	Intermediate Decline
Tufted Duck	-20.7	-28.9	-17.9	Intermediate Decline
Red-breasted Merganser	-12.9	5.2	-14.7	Intermediate Decline
Pintail	-0.8	-6.0	-13.7	Intermediate Decline
Great Crested Grebe	-39.5	-6.1	-10.8	Intermediate Decline
Shoveler	23.0	-21.3	-10.8	Intermediate Decline
Knot	0.0	-12.2	-9.8	Intermediate Decline
Bar-tailed Godwit	-32.6	-13.9	-5.1	Intermediate Decline
Ringed Plover	-4.3	-26.8	-1.1	Intermediate Decline
Grey Heron	1.0	-4.9	6.6	Stable or Increasing
Redshank	-14.0	-28.4	6.7	Stable or Increasing
Shelduck	6.3	-0.8	9.3	Stable or Increasing
Oystercatcher	-17.5	-31.1	10.8	Stable or Increasing
Mute Swan	4.6	9.6	13.8	Stable or Increasing
Teal	1.8	5.7	19.4	Stable or Increasing
Purple Sandpiper	-36.4	-37.6	23.5	Stable or Increasing
Gadwall	-26.5	4.3	24.4	Stable or Increasing
Little Grebe	6.1	16.7	38.2	Stable or Increasing
Greenshank	0.9	7.3	41.0	Stable or Increasing
Cormorant	38.5	8.4	42.9	Stable or Increasing
Sanderling	-23.8	-11.1	84.6	Stable or Increasing
Black-tailed Godwit	22.5	25.0	92.3	Stable or Increasing
Light-bellied Brant Goose	-11.2	1.2	93.3	Stable or Increasing
Little Egret	34.6	61.5	483.3	Stable or Increasing

Figure 5. *I-WeBS National Trends Report.*

Impact (in the absence of mitigation)

The proposed site outline within the survey area is of low importance to the local wintering bird population. However, the impact of the development during construction phase will be a loss of existing habitats. These habitats are of low importance to wintering birds. The proposed development would not belikey to represent a significant collision risk to wintering birds. Neighbouring properties are of similar height and the proposed development will be clearly visible to bird species.

Mitigation

The following mitigation measures relevant to birds, as well as those outlined within the accompanying 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.

Conclusion

This report aims to gather baseline data and to assist in assessing the potential impacts on wintering birds from future proposed developments on the grounds, particularly those listed as Qualifying Interests of SPAs within 15 km and other amber/red-listed birds of conservation concern in Ireland (BoCCI). 6 surveys by Frank Spellman and 2 surveys by Emma Peters during the wintering bird season from November 2023 to March 2024.

A total of 30 species of birds were recorded within and above the survey areas across 8 surveys. Twenty two green, 6 amber and 2 red species of conservation concern were recorded either within, over or immediately adjacent to the survey area boundary. Herring Gull, Black-headed Gull and Common Gull were species listed as Qualifying Interests of designated sites within 15 km of Knockrabo. Sightings of these species during surveys almost entirely consisted of flights. Only one foraging sighting of these species (individual Herring Gull) was recorded within the survey area. Two red-listed species were only recorded during one survey each. Other amber-listed species were recorded on no more than two occasions each.

The proposed development is not predicted to have a significant impact on wintering bird species. The impact would be considered to be minor adverse, not significant, long term and permanent.

References

1. Bibby, C.J., Burgess, N.D., Hill, D.A. & Mustoe, S.H. (2000) *Bird Census Techniques*. Academic Press, London
2. Bird Survey & Assessment Steering Group. (2022). *Bird Survey Guidelines for assessing ecological impacts*, v.1.0.0. https://birdsurveyguidelines.org [15/05/2023]
3. BWI & NPWS, I-WeBS Counter Manual: Guidelines for Irish Wetland Bird Survey counters.
4. 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.
5. Collated by the National Biodiversity Data Centre from different sources, General Biodiversity Records from Ireland, National Biodiversity Data Centre, Ireland, accessed 17 October 2023, <https://maps.biodiversityireland.ie/Dataset/7>
6. Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) 1982
7. Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention) 1979
8. Department of Housing, Planning and Local Government (December, 2018). *Urban Development and Building Heights Guidelines for Planning Authorities*.
9. EC Directive on The Conservation of Natural habitats and of Wild Fauna and Flora (Habitats Directive) 1992
10. EU Directive on the Conservation of Wild Birds 2009
11. 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.
12. Gilbert G, Stanbury A and Lewis L (2021), *Birds of Conservation Concern in Ireland 2020 –2026*. Irish Birds 9: 523—544
13. Handby T (2022), *Social associations, patterns of urban habitat use and their implications for fitness in an avian long-distance migrant,* University of Exeter.
14. Kennedy, J., Burke, B., Fitzgerald, N., Kelly, S.B.A., Walsh, A.J. & Lewis, L.J. 2022. Irish Wetland Bird Survey: I-WeBS National and Site Trends Report 1994/95 – 2019/20. BirdWatch Ireland Waterbird Report to the National Parks and Wildlife Service. BirdWatch Ireland, Wicklow. (https://birdwatchireland.ie/app/uploads/2022/04/iwebs_trends_report.html)
15. 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.
16. NPWS (2015) *Site Synopsis: South Dublin Bay and River Tolka Estuary SPA 004024*. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
17. Szabolcs Nagy & Tom Langendoen (Wetlands International) (2021), *Report on the Conservation Status of Migratory Waterbirds in the Agreement Area*, AEWA, https://www.unep-aewa.org/sites/default/files/document/aewa_mop8_19_csr8.pdf
18. Wildlife Act 1976 and Wildlife [Amendment] Act 2000. Government of Ireland.

Appendix I

Appendix 1a – Individual survey observations.

Survey	Date	Time	Species	No.	Behaviour	Height (m)	Details
1	27/11/2023	09:31	Woodpigeon	1	Flight Path	10	Northeast flight across northwest of survey area.
1	27/11/2023	09:36	Hooded Crow	2	Perched		On large tree in southeast corner of survey area.
1	27/11/2023	09:44	Black-headed Gull	1	Flight Path	20	Southeast flight across south of survey area.
1	27/11/2023	09:47	Wren	1	Singing		From vegetation along southern boundary of survey area.
1	27/11/2023	09:50	Herring Gull	3	Flight Path	30	West flight over southern survey area boundary.
1	27/11/2023	09:56	Herring Gull	2	Flight Path	20	Northeast flight from south of survey area over apartments.
1	27/11/2023	10:00	Dunnock	1	Foraging		Along trail between southwest survey area and residential gardens.
1	27/11/2023	10:15	Jackdaw	2	Flight Path	10	North flight across west of survey area.
1	27/11/2023	10:17	Herring Gull	1	Large Flight	30	Over entire southern survey area.
1	27/11/2023	10:20	Dunnock	1	Singing		In boundary vegetation between southwest northwest areas.
1	27/11/2023	10:22	Magpie	2	Perched		In large evergreen tree adjacent to west corner of Knockrabo apartments.
1	27/11/2023	10:23	Grey Wagtail	1	Flight Path	10	Southwest flight across centre of site west of Knockrabo apartments.
1	27/11/2023	10:24	Herring Gull	4	Flight Path	20	Northeast flight from south of survey area over apartments.
1	27/11/2023	10:28	Jackdaw	1	Flight Path	40	Southeast flight across south of survey area.
1	27/11/2023	10:29	Robin	1	Singing		In treeline to southwest of abandoned house.
1	27/11/2023	10:37	Magpie	1	Flight Path	20	Northeast flight from centre of survey area over apartments.
1	27/11/2023	10:42	Herring Gull	1	Flight Path	10	Northeast flight across northwest of survey area.
1	27/11/2023	10:48	Grey Wagtail	1	Foraging		In southeast of survey area.
1	27/11/2023	10:51	Robin	1	Foraging		In southeast of survey area.
1	27/11/2023	10:54	Wren	1	Singing		In vegetation in southeast corner of survey area.
2	29/11/2023	12:18	Woodpigeon	9	Flight Path	10	Northwest flight over centre of survey area.
2	29/11/2023	12:21	Herring Gull	2	Flight Path	30	Northwest flight over centre of survey area.
2	29/11/2023	12:32	Robin	1	Foraging		In northwest of south portion of survey area.
2	29/11/2023	12:35	Woodpigeon	1	Flight Path	20	Southeast flight across west of survey area.
2	29/11/2023	12:45	Herring Gull	1	Flight Path	30	East flight across south of survey area.
2	29/11/2023	12:59	Blackbird	2	Foraging		In west of south survey area.
2	29/11/2023	13:07	Feral Pigeon	12	Perched		On roof of derelict house.
2	29/11/2023	13:22	Herring Gull	2	Flight Path	20	West flight across south of survey area.
2	29/11/2023	13:25	Herring Gull	1	Perched		On roof of derelict house.
2	29/11/2023	13:41	Herring Gull	1	Flight Path	30	North flight across southwest and centre of survey area.
2	29/11/2023	13:44	Long-tailed Tit	1	Foraging		In large tree in southeast of survey area.
2	29/11/2023	13:45	Robin	1	Singing		From vegetation along southern boundary of survey area.
2	29/11/2023	13:47	Blackbird	1	Foraging		To west of derelict house.
2	29/11/2023	13:50	Blue Tit	1	Foraging		South of abandoned house.
2	29/11/2023	13:54	Herring Gull	1	Flight Path	10	South flight over southwest corner of survey area.
2	29/11/2023	13:54	Herring Gull	1	Flight Path	20	Southwest flight over south of survey area.
2	29/11/2023	13:57	Black-headed Gull	1	Flight Path	20	Northwest flight over centre of survey area.
2	29/11/2023	13:59	Hooded Crow	1	Perched		On abandoned building roof.
2	29/11/2023	14:04	Herring Gull	3	Flight Path	20	Northwest flight from Mount Anville veering southwest over west of survey area.
2	29/11/2023	14:08	Hooded Crow	3	Perched		In large tree in southeast of survey area.
2	29/11/2023	14:21	Magpie	3	Perched		In large tree in southeast of survey area.
2	29/11/2023	14:24	Feral Pigeon	1	Flight Path	20	Southeast flight across centre of survey area.

Survey	Date	Time	Species	No.	Behaviour	Height (m)	Details
3	07/12/2023	13:47	Common Gull	2	Flight Path	20	South flight across centre from north to south.
3	07/12/2023	13:49	Blackbird	1	Foraging		In north of survey area to west of rubble pile.
3	07/12/2023	13:52	Woodpigeon	2	Flight Path	10	Southwest flight across west of survey area.
3	07/12/2023	13:55	Wren	1	Foraging		In west of survey area.
3	07/12/2023	13:57	Woodpigeon	1	Flight Path	20	Southeast flight across south of survey area.
3	07/12/2023	14:00	Woodpigeon	1	Flight Path	20	Southwest flight across centre-west/south of survey area.
3	07/12/2023	14:12	Blue Tit	1	Foraging		In southwest of survey area.
3	07/12/2023	14:17	Woodpigeon	1	Flight Path	20	Northeast flight across west and north of survey area.
3	07/12/2023	14:20	Robin	1	Singing		In overgrown laneway to rear of residential gardens.
3	07/12/2023	14:21	Herring Gull	1	Flight Path	40	Northwest flight across centre of survey area.
3	07/12/2023	14:22	Feral Pigeon	4	Perched		On roof of derelict house.
3	07/12/2023	14:22	Woodpigeon	1	Perched		In treeline in southwest corner of south of survey area.
3	07/12/2023	14:23	Blue Tit	1	Foraging		In treeline along treeline to southwest of derelict house.
3	07/12/2023	14:24	Woodpigeon	1	Flight Path	10	Northeast flight across south of survey area.
3	07/12/2023	14:25	Feral Pigeon	18	Perched		On roof of derelict house.
3	07/12/2023	14:26	Magpie	1	Perched		In tree to southeast of derelict house.
3	07/12/2023	14:35	Woodpigeon	2	Perched		In treeline in centre of survey area.
3	07/12/2023	14:36	Goldfinch	2	Foraging		In scrub along west boundary with allotments.
3	07/12/2023	14:39	Herring Gull	1	Perched		On roof of derelict house.
3	07/12/2023	14:41	Herring Gull	3	Perched		On roof of residential building to southwest of survey area.
3	07/12/2023	15:00	Herring Gull	1	Flight Path	20	Southwest flight across centre/southwest of survey area.
3	07/12/2023	15:01	Woodpigeon	1	Flight Path	20	Southwest flight across west of survey area.
3	07/12/2023	15:03	Herring Gull	1	Flight Path	10	Northwest flight over south of survey area.
3	07/12/2023	15:06	Robin	1	Singing		In treeline along southern survey area boundary.
3	07/12/2023	15:10	Woodpigeon	1	Perched		In large standalone tree in southeast of survey area.
3	07/12/2023	15:12	Woodpigeon	1	Perched		In treeline along southern survey area boundary.
3	07/12/2023	15:14	Raven	1	Flight path	10	South flight across southeast of survey area.
3	07/12/2023	15:23	Hooded Crow	1	Flight Path	10	Northwest flight across centre of survey area.
3	07/12/2023	15:26	Herring Gull	2	Large Flight	40	Over northwest of survey area.
3	07/12/2023	15:38	Herring Gull	1	Flight Path	10	North flight over south of survey area veering west over northwest of survey area.
3	07/12/2023	15:42	Woodpigeon	1	Flight Path	20	West turning back east from Knockrabo apartments.
3	07/12/2023	15:49	Woodpigeon	1	Flight Path	10	East flight across south of survey area.
3	07/12/2023	15:51	Woodpigeon	1	Perched		In large standalone tree to west of apartments.
4	05/12/2023	09:50	Blackbird	1	Foraging		In west of survey area.
4	05/12/2023	09:53	Woodpigeon	1	Flight Path	20	South flight across west of survey area.
4	05/12/2023	09:56	Feral Pigeon	2	Flight Path	10	Northwest flight from derelict house.
4	05/12/2023	10:01	Herring Gull	1	Flight Path	20	Southwest flight over south of survey area.
4	05/12/2023	10:18	Robin	1	Foraging		Along trail between southwest survey area and residential gardens.
4	05/12/2023	10:25	Woodpigeon	8	Flight Path	20	Northeast flight across west and centre of survey area.
4	05/12/2023	10:29	Blackbird	1	Foraging		Adjacent to derelict house.
4	05/12/2023	10:34	Magpie	1	Perched		In boundary treeline southwest of derelict house.
4	05/12/2023	10:34	Woodpigeon	1	Perched		In boundary treeline southwest of derelict house.
4	05/12/2023	10:39	Blackbird	1	Perched		In mature tree in centre south of survey area.
4	05/12/2023	10:43	Woodpigeon	1	Perched		In treeline along south boundary in south of survey area.
4	05/12/2023	10:58	Great Tit	1	Singing		Treeline along southeast corner of south of survey area.
5	08/01/2024	09:04	Feral Pigeon	1	Flight Path		Southeast flight over southeast boundary of survey area.

Survey	Date	Time	Species	No.	Behaviour	Height (m)	Details
5	08/01/2024	09:15	Coal Tit	1	Foraging		In treeline/scrub between northern and southern portions of survey area.
5	08/01/2024	09:15	Long-tailed Tit	2	Foraging		In treeline/scrub between northern and southern portions of survey area.
5	08/01/2024	09:20	Robin	1	Foraging		In overgrown laneway to rear of residential gardens.
5	08/01/2024	09:25	Rook	1	Flight Path		Northeast flight across west of survey area.
5	08/01/2024	10:00	Dunnock	1	Foraging		In southwest corner of survey area.
5	08/01/2024	10:14	Magpie	3	Flight Path		Southwest flight across northwest of survey area.
5	08/01/2024	10:23	Robin	1	Foraging		In scrub in west of foraging area.
5	08/01/2024	10:25	Woodpigeon	1	Flight Path	10	North flight across west of survey area.
5	08/01/2024	10:30	Feral Pigeon	1	Flight Path	10	North flight across west of survey area.
5	08/01/2024	10:42	Blue Tit	1	Singing		In scrub in northwest corner of survey area.
5	08/01/2024	10:43	Robin	1	Foraging		In stand of young ash trees in northwest of survey area.
5	08/01/2024	10:45	Blackbird	1	Singing		In scrub in northwest corner of survey area.
5	08/01/2024	10:52	Hooded Crow	2	Flight Path	20	Northeast flight across north portion of survey area.
5	08/01/2024	10:55	Goldfinch	2	Flight Path	10	Southeast flight across west of north portion of survey area.
5	08/01/2024	11:10	Blackbird	1	Perched		In treeline/scrub between northern and southern portions of survey area.
5	08/01/2024	11:12	Woodpigeon	1	Flight Path	10	Northeast flight across west of survey area.
5	08/01/2024	11:14	Hooded Crow	2	Foraging		Foraging on ground in northwest of southern portion of survey area.
5	08/01/2024	11:22	Herring Gull	1	Flight Path	20	North flight over Knockrabo apartments.
5	08/01/2024	11:32	Herring Gull	1	Flight Path	30	East flight over southern portion of survey area.
5	08/01/2024	11:37	Herring Gull	2	Flight Path	30	East flight over road to south of survey area.
5	08/01/2024	11:43	Woodpigeon	1	Perched		In treeline along boundary to west of abandoned house.
5	08/01/2024	11:49	Blackbird	1	Foraging		South of abandoned house.
6	11/01/2024	14:13	Herring Gull	1	Flight Path	40	South flight across west of survey area.
6	11/01/2024	14:21	Robin	1	Foraging		In southeast corner of southern portion of survey area.
6	11/01/2024	14:23	Robin	1	Foraging		In stand of young ash trees in northwest of survey area.
6	11/01/2024	14:29	Herring Gull	2	Perched		On roof of Knockrabo apartments.
6	11/01/2024	14:37	Robin	1	Perched		In tree to south of derelict house.
6	11/01/2024	14:37	Woodpigeon	1	Perched		In tree to south of derelict house.
6	11/01/2024	14:42	Woodpigeon	1	Flight Path	10	West flight across southern boundary of survey area.
6	11/01/2024	14:54	Jackdaw	2	Flight Path	80	Southwest flight across west of survey area.
6	11/01/2024	14:58	Feral Pigeon	4	Flight Path	40	Southeast flight landing on derelict house in southwest of survey area.
6	11/01/2024	15:04	Pied Wagtail	1	Flight Path	10	Northwest flight across west of survey area.
6	11/01/2024	15:10	Jackdaw	2	Flight Path	20	Northeast flight across west of survey area.
6	11/01/2024	15:22	Jackdaw	2	Perched		Treeline along west boundary of north portion of survey area.
6	11/01/2024	15:22	Magpie	1	Perched		Treeline along west boundary of north portion of survey area.
6	11/01/2024	15:29	Goldfinch	3	Foraging		In centre of west of survey area.
6	11/01/2024	15:33	Herring Gull	4	Flight Path	40	Southeast flight across west of survey area.
6	11/01/2024	15:38	Robin	1	Foraging		In scrub between southwest of site and rear of residential gardens.
6	11/01/2024	15:42	Blue Tit	1	Foraging		In scrub between southwest of site and rear of residential gardens.
6	11/01/2024	15:55	Blackbird	2	Perched		In standalone tree in west of survey area.
6	11/01/2024	15:57	Blackbird	1	Singing		From scrub in western corner of survey area.
6	11/01/2024	15:59	Herring Gull	1	Flight Path	40	East flight across south of survey area.
6	11/01/2024	16:01	Coal Tit	2	Foraging		From scrub in western corner of survey area.
6	11/01/2024	16:27	Herring Gull	1	Flight Path	50	East flight across north portion of survey area.
6	11/01/2024	16:30	Magpie	2	Flight Path	50	Northwest flight across north portion of survey area.

Survey	Date	Time	Species	No.	Behaviour	Height (m)	Details
6	11/01/2024	16:31	Woodpigeon	2	Perched		Perched in mature standalone tree to east of rubble pile.
6	11/01/2024	16:36	Robin	1	Foraging		On rubble pile in centre of north of survey area.
6	11/01/2024	16:38	Raven	2	Perched		In large evergreen tree along boundary of north and south portions of survey area.
6	11/01/2024	16:38	Woodpigeon	2	Perched		In large evergreen tree along boundary of north and south portions of survey area.
7	29/02/2024	15:30	Magpie	4	Foraging		In scrub area infested with Jap.Knotweed.
7	29/02/2024	15:36	Herring Gull	2	Flight path	20	Southeast over abandoned house.
7	29/02/2024	15:39	Greenfinch	2	Song		In bushes on mound.
7	29/02/2024	15:43	Woodpigeon	1	Flight path	15	S through centre of site.
7	29/02/2024	15:44	Magpie	4	Perched		In treetops of hedgerow NE of abandoned house.
7	29/02/2024	15:49	Herring Gull	1	Flight path	20	Over the apartments E of the site.
7	29/02/2024	15:51	Chaffinch	1	Song		In large tree E of large mound.
7	29/02/2024	15:51	Woodpigeon	2	Flight path	15	SW over wet grassland.
7	29/02/2024	15:52	Herring Gull	1	Flight path	15	W across N of site.
7	29/02/2024	15:52	Siskin	2	Song		In large tree E of large mound.
7	29/02/2024	15:54	Robin	2	Perched		In bushes on mound.
7	29/02/2024	15:55	Blue Tit	1	Call		Most E treeline
7	29/02/2024	15:55	Great Tit	1	Call		In bushes on mound.
7	29/02/2024	15:55	Great Tit	1	Call		Most E treeline
7	29/02/2024	15:55	Robin	1	Call		Most E treeline
7	29/02/2024	15:56	Blue Tit	1	Perched		In bushes on mound.
7	29/02/2024	15:56	Great Tit	1	Perched		In bushes on mound.
7	29/02/2024	16:00	Herring Gull	4	Big Flight		Over area infested with Jap. Knotweed.
7	29/02/2024	16:01	Woodpigeon	2	Flight path	15	S over centre of site.
7	29/02/2024	16:02	Jackdaw	2	Perched		In treeline W of managed gardens.
7	29/02/2024	16:02	Wren	1	Call		In treeline W of managed gardens.
7	29/02/2024	16:05	Blackbird	1	Perched		In scrub in NW corner.
7	29/02/2024	16:06	Blue Tit	1	Perched		In scrub in NW corner.
7	01/03/2024	16:07	Herring Gull	1	Flight path	30	S along E of site.
7	29/02/2024	16:13	Woodpigeon	1	Flight path	30	E across large mound.
7	29/02/2024	16:13	Woodpigeon	3	Perched		In treeline W of managed gardens.
7	29/02/2024	16:14	Blue Tit	1	Perched		In treeline W of managed gardens.
7	29/02/2024	16:14	Magpie	1	Perched		In treeline W of managed gardens.
7	29/02/2024	16:16	Jackdaw	3	Perched		In hedgerow N of area infested with Jap. Knotweed.
7	29/02/2024	16:21	Blue Tit	1	Perched		In scrub in NW corner.
7	29/02/2024	16:21	Magpie	1	Perched		In hedgerow N of area infested with Jap. Knotweed.
7	29/02/2024	16:22	Pied Wagtail	1	Perched		In treeline north of the abandoned house.
7	29/02/2024	16:22	Woodpigeon	1	Flight path	20	N over wet grassland.
7	29/02/2024	16:25	Raven	1	Call		Treeline SW corner of the site.
7	29/02/2024	16:32	Great Tit	1	Call		Treeline SW corner of the site.
7	29/02/2024	16:33	Herring Gull	3	Foraging		In wet grassland central to the site.
7	29/02/2024	16:33	Hooded Crow	1	Perched		In treeline W of managed gardens.
7	29/02/2024	16:33	Woodpigeon	7	Perched		In treeline in the North, most W treeline.
7	29/02/2024	16:34	Hooded Crow	2	Flight path	20	W across wet grassland.
7	29/02/2024	16:35	Great Tit	1	Perched		In treeline in the North, most W treeline.
7	29/02/2024	16:36	Chaffinch	1	Perched		Treeline directly N of the abandoned house.
7	29/02/2024	16:36	Goldfinch	2	Perched		In treeline in the North, most W treeline.

Survey	Date	Time	Species	No.	Behaviour	Height (m)	Details
7	29/02/2024	16:36	Robin	1	Perched		Treeline directly N of the abandoned house.
7	29/02/2024	16:37	Blue Tit	1	Call		Scrub in NW corner of site.
7	29/02/2024	16:54	Blue Tit	1	Perched		In treeline SW of the abandoned house.
7	29/02/2024	16:54	Robin	2	Perched		In walled garden W of abandoned house.
7	29/02/2024	16:58	Blackcap	1	Perched		In treetop of walled garden W of the abandoned house.
7	29/02/2024	16:58	Chaffinch	2	Perched		In walled garden W of abandoned
7	29/02/2024	16:59	Goldfinch	1	Perched		In treetop of walled garden W of the abandoned house.
7	29/02/2024	17:02	Long-tailed Tit	1	Perched		In hedgerow SW of abandoned house.
7	29/02/2024	17:06	Magpie	1	Perched		In tree In front of entrance point.
7	29/02/2024	17:06	Woodpigeon	1	Flight path	10	N along west boundary of site.
7	29/02/2024	17:10	Herring Gull	4	Large flight	20	Flying N along E of site.
7	29/02/2024	17:10	Hooded Crow	1	Perched		In hedgerow directly S of the abandoned house.
7	29/02/2024	17:17	Magpie	1	Flight path		SW over wet grassland.
7	29/02/2024	17:19	Jackdaw	2	Perched		In tree E if abandoned house.
7	29/02/2024	17:25	Woodpigeon	1	Flight path	10	W across N of site.
7	29/02/2024	17:26	Goldfinch	3	Perched		Treeline east of managed gardens.
7	29/02/2024	17:29	Robin	1	Call		In tree E if abandoned house.
7	29/02/2024	17:30	Robin	1	Perched		In hedgerow NE of abandoned house.
8	12/03/2024	14:24	Chaffinch	3	Perched		tree SE to the abandoned house.
8	12/03/2024	14:30	Herring Gull	4	Large flight		Over wet grassland portion of the site.
8	12/03/2024	14:31	Herring Gull	1	Flight path	20	N over wet grassland.
8	12/03/2024	14:31	Jackdaw	1	Calling		In tree NW of the abandoned house.
8	12/03/2024	14:33	Magpie	2	Perched		Tree in southeast corner of site.
8	12/03/2024	14:34	Woodpigeon	1	Perched		tree SE to the abandoned house.
8	12/03/2024	14:36	Blue Tit	1	Calling		tree SE to the abandoned house.
8	12/03/2024	14:36	Robin	1	Perched		In tree in SE corner.
8	12/03/2024	14:39	Jay	1	Perched		Hedgerow S of the abandoned house.
8	12/03/2024	14:40	Dunnock	1	Calling		Hedgerow SW of the abandoned house.
8	12/03/2024	14:40	Long-tailed Tit	1	Calling		Hedgerow SW of the abandoned house.
8	12/03/2024	14:42	Herring Gull	1	Flight path	20	In Trees in SE corner.
8	12/03/2024	14:45	Blackbird	1	Perched		Hedgerow S of the abandoned house.
8	12/03/2024	14:46	Blue Tit	1	Perched		In tree in SE corner.
8	12/03/2024	14:46	Woodpigeon	10	Perched		N of the roof on the abandoned house.
8	12/03/2024	14:50	Blackbird	1	Foraging		Hedgerow SW of the abandoned house.
8	12/03/2024	14:50	Goldfinch	2	Perching		In tree within walled garden.
8	12/03/2024	14:50	Jackdaw	4	Perching		In tree within walled garden.
8	12/03/2024	14:57	Blue Tit	1	Perching		In scrub within the walled garden.
8	12/03/2024	15:00	Blackbird	1	Perched		In scrub in North of site.
8	12/03/2024	15:00	Long-tailed Tit	3	Perched		In scrub in North of site.
8	12/03/2024	15:02	Magpie	1	Flight path	5	SW over wet grassland.
8	12/03/2024	15:03	Magpie	2	Flight path		S over Wet grassland.
8	12/03/2024	15:10	Greenfinch	2	Perched		In treeline W of managed gardens.
8	12/03/2024	15:10	Magpie	7	Foraging		IN area infested with Jap. Knotweed.
8	12/03/2024	15:11	Blackbird	1	Perched		In treeline W of managed gardens.
8	12/03/2024	15:11	Magpie	1	Perched		In treeline W of managed gardens.
8	12/03/2024	15:11	Woodpigeon	1	Perched		In treeline W of managed gardens.

Survey	Date	Time	Species	No.	Behaviour	Height (m)	Details
8	12/03/2024	15:15	Woodpigeon	1	Flightpath	30	W across the centre of the site.
8	12/03/2024	15:16	Pied Wagtail	1	Perched		In treeline W of managed gardens.
8	12/03/2024	15:17	Great Tit	1	Perched		In treeline in the NW corner.
8	12/03/2024	15:17	Long-tailed Tit	1	Perched		In treeline in the NW corner.
8	12/03/2024	15:18	Siskin	2	Calling		In treeline W of managed gardens.
8	12/03/2024	15:19	Wren	1	Perched		W treeline in NW corner.
8	12/03/2024	15:22	Great Tit	1	Perched		In treeline along the NW corner.
8	12/03/2024	15:30	Robin	1	Perched		In treeline W of managed gardens.
8	12/03/2024	15:31	Greenfinch	1	Perched		In scrub in NW corner of the site.
8	12/03/2024	15:31	Robin	1	Perched		In scrub in NW corner of the site.
8	12/03/2024	15:31	Wren	1	Perched		In scrub in NW corner of the site.
8	12/03/2024	15:33	Blackbird	1	Perched		In scrub in NW corner of the site.
8	12/03/2024	15:34	Coal Tit	2	Perched		In hedgerow S of the abandoned house.
8	12/03/2024	15:34	Greenfinch	1	Perched		In treeline along the NW corner.
8	12/03/2024	15:35	Linnet	1	Calling		In trees directly N of the abandoned house.
8	12/03/2024	15:37	Blackbird	1	Perched		In trees directly N of the abandoned house.
8	12/03/2024	15:38	Redwing	2	Perched		In treeline W of managed gardens.
8	12/03/2024	15:40	Blackbird	1	Perched		In treeline directly North of the abandoned house.
8	12/03/2024	15:40	Blue Tit	1	Perched		In treeline directly North of the abandoned house.
8	12/03/2024	15:40	Robin	1	Perched		In treeline directly North of the abandoned house.
8	12/03/2024	15:40	Wren	1	Perched		In treeline directly North of the abandoned house.
8	12/03/2024	15:41	Woodpigeon	1	Perched		E of mound on site.
8	12/03/2024	15:42	Blue Tit	3	Perched		In willows next to Jap.Knotweed infestation.
8	12/03/2024	15:43	Coal Tit	1	Perched		In scrub in North of site.
8	12/03/2024	15:47	Herring Gull	3	Big flight	20	W of mound onsite.
8	12/03/2024	15:48	Robin	1	Foraging		In area infested with Jap. Knotweed.
8	12/03/2024	15:52	Rook	1	Calling		In tree E of mound.
8	12/03/2024	15:54	Goldfinch	2	Perched		In scrub E of mound.
8	12/03/2024	15:57	Siskin	1	Calling		In tree E of mound.
8	12/03/2024	15:58	Blue Tit	1	Perched		E treeline.
8	12/03/2024	15:59	Jackdaw	1	Flightpath	20	W in N portion of site.
8	12/03/2024	16:01	Hooded Crow	2	Perched		E treeline.
8	12/03/2024	16:02	Magpie	2	Foraging		In NE corner of site.
8	12/03/2024	16:03	Goldcrests	2	Flight path	5	W along N boundary.
8	12/03/2024	16:08	Blackbird	1	Perched		NE corner.
8	12/03/2024	16:11	Magpie	1	Flightpath	20	W over N of site.
8	12/03/2024	16:12	Black-headed Gull	1	Flight path	10	W over wet grassland.
8	12/03/2024	16:15	Woodpigeon	1	Flight path	25	SW over E of site.
8	12/03/2024	16:21	Magpie	1	Large flight	20	Over wet grassland portion of the site.
8	12/03/2024	16:25	Redwing	1	Calling		In treeline W of Managed gardens.
8	12/03/2024	16:27	Siskin	1	Perched		In treeline W of Managed gardens.
8	12/03/2024	16:31	Treecreeper	1	Foraging		In cypress tree W of managed gardens.
8	12/03/2024	16:40	Blue Tit	1	Song		In scrub E of mound.

Appendix 1b – I-WeBS Trends for Dublin Bay.

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

Appendix 1c – I-WeBS Site Summary Table for 0U404 Dublin Bay.

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

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

SPECIES	1% NATIONAL	1% INTERNATIONAL	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	MEAN	PEAK MONTHS
Arctic Tern			1*										0	Oct
Bar-tailed Godwit	170	1500	1895	2141*	1710*	1642*	2164*	2653*	1599*	1773	2736*	1833*	2119	Mar
Black-headed Gull			2245*	1907*	2559	1259*	2768*	2393*	1375*	3243*	3803	4842*	3131	Sep
Black-necked Grebe			4*										0	Feb
Black-tailed Godwit	200	1100	891*	1362	1768*	873*	2185*	1274*	1474*	3369*	2987*	1499	2121	Feb, Mar, Sep, Oct
Common Gull			249*	300*	984	272*	890*	213*	141*	387*	538*	286*	313	Mar
Common Scoter	110	7500	20*	10*	42*		40*	19		24	10		11	Oct
Common Tern			5*	3	39*		1			102*	10*	2*	23	Sep
Common/Arctic Tern			163*										0	Sep
Cormorant	110	1200	132*	53	198*	41*	71	95*	112*	100*	157*	183*	129	Sep
Curlew	350	7600	1169*	874*	932*	1424	567*	750*	494	1323*	1162*	715*	889	Sep
Curlew Sandpiper			1*	1*							1*		0	Oct
Dunlin	460	13300	3559*	4163	4897*	3603*	2557*	8280	5884	7474	6017	10362	7603	Jan, Mar
Gadwall	20	1200			2*	2*							0	Jan, Feb, Mar
Glaucous Gull								1					0	Jan
Golden Plover	920	9300	390*	404*	1080*	740*	1155	1010*	1322	1430*	1610	95*	1093	Oct
Goldeneye	40	11400	11*	6*		2*		1*		2			1	Feb, Mar
Great Black-backed Gull			311*	116	188*	52*	263*	151	108	138*	145	119*	132	Sep
Great Crested Grebe	30	6300	898	87*	755	143	307	192	34	388	106*	262	196	Nov
Great Northern Diver	20	50	2		3*		5	1*	1	1*	2	1	1	Mar, Nov, Dec
Greenshank	20	3300	38*	46	34*	47*	78*	35	14	44*	51*	48*	38	Oct
Grey Heron	25	5000	28	15*	68*	40*	44*	28*	24	27*	82*	19*	36	Oct

SPECIES	1% NATIONAL	1% INTERNATIONAL	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	MEAN	PEAK MONTHS
Grey Plover	30	2000	200	307*	310*	452*	235*	245*	198	499*	560*	208*	342	Feb
Herring Gull			518*	130*	486*	261*	538*	450*	607*	483*	374*	694*	522	Sep
Iceland Gull								1*		1			0	Feb, Mar, Dec
Kingfisher					1*		1*			4	1*	1	1	Nov
Kittiwake									40*				8	Mar
Knot	160	5300	3435	3022	4547*	3450	2405*	5850*	6554	7256*	5781*	5946	6277	Feb
Lapwing	850	72300	120	67*	52	54*	143*	25*	32	31*	775*	30	179	Sep, Dec
Lesser Black-backed Gull			28*	25*	5*	20*	16*	5*	2*	69*	8	135*	44	Sep, Oct
Light-bellied Brent Goose	350	400	4053	6134*	2262	4503	3501*	4420*	3331	3662	5848	1472	3747	Dec
Little Egret	20	1100	45*	19*	59*	69*	59*	70*	57	71*	130*	140*	94	Sep
Little Grebe	20	4700	1*	9*	1	5*		4	1*	3*	8	6	4	Dec
Long-tailed Duck				2*				2				1	1	Dec
Mallard	280	53000	151*	52*	92*	106*	120	64*	82	221*	133*	96	119	Sep
Mallard (domestic)			2*	1									0	Sep, Dec
Mediterranean Gull			113*	23	39*	27*	64*	68*	6	14*	32*	7*	25	Oct
Moorhen			7	5*	5*		5*	3*	2	4	6	1	3	Nov
Mute Swan	90	100	2*	2*	4*	6*	9*	5*	11	9*	32*	7*	13	Oct
Oystercatcher	610	8200	3408	3025	3074*	2197	3572*	4042	2375	3378	3313	2466*	3115	Jan, Oct, Dec
Pintail	20	600	212	160	200*	150*	124*	190	214	318	192*	252	233	Jan
Purple Sandpiper	20	110	4	3*	2	1*	2*				1	1	0	Jan, Oct
Red-breasted Merganser	25	860	114*	50*	54*	57*	69*	80*	37	40*	96	36*	58	Mar, Oct
Red-necked Grebe					1*								0	Feb
Redshank	240	2400	2273*	2077*	2460*	1889*	1648*	1430*	2274	2312*	2299*	2517*	2166	Sep
Red-throated Diver	20	3000	8*	8*	7*	2	7	6	5	4	1		3	Feb
Ring-billed Gull				1*				1*					0	Mar, Sep
Ringed Plover	120	540	125	215*	101*	98*	109*	208	285	148	131	70	168	Dec
Sanderling	85	2000	411*	405*	510*	266	841	374*	301*	736*	588*	748*	549	Sep, Oct
Sandwich Tern			4*	23*	52*		8*		8*	75*	3*	12*	20	Sep
Shag			19*	23	36	3*	71	19*	10	10	22*	1*	12	Nov
Shelduck	100	2500	603	731	956	605	744	1811	1241	1632	1619	2586	1778	Dec

SPECIES	1% NATIONAL	1% INTERNATIONAL	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	MEAN	PEAK MONTHS
Shoveler	20	650	101	79	126	47	115	116	144	122	124	81	117	Dec
Snipe			12*	62*	20		31	53*	10	43	15*	5	25	Jan
Spotted Redshank			1*		1*		3*						0	Oct
Teal	360	5000	909*	981	1378	1233*	1291*	1654	1030	2187	1392	930*	1439	Dec
Turnstone	95	1400	328	227	466*	250*	584	286*	334	216	445*	259	308	Oct
Unidentified gull			10*	85									0	Sep, Nov
Water Rail			1*										0	Feb
Whimbrel				1*	2*	4*				2*	2*	1*	1	Sep
Whooper Swan	150	340								11*	1		2	Jan, Oct
Wigeon	560	14000	610	445	691*	702*	1106*	1839	918	1314	1833	1082	1397	Nov
Yellow-legged Gull				1	1*		2	1					0	Dec

Appendix II. Uisce Eireann Confirmation of Feasibility Letter & Statement of Design Acceptance

CONFIRMATION OF FEASIBILITY

Stephen Dent - Neville

Waterman Moylan
EastPoint Business Park, Block S,
Alfie Byrne Road,
Dublin
D03H3F4

4 June 2024

Uisce Éireann
Bosca OP 448
Oifig Sheachadta na
Cathrach Theas
Cathair Chorcaí

Uisce Éireann
PO Box 448
South City
Delivery Office
Cork City

www.water.ie

Our Ref: CDS24002545 Pre-Connection Enquiry
Knockrabo, Mount Anville Road, Goatstown, Dublin

Dear Applicant/Agent,

We have completed the review of the Pre-Connection Enquiry.

Uisce Éireann has reviewed the pre-connection enquiry in relation to a Water & Wastewater connection for a Housing Development of 144 unit(s) at Knockrabo, Mount Anville Road, Goatstown, Dublin, (the **Development**).

Based upon the details provided we can advise the following regarding connecting to the networks;

- **Water Connection** - Feasible without infrastructure upgrade by Uisce Éireann

- Proposed connection is via Knockrabo Estate. As per Uisce Éireann GIS record, the network hasn't been taken i charge including the 150mm main along Mount Annville Road. At a connection application stage, the Developer has to provide evidence that the main is connected to Uisce Éireann network and in operation.

- **Wastewater Connection** - Feasible without infrastructure upgrade by Uisce Éireann subject to:
  - connection to the 225mm sewer adjacent to the site on Mount Anville Rad.

This letter does not constitute an offer, in whole or in part, to provide a connection to any Uisce Éireann infrastructure. Before the Development can be connected to our network(s) you must submit a connection application and be granted and sign a connection agreement with Uisce Éireann.

As the network capacity changes constantly, this review is only valid at the time of its completion. As soon as planning permission has been granted for the Development, a completed connection application should be submitted. The connection application is available at www.water.ie/connections/get-connected/

Where can you find more information?

- **Section A -** What is important to know?
- **Section B -** Details of Uisce Éireann's Network(s)

This letter is issued to provide information about the current feasibility of the proposed connection(s) to Uisce Éireann's network(s). This is not a connection offer and capacity in Uisce Éireann's network(s) may only be secured by entering into a connection agreement with Uisce Éireann.

For any further information, visit **www.water.ie/connections**, **email newconnections@water.ie** or contact 1800 278 278.

Yours sincerely,

Dermot Phelan
Connections Delivery Manager

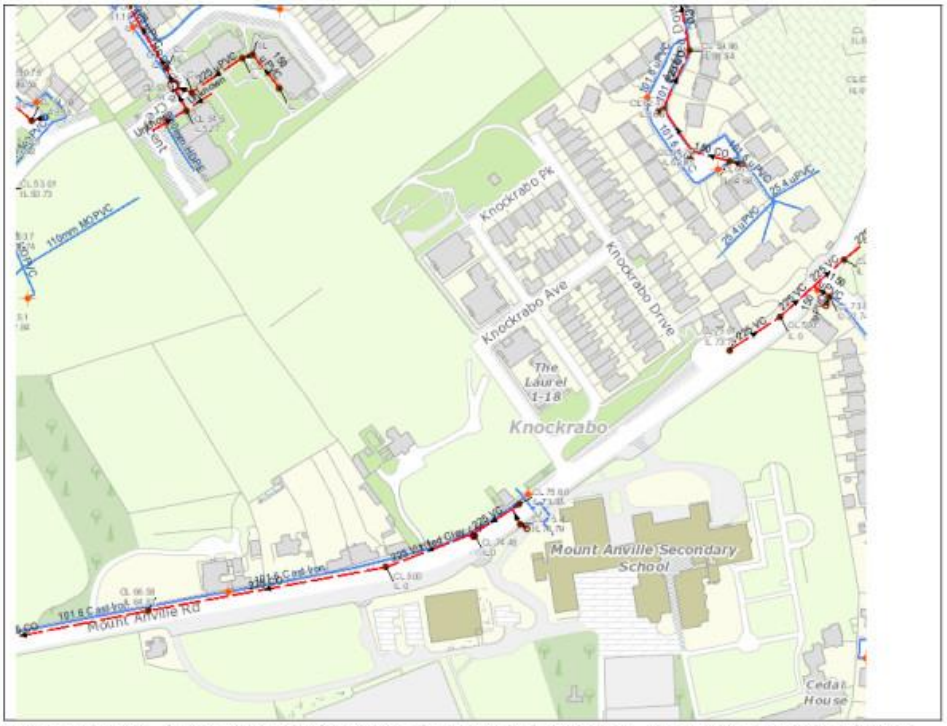
Section A - What is important to know?

What is important to know?	Why is this important?
Do you need a contract to connect?	• Yes, a contract is required to connect. This letter does not constitute a contract or an offer in whole or in part to provide a connection to Uisce Éireann's network(s). • Before the Development can connect to Uisce Éireann's network(s), you must submit a connection application and be granted and sign a connection agreement with Uisce Éireann.
When should I submit a Connection Application?	• A connection application should only be submitted after planning permission has been granted.
Where can I find information on connection charges?	• Uisce Éireann connection charges can be found at: https://www.water.ie/connections/information/charges/
Who will carry out the connection work?	• All works to Uisce Éireann's network(s), including works in the public space, must be carried out by Uisce Éireann*. *Where a Developer has been granted specific permission and has been issued a connection offer for Self-Lay in the Public Road/Area, they may complete the relevant connection works
Fire flow Requirements	• The Confirmation of Feasibility does not extend to fire flow requirements for the Development. Fire flow requirements are a matter for the Developer to determine. • **What to do?** - Contact the relevant Local Fire Authority
Plan for disposal of storm water	• The Confirmation of Feasibility does not extend to the management or disposal of storm water or ground waters. • **What to do?** - Contact the relevant Local Authority to discuss the management or disposal of proposed storm water or ground water discharges.
Where do I find details of Uisce Éireann's network(s)?	• Requests for maps showing Uisce Éireann's network(s) can be submitted to: datarequests@water.ie

What are the design requirements for the connection(s)?	• The design and construction of the Water & Wastewater pipes and related infrastructure to be installed in this Development shall comply with ***the Uisce Éireann Connections and Developer Services Standard Details and Codes of Practice,*** available at www.water.ie/connections
Trade Effluent Licensing	• Any person discharging trade effluent** to a sewer, must have a Trade Effluent Licence issued pursuant to section 16 of the Local Government (Water Pollution) Act, 1977 (as amended). • More information and an application form for a Trade Effluent License can be found at the following link: https://www.water.ie/business/trade-effluent/about/ **trade effluent is defined in the Local Government (Water Pollution) Act, 1977 (as amended)

Section B – Details of Uisce Éireann's Network(s)

The map included below outlines the current Uisce Éireann infrastructure adjacent the Development: To access Uisce Éireann Maps email datarequests@water.ie



Reproduced from the Ordnance Survey of Ireland by Permission of the Government. License No. 3-3-34

Note: The information provided on the included maps as to the position of Uisce Éireann's underground network(s) is provided as a general guide only. The information is based on the best available information provided by each Local Authority in Ireland to Uisce Éireann.

Whilst every care has been taken in respect of the information on Uisce Éireann's network(s), Uisce Éireann assumes no responsibility for and gives no guarantees, undertakings or warranties concerning the accuracy, completeness or up to date nature of the information provided, nor does it accept any liability whatsoever arising from or out of any errors or omissions. This information should not be solely relied upon in the event of excavations or any other works being carried out in the vicinity of Uisce Éireann's underground network(s). The onus is on the parties carrying out excavations or any other works to ensure the exact location of Uisce Éireann's underground network(s) is identified prior to excavations or any other works being carried out. Service connection pipes are not generally shown but their presence should be anticipated.

Stephen Dent - Neville
Waterman Moylan
EastPoint Business Park, Block S,
Alfie Byrne Road,
Dublin 3,
D03H3F4

Uisce Éireann
Bosca OP 448
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Cathair Chorcaí

Uisce Éireann
PO Box 448
South City
Delivery Office
Cork City

www.water.ie

18 September 2024

Re: Design Submission for Knockrabo, Mount Anville Road, Goatstown, Dublin (the "Development")
(the "Design Submission") / Connection Reference No: CDS24002545

Dear Stephen Dent - Neville,

Many thanks for your recent Design Submission.

We have reviewed your proposal for the connection(s) at the Development. Based on the information provided, which included the documents outlined in Appendix A to this letter, Uisce Éireann has no objection to your proposals.

This letter does not constitute an offer, in whole or in part, to provide a connection to any Uisce Éireann infrastructure. Before you can connect to our network you must sign a connection agreement with Uisce Éireann. This can be applied for by completing the connection application form at www.water.ie/connections. Uisce Éireann's current charges for water and wastewater connections are set out in the Water Charges Plan as approved by the Commission for Regulation of Utilities (CRU)(https://www.cru.ie/document_group/irish-waters-water-charges-plan-2018/).

You the Customer (including any designers/contractors or other related parties appointed by you) is entirely responsible for the design and construction of all water and/or wastewater infrastructure within the Development which is necessary to facilitate connection(s) from the boundary of the Development to Uisce Éireann's network(s) (the "**Self-Lay Works**"), as reflected in your Design Submission. Acceptance of the Design Submission by Uisce Éireann does not, in any way, render Uisce Éireann liable for any elements of the design and/or construction of the Self-Lay Works.

If you have any further questions, please contact your Uisce Éireann representative:
Name: Antonio Garzón Mielgo
Email: antonio.garzonmielgo@water.ie

Yours sincerely,

Dermot Phelan
Connections Delivery Manager

Appendix A

Document Title & Revision

- KNB-WMC-PH2-ZZ-DR-C-P120 Proposed Foul & Storm Water Drainage GA
- KNB-WMC-PH2-ZZ-DR-C-P121 Drainage Layout Sheet 1 of 2
- KNB-WMC-PH2-ZZ-DR-C-P122 Drainage Layout Sheet 2 of 2
- KNB-WMC-PH2-ZZ-DR-C-P130 Proposed Watermains
- 20-086-P124 Waste Water Longitudinal Sections-Layout1

Additional Comments

The design submission will be subject to further technical review at connection application stage.

Uisce Éireann cannot guarantee that its Network in any location will have the capacity to deliver a particular flow rate and associated residual pressure to meet the requirements of the relevant Fire Authority, see Section 1.17 of Water Code of Practice.

*For further information, visit **www.water.ie/connections***

Notwithstanding any matters listed above, the Customer (including any appointed designers/contractors, etc.) is entirely responsible for the design and construction of the Self-Lay Works. Acceptance of the Design Submission by Uisce Éireann will not, in any way, render Uisce Éireann liable for any elements of the design and/or construction of the Self-Lay Works.