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Marine & Environmental Consultancy

Appropriate Assessment Screening for the proposed development of Shanganagh Park – Phase 1, Shankill, Co. Dublin.

3rd April 2023

Prepared by: Bryan Deegan (MCIEEM) of Altemar Ltd.
On behalf of: Dún Laoghaire Rathdown County Council

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Introduction

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

The following Appropriate Assessment (AA) (Screening Stage) has been prepared by **Altemar Ltd.** at the request of Dún Laoghaire Rathdown County Council. The project relates to the development of Shanganagh Park Shankill, Co. Dublin, Masterplan – Phase 1

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.

Background to 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 28 years' experience working in Irish terrestrial and aquatic environments, providing services to the State, Semi-State and industry. Bryan Deegan (MCIEEM) holds a MSc in Environmental Science, BSc (Hons.) in Applied Marine Biology, NCEA National Diploma in Applied Aquatic Science and a NCEA National Certificate in Science (Aquaculture). Bryan Deegan carried out all elements of this draft Ecological Impact Assessment (EcIA). However, Hugh Delaney (ornithologist) has carried out a Wintering Bird Assessment. Hugh Delaney is a freelance ecologist (Birds primarily) with an experienced background in bird surveying on numerous sites with ecological consultancies over 10+ years. Hugh, a lifelong birder, is local to the Dun Laoghaire-Rathdown area in Dublin and is especially familiar with the bird life and its ecology in the environs going back over 30 years. He has carried out numerous ornithological surveys for Dun Laoghaire Rathdown County Council.

Background to the Appropriate Assessment

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

"Any plan or project not directly connected with or necessary to the management of the [NATURA 2000] site but likely to have a significant effect thereon, either individually or in combination with other plans and projects, shall be subjected to appropriate assessment of its implications for the site in view of the site's conservation objectives. In light of the conclusions of the assessment of the implication for the site and subject to the provisions of paragraph 4, the component national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public."

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

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

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

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

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

[1] European Commission. (2007).Guidance document on Article 6(4) of the 'Habitats Directive' 92/43/EEC – Clarification of the concepts of: alternative solutions, imperative reasons of overriding public interest, compensatory measures, overall coherence, opinion of the commission;

Stages of the Appropriate Assessment

This Appropriate Assessment screening was undertaken in accordance with the European Commission Methodological Guidance on the provision of Article 6(3) and 6(4) of the 'Habitats' Directive 92/43/EEC (EC, 2001), Part XAB of the Planning and Development Act 2000, as amended, in addition to the December 2009 publication from the Department of Environment, Heritage and Local Government; 'Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities' and the European Communities (Birds and Natural Habitats) Regulations 2011, European Commission (2018) Managing Natura 2000 sites: The provisions of Article 6 of the 'Habitats' Directive and the OPR Practice Note PN01 Appropriate Assessment Screening for Development Management (2021). In order to comply with the above Guidelines and legislation, the Appropriate Assessment process must be structured as follows:

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

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

If it can be demonstrated during the AA screening phase (Stage 1), that the proposed project will not have a significant effect, whether alone or in combination with other plans or projects, on the conservation objectives of a Natura 2000 (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.

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

Stage 1 Screening Assessment

Management of the Site

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

Description of the Proposed Project

Dún Laoghaire Rathdown County Council intend to apply for Part 8 permission for the proposed development of Shanganagh Park – Phase 1, Shankill, Co. Dublin as part of the Shanganagh Park Masterplan. As outlined in the Part 8 report prepared by the Parks Section, Community & Cultural Development Department of DLR "*The Shanganagh Park Masterplan identifies an intense active recreation zone towards the rear of the park. Currently DLR clubs are renting grass and all-weather pitches outside of the county for training and matches. Given the proposed significant increase in population as a result of the Woodbrook Shanganagh Local Area Plan, the development of this facility is a priority for Shanganagh Park Masterplan. The development of these facilities will increase active participation in the county through a multiple of different sports including GAA. Soccer, Baseball, Cricket, Athletics, etc. It strongly aligns with Space to Play, DLR Sports Facilities Strategy 2017-2022. The provision of these facilities ensures access to high quality active recreation facilities for the community*."

The proposed site outline, location, general arrangement plan, and details of the proposed sports facilities are demonstrated in Figures 1-7. The Part 8 report outlines further details as follows:

Nature & Extent of the Proposed Development

'The nature and extent of the proposed development is outlined below. This description of the proposed works should be read in conjunction with the supporting drawings and reports.

'Sand Based Grass Pitch

The topsoil will be stripped and set aside on the site for re-use. The area is to be re-graded using a cut and fill method to create a level platform for the pitch only with falls and crossfalls. The area will be drained using land drains and slit drains before the topsoil is placed on the final levels and sand ameliorated into the surface. A warm-up area will also be located west of the proposed pitch.

Cricket & Baseball Facilities:

The cricket and baseball facilities will be amalgamated to an area to the south of the proposed pitch where the cricket pitch resides currently. This will include a standard baseball field with 60/90 dimensioned diamond and a competition standard cricket field with synthetic crease. In addition, it is proposed to install a fixed batting cage/cricket cage with 16z soft netting and artificial surface for practice including all associated fencing, netting and storage.

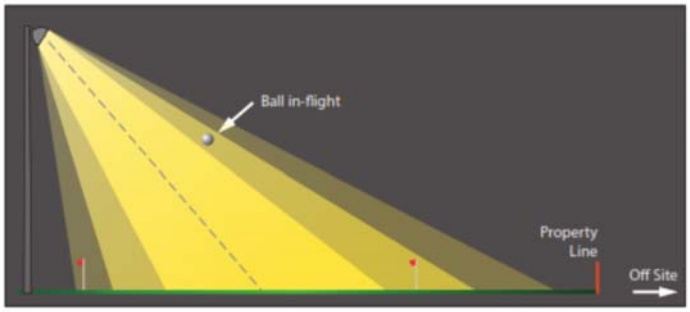
Sprint Track:

It is proposed to install a 6 lane 100m sprint/hurdles track on polymeric surfacing to World Athletics standards with long and triple jump facilities. This will also include a storage area (mesh fenced cage), a perimeter path and weldmesh fencing at a height of approximately 1.2m.

Floodlighting:

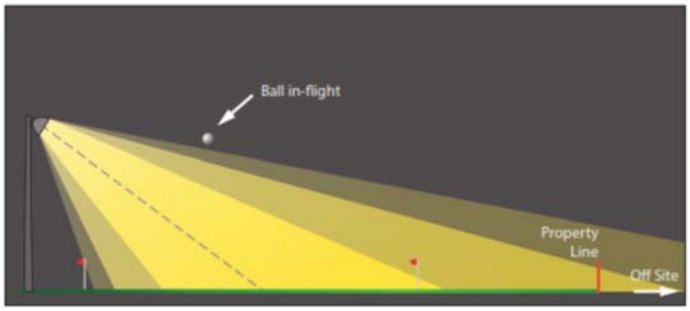
The floodlighting design undertaken uses the latest floodlighting design technology to reduce the impact of light spill on adjoining lands, trees and hedgerows. The floodlighting for the grass pitch has been designed to achieve an average light level of 500 lux which is suitable for competitive hurling. The other potential sporting uses (soccer, gaelic football, rugby) require 250 lux level so this system can be dimmed and this lighting level will be most commonly used. The lighting design uses 9no. 24.4m high galvanised steel columns similar to those used in the all-weather pitches throughout the county.

Choosing appropriate number of columns and column heights is key to the overall quality of the lighting design. Based on the size of the pitch, the sport being played, the competition level, and the application of the floodlighting system (televised or non-televised); column numbers and height requirements must be accurately assessed to ensure the aiming angle of the floodlight onto the pitch is at an appropriate degree to maintain good playability, control glare, and reduce spill light on adjoining properties and roadway. See the diagram below:



Higher Mounting Height

- Optimal control
- Limited spill
- Optimal quality of play



Lower Mounting Height

- Some control
- More spill
- Poor quality of play
- Player safety issue

The floodlighting for the sprint track has been designed to achieve an average light level of 200 lux in accordance with World Athletics Standards. The lighting design uses 2no. 15.4m high galvanised steel columns similar to those used in tennis courts throughout the county.
The luminaires will be LED which are much more energy efficient than the metal halide alternative. Associated civil works (ducting, foundations for columns, installation of mini pillars etc) will be undertaken whilst all electrical controls and switches will be brought to an area adjacent to the substation at the tree line.

A three-phase power connection and associated ESB substation will be required, and this will be located in close proximity to the St. Annes maintenance access gate in the tree line. The lighting design has been prepared in compliance with the Chartered Institute of Building Services Engineers Lighting Guide 4: Sports Lighting (CIBSE LG4) & the Institute of Lighting Professionals (ILP), Guidance Note for the Reduction of Obtrusive Light GN01:2021 and Guidance Note for Bats and Artificial Lighting in the UK GN08:2018. All lighting has been designed to be bat sensitive. The lights will provide only the amount of light necessary for the task in hand and shield the light given out in order to avoid creating glare or omitting light above the horizontal plane. The lighting design and report has been undertaken by MUSCO Lighting and is included as an appendix to the main Part 8 report (see appendix 8).

The floodlighting will be operational from 07:00 until 22:00, Monday to Friday and 09:00-20:00 Saturday and Sunday. However, given the fact that the pitches are grass, it is unlikely that floodlights will be used for more than 12 hours per week on average. In addition, significant seasonal restrictions will be deployed as outlined in the Ecological Impact Assessment (EcIA) and AA Screening report to minimize any impacts on bats including no floodlighting allowed in April, May, August and September.'

***Figure 1**. Site outline*

***Figure 1**. Site outline and location context*

***Figure 2**. Site outline*

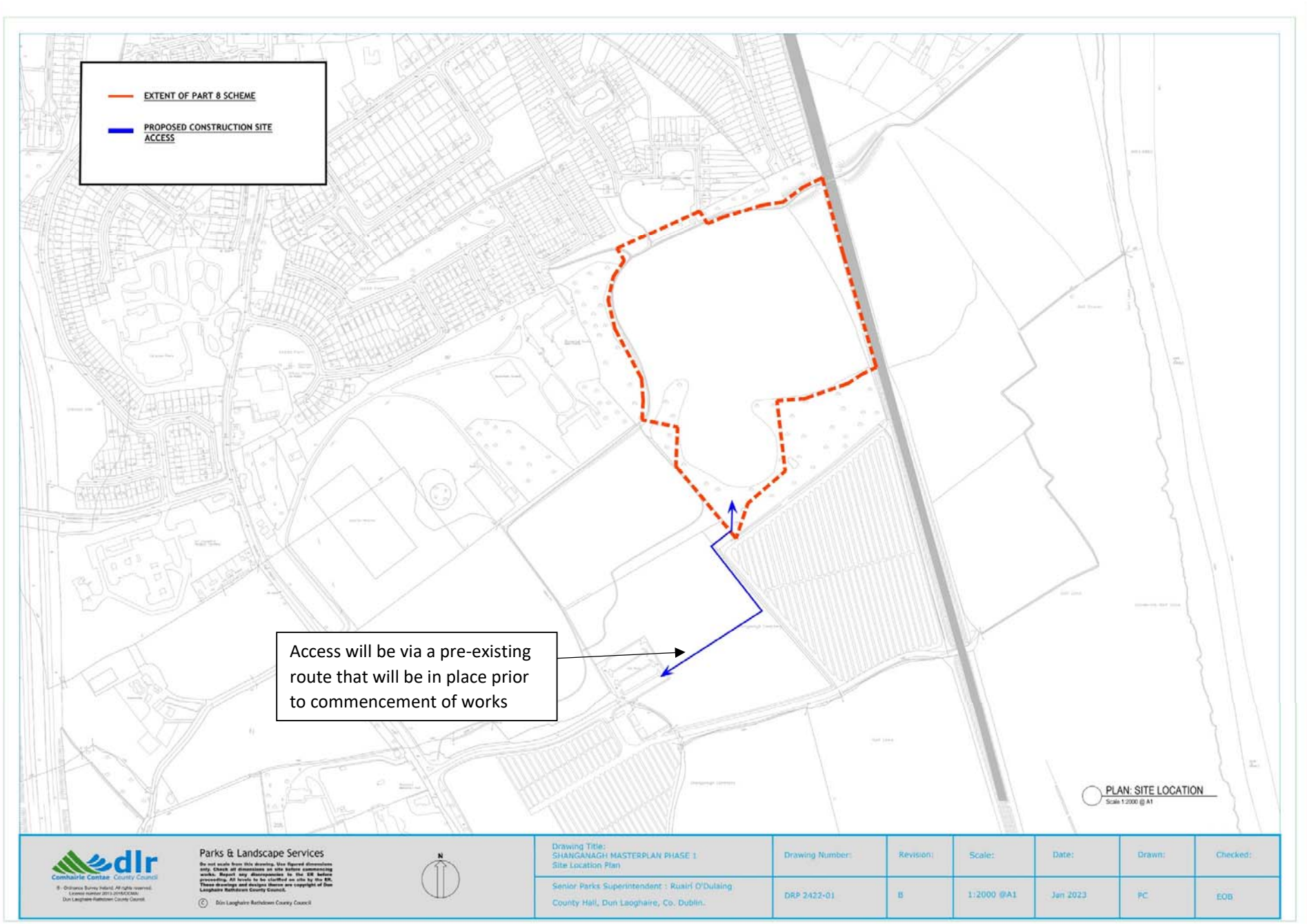


Figure 3. *Site location plan*

Figure 4. *Proposed works (existing retained trees (hollow circles). Proposed trees (solid circles).*

Figure 5. *Pitches and athletics layout plan*

Figure 6. *Baseball and cricket pitch*

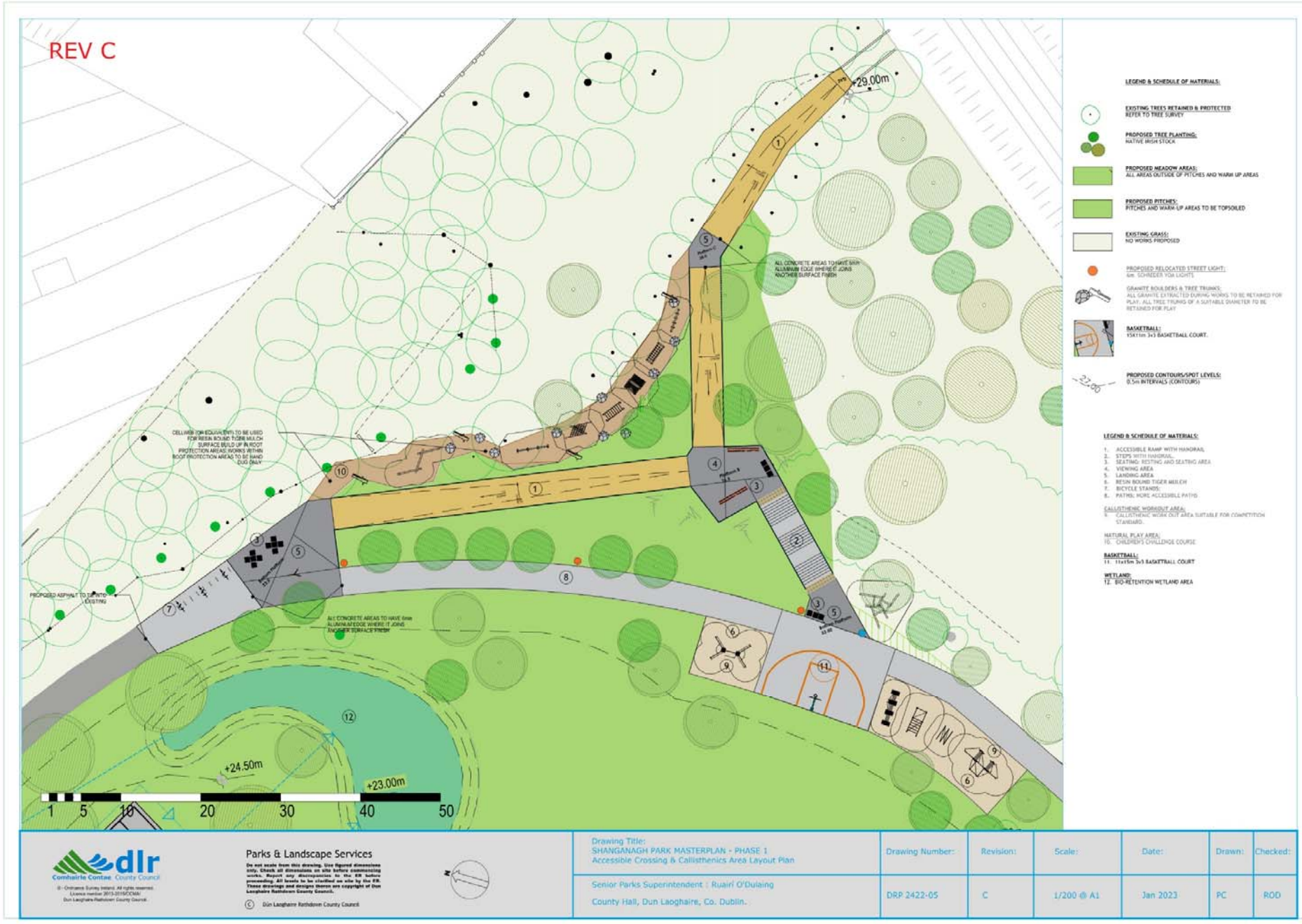


Figure 7. *Accessible crossing and calisthenics area*

Drainage

A Part 8 Report has been prepared by Dún Laoghaire Rathdown County Council to outline details of the proposed development of Shanganagh Park – Phase 1, Shankill, Co. Dublin. In relation to Surface Water Drainage, this report outlines the following:

'*Surface Water Drainage:*

Slit drains and perforated lateral drains will be installed across the pitch and directed to a bio-retention area via collector drains that will be installed around the perimeter of the pitch. Further minor drainage will take place at the cricket/baseball field as required, the sprint track and at the bottom of any steep slopes. The attenuation system will be an above ground bio-retention pond, be located along the northern boundary of the field and has been designed so that attenuation will be provided for the 1.0% AEP (1:100 year) storm event. The attenuation system outflow will be controlled by a hydrobrake connected to the existing surface water drainage system with the outflow restricted to 2l/s/ha or Qbar, whichever is the greater, in accordance with the Greater Dublin Strategic Drainage Strategy (GDSDS).'

After consultation with Dún Laoghaire Rathdown County Council, it has been concluded that surface water overflow will be directed to an existing surface water drainage network within St. Anne's Park, located to the north of the subject site. This network ultimately outfalls to the marine environment at Killiney Bay. As outlined in the AWN Hydrological Assessment (Appendix V) '*No development is proposed directly on the area of the seasonal pond or immediate surrounding area. Site conditions indicate low drainage within the shallow soil requiring drainage to be installed for the proposed development. The nature of the proposed drainage as described in Figure 3 is that it collects recharge local to the area drained. As such there is little potential for impact outside of the footprint of the pitches etc*.'

Also outlined in the Part 8 report the following should be noted:

Callisthenics:

A callisthenics and functional workout area is proposed to the east of the meadow in close proximity to the bridge crossing. This will provide an opportunity for citizens to access high quality facilities for exercise and play in a less structured manner. It will include items such as the overhead ladder, incline press, triple bars, pull-up station, decline bench, dip bench, sit-up bench and multi-exercise combi-station. It will be designed for competitive training but suitable for all levels and abilities.

Fencing & Netting:

The cricket and baseball zone will include a zone of fencing to the rear of the batting area to protect members of the public. The fencing is to be a maximum height of 9m to the rear of the baseball diamond. The sprint track will be enclosed by a minimum 1.2m high weldmesh fence with associated pedestrian and vehicular access gates.

Play:

A natural play space is proposed adjacent to the DART crossing. This will take the form of challenge course with free play elements such as balance beams, balance nets, stepping stones, hoping blocks, etc.

High Ballstop Netting:

The ballstop netting will installed to the rear of the goals on the GAA pitch. The netting will be supported by galvanised steel uprights to a height of 13.5m.

Bicycle Parking:

Bike stands will be located adjacent to the St. Annes entrance and the bridge crossing at the DART line.

Car Parking:

The main car park at Shanganagh Park & Cemetery will be the car parking to serve this site. Dun Laoghaire Rathdown County Council will actively work with club users to encourage more sustainable modes of transport and to refrain from parking in nearby housing developments.

Entrances:

The entrance into St. Annes will be upgraded to improve permeability and promote access for all.

Mounding:
Earth mounding will be provided to the south and east of the pitch for viewing. This mound will be also planted with trees and likely to be managed as a meadow.

Access Over DART Line:
Access over the DART line is to be improved by creating a much improved and more accessible ramp (1:15 gradient). New steps will be created, and the required tactile paving and handrails included in accordance with Part M. In addition, this area will now have seating and resting/viewing areas.

Footpaths:
The footpath along the eastern section of the meadow will be widened to approx. 3.5m.

Services:
The ESB and water connections will be brought to the site via the nearby St. Annes estate. A small galvanised and powder coated substation will be placed in the tree-line close to the maintenance access gates from St. Annes. In addition, the surface water connection from the attenuation system will be brought out in the same trench to minimise any impacts to trees and hedgerows.

Refillable Water Fonts:
Refillable water fonts will be placed at appropriate locations throughout the site.

Tree Planting:
Significant additional tree planting will take place throughout the site to add to the sense of enclosure and provide shelter for the sports. The majority of the proposed planting will be native species with some suitable non-native species to be considered. The new planting will primarily consist of whips and standards but will also include some semi-mature trees to have immediate impact on the site. This will help to sequester carbon, improve air quality and increase biodiversity. The area for new tree planting is estimated as the equivalent of 1 Hectare of additional woodland.

Meadows:
The areas that are not sports related will be managed as meadows where paths can be cut through if appropriate. This will add a buffer to the woodland and hedgerows while adding interest and improving biodiversity. The meadows will be interspersed with significant additional tree planting and improved through good management in line with the All Ireland Pollinator Plan. The existing meadow is estimated at 2.32 Hectares and the proposed meadow is estimated at 2.87 Hectare..'

Figure 8. *Proposed drainage layout*

Wintering Bird Assessment Summary.

Between October 2021 and March 2022, a total of 12 winter bird surveys were conducted at Shanganagh Park, in Shankill, South County Dublin by Hugh Delaney. The Wintering Bird Assessment is seen in Appendix I. The wintering bird assessment surveys followed best practice guidance[2]. The number of wintering bird surveys (12) exceeded the number of minimum surveys required to be carried out i.e. one survey per month[2] during the wintering bird season and *'3 survey visits spread out throughout the winter season'* during the Covid 19 outbreak[3]. The wintering bird assessment provides a robust assessment with at least twice the number of surveys required. Twice monthly Bird Surveys were undertaken at Shanganagh Park in South Dublin between October 2021 and March 2022. These are independent surveys and the dates allocated to survey are determined by the ornithologist in their professional capacity and using best practice guidance. As outlined in the wintering bird survey report "*37 bird species were recorded in Shanganagh Park during the 12 winter bird surveys. The species diversity being a typical representation of that which might expected in a suburban Dublin parkland context. In the context of wintering bird species that are red listed as species of conservation concern in the revised Birdwatch Ireland List of birds of conservation concern in Ireland (2020-2026) Redwing was recorded. A Great Spotted Woodpecker recorded in the first half of the surveys was noteworthy, likely emanating from the expanding Wicklow population. Three gull species listed in the amber wintering species category were recorded, these being Black-headed, Herring and Lesser black-backed Gull.*

On the pitches and playing areas the species foraging frequently were dominated by Black-headed Gulls (counts averaging< 50 to <100) and to a lesser extent, Herring Gulls, the pitches closest to the Bray Road being most preferential. Other species foraging in these areas were dominated by Corvid species, specifically Rook (nesting in the park) and Jackdaw with smaller numbers of Hooded Crow and Magpie. The species diversity recorded within the park in the survey period was quite typical of that expected in a suburban Dublin context with a range passerines species found in the patches of woodland around the park – Species like Thrushes (Song and Mistle Thrush and Blackbird), Robin, Dunnock, Wren, Tit species, Finches such as Chaffinch, Bullfinch, Goldfinch etc, and Goldcrest. A Great Spotted Woodpecker recorded early in the winter was notable (a species expanding its range from recent colonisation in Wicklow).

The results suggest that the site is not significant ex-situ foraging or roosting site for any species of qualifying interest from nearby SPA's. Close monitoring of the pitches did not record any visitations whatsoever of Brent Geese or wader species (in a Dublin context that would be Curlew, Oystercatcher and Black-tailed Godwit). Consultation by the surveyor with locals regularly visiting the park and birders living nearby indicated (albeit anecdotal information) that such species have not being seen within the park in recent years. Despite large areas of grass playing areas the site is nonetheless very heavily visited by recreational users (walkers, dog walkers etc.) and this is likely a disincentive to the aforementioned species visiting the site."

[2] https://birdsurveyguidelines.org/non-breeding-walkover-survey/

[3] CIEEM Guidance on Ecological Survey and Assessment in the Republic of Ireland and Northern Ireland During the Covid-19 Outbreak Version 1 Published 30 May 2020

Identification of European Sites / Sites Potentially Affected

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

A key factor in the consideration as to whether or not a particular European site is likely to be affected by the proposed development is its distance from the development location. It is generally, but not necessarily, the case that the greater the distance from the plan or project the smaller the likelihood of impacts. In this case, the nearest European site to the proposed development is 2.6 km away (Rockabill to Dalkey Island SAC). The receiving environment is one in which there is no direct pathway to European sites. In those circumstances 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. In relation to Wintering birds and the potential for the site to act as an ex-situ foraging habitat for wintering birds, a wintering bird survey has been carried out as outlined above. It should be noted that the site is within an existing park with long grass meadows and amenity grassland in an area of human and canine activity. As observed during site visits, despite specific areas for off-leash canine activity within the park, dogs are regularly off leash in the proposed development area which would cause disturbance to birds that use the proposed development site.

It is noted a short grass policy will be in place within the pitches on site which may have a positive effect on wintering birds in future Studies of Brent Geese in Dublin (Benson, 2009) show that this species in particular often favours pitches for foraging. This has also been shown in a recent Brent Geese tagging study in Dublin by Hanby, 2022 (Unpublished in DRAFT).

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 ZoI was expanded for this assessment to include designated sites within 15km of the proposed development site. 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 development on each European site and qualifying interest, are screened out in Table 2. SPA's and SAC's within 15km are seen in Figures 9 & 10. Watercourses, SAC's and SPA's within 5 km are demonstrated in Figures 11 - 13. No potential impacts are foreseen on European sites beyond 15km as there is no direct or indirect pathways to these sites.

Table 1. Proximity to designated sites of conservation importance

Site Code	EUROPEAN Site	Distance
Special Areas of Conservation		
IE003000	Rockabill to Dalkey Island SAC	2.6 km
IE000713	Ballyman Glen SAC	3.0 km
IE000714	Bray Head SAC	3.5 km
IE000725	Knocksink Wood SAC	4.7 km
IE002122	Wicklow Mountains SAC	7.5 km
IE000210	South Dublin Bay SAC	7.9 km
IE000719	Glen of the Downs SAC	8.9 km
IE000716	Carriggower Bog SAC	13.2 km
IE002249	The Murrough Wetlands	13 km
IE000206	North Dublin Bay SAC	13.2 km
IE000202	Howth Head SAC	14.8 km
Special Protection Area		
IE004172	Dalkey Islands SPA	4.8 km
IE004024	South Dublin Bay and River Tolka Estuary SPA	7.8 km
IE004040	Wicklow Mountains SPA	7.9 km
IE004006	North Bull Island SPA	13.1 km
IE004186	The Murrough SPA	14.0 km

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

NATURA Code	Name	Screened IN/OUT	Details/Reason
Special Areas of Conservation			
IE0003000	Rockabill to Dalkey Island SAC	**OUT**	**Conservation Objectives** The maintenance of habitats and species within European sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level. **Qualifying Interests** Reefs [1170] *Phocoena phocoena* (Harbour Porpoise) [1351] **Potential Impact** The proposed development site is located at a minimum of 2.6 km from this SAC (Figure 9). There is no direct hydrological pathway from the proposed development site to this SAC. Out of an abundance of caution, it is considered that there is an indirect hydrological pathway to this SAC via the proposed surface water drainage strategy post construction and during operation. Site clearance will involve the removal of the surface of much of the site outside of the tree protection zone. Given that the proposed development will largely consist of reconfiguring a relatively flat greenfield site, it would be expected that surface water drainage during construction will settle within the site boundaries of the site during construction. As outlined in the AWN Hydrogeological assessment in Appendix II "*No development is proposed directly on the area of the seasonal pond or immediate surrounding area. Site conditions indicate low drainage within the shallow soil requiring drainage to be installed for the proposed development. The nature of the proposed drainage as described in Figure 3 is that it collects recharge local to the area drained. As such there is little potential for impact outside of the footprint of the pitches etc.*" However, measures should be in place to control surface water runoff into adjacent habitats particularly along site boundaries and haulage routes. However, as there are no watercourses on site or pathways to European sites during construction, these measures are deemed for local biodiversity protection and are not necessary for the protection of European sites. Post construction and during operation when the surface water has been connected at the final stage of the project, surface water will be directed to slit drains and perforated lateral drains, an above ground bio-retention pond and to an existing surface water drainage network. This network ultimately outfalls to the marine environment at Killiney Bay. In the absence of mitigation, any silt or pollutants will settle, be dispersed or diluted within the marine environment and will have no significant impact on the qualifying interests of this SAC. No potential impact is foreseen. There is no direct pathway from the proposed 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.**
IE000713	Ballyman Glen SAC	**OUT**	**Conservation Objectives**

NATURA Code	Name	Screened IN/OUT	Details/Reason
			The maintenance of habitats and species within European sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level. **Qualifying Interests** Petrifying springs with tufa formation (*Cratoneurion*) [7220] Alkaline fens [7230] **Potential Impact** The proposed development site is located 3 km from this SAC (Figure 9). There is no direct or indirect hydrological pathway between the proposed development and the SAC. No potential impact is foreseen. There is no direct or indirect pathway from the proposed 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 European sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level. **Qualifying Interests** Vegetated sea cliffs of the Atlantic and Baltic coasts [1230] European dry heaths [4030] **Potential Impact** The proposed development site is located at a minimum of 3.5 km from this SAC (Figure 9). There is no direct hydrological pathway from the proposed development site to this SAC. Out of an abundance of caution, it is considered that there is an indirect hydrological pathway to this SAC via the proposed surface water drainage strategy post construction and during operation. Site clearance will involve the removal of the surface of much of the site outside of the tree protection zone. Given that the proposed development will largely consist of reconfiguring a relatively flat greenfield site, it would be expected that surface water drainage during construction will settle within the site boundaries during construction. As outlined in the AWN Hydrogeological assessment in Appendix II "*No development is proposed directly on the area of the seasonal pond or immediate surrounding area. Site conditions indicate low drainage within the shallow soil requiring drainage to be installed for the proposed development. The nature of the proposed drainage as described in Figure 3 is that it collects recharge local to the area drained. As such there is little potential for impact outside of the footprint of the pitches etc*." However, measures should be in place to control surface water runoff into adjacent habitats particularly along site boundaries and haulage routes. However, as there are no watercourses on site or pathways to European sites during construction, these measures are deemed for local biodiversity protection and are not necessary for the protection of European sites.

NATURA Code	Name	Screened IN/OUT	Details/Reason
			Post construction and during operation when the surface water has been connected at the final stage of the project, surface water will be directed to slit drains and perforated lateral drains, an above ground bio-retention pond and to an existing surface water drainage network. This network ultimately outfalls to the marine environment at Killiney Bay. In the absence of mitigation, any silt or pollutants will settle, be dispersed or diluted within the marine environment and will have no significant impact on the qualifying interests of this SAC. No potential impact is foreseen. There is no direct pathway from the proposed 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.**
IE000725	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: **Qualifying Interests** Petrifying springs with tufa formation (*Cratoneurion*) [7220] Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0] Alluvial forests with Alnus glutinosa and Fraxinus excelsior (*Alno-Padion, Alnion incanae, Salicion albae*) [91E0] **Potential Impact** The proposed development site is located 4.7 km from this SAC (Figure 9). There is no direct or indirect hydrological pathway between the proposed development and the SAC. No potential impact is foreseen. There is no direct or indirect pathway from the proposed 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.**
IE0002122	Wicklow Mountains SAC	**OUT**	**Conservation Objectives** The maintenance of habitats and species within European sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level. **Qualifying interests** Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae) [3110] Natural dystrophic lakes and ponds [3160] Northern Atlantic wet heaths with Erica tetralix [4010] European dry heaths [4030] Alpine and Boreal heaths [4060] Calaminarian grasslands of the Violetalia calaminariae [6130] Species-rich Nardus grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe) [6230] Blanket bogs (* if active bog) [7130] Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani) [8110] Calcareous rocky slopes with chasmophytic vegetation [8210] Siliceous rocky slopes with chasmophytic vegetation [8220] Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0] Lutra lutra (Otter) [1355]

NATURA Code	Name	Screened IN/OUT	Details/Reason
			Potential Impact The proposed development site is located 7.5 km from the Wicklow Mountains SAC (Figure 9). This SAC is located inland at a higher elevation. Based on objective scientific evidence there is no likelihood of significant effects on the European site. There is no direct or indirect hydrological or ecological pathway from the proposed development site to the terrestrial SAC located at a higher elevation. No potential impact is foreseen. There is no direct or indirect pathway from the proposed site to this SAC. The construction and operation of the proposed development will not impact on the conservation interests of the site. **No significant effects are likely.**
IE0000210	South Dublin Bay SAC	**OUT**	**Conservation Objectives** The maintenance of habitats and species within European sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level. **Qualifying Interests** Mudflats and sandflats not covered by seawater at low tide [1140] Annual vegetation of drift lines [1210] Salicornia and other annuals colonising mud and sand [1310] Embryonic shifting dunes [2110] **Potential Impact** The proposed development site is located at a minimum of 7.9 km from this SAC (Figure 9). There is no direct hydrological pathway from the proposed development site to this SAC. Out of an abundance of caution, it is considered that there is an indirect hydrological pathway to this SAC via the proposed surface water drainage strategy post construction and during operation. Site clearance will involve the removal of the surface of much of the site outside of the tree protection zone. Given that the proposed development will largely consist of reconfiguring a relatively flat greenfield site, it would be expected that surface water drainage during construction will settle within the site boundaries during construction. As outlined in the AWN Hydrogeological assessment in Appendix II "*No development is proposed directly on the area of the seasonal pond or immediate surrounding area. Site conditions indicate low drainage within the shallow soil requiring drainage to be installed for the proposed development. The nature of the proposed drainage as described in Figure 3 is that it collects recharge local to the area drained. As such there is little potential for impact outside of the footprint of the pitches etc.*" However, measures should be in place to control surface water runoff into adjacent habitats particularly along site boundaries and haulage routes. However, as there are no watercourses on site or pathways to European sites during construction, these measures are deemed for local biodiversity protection and are not necessary for the protection of European sites. Post construction and during operation when the surface water has been connected at the final stage of the project, surface water will be directed to slit drains and perforated lateral drains, an above ground bio-retention pond and to an existing surface water drainage network. This network ultimately outfalls to the marine environment at Killiney Bay. In the absence of

NATURA Code	Name	Screened IN/OUT	Details/Reason
			mitigation, any silt or pollutants will settle, be dispersed or diluted within the marine environment and will have no significant impact on the qualifying interests of this SAC. No potential impact is foreseen. There is no direct pathway from the proposed 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.**
IE000719	Glen of the Downs SAC	**OUT**	**Conservation Objectives** The maintenance of habitats and species within European 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** Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0] **Potential Impact** The proposed development site is located 8.9 km from this SAC (Figure 9). This SAC is located inland at a higher elevation. Based on objective scientific evidence there is no likelihood of significant effects on the European site. There is no direct or indirect hydrological or ecological pathway from the proposed development site to this SAC. No potential impact is foreseen. There is no direct or indirect pathway from the proposed site to this SAC. The construction and operation of the proposed development will not impact on the conservation interests of the site. **No significant effects are likely.**
IE000716	Carriggower Bog SAC	**OUT**	**Conservation Objectives** The maintenance of habitats and species within European 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** Transition mires and quaking bogs [7140] **Potential Impact** The proposed development site is located 13.2 km from this SAC (Figure 9). There is no direct or indirect hydrological or ecological pathway from the proposed development site to this SAC. No potential impact is foreseen. There is no direct or indirect pathway from the proposed site to this SAC. The construction and operation of the proposed development will not impact on the conservation interests of the site. **No significant effects are likely.**
IE002249	The Murrough Wetlands SAC	**OUT**	**Conservation Objectives** To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected. **Qualifying Interests** Annual vegetation of drift lines [1210] Perennial vegetation of stony banks [1220] Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) [1330] Mediterranean salt meadows (*Juncetalia maritimi*) [1410] Calcareous fens with Cladium mariscus and species of the Caricion davallianae [7210]

NATURA Code	Name	Screened IN/OUT	Details/Reason
			Alkaline fens [7230] **Potential Impact** The proposed development site is located at a minimum of 13 km from this SAC (Figure 9). There is no direct hydrological pathway from the proposed development site to this SAC. Out of an abundance of caution, it is considered that there is an indirect hydrological pathway to this SAC via the proposed surface water drainage strategy post construction and during operation. Site clearance will involve the removal of the surface of much of the site outside of the tree protection zone. Given that the proposed development will largely consist of reconfiguring a relatively flat greenfield site, it would be expected that surface water drainage during construction will settle within the site boundaries during construction. As outlined in the AWN Hydrogeological assessment in Appendix II "*No development is proposed directly on the area of the seasonal pond or immediate surrounding area. Site conditions indicate low drainage within the shallow soil requiring drainage to be installed for the proposed development. The nature of the proposed drainage as described in Figure 3 is that it collects recharge local to the area drained. As such there is little potential for impact outside of the footprint of the pitches etc*." However, measures should be in place to control surface water runoff into adjacent habitats particularly along site boundaries and haulage routes. However, as there are no watercourses on site or pathways to European sites during construction, these measures are deemed for local biodiversity protection and are not necessary for the protection of European sites. Post construction and during operation when the surface water has been connected at the final stage of the project, surface water will be directed to slit drains and perforated lateral drains, an above ground bio-retention pond and to an existing surface water drainage network. This network ultimately outfalls to the marine environment at Killiney Bay. In the absence of mitigation, any silt or pollutants will settle, be dispersed or diluted within the marine environment and will have no significant impact on the qualifying interests of this SAC. No potential impact is foreseen. There is no direct pathway from the proposed 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.**
IE0000206	North Dublin Bay SAC	**OUT**	**Conservation Objectives** The maintenance of habitats and species within European sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level. **Qualifying Interests** Mudflats and sandflats not covered by seawater at low tide [1140] Annual vegetation of drift lines [1210] Salicornia and other annuals colonising mud and sand [1310] Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) [1330] Mediterranean salt meadows (*Juncetalia maritimi*) [1410] Embryonic shifting dunes [2110] Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes) [2120] Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130]

NATURA Code	Name	Screened IN/OUT	Details/Reason
			Humid dune slacks [2190] *Petalophyllum ralfsii* (Petalwort) [1395] **Potential Impact** The proposed development site is located at a minimum of 13.2 km from this SAC (Figure 9). There is no direct hydrological pathway from the proposed development site to this SAC. Out of an abundance of caution, it is considered that there is an indirect hydrological pathway to this SAC via the proposed surface water drainage strategy post construction and during operation. Site clearance will involve the removal of the surface of much of the site outside of the tree protection zone. Given that the proposed development will largely consist of reconfiguring a relatively flat greenfield site, it would be expected that surface water drainage during construction will settle within the site boundaries during construction. As outlined in the AWN Hydrogeological assessment in Appendix II "*No development is proposed directly on the area of the seasonal pond or immediate surrounding area. Site conditions indicate low drainage within the shallow soil requiring drainage to be installed for the proposed development. The nature of the proposed drainage as described in Figure 3 is that it collects recharge local to the area drained. As such there is little potential for impact outside of the footprint of the pitches etc*." However, measures should be in place to control surface water runoff into adjacent habitats particularly along site boundaries and haulage routes. However, as there are no watercourses on site or pathways to European sites during construction, these measures are deemed for local biodiversity protection and are not necessary for the protection of European sites. Post construction and during operation when the surface water has been connected at the final stage of the project, surface water will be directed to slit drains and perforated lateral drains, an above ground bio-retention pond and to an existing surface water drainage network. This network ultimately outfalls to the marine environment at Killiney Bay. In the absence of mitigation, any silt or pollutants will settle, be dispersed or diluted within the marine environment and will have no significant impact on the qualifying interests of this SAC. No potential impact is foreseen. There is no direct pathway from the proposed 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.**
IE0000202	Howth Head SAC	**OUT**	**Conservation Objectives** The maintenance of habitats and species within European sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level. **Qualifying Interests** Vegetated sea cliffs of the Atlantic and Baltic coasts [1230] European dry heaths [4030] **Potential Impact** The proposed development site is located at a minimum of 14.8 km from this SAC (Figure 9). There is no direct hydrological pathway from the proposed development site to this SAC.

NATURA Code	Name	Screened IN/OUT	Details/Reason
			Out of an abundance of caution, it is considered that there is an indirect hydrological pathway to this SAC via the proposed surface water drainage strategy post construction and during operation. Site clearance will involve the removal of the surface of much of the site outside of the tree protection zone. Given that the proposed development will largely consist of reconfiguring a relatively flat greenfield site, it would be expected that surface water drainage during construction will settle within the site boundaries during construction. As outlined in the AWN Hydrogeological assessment in Appendix II "No development is proposed directly on the area of the seasonal pond or immediate surrounding area. Site conditions indicate low drainage within the shallow soil requiring drainage to be installed for the proposed development. The nature of the proposed drainage as described in Figure 3 is that it collects recharge local to the area drained. As such there is little potential for impact outside of the footprint of the pitches etc." However, measures should be in place to control surface water runoff into adjacent habitats particularly along site boundaries and haulage routes. However, as there are no watercourses on site or pathways to European sites during construction, these measures are deemed for local biodiversity protection and are not necessary for the protection of European sites. Post construction and during operation when the surface water has been connected at the final stage of the project, surface water will be directed to slit drains and perforated lateral drains, an above ground bio-retention pond and to an existing surface water drainage network. This network ultimately outfalls to the marine environment at Killiney Bay. In the absence of mitigation, any silt or pollutants will settle, be dispersed or diluted within the marine environment and will have no significant impact on the qualifying interests of this SAC. No potential impact is foreseen. There is no direct pathway from the proposed 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			
IE0004172	Dalkey Islands SPA	**OUT**	**Conservation Objectives** To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA. **Qualifying Interests** Roseate Tern (*Sterna dougallii*) [A192] Common Tern (*Sterna hirundo*) [A193] Arctic Tern (*Sterna paradisaea*) [A194] **Potential Impact** The proposed development site is located at a minimum of 4.8 km from this SPA (Figure 10). Disturbance and impacts caused by the works will be localised to the immediate environs of the development. There is no direct hydrological connection to this site. Out of an abundance of caution, it is considered that there is an indirect hydrological pathway to this SPA via the proposed surface water drainage strategy post construction and during operation. Site clearance will involve the removal of the surface of much of the site outside of the tree protection zone. Given that the proposed development will largely consist of

NATURA Code	Name	Screened IN/OUT	Details/Reason
			reconfiguring a relatively flat greenfield site, it would be expected that surface water drainage during construction will settle within the site boundaries during construction. However, measures should be in place to control surface water runoff into adjacent habitats particularly along site boundaries and haulage routes. As there are no watercourses on site or pathways to European sites during construction, these measures are deemed for local biodiversity protection and are not necessary for the protection of European sites. The habitats on site are not of importance to the qualifying interests of this site as these piscivorous bird species that feed within the marine environment and nest within the SPA. Post construction and during operation when the surface water has been connected at the final stage of the project, surface water will be directed to slit drains and perforated lateral drains, an above ground bio-retention pond and to an existing surface water drainage network. This network ultimately outfalls to the marine environment at Killiney Bay. In the absence of mitigation, any silt or pollutants will settle, be dispersed or diluted within the marine environment and will have no significant impact on the qualifying interests of this SPA. No potential impact is foreseen. There is no direct pathway from the proposed 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.**
IE0004024	South Dublin Bay and River Tolka Estuary SPA	**Out**	**Conservation Objective** The maintenance of habitats and species within European sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level. **Qualifying Interests** Light-bellied Brent Goose (*Branta bernicla hrota*) [A046] Oystercatcher (*Haematopus ostralegus*) [A130] Ringed Plover (*Charadrius hiaticula*) [A137] Grey Plover (*Pluvialis squatarola*) [A141] Knot (*Calidris canutus*) [A143] Sanderling (*Calidris alba*) [A144] Dunlin (*Calidris alpina*) [A149] Bar-tailed Godwit (*Limosa lapponica*) [A157] Redshank (*Tringa totanus*) [A162] Black-headed Gull (*Chroicocephalus ridibundus*) [A179] Roseate Tern (*Sterna dougallii*) [A192] Common Tern (*Sterna hirundo*) [A193] Arctic Tern (*Sterna paradisaea*) [A194] Wetland and Waterbirds [A999] **Potential Impact** The proposed development site is located at a minimum of 7.8 km from this SPA (Figure 10). Disturbance and impacts caused by the works will be localised to the immediate environs of the development. There is no direct hydrological connection to this site. Out of an abundance of caution, it is considered that there is an indirect hydrological pathway to this SPA via the proposed surface water drainage strategy post construction and during operation. Site clearance will involve

NATURA Code	Name	Screened IN/OUT	Details/Reason
			the removal of the surface of much of the site outside of the tree protection zone. Given that the proposed development will largely consist of reconfiguring a relatively flat greenfield site, it would be expected that surface water drainage during construction will settle within the site boundaries during construction. As outlined in the AWN Hydrogeological assessment in Appendix II "*No development is proposed directly on the area of the seasonal pond or immediate surrounding area. Site conditions indicate low drainage within the shallow soil requiring drainage to be installed for the proposed development. The nature of the proposed drainage as described in Figure 3 is that it collects recharge local to the area drained. As such there is little potential for impact outside of the footprint of the pitches etc*." However, measures should be in place to control surface water runoff into adjacent habitats particularly along site boundaries and haulage routes. However, as there are no watercourses on site or pathways to European sites during construction, these measures are deemed for local biodiversity protection and are not necessary for the protection of European sites. Post construction and during operation when the surface water has been connected at the final stage of the project, surface water will be directed to slit drains and perforated lateral drains, an above ground bio-retention pond and to an existing surface water drainage network. This network ultimately outfalls to the marine environment at Killiney Bay. In the absence of mitigation, any silt or pollutants will settle, be dispersed or diluted within the marine environment and will have no significant impact on the qualifying interests of this SPA. A wintering bird assessment was carried out and assessed the wintering bird activity on site and these data are seen in Appendix I. Of the qualifying interests of this SPA black headed gull was noted on site. In relation to black headed gull, based on Cummins et al. (2019) there is a national breeding population of 7,810 pairs (15,620 individuals) in Ireland and the numbers seen on site were well below 1% of the National population, which indicates that the site is not used by significant numbers of these SCI bird species. Piscivorous bird species such as terns will not be impacted by the proposed works. However, as outlined in the Wintering Bird Assessment "*The results the results suggest that the site is not significant ex-situ foraging or roosting site for any species of qualifying interest from nearby SPA's.* " However, it should be noted that no buildings will be placed on site and the majority of the grassland on site will remain, although will have increased maintenance. It would be expected that wintering birds observed on site would continue to use the site for foraging/roosting. **No significant effects are likely.**
IE0004040	Wicklow Mountains SPA	**OUT**	**Conservation Objective** To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA. **Qualifying Interests** Merlin (*Falco columbarius*) [A098] Peregrine (*Falco peregrinus*) [A103] **Potential Impact** The proposed development site is located at a minimum of 7.9 km from this SPA (Figure 9). No potential impact is foreseen. There is no direct or indirect hydrological pathway between the proposed development and the SPA. The area consists of a busy public amenity park that is used by the public

NATURA Code	Name	Screened IN/OUT	Details/Reason
			including dog walkers. The site is a relatively disturbed area located at a significant distance from 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.**
IE0004006	North Bull Island SPA	**Out**	**Conservation Objective** The maintenance of habitats and species within European sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level. **Qualifying Interests** Light-bellied Brent Goose (*Branta bernicla hrota*) [A046] Shelduck (*Tadorna tadorna*) [A048] Teal (*Anas crecca*) [A052] Pintail (*Anas acuta*) [A054] Shoveler (*Anas clypeata*) [A056] Oystercatcher (*Haematopus ostralegus*) [A130] Golden Plover (*Pluvialis apricaria*) [A140] Grey Plover (*Pluvialis squatarola*) [A141] Knot (*Calidris canutus*) [A143] Sanderling (*Calidris alba*) [A144] Dunlin (*Calidris alpina*) [A149] Black-tailed Godwit (*Limosa limosa*) [A156] Bar-tailed Godwit (*Limosa lapponica*) [A157] Curlew (*Numenius arquata*) [A160] Redshank (*Tringa totanus*) [A162] Turnstone (*Arenaria interpres*) [A169] Black-headed Gull (*Chroicocephalus ridibundus*) [A179] Wetland and Waterbirds [A999] **Potential Impact** The proposed development site is located 13.1 km from this SPA (Figure 10). There is no direct hydrological pathway between the subject site and this SPA. Out of an abundance of caution, it is considered that there is an indirect hydrological pathway to this SPA via the proposed surface water drainage strategy post construction and during operation. Site clearance will involve the removal of the surface of much of the site outside of the tree protection zone. Given that the proposed development will largely consist of reconfiguring a relatively flat greenfield site, it would be expected that surface water drainage during construction will settle within the site boundaries during construction. As outlined in the AWN Hydrogeological assessment in Appendix II "No development is proposed directly on the area of the seasonal pond or immediate surrounding area. Site conditions indicate low drainage within the shallow soil requiring drainage to be installed for the proposed development. The nature of the proposed drainage as described in Figure 3 is that it collects recharge local to the area drained. As such there is little potential for impact outside of the footprint of the pitches etc." However, measures should be in place to control surface water runoff into adjacent habitats particularly along site boundaries and haulage routes. However, as there are no watercourses on site or pathways to European sites during construction, these measures are deemed for local

NATURA Code	Name	Screened IN/OUT	Details/Reason
			biodiversity protection and are not necessary for the protection of European sites. Post construction and during operation when the surface water has been connected at the final stage of the project, surface water will be directed to slit drains and perforated lateral drains, an above ground bio-retention pond and to an existing surface water drainage network. This network ultimately outfalls to the marine environment at Killiney Bay. In the absence of mitigation, any silt or pollutants will settle, be dispersed or diluted within the marine environment and will have no significant impact on the qualifying interests of this SPA. A wintering bird assessment was carried out and assessed the wintering bird activity on site and these data are seen in Appendix I. Of the qualifying interests of this SPA black headed gull was noted on site. In relation to black headed gull based on Cummins et al. (2019) there is a national breeding population of 7,810 pairs (15,620 individuals) in Ireland and the numbers seen on site were well below 1% of the National population, which indicates that the site is not used by significant numbers of these SCI bird species. Piscivorous bird species such as terns will not be impacted by the proposed works. However, as outlined in the Wintering Bird Assessment "*The results the results suggest that the site is not significant ex-situ foraging or roosting site for any species of qualifying interest from nearby SPA's.* " However, it should be noted that no buildings will be placed on site and the majority of the grassland on site will remain, although will have increased maintenance. It would be expected that wintering birds observed on site would continue to use the site for foraging/roosting. **No significant effects are likely.**
IE004186	The Murrough SPA	**Out**	**Conservation Objectives** To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA. To maintain or restore the favourable conservation condition of the wetland habitat at The Murrough SPA as a resource for the regularly-occurring migratory waterbirds that utilise it **Qualifying Interests** Red-throated Diver (*Gavia stellata*) [A001] Greylag Goose (*Anser anser*) [A043] Light-bellied Brent Goose (*Branta bernicla hrota*) [A046] Wigeon (*Anas penelope*) [A050] Teal (*Anas crecca*) [A052] Black-headed Gull (*Chroicocephalus ridibundus*) [A179] Herring Gull (*Larus argentatus*) [A184] Little Tern (*Sterna albifrons*) [A195] Wetland and Waterbirds [A999] **Potential Impact** The proposed development site is located 14 km from this SPA (Figure 10). There is no direct hydrological connection between the subject site and this SAC. Out of an abundance of caution, it is considered that there is an indirect hydrological pathway to this SPA via the proposed surface water drainage strategy post construction and during operation. Site clearance will involve

NATURA Code	Name	Screened IN/OUT	Details/Reason
			the removal of the surface of much of the site outside of the tree protection zone. Given that the proposed development will largely consist of reconfiguring a relatively flat greenfield site, it would be expected that surface water drainage during construction will settle within the site boundaries during construction. As outlined in the AWN Hydrogeological assessment in Appendix II "No development is proposed directly on the area of the seasonal pond or immediate surrounding area. Site conditions indicate low drainage within the shallow soil requiring drainage to be installed for the proposed development. The nature of the proposed drainage as described in Figure 3 is that it collects recharge local to the area drained. As such there is little potential for impact outside of the footprint of the pitches etc." However, measures should be in place to control surface water runoff into adjacent habitats particularly along site boundaries and haulage routes. However, as there are no watercourses on site or pathways to European sites during construction, these measures are deemed for local biodiversity protection and are not necessary for the protection of European sites. Post construction and during operation when the surface water has been connected at the final stage of the project, surface water will be directed to slit drains and perforated lateral drains, an above ground bio-retention pond and to an existing surface water drainage network. This network ultimately outfalls to the marine environment at Killiney Bay. In the absence of mitigation, any silt or pollutants will settle, be dispersed or diluted within the marine environment and will have no significant impact on the qualifying interests of this SPA. A wintering bird assessment was carried out and assessed the wintering bird activity on site and these data are seen in Appendix I. Of the qualifying interests of this SPA black headed gull was noted on site. In relation to black headed gull based on Cummins et al. (2019) there is a national breeding population of 7,810 pairs (15,620 individuals) in Ireland and the numbers seen on site were well below 1% of the National population, which indicates that the site is not used by significant numbers of these SCI bird species. In relation to herring gull based on Cummins et al. (2019) there is a national breeding population of 10,333 pairs (20,666 individuals) in Ireland and the numbers seen on site were well below 1% of the National population. In relation to Piscivorous bird species such as terns will not be impacted by the proposed works. However, as outlined in the Wintering Bird Assessment "*The results the results suggest that the site is not significant ex-situ foraging or roosting site for any species of qualifying interest from nearby SPA's.* " However, it should be noted that no buildings will be placed on site and the majority of the grassland on site will remain, although will have increased maintenance. It would be expected that wintering birds observed on site would continue to use the site for foraging/roosting. **No significant effects are likely.**

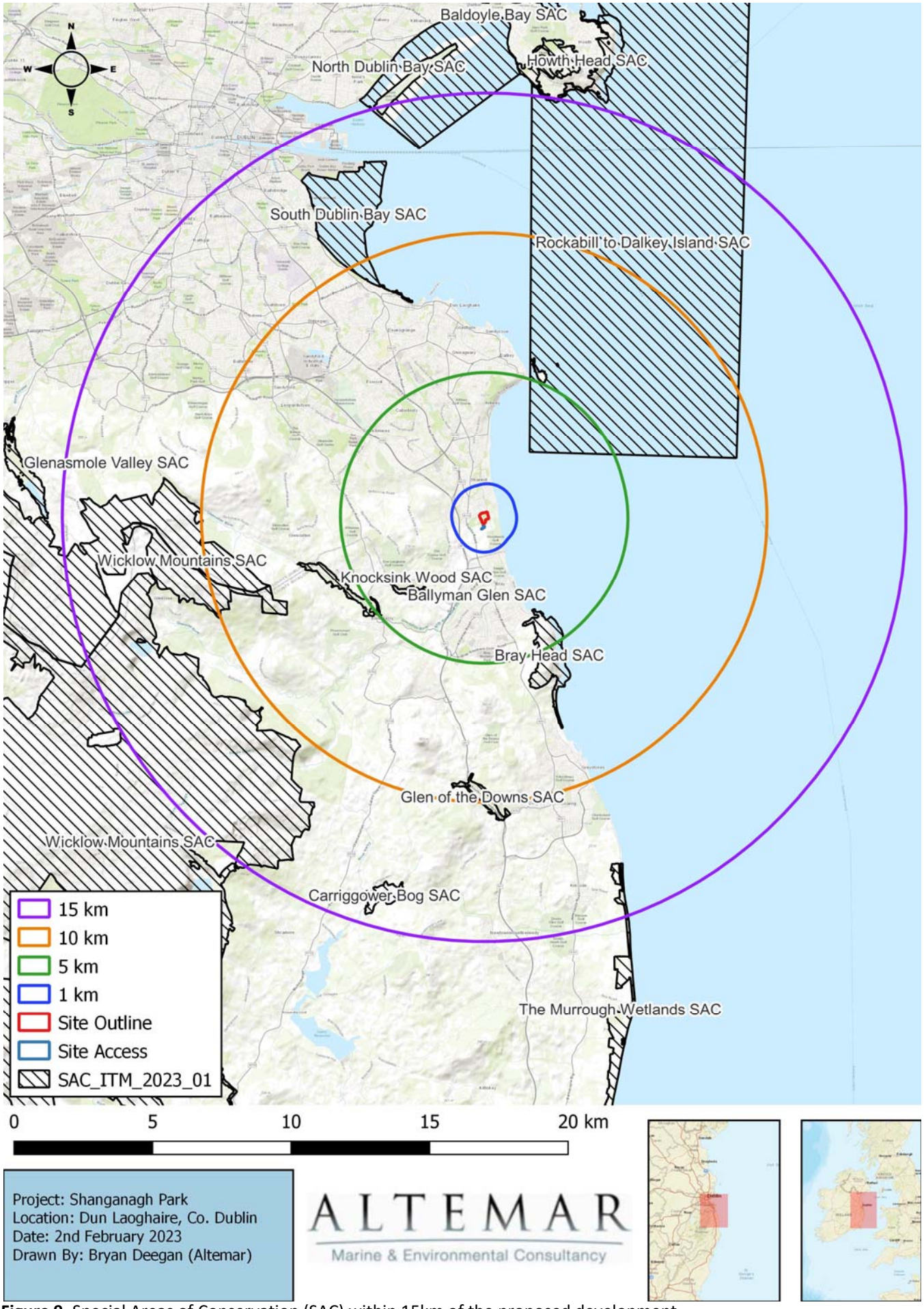


Figure 9. Special Areas of Conservation (SAC) within 15km of the proposed development

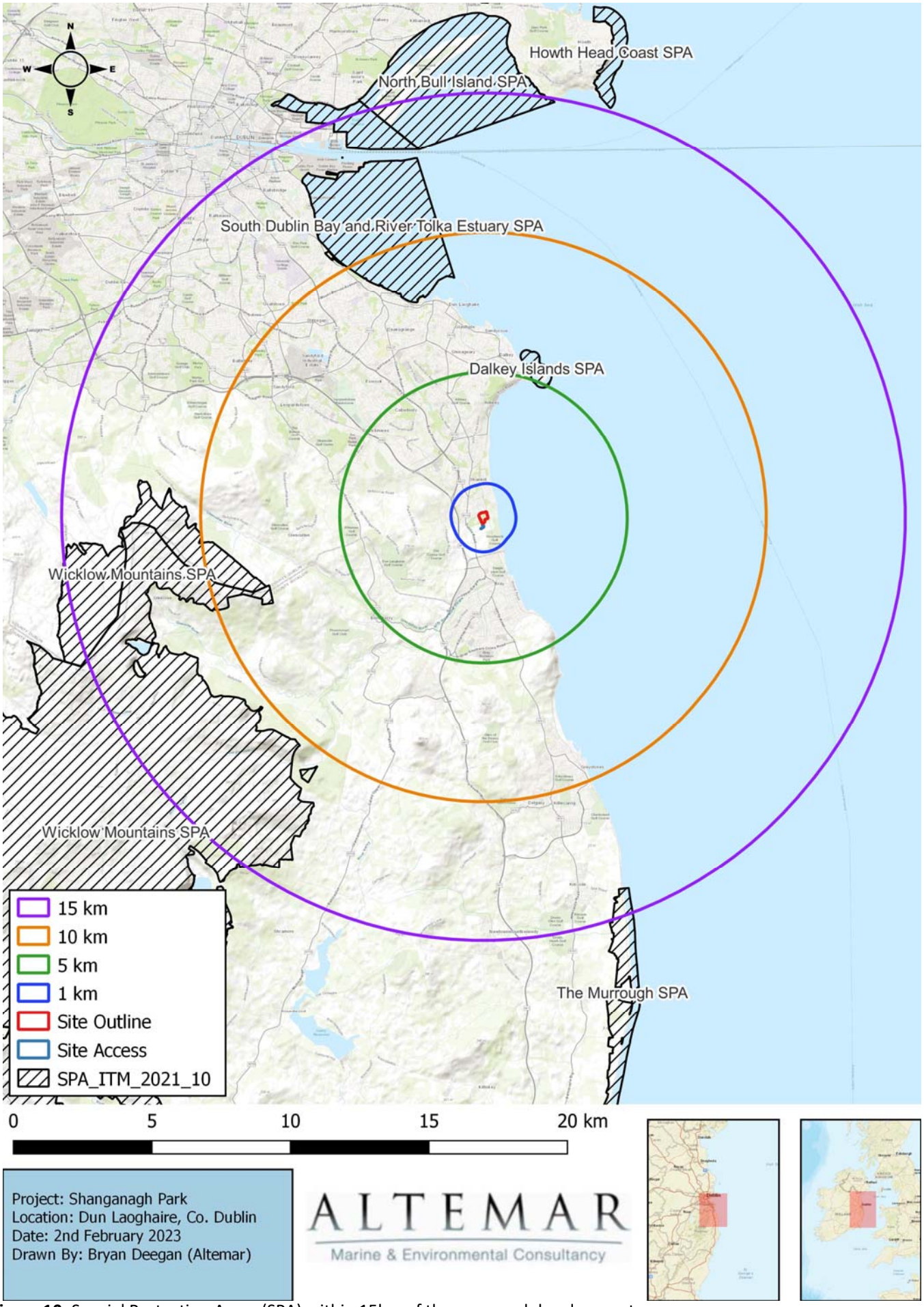


Figure 10. Special Protection Areas (SPA) within 15km of the proposed development

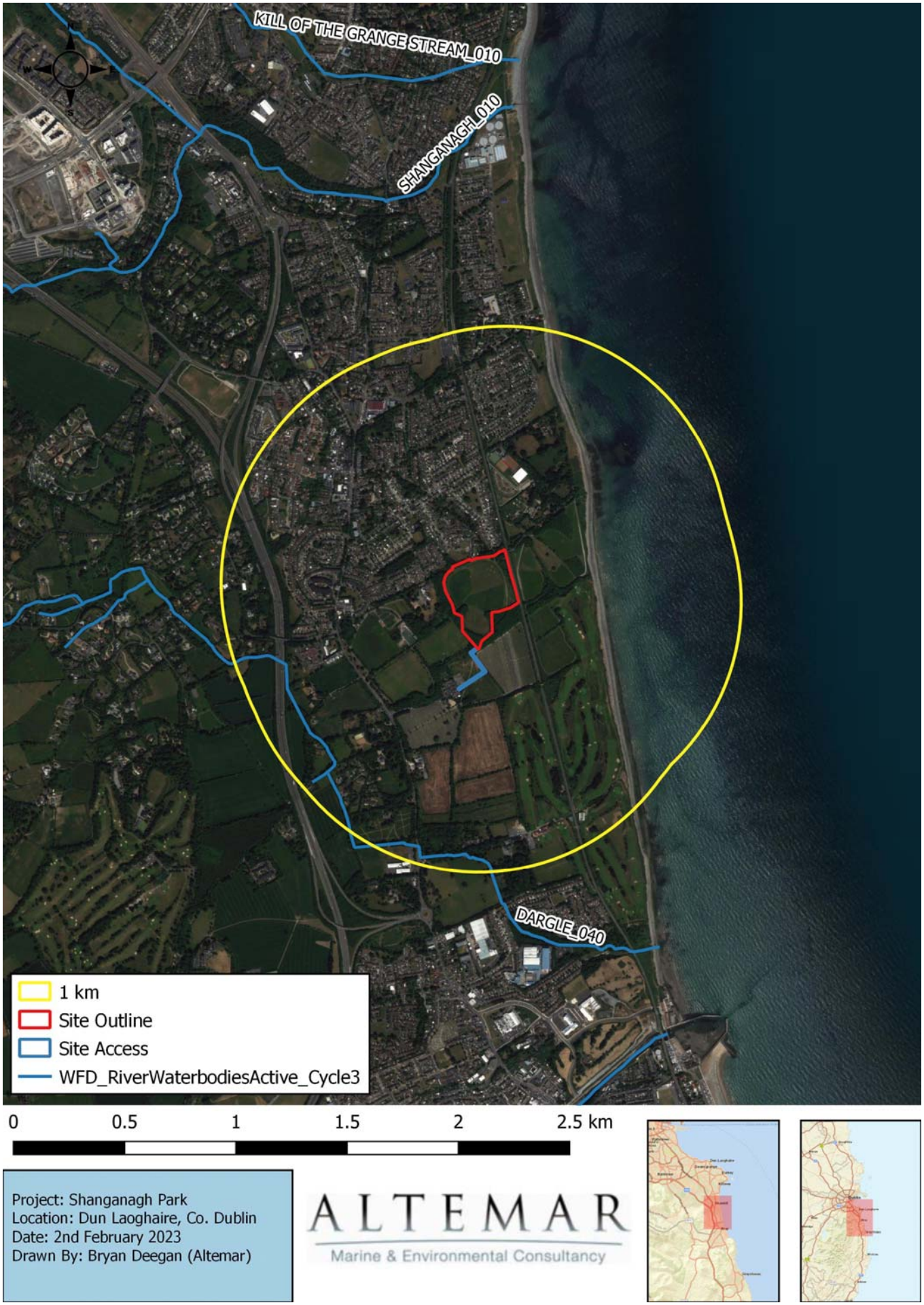


Figure 11. Watercourses within 1km of the proposed development

Figure 12. *Watercourses and SACs within 5km of the proposed development*

Figure 13. *Watercourses and SPAs within 5km of the proposed development*

In-Combination Effects

A review of the online planning system (www.myplan.ie) was carried out. It was found that the majority of approved planning permissions located within the area of the subject site relate to small-scale residential developments, such as single-storey extensions to residential units and attic conversions. The table below outlines a number of planning applications located within and in close proximity to the subject site that are of note.

Table 3. Developments proximate to the subject site.

Ref. No.	Address	Proposal
D20A/0744	Woodbrook Dart Station Iarnród Eireann/CIE lands just south of the masonry over Rail Bridge OBR 134, Shanganagh Cemetery, Townland of Cork Little and Shanganagh, Woodbrook, Shankill, Co. Dublin.	Permission for a new DÁRT/Railway Station. The site for the station is in a partial embankment cutting with local grade being some 1.9 m above platform level. The station will include two 174 m platforms with 8 m end ramps, platform shelters, seating, lighting, Overhead line equipment (OHLE), CCTV, ticket vending machines and validators, commercial advertising, driver operating monitors, public address, customer information signage, directional and station signage, including a totem pole, as well as a telecoms equipment room (TER) building and permanent way vehicular access route on the western (Up) side. The station platforms will be accessed via ramps and steps integrated into an in-situ concrete retaining wall structure. There will be a continuous paladin fence at the top of the embankment with sliding gates at the station entrance. Above the station will be a public realm structure comprising of two sets of staircases, ramps and a footbridge. These will serve both the station and a future cycleway planned by DLRCC. The overall superstructure design will be an open and transparent steel structure with stainless steel mesh balustrade.
ABP30584419	Townland of Corke Little, Woodbrook, Shankill, Co. Dublin.	Permission for a Strategic Housing Development consisting of a residential-led development comprising 685no. residential units and 1 no. childcare facility in buildings ranging from 2 to 8-storeys. The breakdown of residential accommodation is as follows: - 207no. own door detached, semi-detached, terraced and end of terrace houses, including: - 134no. 3-bed 2-storey houses (House Type 01, 02, 03, 08, 10) - (House Type 01 are provided with optional ground floor extensions and/or attic conversions, House Type 03 are provided with optional ground floor extensions); 48no. 4-bed 2 - 3-storey houses (House Type 04, 05, 07) - (House Type 05 are provided with optional ground floor extensions); 25no. 5-bed 3-storey houses (House Type 06). 48no. duplexes (33no. own door), in 3 to 4-storey buildings, including: - Old Dublin Road Blocks accommodating 16no. 2-bed duplex and 17 no. 3-bed duplex; Park Edge Block accommodating 6no. 2-bed duplex 6no. 3-bed duplex; Block A accommodating 3no. duplexes (3no. 2-beds). 430no. apartment units accommodated in 6no. 3 to 8-storey buildings, including : - Block A accommodating 66no. apartments (14no. 1-beds and 52no. 2-beds) and Tenant Amenity area (c. 93 sq. m gross floor area); Block B accommodating 151no. apartments (47no. 1-beds and 104no. 2-beds) and Tenant Amenity area (c. 203 sq. m gross floor area); Block C accommodating 151no. apartments (47no. 1-beds and 104no. 2-beds) and Tenant Amenity area (c. 203 sq. m gross floor area); Block D accommodating 36no. apartments (13no. 1-beds, 18no. 2-beds and 5no. 3-bed); Block E accommodating 21no. apartments (7no. 1-beds, 13no. 2-beds and 1 no. 3-bed); Old Dublin Road Block accommodating 5no. apartments (2no. 1-beds and 3no. 2beds). Private rear gardens are provided for all houses. Private patios/ terraces and balconies are provided for all duplex and apartment units at ground floor. Balconies

Ref. No.	Address	Proposal
		are proposed on elevations to all upper levels of duplex and apartment buildings. The proposed development includes 1 no. childcare facility (c. 429 sq. m gross floor area).And, all associated and ancillary site development and infrastructural works (including plant), hard and soft landscaping and boundary treatment works (including temporary hoarding to un-developed lands), including : - Provision of Woodbrook Distributor Road/ Woodbrook Avenue from the Old Dublin Road (R119) to the future Woodbrook DART Station, including the provision of a temporary surface car park (164no. parking spaces including set down areas and ancillary bicycle parking and storage) adjacent to the future Woodbrook DART Station in northeast of site on lands currently forming part of Woodbrook Golf Course; New vehicular access provided from the Old Dublin Road (R119) opposite Woodbrook Downs entrance including new junction arrangements and associated road re-alignment; Provision of emergency access to Shanganagh Cemetery access road; Provision of internal road network including pedestrian and cycle links; Provision of a series of linear parks and green links (Coastal Park and Corridor Park), including 2no. pedestrian/ cycle links to Shanganagh Public Park to allow full north/ south connection, supplemented by smaller pocket parks; Provision of SuDS infrastructure and connection to existing surface water culvert on Old Dublin Road (R119); Provision of waste water infrastructure (pumping station including 2.4m fencing to perimeters, 24 hour emergency storage and rising foul main through Shanganagh Public Park to tie-in to existing services at St. Anne's Park Residential Estate) and the extension of and connection to public watermain on Old Dublin Road (R119); 844no. car parking spaces; 1,305no. long and short-term bicycle parking spaces; Bin store and bicycle storage for all terraced houses, duplex/ apartment and apartment blocks; 2no. ESB Unit Sub-stations; Provision of 2no. replacement golf holes in lands to the east of the rail line (northeast of the future DART Station) and associated 2m paladin fence to western and northern perimeter. All on a total site area of approximately 21.9 Ha.
D17A/0065	The Aske House, Dublin Road, Bray, Co. Dublin	Permission for the development of a Specialist Hospital for 56 no. in-patients, out-patient care and teaching unit, including works to Protected Structures. The works comprise: A. Change of Use of The Aske House, stables and out buildings, a part single and part two storey Protected Structure, from existing residential use to Educational use associated with the Specialist Hospital and incorporating internal alterations and refurbishment works to provide 10 single bed en-suite bedrooms, seminar rooms, library/reading rooms, administration offices, dining area, kitchen, staff changing and ancillary accommodation. B. Change of Use of existing single storey Gate Lodge, a Protected Structure, from residential use to Transitionary Accommodation Unit associated with the Specialist Hospital incorporating alterations and refurbishment works, with existing structure requiring part demolition of rear single storey extension and new single storey extension to rear for kitchen and shower room. C. New single storey Specialist Hospital in-patient and out-patient Treatment and Therapy building incorporating main reception/admissions and waiting area, treatment rooms (for both group treatment and individual therapy), hydrotherapy pool, gym, consulting rooms, offices, kitchen and dining rooms, laundry and ancillary stores and accommodation. D. Specialist Hospital adult in-patients accommodation for 48 no. single patient bedrooms within 6 no. 2 storey inter-linked blocks, each unit comprising 2 no. 4 bedroom living clusters and incorporating nursing

Ref. No.	Address	Proposal
		office, living areas, treatment rooms, family bedrooms and ancillary accommodation. E. Two storey Specialist Hospital in-patients accommodation for care of persons under nineteen years of age, with 8 no. single patient bedrooms in 4 bedroom clusters, incorporating nursing office and living areas, treatment rooms, family bedrooms and ancillary accommodation. F. Single storey garden pavilion incorporating garden maintenance equipment shed and pump house. G. Demolition of existing single storey garage. H. Modification/widening of existing site entrance, a Protected Structure, onto Dublin Road. I. Remedial works to existing Crinken Woodbrook stream. J. 84 no. car parking spaces and 3 no. covered cycle parking units. K. Landscaping works to include management of existing trees and all ancillary site works and site services.

In relation to Planning Ref. **ABP30584419**, an Information for Screening for Appropriate Assessment was prepared by Brady Shipman Martin (BSM) to accompany this application. This report concludes with the following:

'*This report concludes on the best scientific evidence that it can be clearly demonstrated that no elements of the project will result in any likely significant impact on any relevant European site, either on their own or in-combination with other plans or projects, in light of their conservation objectives. Based on these conclusions a Stage 2 Natura Impact Statement is not required for the proposed development.*

As such no mitigation measures are required for the protection of any European sites.

It is considered that this report provides sufficient relevant information to allow the Competent Authority (An Bord Pleanála) to carry out an AA Screening, and reach a determination that the proposed development will not have any likely significant effects on European sites under Article 6 of the Habitats Directive (92/43/EEC) in light of their conservation objectives.'

In relation to Planning Ref. **D20A/0744**, a Screening for Appropriate Assessment was prepared by Irish Rail to accompany this planning application. This report concludes with the following:

'*Further to the assessment, it is concluded that there will be no significant effects on Natura 2000 sites.*

Therefore, on the basis of this Screening Exercise, it is submitted that a Stage 2 Appropriate Assessment is not required.'

A Wintering Bird Survey was carried out (Appendix I) and concluded "*The results suggest that the site is not significant ex-situ foraging or roosting site for any species of qualifying interest from nearby SPA's*."

There is no direct hydrological pathway from the proposed development site to designated sites. No significant in combination impacts are likely to arise from the proposed development.

Given this, it is considered that in combination effects with other existing and proposed developments in proximity to the application area would not be significant and localised. It is concluded that no significant effects on European sites will be seen as a result of the proposed development alone or combination with other projects.

Conclusions

This AA Screening has been carried out using up to date best practice guidelines as previously outlined. The proposed project is located in a greenfield environment 2.6 km from the nearest European site (Rockabill to Dalkey Island SAC). Watercourses and surface runoff are seen as the main potential vectors for impacts on European sites. There is no direct hydrological connection from the proposed development site during construction and no direct hydrological pathway during operation, to any European site. As outlined in the AWN Hydrogeological assessment in Appendix II "*No development is proposed directly on the area of the seasonal pond or immediate surrounding area. Site conditions indicate low drainage within the shallow soil requiring drainage to be installed for the proposed development. The nature of the proposed drainage as described in Figure 3 is that it collects recharge local to the area drained. As such there is little potential for impact outside of the footprint of the pitches etc*." Standard measures are proposed on site to control surface water from entering adjacent habitats. However, as there is no direct pathway from the proposed works to European sites no significant effects on European sites are likely from surface water impacts in the absence of mitigation.

A Wintering Bird Survey has been carried out to assess the current foraging and roosting activity. Twice monthly Bird Surveys were undertaken at Shanganagh Park in South Dublin between October 2021 and March 2022 by Hugh Delaney (ornithologist). As outlined in the wintering bird survey report "*37 bird species were recorded in Shanganagh Park during the 12 winter bird surveys. The species diversity being a typical representation of that which might expected in a suburban Dublin parkland context. In the context of wintering bird species that are red listed as species of conservation concern in the revised Birdwatch Ireland List of birds of conservation concern in Ireland (2020-2026) Redwing was recorded. A Great Spotted Woodpecker recorded in the first half of the surveys was noteworthy, likely emanating from the expanding Wicklow population. Three gull species listed in the amber wintering species category were recorded, these being Black-headed, Herring and Lesser black-backed Gull.*

On the pitches and playing areas the species foraging frequently were dominated by Black-headed Gulls (counts averaging< 50 to <100) and to a lesser extent, Herring Gulls, the pitches closest to the Bray Road being most preferential. Other species foraging in these areas were dominated by Corvid species, specifically Rook (nesting in the park) and Jackdaw with smaller numbers of Hooded Crow and Magpie. The species diversity recorded within the park in the survey period was quite typical of that expected in a suburban Dublin context with a range passerines species found in the patches of woodland around the park – Species like Thrushes (Song and Mistle Thrush and Blackbird), Robin, Dunnock, Wren, Tit species, Finches such as Chaffinch, Bullfinch, Goldfinch etc, and Goldcrest. A Great Spotted Woodpecker recorded early in the winter was notable (a species expanding its range from recent colonisation in Wicklow).

The results suggest that the site is not significant ex-situ foraging or roosting site for any species of qualifying interest from nearby SPA's. Close monitoring of the pitches did not record any visitations whatsoever of Brent Geese or wader species (in a Dublin context that would be Curlew, Oystercatcher and Black-tailed Godwit). Consultation with locals regularly visiting the park and birders living nearby the surveyor is familiar with concluded (albeit anecdotal information) that such species have not being seen within the park in recent years. Despite large areas of grass playing areas the site is nonetheless very heavily visited by recreational users (walkers, dog walkers etc.) and this is likely a disincentive to the aforementioned species visiting the site."

In relation to black headed gull based on Cummins et al. (2019) there is a national breeding population of 7,810 pairs (15,620 individuals) in Ireland and the numbers seen on site were well below 1% of the National population. In relation to herring gull based on Cummins et al. (2019) there is a national breeding population of 10,333 pairs (20,666 individuals) in Ireland and the numbers seen on site were well below 1% of the National population. It should be noted that no buildings are proposed and the majority of the site will still contain grassland, although with a different management regime. In relation to Piscivorous bird species such as terns will not be impacted by the proposed works. However, as outlined in the Wintering Bird Assessment "*The results the results suggest that the site is not significant ex-situ foraging or roosting site for any species of qualifying interest from nearby SPA's*."

It should be noted that no buildings will be placed on site and the majority of site will remain as grassland, although will have increased maintenance. It would be expected that wintering birds observed on site would continue to use the site for foraging/roosting.

No European sites are within the zone of influence of the proposed development. In the absence of mitigation measures and having taken into consideration the proposed works, the potential pathways for impacts from the development site, the potential for in-combination effects, the distance between the proposed development site to designated conservation sites, the lack of a direct hydrological pathway or biodiversity corridor link to conservation sites and the dilution, mixing and settlement effect within the drainage network, watercourses and in the marine environment in addition to the Wintering Bird Assessment Report, it is concluded that the development would not give rise to any significant effects to designated sites. The construction and operation of the development will not impact on the conservation objectives of qualifying interests of European sites. An assessment in relation to potential in-combination effects was carried out. There is no direct pathway from the proposed development site to designated sites. All indirect pathways lead to the marine environment prior to reaching European sites. No significant cumulative impacts on European sites are likely to arise from the proposed development when considered together with other plans or projects. There will be no in combination effects from other projects in the vicinity of the proposed development.

This report presents a Stage 1 Appropriate Assessment Screening for the Proposed Development, outlining the information required for the competent authority to screen for appropriate assessment and to determine whether or not the Proposed Development, either alone or in combination with other plans and projects, in view of best scientific knowledge, is likely to have a significant effect on any European or Natura 2000 site.

In carrying out this AA screening, mitigation measures have not been taken into account. Standard best practice construction measures which could have the effect of mitigating any effects on any European Sites have similarly not been taken into account.

On the basis of the screening exercise carried out above, it can be concluded that the possibility of any significant impacts on any European Sites, whether arising from the proposed development itself or in combination with other plans and projects can be excluded beyond a reasonable scientific doubt on the basis of the best scientific knowledge available.

If the above analysis and conclusion is accepted by the County Council, as the consent authority, it can be determined that a Stage 2 Appropriate Assessment of the Proposed Development is not required.

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 ESRI road maps and satellite imagery. Numerous site visits were carried out between 2021 and 2022. These are outlined in the accompanying EcIA. A hydrological assessment was carried out by AWN and is seen in Appendix II.

Findings of No Significant Effects Report

Details of Project	Appropriate Assessment Screening for the proposed development of Shanganagh Park - Phase 1, Shankill, Co. Dublin.
Name and Location of EUROPEAN Sites Within 15km	Rockabill to Dalkey Island SAC Ballyman Glen SAC Bray Head SAC Knocksink Wood SAC Wicklow Mountains SAC South Dublin Bay SAC Glen of the Downs SAC Carriggower Bog SAC The Murrough Wetlands SAC North Dublin Bay SAC Howth Head SAC Dalkey Islands SPA Wicklow Mountains SPA South Dublin Bay and River Tolka Estuary SPA North Bull Island SPA The Murrough SPA
Project Description	Dún Laoghaire Rathdown County Council intend to apply for a Part 8 application for the proposed development of Shanganagh Park – Phase 1, Shankill, Co. Dublin.
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	An assessment in relation to potential in-combination effects was carried out. There is no direct pathway from the proposed development site to designated sites. All indirect pathways lead to the marine environment prior to reaching European sites. No significant cumulative impacts on European sites are likely to arise from the proposed development when considered together with other plans or projects. There will be no in combination effects from other projects in the vicinity of the proposed development. No significant effects are likely on European Sites.
Response to consultation	N/A
Data collected to carry out the assessment	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.
Level of assessment completed	Stage 1 Screening
Overall conclusions	**On the basis of the content of this report, the competent authority is enabled to conduct a Stage 1 Screening for Appropriate Assessment and consider whether, in view of best scientific knowledge and in view of the conservation objectives of the relevant European sites, the Proposed Development, individually or in combination with other plans or projects is likely to have a significant effect on any European site.**

References

The following references were used in the preparation of this AA screening report.

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; www.npws.ie/publications/archive/NPWS_2009_AA_Guidance.pdf
3. Managing NATURA 2000 Sites: the provisions of Article 6 of the Habitats Directive 92/43/EEC, European Commission 2000; ec.europa.eu/environment/nature/Natura2000/management/docs/art6/provision_of_art6_en.pdf
4. Assessment of Plans and Projects Significantly Affecting NATURA 2000 Sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC; ec.europa.eu/environment/nature/Natura2000management/docs/art6/Natura_2000_assess_en.pdf
5. Guidance document on Article 6(4) of the 'Habitats Directive' 92/43/EEC – Clarification of the concepts of: alternative solutions, imperative reasons of overriding public interest, compensatory measures, overall coherence, opinion of the commission; ec.europa.eu/environment/nature/Natura2000/management/docs/art6/guidance_art6_4_en.pdf
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11. NPWS (2013) Conservation Objectives: Rockabill to Dalkey Island SAC 003000. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
12. NPWS (2019) Conservation Objectives: Ballyman Glen SAC 000713. Version 1. National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht.
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14. NPWS (2021) Conservation Objectives: Knocksink Wood SAC 000725. Version 1. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage.
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16. NPWS (2013) Conservation Objectives: South Dublin Bay SAC 000210. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
17. NPWS (2020) Conservation Objectives: Glen of the Downs SAC 000719. Version 1. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage.
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19. NPWS (2021) Conservation Objectives: The Murrough Wetlands SAC 002249. Version 1. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage.
20. NPWS (2013) Conservation Objectives: North Dublin Bay SAC 000206. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
21. NPWS (2016) Conservation Objectives: Howth Head SAC 000202. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.
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23. 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.
24. 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.
25. NPWS (2015) Conservation Objectives: North Bull Island SPA 004006. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
26. NPWS (2022) Conservation objectives for The Murrough SPA [004186]. First Order Sitespecific Conservation Objectives Version 1.0. Department of Housing, Local Government and Heritage.

Appendix I - Shanganagh Park Winter Bird Surveys 2021-2022

Introduction

Between October 2021 and March 2022, a total of 12 winter bird surveys were conducted at Shanganagh Park, in Shankill, South County Dublin by Hugh Delaney, a freelance ecologist (Birds primarily) with an experienced background in bird surveying on numerous sites with ecological consultancies over 10+ years. Hugh, a lifelong birder, is local to the Dun Laoghaire-Rathdown area in Dublin and is especially familiar with the bird life and its ecology in the environs going back over 30 years.

Winter Bird Survey Methodology

Winter bird surveys are conducted from soon after sunrise until late in the afternoon before sunset, the site is monitored throughout the day and all bird species utilizing the site recorded, including species flying through overhead. Checks are also made on suitable habitat nearby or adjacent the site for comparative purposes and to monitor any interchange of birds between sites. Target species (species of more special interest) utilizing the site will be mapped and estimates of the time these species frequented the site recorded.

Site Location

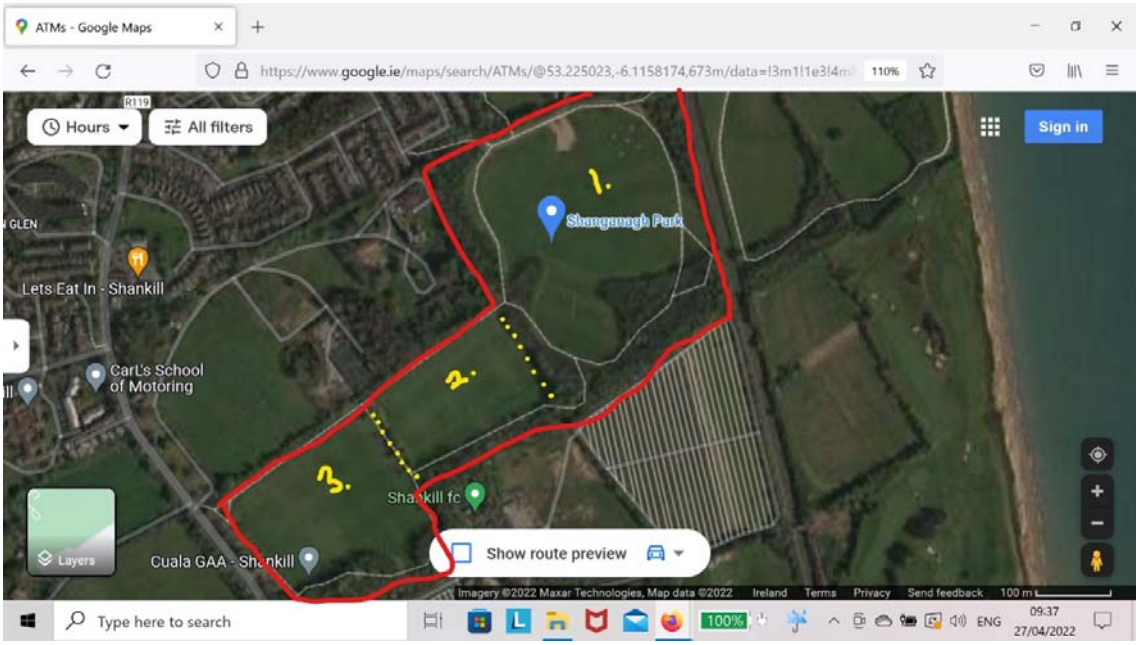

Figure 1 Shanganagh Park

Shanganagh Park survey recording area, subdivided into areas 1 (principal site survey area), and areas 2 and 3 (playing fields nearest the Bray Road), also other adjacent areas – the dog park area east of the railway, and the Shanganagh castle lands were also regularly checked during the surveys.

Site Description

Shanganagh Park comprises a mixed parkland of short grass playing fields, bordered by woodland and hedgerows. More extensive mature broadleaf woodland present to the south and east of area 1 especially.

Specific site survey methodology

Site area checked throughout the day with more specific emphasis on area 1 especially, with vantage point observations made from east and west sides of area alternately (c.1 hour on each side) during the survey

periods. Areas 2 and 3 also regularly checked during the surveys with checks made on adjacent lands and dog park area to the east of the railway.

Survey results

October 8th, 2021

Sunrise- 07.39hrs/Sunset 18.45hrs. Weather – Wind F4 Southeast, Cloud 8/8, occasional showers, 15c, Excellent visibility. On-site 07.45hrs – 16.30hrs.

Species recorded – Black-headed Gull, Herring Gull, Mediterranean Gull, Robin, Goldcrest, Blue Tit, Great Tit, Coal Tit, Long-tailed Tit, Jackdaw, Rook, Magpie, Hooded Crow, Chaffinch, Blackbird, Song Thrush, Wren, Goldfinch, Siskin, Linnet, Woodpigeon, Dunnock, Pied Wagtail, Chiffchaff.

Observations from 07.45hrs – 12.00hrs –

In area 1 Jackdaw and Rook were recorded foraging in center of site the morning with peak counts 36 Jackdaw at 10.20hrs and 26 Rook at 11.05hrs. Smaller numbers (<15) Jackdaw and Rook (<10) almost continually foraging in area 1 throughout the morning, with occasional Hooded Crow (<3) and Magpie (<5) recorded. Adjacent woodland yielded a typical array of parkland species with 4 Tit species, Goldcrest, Song Thrush, Blackbird, Siskin etc. recorded. 8 Black-headed Gull were noted foraging at area 3 from 09.20-09.40hrs, areas 2 and 3 in recreational use no other foraging species were recorded there.

Observations from 12.00hrs – 16.30hrs –

Foraging flocks of Gulls noted in areas 2 and 3, Black-headed (<20), Mediterranean Gull (<1), Herring Gull (<5) noted foraging between areas 2 and 3 from 12.40-14.00hrs. Woodpigeon noted foraging in area 1 with a peak of 22 at 14.30hrs. Jackdaw numbers foraging in area 1 peaked at 34 at 15.05hrs and likewise Rook numbers foraging in area 1 peaked at 16 at 13.35hrs. Smaller numbers of corvids noted at other times in area 1 (<10) each of Jackdaw and Rook. No other target species recorded on-site or passing through the site.

October 29th, 2021

Sunrise- 08.18hrs/Sunset 17.58hrs. Weather – Wind F3 West, Cloud 8/8, Light showers, 11c, Excellent visibility. On-site 07.50hrs – 16.30hrs.

Species recorded – Black-headed Gull, Herring Gull, Robin, Goldcrest, Blue Tit, Great Tit, Coal Tit, Long-tailed Tit, Jackdaw, Rook, Magpie, Hooded Crow, Chaffinch, Blackbird, Song Thrush, Wren, Goldfinch, Siskin, Linnet, Woodpigeon, Greenfinch, Dunnock, Pied Wagtail, Great Spotted Woodpecker, Buzzard.

Observations from 07.50hrs – 12.00hrs –

No target species foraging on areas 1-3 at sunrise, small numbers of Black-headed (<20) and Herring Gull (<10) noted passing west over the site moving inland from sunrise. A foraging Gull flock of Black-headed Gull (<30), Mediterranean Gull (<1) and Herring Gull (<1) noted in area 3 from 09.10-09.40hrs, disturbed off-site by dog walkers. At area 1 a foraging flock of Rook (<25) was noted from 09.30hrs-11.00hrs, with smaller numbers of Jackdaw (<10). A Great Spotted Woodpecker was located foraging in the southwest corner of area 1, a notable find of this recent colonizer from its Wicklow stronghold. A Buzzard was noted soaring over area 3 at 10.15hrs, no other target species located.

Observations from 12.00hrs – 16.30hrs –

Great Spotted Woodpecker again noted foraging in woodland at west side of area 1 at 12.15hrs. In area 1 Rook (<20), Jackdaw (<15), and Woodpigeon (<10) were noted foraging intermittently during the afternoon until 14.30hrs when recreational users disturbed the birds out of the area. At 13.00-13.40hrs Black-headed Gull (<15) and Herring Gull (<2) were noted foraging in area 3. No other target species recorded.

November 10th, 2021

Sunrise- 07.41hrs/Sunset 16.36hrs. Weather – Wind F1 South, Cloud 6/8, Dry, 12c, Excellent visibility. On-site 07.30hrs – 15.30hrs.

Species recorded – Black-headed Gull, Mediterranean Gull, Herring Gull, Robin, Goldcrest, Blue Tit, Great Tit, Coal Tit, Long-tailed Tit, Jackdaw, Rook, Magpie, Hooded Crow, Chaffinch, Blackbird, Song Thrush, Mistle Thrush, Redwing, Wren, Goldfinch, Siskin, Linnet, Redpoll, Greenfinch, Woodpigeon, Dunnock, Pied Wagtail, Great Spotted Woodpecker, Skylark, Buzzard.

Observations from 07.30hrs – 12.00hrs –

Increase noted of Gull foraging activity compared with previous visits with Black-headed Gull (<125), Herring Gull (<14) and Mediterranean Gull (<1) foraging at area 3 from 07.35-09.00hrs. A Buzzard was noted foraging in area 2 on ground from 07.40-08.00hrs, also Black-headed Gull (<18) in same area. Foraging Gull flock in area 3 decreasing to 35 Black-headed Gull at 09.15hrs, then all birds moving off-site. In area 1 Black-headed Gull (<75) and Herring Gull (<1) were noted roosting in center of site from 09.15-09.50hrs. A Skylark was noted passing over area 3 at 09.07hrs. By 10.30hrs no foraging Gulls were noted in areas 1-3 with an increase in recreational activity public usage on-site. The Great Spotted Woodpecker was noted again at the southwest corner of area 1 foraging in trees at 10.15hrs. A Raven was noted flying northwest over area 2 at 11.04hrs.

Observations from 12.00hrs – 15.30hrs –

(<10) Black-headed Gull noted foraging in area 1 from 12.10-12.40hrs. No further Gulls noted foraging in area 1, Rook (<18 peak count) and Jackdaw (<7 peak count) noted foraging in area 1 intermittently during afternoon. In area 3 Black-headed Gull (<15) and Herring Gull were noted foraging from 13.15-14.00hrs. Small numbers (<10) of Redwing noted passing north and west over the site in afternoon.

November 19th, 2021

Sunrise- 07.59hrs/Sunset 16.23hrs. Weather – Wind F2 Southwest, Cloud 6/8, Dry,11c, Excellent visibility. On-site 08.30hrs – 17.15hrs.

Species recorded – Black-headed Gull, Mediterranean Gull, Herring Gull, Robin, Goldcrest, Blue Tit, Great Tit, Long-tailed Tit, Jackdaw, Rook, Magpie, Hooded Crow, Chaffinch, Blackbird, Song Thrush, Mistle Thrush, Wren, Goldfinch, Siskin, Bullfinch, Woodpigeon, Dunnock, Pied Wagtail, Meadow Pipit, Buzzard.

Observations from 08.30hrs – 12.00hrs –

Rook (<30 peak count) and Jackdaw (<15 peak count) noted foraging in area 1 from 09.10-11.00hrs. Small foraging flocks of Woodpigeon noted in area 1 from 10.15-11.00hrs (<8) and another flock of Woodpigeon (<10) in area 2 from 10.45-11.15hrs. A Buzzard was noted soaring over area 1 at 11.20hrs. Small numbers (<5) of Meadow Pipit noted passing over the site.

Observations from 12.00hrs – 17.15hrs –

From 13.30-14.15hrs Black-headed Gull (<6), Rook (<26) and Jackdaw (<5) were noted foraging in area 1. Black-headed Gulls (<16) again noted foraging in area 1 from 15.00-15.25hrs. In area 3 a foraging flock of Black-headed Gulls from 14.15hrs to 15.10hrs peaked at 57 birds at 14.42hrs accompanied by 2 Mediterranean Gulls. A Herring Gull was noted foraging in area 1 from 15.20-15.50hrs. A late stay to dark on-site to attempt to locate Woodcock or Owl species found neither. No other target species located.

December 3rd, 2021

Sunrise- 08.20hrs/Sunset 16.09hrs. Weather – Wind F2 West, Cloud 6/8, Dry, 6c, Excellent visibility. On-site 08.30hrs – 15.30hrs.

Species recorded – Black-headed Gull, Herring Gull, Robin, Goldcrest, Blue Tit, Great Tit, Coal Tit, Long-tailed Tit, Jackdaw, Rook, Magpie, Hooded Crow, Chaffinch, Blackbird, Song Thrush, Mistle Thrush, Redwing, Wren, Goldfinch, Siskin, Redpoll, Bullfinch, Woodpigeon, Dunnock, Pied Wagtail, Meadow Pipit, Buzzard, Sparrowhawk, Great Spotted Woodpecker.

Observations from 08.30hrs – 12.00hrs –

At area 1 a foraging flock of Gulls in the center of the site from 09.20-10.30hrs comprised Black-headed Gull (<12) and Herring Gulls (<3), the birds flushed off-site by recreational users. A Sparrowhawk passed south over area 2 at 10.45hrs. In area 3 a foraging flock of Gulls from 11.00-12.10hrs comprised Black-headed Gull (<22) and Herring Gull (<2). The Great Spotted Woodpecker was again located at the west side of area 1 foraging in trees at 09.50hrs and again at 10.40hrs. Two Buzzard were noted soaring over woodland at the south side of area 1 at 10.15hrs.

Observations from 12.00hrs – 15.30hrs –

In area 1 no gulls were noted foraging in the afternoon with peak counts of Rook at 14.05hrs (<32) and a peak count of Jackdaw at 13.35hrs (<17). Small numbers (<10) of Woodpigeon also noted in area 1 intermittently during the afternoon. Redwing (<5) were noted foraging on the west side of area 2 at 12.45rs, accompanied by Mistle Thrush (<3), Blackbird (<6) and Song Thrush (<4). In area 3 a foraging flock of Black-headed Gull (<25) was present from 13.00-14.15hrs. Redpoll (<6) and Siskin (<10) were noted in foraging in woodland at the south side of area 1 at 14.30hrs. No other target species recorded.

December 19th, 2021

Sunrise- 08.37hrs/Sunset 16.07hrs. Weather – Wind F2 East, Cloud 5/8, Dry, 5c, Excellent visibility. On-site 08.45hrs – 15.15hrs.

Species recorded – Black-headed Gull, Herring Gull, Robin, Goldcrest, Blue Tit, Great Tit, Coal Tit, Long-tailed Tit, Jackdaw, Rook, Magpie, Hooded Crow, Raven, Starling, Chaffinch, Blackbird, Song Thrush, Mistle Thrush, Wren, Goldfinch, Linnet, Siskin, Redpoll, Bullfinch, Woodpigeon, Dunnock, Pied Wagtail, Sparrowhawk, Buzzard.

Observations from 08.45hrs – 12.00hrs –

At area 1 only corvids and Woodpigeon were noted foraging in the area with a peak count of 30 Rook at 09.40hrs and 22 Jackdaw at 10.15hrs, small numbers of Woodpigeon (<10) noted foraging intermittently during the morning mainly at the west side of site. Black-headed Gulls (<6) noted foraging in area 2 from 10.10-10.40hrs. No other Gull flock noted with all pitches and green spaces in heavy recreational use.

Observations from 12.00hrs – 15.15hrs –

Two Buzzard were noted soaring over area 2 at 12.15hrs drifting south. In area 3 Black-headed Gull (<15) were noted foraging from 14.05-14.25hrs. In area 1 small numbers of Rook (<15) and Jackdaw (<8) noted foraging intermittently during the afternoon. A Sparrowhawk was noted hunting at the south side of area 1 at 13.20hrs. No other target species recorded.

January 8th, 2022

Sunrise- 08.37hrs/Sunset 16.26hrs. Weather – Wind F3 West, Cloud 7/8, Light showers, 6c, Excellent visibility. On-site 09.00hrs – 15.30hrs.

Species recorded – Black-headed Gull, Mediterranean Gull, Herring Gull, Robin, Goldcrest, Blue Tit, Great Tit, Coal Tit, Long-tailed Tit, Jackdaw, Rook, Magpie, Hooded Crow, Chaffinch, Blackbird, Song Thrush, Redwing, Mistle Thrush, Wren, Goldfinch, Linnet, Siskin, Redpoll, Bullfinch, Greenfinch, Woodpigeon, Dunnock, Pied Wagtail, Buzzard.

Observations from 09.00hrs – 12.00hrs-

At area 3 a foraging flock of Gulls from 09.20-10.45hrs comprised Black-headed Gull (<55), Mediterranean Gull (<2) and Herring Gull (<4). No Gulls noted foraging at area 1 with peak counts of Rook (<18) at 11.10hrs and Jackdaw (<11) at 11.30hrs recorded. A Buzzard was noted foraging on the pitch at area 2 from 11.20-11.35hrs. Woodpigeon noted foraging in area 1 with a peak count of 16 at 11.40hrs.

Observations from 12.00hrs – 15.30hrs –

A small flock of roosting Gulls noted resting in the center of area 1 from 12.40-13.30hrs comprised Black-headed (<15) and Herring Gulls (<2), the birds flushed off-site by dog walkers. Redwing (<15) noted foraging in area 2 at 13.45-14.10hrs. Two Buzzard were noted soaring over the south side of area 1 at 14.15hrs. A foraging flock of Black-headed Gulls (<20) were noted in area 3 from 14.55-15.40hrs. No other target species recorded.

January 29th, 2022

Sunrise- 08.14hrs/Sunset 17.02hrs. Weather – Wind F4 West, Cloud 5/8, Dry, 8c, Excellent visibility. On-site 08.30hrs – 16.00hrs.

Species recorded – Black-headed Gull, Herring Gull, Robin, Goldcrest, Blue Tit, Great Tit, Coal Tit, Long-tailed Tit, Jackdaw, Rook, Magpie, Hooded Crow, Raven, Chaffinch, Blackbird, Song Thrush, Mistle Thrush, Starling, Wren, Goldfinch, Linnet, Siskin, Redpoll, Bullfinch, Woodpigeon, Dunnock, Pied Wagtail, Buzzard.

Observations from 08.30hrs – 12.00hrs –

At area 1 Black-headed Gull (<6) and Herring Gull (<3) were noted foraging in the center of the site from 09.15-10.10hrs. Small numbers of Rook (<15) and Jackdaw (<12) noted foraging intermittently at area 1 during the morning with occasional Hooded Crow (<4) also present. At area 3 a foraging flock of Gulls from 10.15-11.20hrs comprised Black-headed (<25) and Herring Gulls (<3). One Buzzard was noted soaring over the south side of area 1 at 11.45hrs.

Observations from 12.00hrs – 16.00hrs –

No Gulls noted foraging at area 1 in the afternoon and only between 13.30hrs-13.50hrs at area 3 (<5) Black-headed Gull, heavy recreational activity throughout park for the duration of the afternoon. Woodpigeon (<5) noted foraging at area 1 intermittently during the afternoon. Two Buzzard noted soaring over the south side of area 2 at 14.15hrs. Two Raven passed south over area 1 at 15.05hrs. No other target species recorded.

February 9th, 2022

Sunrise- 07.55hrs/Sunset 17.24hrs. Weather – Wind F3 West, Cloud 3/8, Dry, 8c, Excellent visibility. On-site 09.30hrs – 17.15hrs.

Species recorded – Black-headed Gull, Herring Gull, Robin, Goldcrest, Blue Tit, Great Tit, Coal Tit, Long-tailed Tit, Jackdaw, Rook, Magpie, Hooded Crow, Raven, Chaffinch, Blackbird, Song Thrush, Mistle Thrush, Redwing, Wren, Goldfinch, Linnet, Siskin, Redpoll, Bullfinch, Woodpigeon, Dunnock, Pied Wagtail, Buzzard.

Observations from 09.30hrs – 12.00hrs –

No foraging Gull flocks noted at areas 1-3 all morning with occasional Black-headed and Herring Gulls passing over the site only. At area 1 from 11.15-13.00hrs Rook (<20) and Jackdaw (<10) were noted foraging, small numbers (<10 of each) noted intermittently thereafter. A Buzzard was noted soaring over the east side of area 1 at 11.15hrs. Woodpigeon (<5) noted foraging at area 2 from 10.15-1040hrs.

Observations from 12.00hrs – 17.15hrs –

Park very busy during afternoon with again no Gulls noted foraging in areas 1-3. Redwing (<13) noted foraging in area 2 from 15.00-15.30hrs, associating with Blackbird (<5) and Song Thrush (<3). A Buzzard was noted soaring at the east side of area 1 at 15.42hrs. No other target species recorded.

February 26th, 2022

Sunrise- 07.19hrs/Sunset 17.57hrs. Weather – Wind F3 South, Cloud 5/8, Dry, 9c, Excellent visibility. On-site 07.45hrs – 16.00hrs.

Species recorded – Black-headed Gull, Herring Gull, Lesser black-backed Gull, Robin, Goldcrest, Blue Tit, Great Tit, Coal Tit, Long-tailed Tit, Jackdaw, Rook, Magpie, Hooded Crow, Chaffinch, Blackbird, Song Thrush, Mistle

Thrush, Wren, Goldfinch, Linnet, Siskin, Greenfinch, Bullfinch, Woodpigeon, Starling, Stock Dove, Dunnock, Pied Wagtail, Buzzard.

Observations from 07.45hrs – 12.00hrs –

At area 1 small numbers of corvids were present throughout the morning with a peak count of Rook at 10.25hrs (<18) and Jackdaw at 11.00hrs (<9). Rooks were noted tending 6 nests in woodland at the northeast corner of area 1 near bridge over rail line. No Gulls were noted foraging in area 1 with small numbers of Woodpigeon (<10) foraging intermittently in the area. A Stock Dove was noted at the south side of area 1 at 08.40hrs. At area 2 Black-headed Gulls (<4) were noted foraging from 11.30-11.45hrs. No other target species located.

Observations from 12.00hrs – 16.00hrs –

At area 3 a foraging flock of Gulls from 12.15-13.45hrs comprised Black-headed Gulls (<16) and Herring Gulls (<3). Two Lesser black-backed Gull were noted passing north over area 2 at 14.10hrs. In area 1 corvids remained foraging intermittently during the afternoon with Rook (peak count of 15) and Jackdaw (peak count of 10) noted. Small numbers of Woodpigeon noted in area 1 with a peak of 8 foraging at 14.50hrs. A Buzzard was noted foraging over area 3 at 15.15rs. No other target species located.

March 11th, 2022

Sunrise- 06.47hrs/Sunset 18.22hrs. Weather – Wind F3 South, Cloud 4/8, Dry, 12c, Excellent visibility. On-site 08.45hrs – 16.30hrs.

Species recorded – Black-headed Gull, Herring Gull, Lesser black-backed Gull, Robin, Goldcrest, Blue Tit, Great Tit, Coal Tit, Long-tailed Tit, Jackdaw, Rook, Magpie, Hooded Crow, Chaffinch, Blackbird, Song Thrush, Mistle Thrush, Redwing, Wren, Goldfinch, Linnet, Siskin, Greenfinch, Bullfinch, Woodpigeon, Dunnock, Pied Wagtail, Buzzard.

Observations from 08.45hrs – 12.00hrs –

In area 1 Black-headed Gull (<5) were noted foraging in the center area from 09.45-10.15hrs. Small numbers of Rook (<18 max count) and Jackdaw (<10) foraging intermittently in area 1 during the morning, Rooks noted to continue to attend 6 nests near footbridge over rail line in the northeast corner of area 1. At area 3 a foraging flock of Black-headed Gull (<40), Herring Gull (<2) and Lesser black-backed Gull was noted from 10.30hrs-11.40hrs when the birds were flushed off-site. A Buzzard was noted foraging in area 2 at 11.50hrs.

Observations from 12.00hrs – 16.30hrs –

At area 3 from 12.25hrs-15.40hrs Black-headed Gulls peaked at 45 birds at 14.55hrs, also Herring Gull (<8) in same area, heavy overnight rain causing spot flooding attracting the birds to forage more continually in the area. No foraging Gulls noted at area 1 with Rooks and Jackdaw continuing to forage there in small numbers, like that which was recorded in the morning. A nesting colony of Rook was located at the southeast corner of area 3 in woodland south of the small footbridge, comprising 8 nests. No other target species recorded.

March 27th, 2022

Sunrise- 07.10hrs/Sunset 19.51hrs. Weather – Wind F1 East, Cloud 6/8, Dry, 7c, Excellent visibility. On-site 08.15hrs – 16.45hrs.

Species recorded – Black-headed Gull, Herring Gull, Lesser black-backed Gull, Robin, Goldcrest, Blue Tit, Great Tit, Coal Tit, Long-tailed Tit, Jackdaw, Rook, Magpie, Hooded Crow, Chaffinch, Blackbird, Song Thrush, Mistle Thrush, Starling, Wren, Goldfinch, Linnet, Siskin, Redpoll, Greenfinch, Bullfinch, Woodpigeon, Stock Dove, Dunnock, Pied Wagtail, Sparrowhawk, Buzzard.

Observations from 08.15hrs – 12.00hrs –

At area 1 Black-headed Gulls (<11) and Herring Gull (<2) were noted foraging from 08.50-09.20hrs (disturbed off-site by dog walkers). Small numbers of Woodpigeon (<15) also recorded foraging during the morning intermittently. Rooks peaked in number at 10.20hrs with 26 birds recorded with small numbers (<10) of Jackdaw also present. Two Buzzard were observed soaring over the southeast corner area 1 at 9.40hrs and 11.10hrs. No Gulls were noted foraging in areas 2 or 3 during the morning. A Sparrowhawk was noted hunting along the east side of area 2 at 11.45hrs.

Observations from 12.00hrs – 16.45hrs –

No Gulls were noted foraging at area 1 during the afternoon with Rooks (<20) and Jackdaw (<15) recorded intermittently. A peak of 18 Woodpigeon were noted foraging at the south side of area 1 at 13.15hrs. At area 3 Black-headed Gull (<13) and Herring Gull (<4) were recorded foraging from 14.10-14.40hrs. Lesser black-backed Gull (<5) were noted passing north over the site (likely spring migrants). Rooks were still attending the nesting sites at areas 3 and 1. No other target species were recorded.

Comments and observations on the survey results

37 bird species were recorded in Shanganagh Park during the 12 winter bird surveys. The species diversity being a typical representation of that which might expected in a suburban Dublin parkland context. In the context of wintering bird species that are red listed as species of conservation concern in the revised Birdwatch Ireland List of birds of conservation concern in Ireland (2020-2026) Redwing was recorded. A Great Spotted Woodpecker recorded in the first half of the surveys was noteworthy, likely emanating from the expanding Wicklow population. Three gull species listed in the amber wintering species category were recorded, these being Black-headed, Herring and Lesser black-backed Gull.

On the pitches and playing areas the species foraging frequently were dominated by Black-headed Gulls (counts averaging< 50 to <100) and to a lesser extent, Herring Gulls, the pitches closest to the Bray Road being most preferential. Other species foraging in these areas were dominated by Corvid species, specifically Rook (nesting in the park) and Jackdaw with smaller numbers of Hooded Crow and Magpie. The species diversity recorded within the park in the survey period was quite typical of that expected in a suburban Dublin context with a range passerines species found in the patches of woodland around the park – Species like Thrushes (Song and Mistle Thrush and Blackbird), Robin, Dunnock, Wren, Tit species, Finches such as Chaffinch, Bullfinch, Goldfinch etc, and Goldcrest. A Great Spotted Woodpecker recorded early in the winter was notable (a species expanding its range from recent colonisation in Wicklow).

The results suggest that the site is not significant ex-situ foraging or roosting site for any species of qualifying interest from nearby SPA's. Close monitoring of the pitches did not record any visitations whatsoever of Brent Geese or wader species (in a Dublin context that would be Curlew, Oystercatcher and Black-tailed Godwit). Consultation with locals regularly visiting the park and birders living nearby the surveyor is familiar with concluded (albeit anecdotal information) that such species have not being seen within the park in recent years. Despite large areas of grass playing areas the site is nonetheless very heavily visited by recreational users (walkers, dog walkers etc.) and this is likely a disincentive to the aforementioned species visiting the site.

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TECHNICAL NOTE

Project **Shanganagh Park Masterplan**

Subject **Hydrogeological assessment**

Author **Teri Hayes BSc MSc PGeo**

Date **27 April 2002**

Re: Assessment of Seasonal Pond in relation to proposed Shanganagh Park Masterplan (Phase 1)

1.0 Objective of Report

The scope of this desktop review is to assess the potential for any likely significant impacts as a result of the proposed development on water supply to the seasonal pond located south of the proposed redevelopment of lands at Shanganagh Park.

The assessment relies on information regarding design provided by Dun Laoighre Rathdown County Council and site assessment completed by Bryan Deegan of Altemar Ltd.

This report was prepared by Teri Hayes (BSc MSc PGeol EurGeol). Teri is a hydrogeologist with over 25 years of experience in water resource management and impact assessment. She has a Masters in Hydrogeology and is a former President of the Irish Group of the Association of Hydrogeologists (IAH) and has provided advisory services on water related environmental and planning issues to both public and private sector bodies. She is qualified as a competent person as recognised by the EPA (IGI Register of competent persons www.igi.ie). Her specialist area of expertise is water resource management eco-hydrogeology, hydrological assessment and environmental impact assessment

2.0 Summary of existing drainage and site conditions

The Geological Survey of Ireland (GSI) has identified the area of Shanganagh park as being underlain by Ordovician aged Maulin Formation slates and siltstones. The soil cover is 3-5 metres indicating "High" Vulnerability. Data from the geotechnical investigation (August 2021) shows a possible depth of c. 2 metres of overburden above bedrock in the south of the site, thickening towards the north of the site.

The Quaternary soils map indicates the presence of "Irish Sea Till" derived from Limestone. The closest investigation trial pits to the seasonal lake are TP08 and TP 07 (as shown on Figure 1 below).

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A review of the trial pit logs shows that this area is underlain by:
Sandy gravelly Clay 0-1m below land surface (bls) overlying greyish brown sandy Gravel with high cobble content. Possible boulders or bedrock were encountered at 1.90 m and 2.6m respectively. Excavations were undertaken during a dry summer period and no water table was encountered at that time. Groundwater infiltration tests showed very low infiltration rates in the shallow clays.

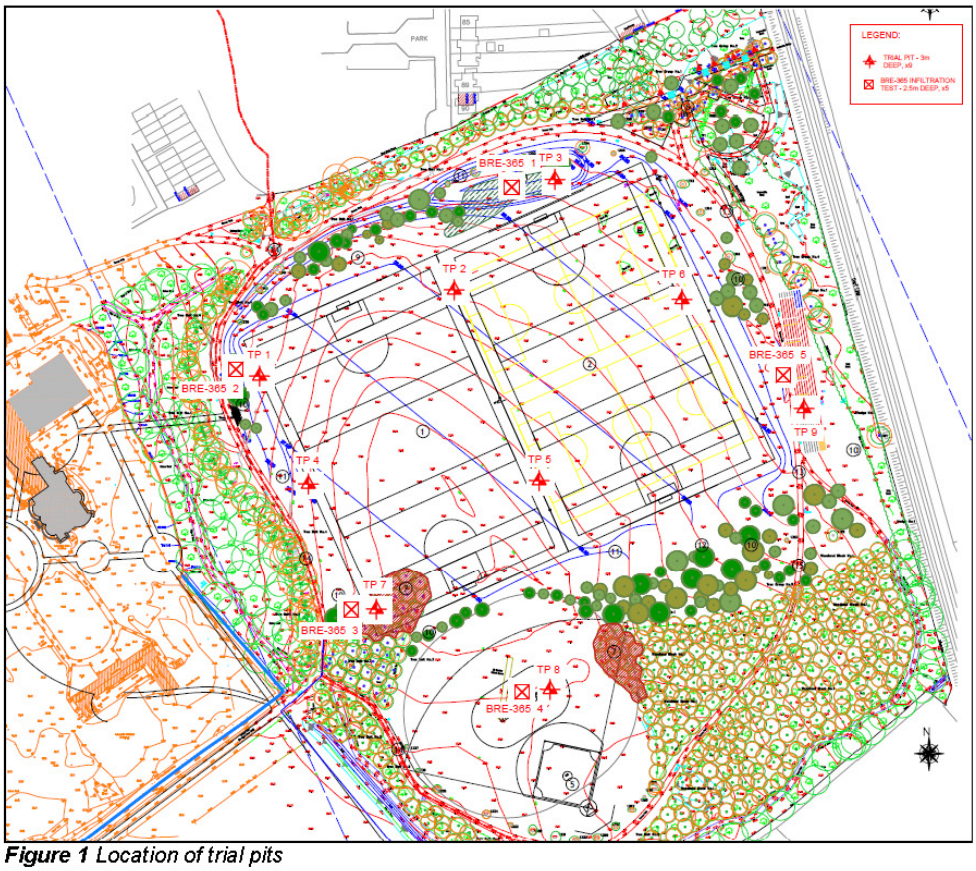

Figure 1 *Location of trial pits*

A review of the historical mapping for the area shows the location of a drainage ditch fed by a spring ("rises") to the west of the park (Figure 2) which may be a source of water supply to the seasonal lake during winter periods. However, there is no indication of connectivity from mapping or from a review of photographs (taken by B. Deegan April 2022).

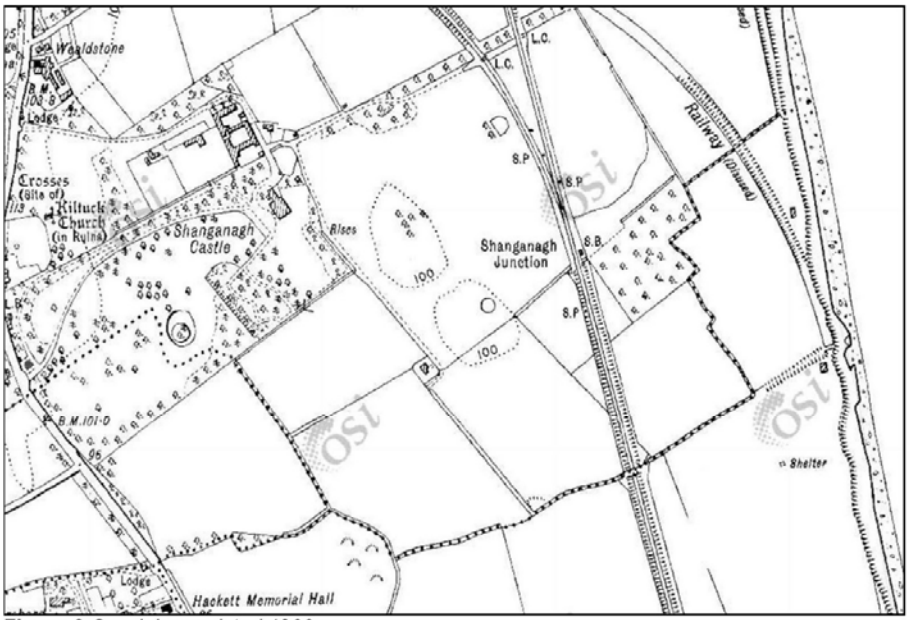

Figure 2 *Cassini map dated 1930s*

3.0 Review of Impacts from the Proposed Development

A review of the proposed site drainage indicates a shallow drainage system comprising slit drains and perforated lateral drains across pitch areas directed to a bio-retention area via collector drains located around pitch perimeters (Figure 3).

Figure 3 *Site Drainage – Drawing no DRP 2422-12*

4.0 Conclusions

No development is proposed directly on the area of the seasonal pond or immediate surrounding area.

Site conditions indicate low drainage within the shallow soil requiring drainage to be installed for the proposed development. The nature of the proposed drainage as described in Figure

3 is that it collects recharge local to the area drained. As such there is little potential for impact outside of the footprint of the pitches etc.

There is no evidence that the drainage plan will divert any streams feeding the seasonal pond. Also as the site will remain greenfield there is no overall change in the recharge pattern to the underlying soils or aquifer which would impact on any groundwater pathway to the pond.