

Appropriate Assessment Screening & Natura Impact Statement for a Proposed Strategic Housing Development (SHD) at Priorsland, Cherrywood, Dublin 18.



11th April 2022

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Document Control Sheet								
Project	Appropriate Assessment Screening & Natura Impact Statement for a Proposed							
	Strategic Housing Development (SHD) at Priorsland, Cherrywood, Dublin 18.							
Report	Appropriate Assessment Screening & Natura Impact Statement							
Date	11 th April 2022							
Version	Author	Reviewed	Date					
Draft 01	Bryan Deegan	Jack Doyle	31 st March 2022					
Planning	Bryan Deegan		11 th April 2022					

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Introduction

The following Appropriate Assessment Screening and Natura Impact Statement – Information for a Stage 1 (AA Screening) and Stage 2 (Natura Impact Statement) AA has been prepared by **Altemar Ltd.** for the proposed Strategic Housing Development (SHD) at Priorsland, Cherrywood, Dublin 18.

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

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

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

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 27 years' experience working in Irish terrestrial and aquatic environments, providing services to the State, Semi-State and industry. Bryan Deegan (MCIEEM) holds a MSc in Environmental Science, BSc (Hons.) in Applied Marine Biology, NCEA National Diploma in Applied Aquatic Science and a NCEA National Certificate in Science (Aquaculture). Bryan Deegan carried out all elements of this Appropriate Assessment Screening.

Background to the Appropriate Assessment

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

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

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

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

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

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

- Article 6(3) assessment results allow full traceability of the decisions eventually made, including the selection of alternatives and any imperative reasons of overriding public interest.
- The assessment should include all elements contributing to the site's integrity and to the overall coherence of the network as defined in the site's conservation objectives and Standard Data Form, and be based on best available scientific knowledge in the field. The information required should be updated and could include the following issues:
 - Structure and function, and the respective role of the site's ecological assets;
 - Area, representativity and conservation status of the priority and nonpriority habitats in the site;
 - Population size, degree of isolation, ecotype, genetic pool, age class structure, and conservation status of species under Annex II of the Habitats Directive or Annex I of the Birds Directive present in the site;

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;

- 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."

Stages of the Appropriate Assessment

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

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

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

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

Stage 1 Screening Assessment

Management of the Site

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

Description of the Proposed Project

1 Carrickmines Land Limited. intend to apply for planning permission for a proposed Strategic Housing Development at Priorsland, Cherrywood, Dublin 18.

The development will comprise a mixed-use village centre and residential development of 443 no. units comprising 6 no. blocks (A-F) of apartments (up to 5 storeys with basement/undercroft parking) providing 402 no. apartments units (146 no. 1-beds; 218 no. 2-beds and 38 no. 3-beds), and 41 no. houses (19 no. 3-beds and 22 no. 4-beds). All apartments provided with private balconies/terraces. Provision of indoor residential facilities to serve apartment residents.

The Village Centre and non-residential elements will comprise a supermarket, local retail/retail service units, non-retail commercial units, creche, gym, community space, and offices (High Intensity Employment) use.

Provision of car/bicycle/motorcycle parking; ESB sub-stations; bin storages areas, and all associated plant areas.

Provision of the first phase of Priorsland Park (on lands within the applicant's ownership) and other public and communal open spaces.

Construction of Castle Street through the subject lands and two road bridges across the Carrickmines Stream, one to serve the future school site/ park, the second to provide pedestrian and cyclist access to the Carrickmines Luas station and future Transport Interchange to the north. Provision of an additional pedestrian bridge to the park. Provision of an acoustic barrier along the southern/western edge of the site.

All associated site development works, landscaping, boundary treatments and services provision.

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

Landscape

A Landscape Design Rationale has been prepared by Dermot Foley Landscape Architects to accompany this planning application. This document outlines the following landscape strategy for the proposed development:

'The proposal for the Landscape at Priorsland strives to retain and enhance the existing character and quality of the site. In relation to the proposed use, the site must be re-examined through the lens of a small and sustainable microcosm landscape – a village centre with retail, schooling, recreation, housing, and amenity space. The existing Priorsland site has a number of particularly special existing features that must be maintained in this change of usage – including the protection of the particularly important row of Turkish Oak trees.

The main objectives of the landscape strategy are:

- 1. Proposed realistic retention of existing trees and replacement planting
- 2. Integration of the scheme within the wider context.
- 3. Maintain the distinct spatial character of the existing site, while enhancing the identity.
- 4. Provide a safe and accessible environment.
- 5. Provide new opportunities for the protection and establishment of habitat.
- 6. Creation of Priorsland Park.'

The proposed landscape plans (1 & 2) and landscape sections are demonstrated in Figures 6-8.

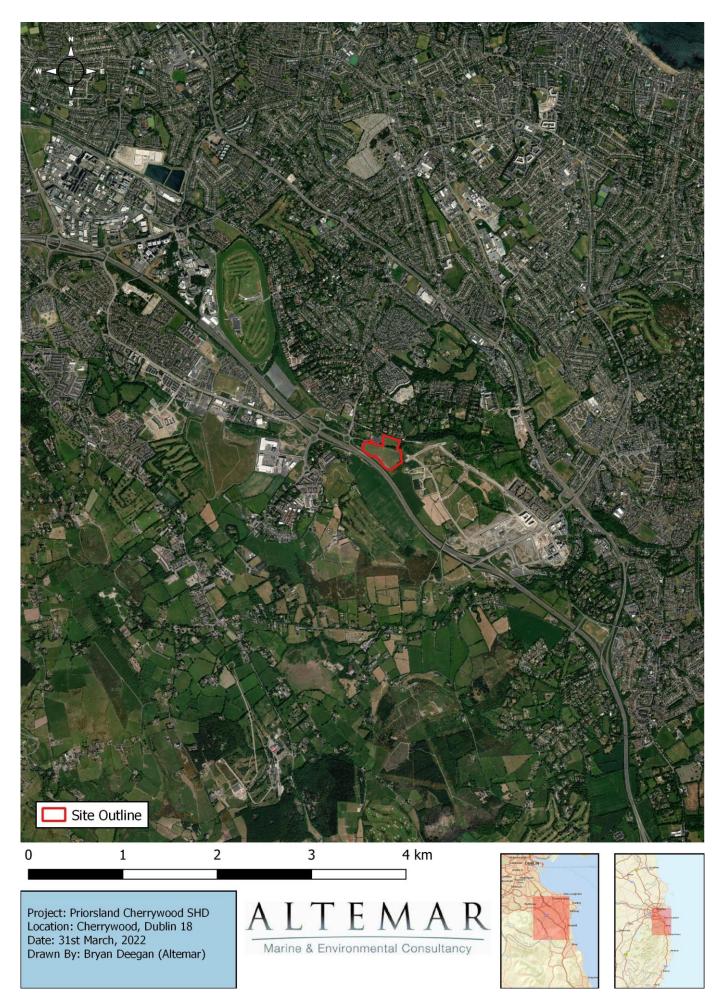


Figure 1. Site outline and location context.



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MAP SERIES

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LEVELLED DATE = 31-DEC-1977

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Pond

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Figure 3. Site location plan

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Figure 4. Proposed site layout plan



CONTIGUOUS ELEVATION A-A



CONTIGUOUS ELEVATION A-A



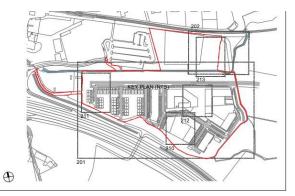
2 CONTIGUOUS ELEVATION A-A



Figure 5. Proposed contiguous elevations – AA



Figure 6. Proposed landscape plan (1)





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stated all dimensions are in millimetres. Where dimensions are not given,		25.03.2022	A Drawing generally revised.	ks	sc	MALPAS STREET BLACKPITTS D08 DD56 IRELAND		T:+353 1 4545148	WWW.DERMOTFOLEY.COM					
drawings must not be scaled and the matter must be referred to the Landscape Architect. If the drawing includes conflicting details/dimensions the matter must be referred to the Landscape Architect. All dimensions must be checked on site. The Landscape Architect that be informed, by the Contractor, of any discrepencies before work proceeds.		29.03.2022	29.03.2022 B Drawing revised to include latest lighting layout, tree schedule and legend amended. Is so CLIENT: 1 CARRICKMINES LAND LIMITED						ISSUE STATUS:			<u></u>		
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LEGEND AND SCHEDULE OF MATERIALS

PLANNING APPLICATION SITE BOUNDARY

ADDITIONAL LANDS IN OWNERSHIP OF THE APPLICANT

STONE PAVING

AGGREGATE

SELECTED FINISH

PROPOSED SMALL FORMAT NATURAL

PROPOSED SELECTED SELF-BINDING

PROPOSED IN-SITU CONCRETE WITH

PROPOSED SELECTED LIGHT GREY PRECAST CONCRETE BLOCK PAVING

PROPOSED SELECTED BUFF COLOUR

PRECAST CONCRETE BLOCK PAVING

SELECTED TIMBER DECK SURFACE

PROPOSED PRIVATE OPEN SPACE

EXISTING TREE RETAINED AND PROTECTED

EXISTING HEDGEROW RETAINED AND PROTECTED IN ACCORDANCE WITH BS5837:2012. REFER TO TREE SURVEY BY ARBORIST.

REFER TO DRAWING 201 FOR SCHEDULE OF PLANTING

PROPOSED MULTI-STEM TREE REFER TO DRAWING 201 FOR SCHEDULE OF PLANTING

ORANGE DASHED LINE REPRESENTS RPA

REFER TO TREE SURVEY BY ARBORIST.

IN ACCORDANCE WITH BS5837:2012.

PROPOSED SINGLE STEM TREE

(tr)

PROPOSED CLIPPED HEDGING

PROPOSED EARTHWORKS

(ROOT PROTECTION AREA).

PROPOSED BRUSHED CONCRETE

PROPOSED ROAD SURFACE

TO ENGINEER'S DETAIL

PROPOSED VENTILATION

RETAINED (AS SURVEYED BY OTHERS)

PROPOSED EXERCISE EQUIPMENT

PROPOSED HERBACEOUS PLANTING

PROPOSED NATIVE SPECIES PLANTING MIX

PROPOSED SEATING

PROPOSED LAWN

PROPOSED HEDGING

DRAWING MATCH LINE

EXISTING LEVEL RETAINED

PROPOSED BIN LOCATIONS

PROPOSED PARK SIGNAGE

(SHOWN AS INDICATIVE)

PROPOSED ESTATE RAILING

PROPOSED COLLAPSIBLE BOLLARDS

PROPOSED BIKE STAND CANOPY

PROPOSED LEVEL

IWUT

+ 14.40 ex

-

_

...

XXXXXXX

+ 14.40

PROPOSED REINFORCED GRASS SURFACE



Figure 8. Proposed landscape sections

Drainage

Engineering Planning Report

An Engineering Planning Report has been prepared by PUNCH Consulting Engineers to accompany this planning application. This report outlines the following foul and surface water drainage strategy for the proposed development.

Foul Wastewater

In relation to the existing foul drainage on-site, this report outlines the following:

'On the basis of available records, the following foul water drainage exists in the vicinity of the development site

- 1. A 750mm concrete public sewer runs from east to west through the site parallel to the Carrickmines River.
- 2. A 225mm diameter uPVC public sewer connects from a housing estate to the north of the development into the 750mm sewer within the proposed development site.'

'As the site is a greenfield site, there are no existing/baseline foul water flow rates from the site.'

In relation to the proposed foul drainage, this report outlines the following:

'It is proposed to connect the development sewerage to the existing 750mm concrete sewer that traverses the site, from west to east.'

Further: 'Two Confirmation of Feasibility letters have been obtained from Irish Water for the connections for the proposed development. The first, obtained in February 2020 confirms a development of 454no. units can connect to the water and wastewater public infrastructure without upgrades being required to the public networks. The second, obtained in March 2020 confirms a development of 2,902no. units can connect to the water and wastewater public infrastructure being required to the public networks.'

Surface Water

In relation to the existing surface water drainage on-site, this report outlines the following:

'As the Priorsland site is a greenfield site, there is no existing surface water drainage system within the site boundary. A surface water drainage system has been developed to the east of the site, as per Planning Application Reference: DZ15A/0758. However, due to the flow path and levels of the Carrickmines River and Ticknick Stream it is not feasible to propose a connection to the existing drainage system to the east of the Priorsland site.'

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

'The surface water runoff from the proposed development is to be entirely separate from the development's foul sewerage network development drainage.

All surface water run-off from roof areas and hardstanding areas shall be collected 4no. networks that drain from north to south through the site. The networks have a restricted flow rate and will discharge to a series of engineered swales and a detention basin to the south of the site. The detention basin then ultimately discharges to the Ticknick Stream to the east of the site.'

'The proposed access route to the Priorsland site will be via the Luas Park & Ride Access Road (via the M50 Southbound Roundabout) and is an interim arrangement only.

Once the Castle Street extension becomes viable, and is completed in its entirety, Castle Street to the east of Priorsland will become the standard, on-going access route for the Priorsland development. This will have no effect on the proposed surface water drainage arrangement or discharge point for the site.'

Sustainable Drainage Systems

In relation to the proposed implementation of Sustainable urban Drainage Systems, this report outlines the following:

'The proposed detention basin/regional pond for the Priorsland site is proposed to the south of the site. All surface water that cannot be infiltrated within the Priorsland site will discharge to the proposed detention basin/regional pond for final treatment prior to being discharged to the Ticknick Stream.'

Further, it is proposed to implement the following SuDS measures into the surface water drainage network:

- Green roofs
- Permeable paving
- Infiltration trenches
- Engineered swales
- Tree root structural cell systems
- Attenuation tanks

Full description of Water services/flood infrastructure as follows:

The following connections to existing public drainage and water supply services works are proposed:

- 1) A new 300mm diameter foul water connection is proposed to connect to the existing 750mm diameter foul water sewer that runs from east to west through the site parallel to the Carrickmines River
- 2) A new 225mm diameter surface water outfall is proposed to discharge surface water to the Ticknick Stream to the east of the site.
- 3) A new 225mm diameter potable water service connection is proposed to connect to the existing 300mm diameter water main on Castle Street to the east of the proposed development site. It is noted that recent planning application DZ20A/0399 has been approved/granted by DLRCC which includes for the extension of Castle Street up to the proposed development site. This also includes a planning condition that stipulates the completion of all service routes associated with this road extension.

The following in-ground, on site drainage and water supply services works are proposed:

- 1) Foul water:
 - a) An in-ground gravity foul drainage network along the exterior of the buildings underneath the proposed road network on site is proposed.
 - b) Foul drainage from the shared basement under Plot A and Plot B will be pumped to the proposed external in-ground gravity foul drainage system.
 - c) All other foul drainage from each of the buildings on site will discharge by gravity to the proposed external in-ground gravity foul drainage system.
- 2) Surface Water:
 - a) Proposed road gullies and other surface channel drains will connect to tree root structured cell systems or to a stone storage layer within the pavement build-up in hard standing areas.
 - b) Drainage networks will be attenuated via attenuation tanks. The attenuation tanks will ultimately outfall to engineered swales or a detention basin/regional pond. The surface water from the ponds will then outfall to the Ticknick Stream at an attenuated rate of 1l/s/ha, as per the requirements of the Cherrywood Planning Scheme Chapter 4.
 - c) Surface water within carparks will pass through a petrol interceptor prior to discharge.
 - d) SuDS measures have been adopted including incorporation of green roofs to the local authority standard requirements.
 - e) An in-ground gravity surface water network along the exterior of the buildings underneath the proposed road network on site is proposed.
 - f) Surface water drainage from the shared basement under Plot A and Plot B will be pumped to the proposed external in-ground gravity foul water drainage system as per the requirements of the *Greater Dublin Regional Code of Practice for Drainage Works*.
 - g) All other surface water drainage from each of the buildings on site will discharge by gravity to the proposed external in-ground gravity surface water drainage system.
- 3) Potable Water:
 - a) An in-ground pressurised watermain network along the exterior of the buildings underneath the proposed road network on site is proposed.
 - b) Metered connections will be provided from this network to each building.
 - c) Sluice valves, air valves, scour valves and hydrants will be provided to meet the requirements of Irish Water and the Building Regulations.

Interim Flood works

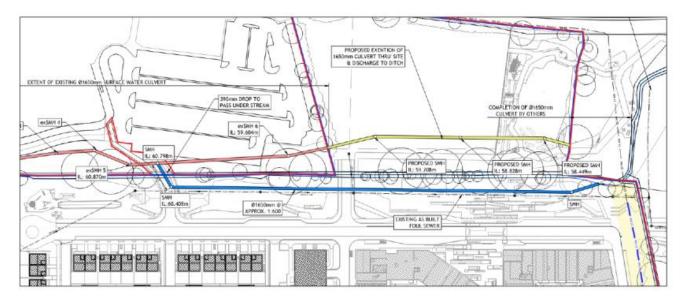
It should be noted that the proposed drainage strategy has been separated into "Interim Proposals" and "Permanent Proposals". Following consultation with the design team it was confirmed that the "Interim Proposals" outlined by PUNCH Consulting Engineers are works proposed as part of this application and within the red line defined. The "Permanent Proposals", which has been included by PUNCH Consulting Engineers for reference, relate to the longer term permanent solutions which would require third party lands to complete. Policy 11 of the Cherrywood SDZ Planning Scheme states the following with regard to the floodworks requirement in the Priorsland area:

Policy 11

It is an objective to ensure that predicted flooding in the Priorsland area does not pose an unacceptable risk to persons or property. In this regard a flood containment zone shall be constructed in the Priorsland area by raising adjacent ground levels approx. 500mm and by incorporating a large diameter (1650mm) bypass culvert.

To date a portion of the required 1650 mm flood relief culvert has been constructed along the north of the site in the Luas P&R lands, however this has not been completed and currently serves no hydraulic purpose. See plan below with the existing stretch of culvert coloured orange.

As part of this planning application it is proposed to further extend 1650 mm flood relief culvert (see yellow line on the map below) through the applicant's lands north of the stream and as far as the boundary with Quintain Developments lands to the north-east. As it is not possible to complete the 1650mm dia. flood relief culvert any further east due to land ownership restrictions, an alternative route is therefore proposed as an interim measure on the applicant's lands SOUTH of the stream. This interim measure is indicated in blue on the below map. This culvert is also a 1650mm circular section and will cross <u>underneath the Carrickmines River</u> where the new bridge is proposed (all within the red line boundary) before turning eastwards and discharging into the river to the east of the site, as shown in PUNCH drawing 182-186-060 This is referred to in the proposed Punch flood model results as the "Proposed Interim Scenario". Other than this change to the culvert, all other aspects of the model are the same as in the Permanent Proposed Scenario.



As a result, the proposed drainage strategy has been separated into "Interim Proposals" and "Permanent Proposals". Following consultation with the design team, it was confirmed that the "Interim Proposals" outlined by PUNCH Consulting Engineers are works proposed as part of this application and within the red line defined. The "Permanent Proposals", which has been included by PUNCH Consulting Engineers for reference, relate to the longer term permanent solutions which would require third party lands to complete.

Given that it is proposed to outfall surface water drainage to the Ticknick Stream, it is proposed to construct bridges across the Carrickmines Stream and Ticknick Stream, and in-stream works to the Carrickmines Stream are proposed (extension of the existing surface water culvert underneath the Carrickmines Stream), out of an abundance of caution, the assessment of both the Interim Proposals and Permanent Proposals have been included in this report.

The proposed surface water drainage layout – Interim Proposal (Sheets 1 & 2) and foul drainage layout – Interim Proposal (Sheets 1 & 2) are demonstrated in Figures 9 – 12. The proposed extension to the existing surface water culvert – Interim Proposal is demonstrated in Figure 13. The proposed surface water drainage layout – Permanent Proposal (Sheets 1 - 3) and foul drainage layout – Permanent Proposal (Sheets 1 - 3) are demonstrated bridges – Permanent Proposal (eastern, western, & future Castle Street bridge) are demonstrated in Figures 20-22.

The following flood mitigation works are proposed:

- a) Finished Floor Levels (FFLs) of the ground floor of the proposed buildings on the site have been set at above the flood levels from the adjacent Carrickmines Stream, and flood modelling has shown that no buildings are at risk of flooding. Basements are included in the development and entrance levels to these basements will be above the Q1000 flood level;
- b) Surface water flows will be attenuated on site and the runoff rate from the site will not be greater than the runoff rate agreed with DLRCC, in order to reduce the risk of flooding elsewhere. Runoff from the site will be limited to 1 l/s/ha as per the Cherrywood SDZ;
- c) The surface water drainage systems within the blocks include attention tanks to limit flows to the external network. Block A and B will be a pumped, while other units will discharge by gravity;
- d) It is proposed that the proposed development will incorporate a mixture of extensive and intensive green roof systems. This will provide a degree of attenuation for rainfall and additionally will reduce surface water being discharged to the carrier drainage system through evapotranspiration;
- e) The 1650mm diameter Flood Relief Culvert to the north of the Carrickmines Stream will be extended will be constructed in the Interim period as far as the boundary with the third-party lands to the east. An alternative, additional floodwater culvert south of the river will be constructed and will operate in the interim. This will improve conveyance of floodwaters away from the site.

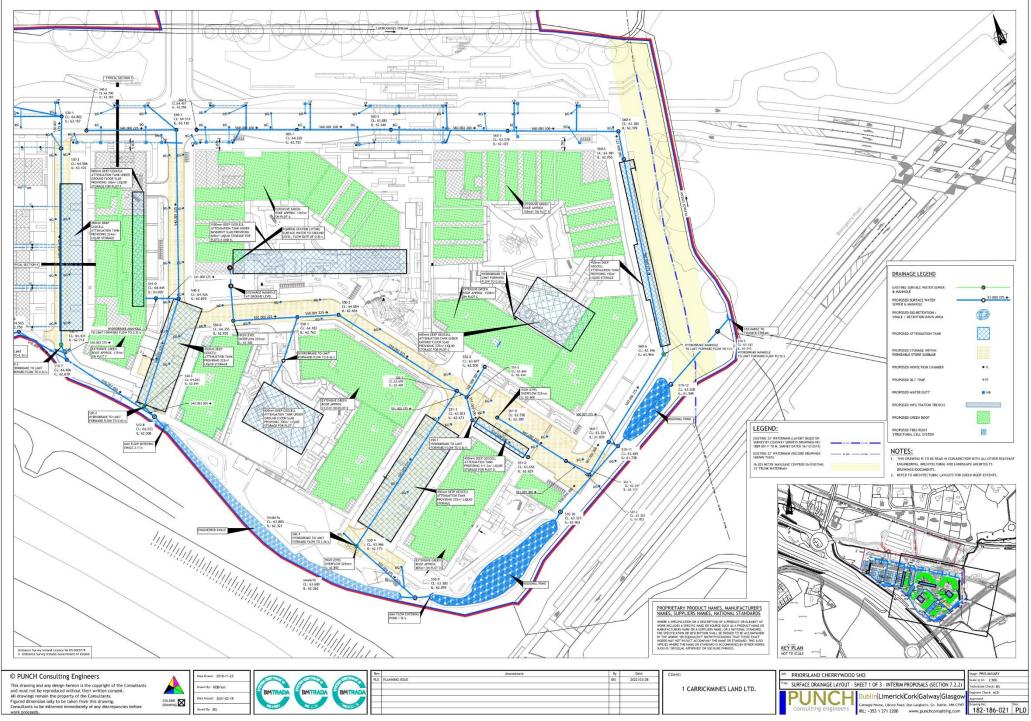


Figure 9. Surface water drainage – Interim Proposal (sheet 1)

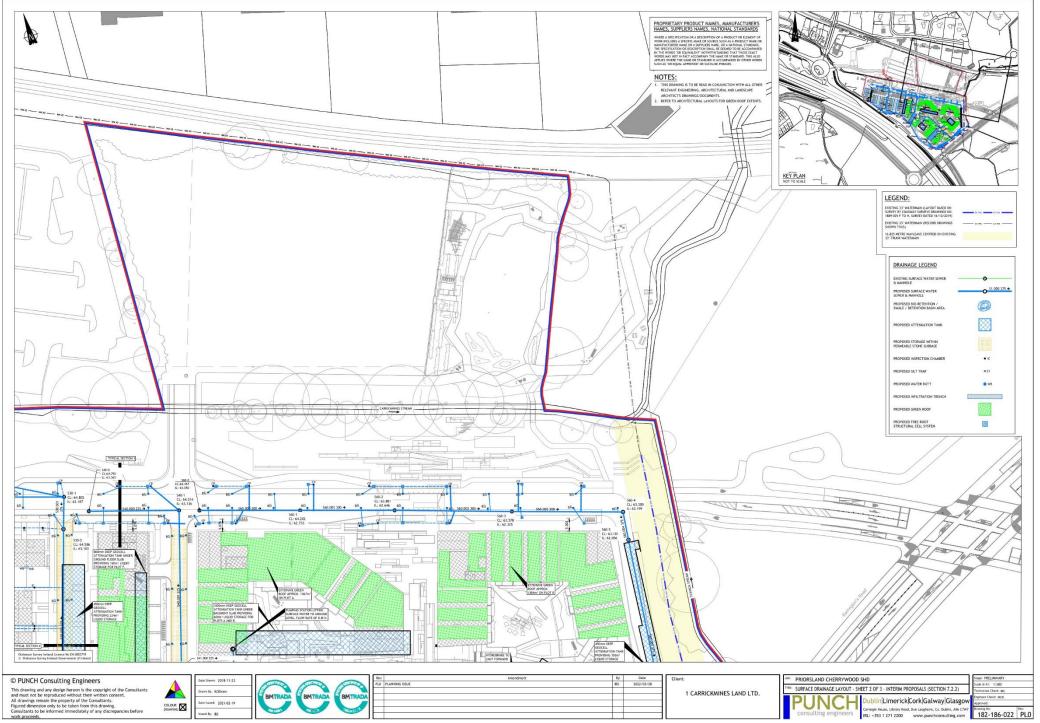


Figure 10. Surface water drainage – Interim Proposal (sheet 2)

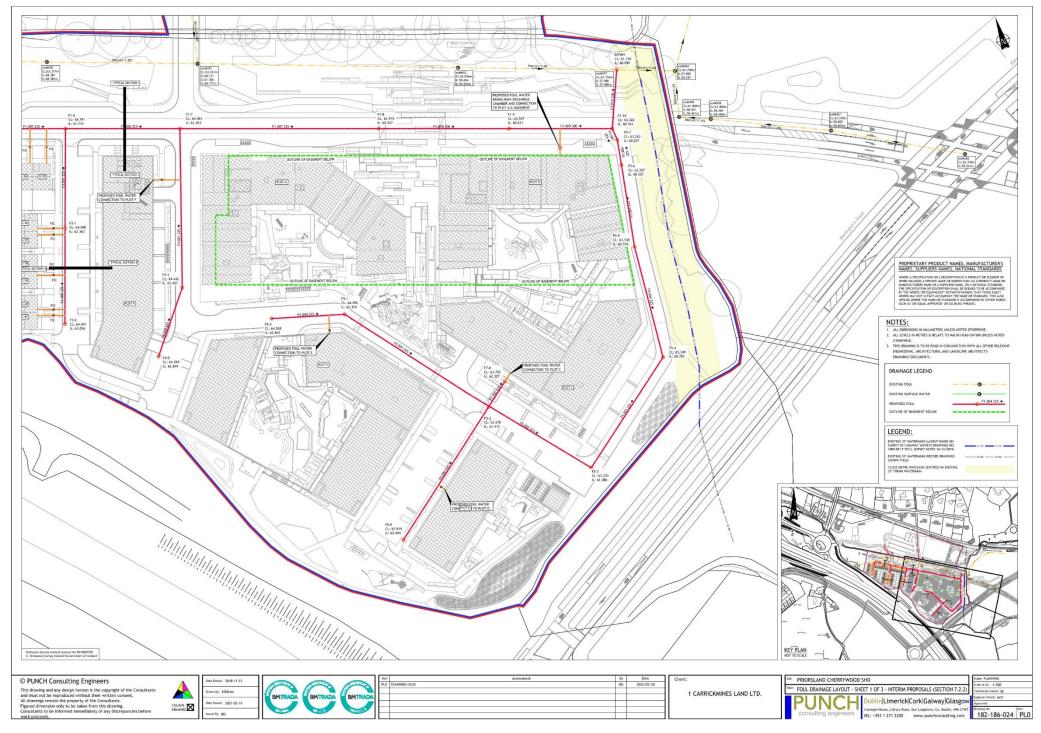


Figure 11. Foul water drainage – Interim Proposal (sheet 1)

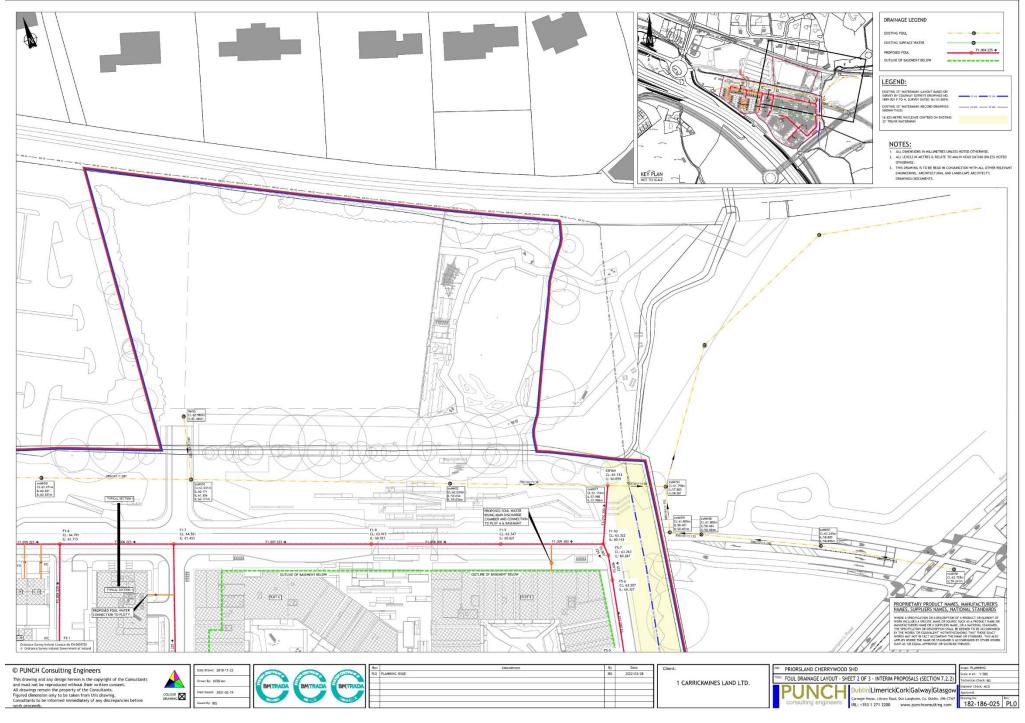


Figure 12. Foul water drainage – Interim Proposal (sheet 2)

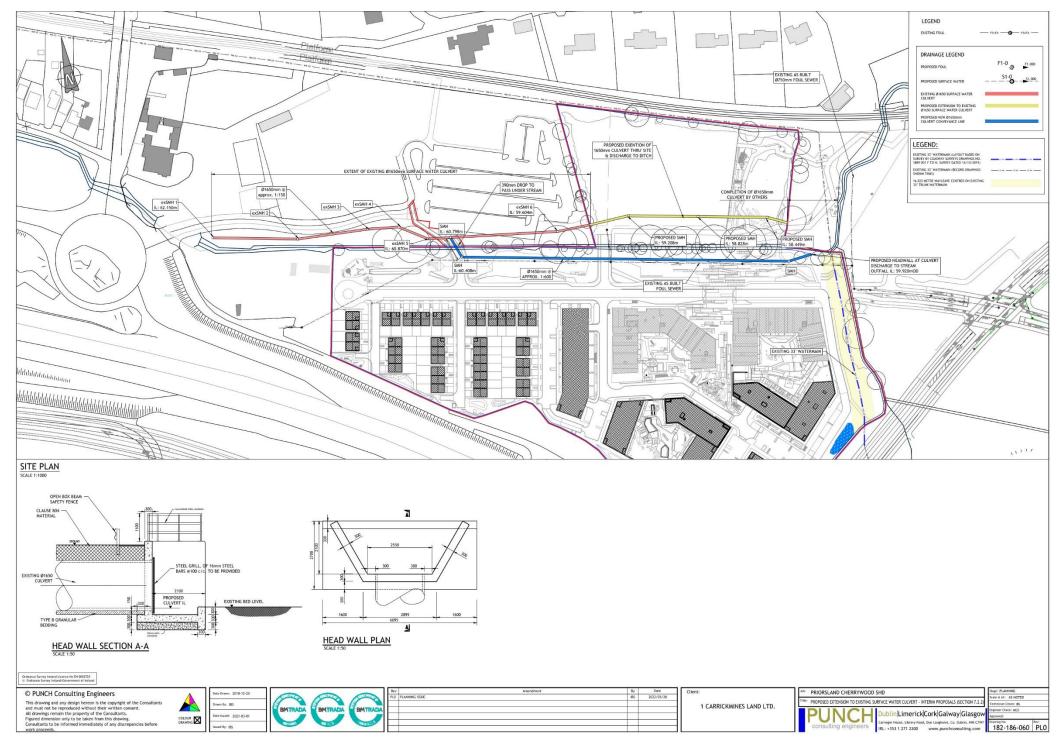


Figure 13. Proposed extension to existing surface water culvert – Interim Proposal 21

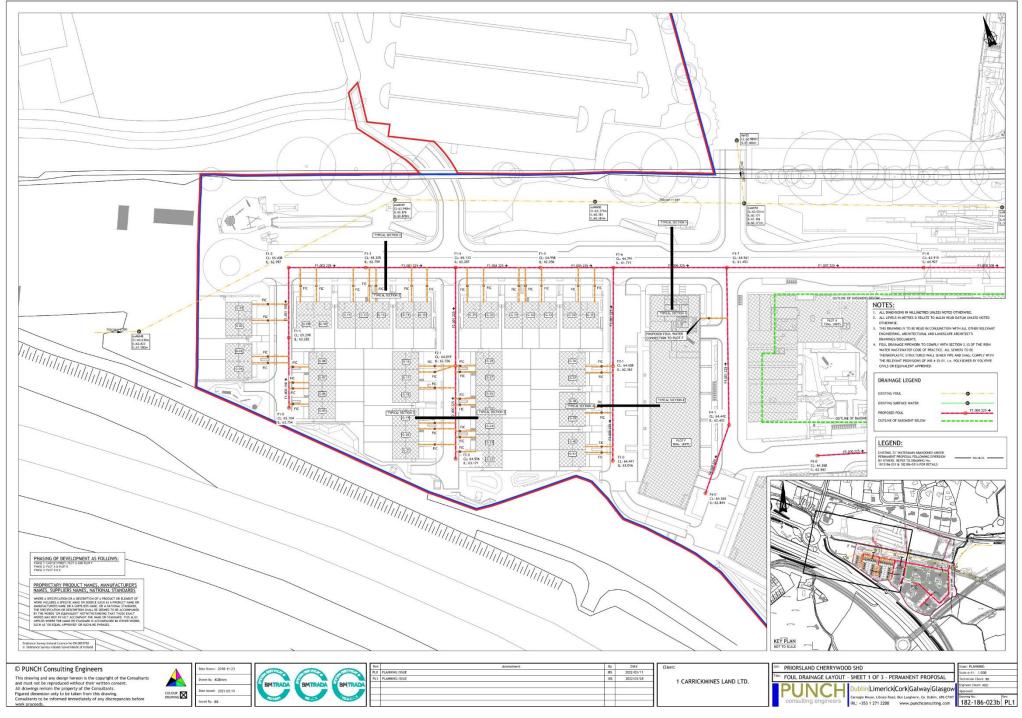


Figure 14. Foul water drainage – Permanent Proposal (sheet 1)

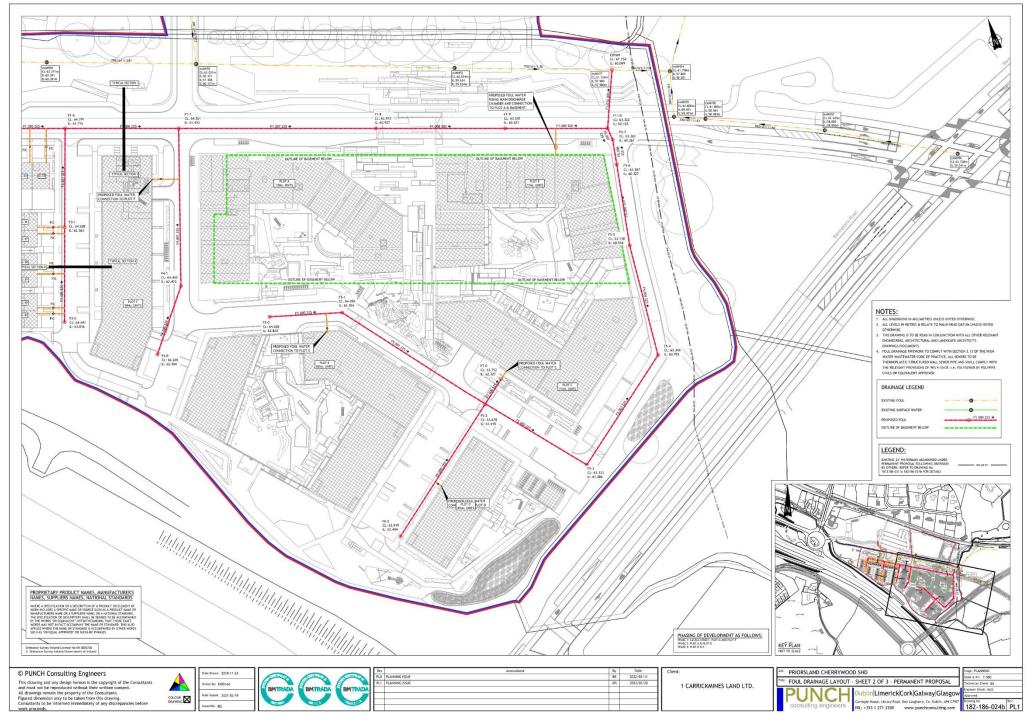


Figure 15. Foul water drainage – Permanent Proposal (sheet 2)

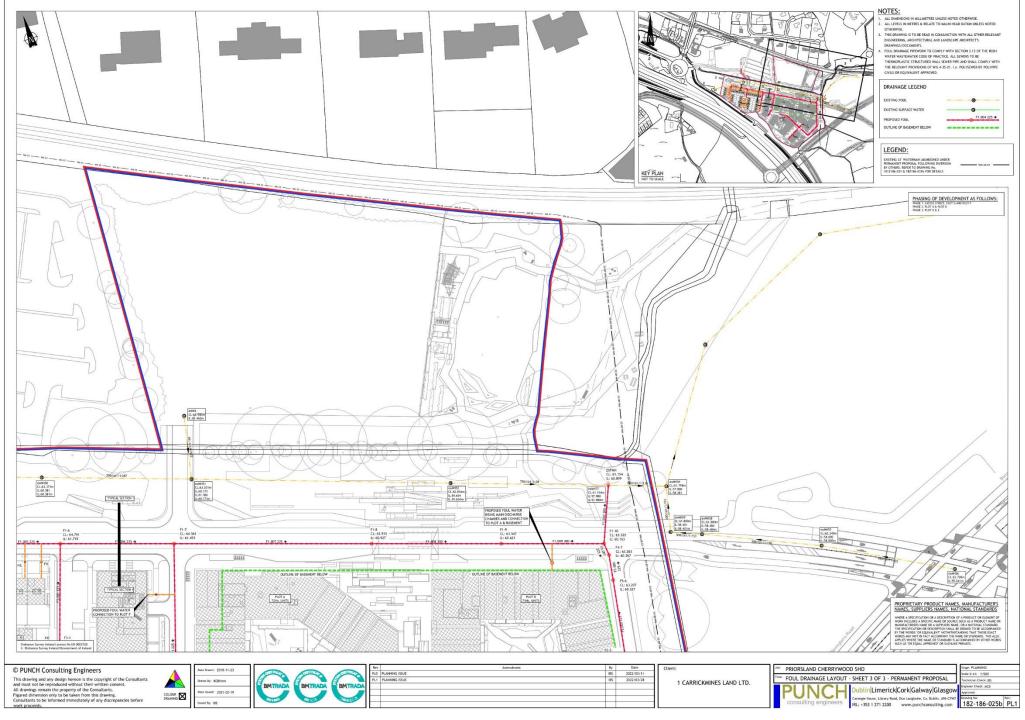


Figure 16. Foul water drainage – Permanent Proposal (sheet 3)

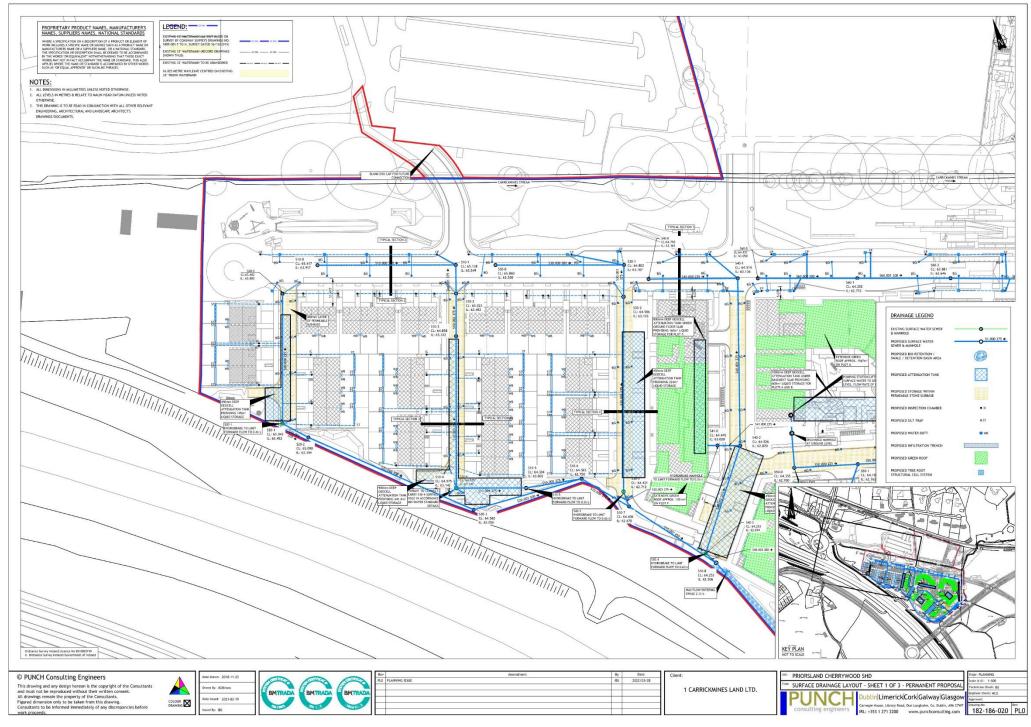


Figure 17. Surface water drainage – Permanent Proposal (sheet 1)

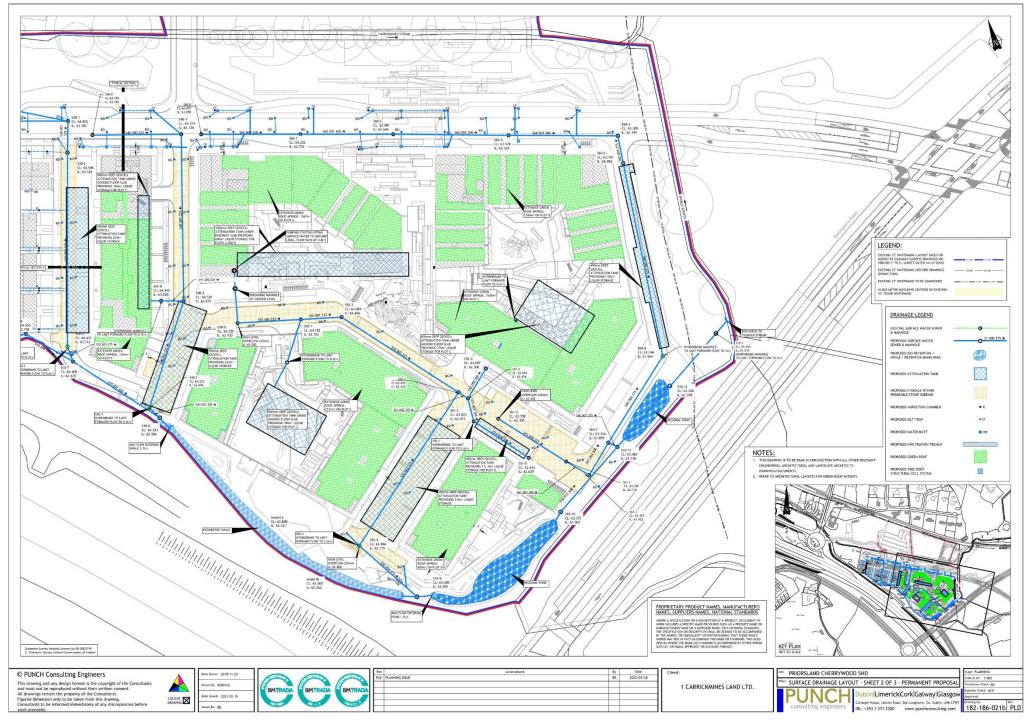


Figure 18. Surface water drainage – Permanent Proposal (sheet 2)

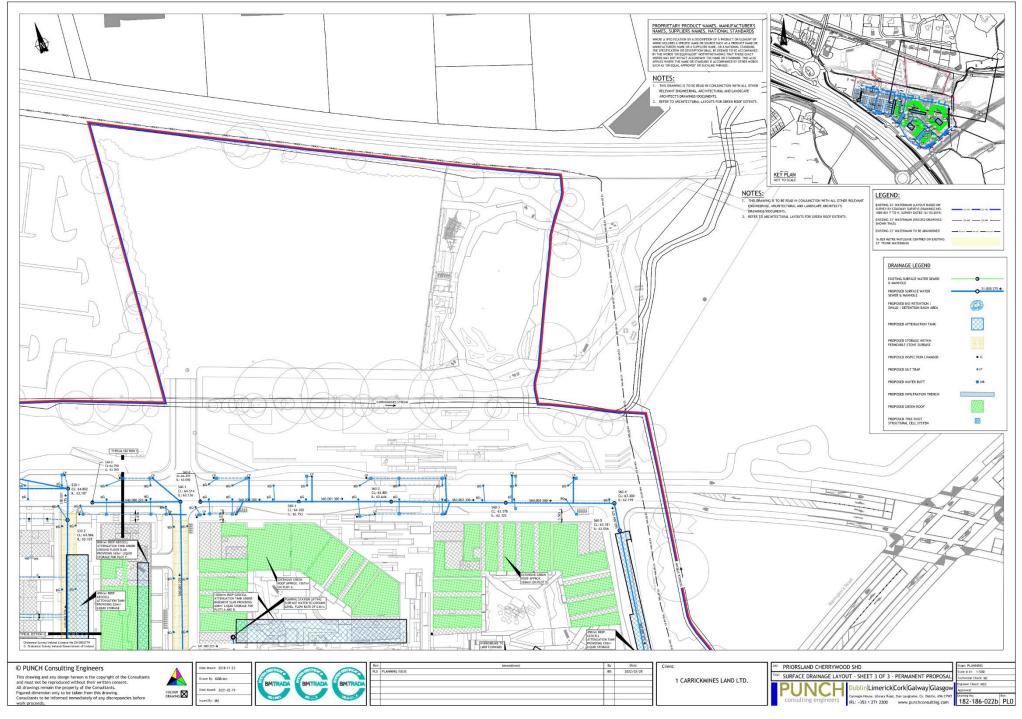


Figure 19. Surface water drainage – Permanent Proposal (sheet 3)

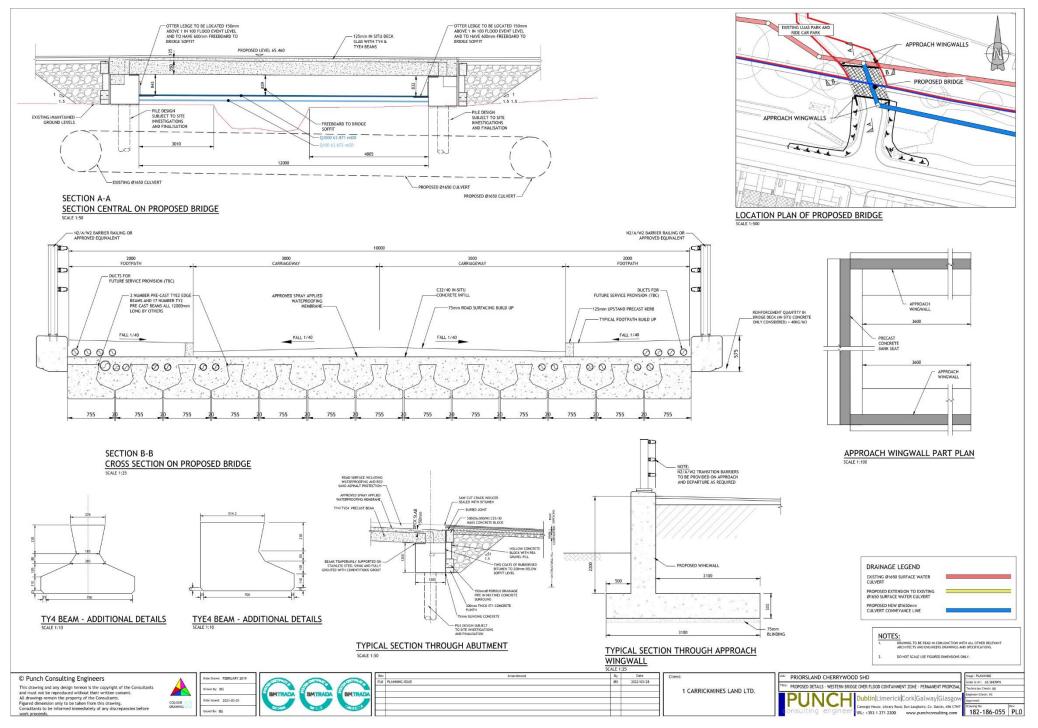


Figure 20. Proposed western bridge – Permanent Proposal

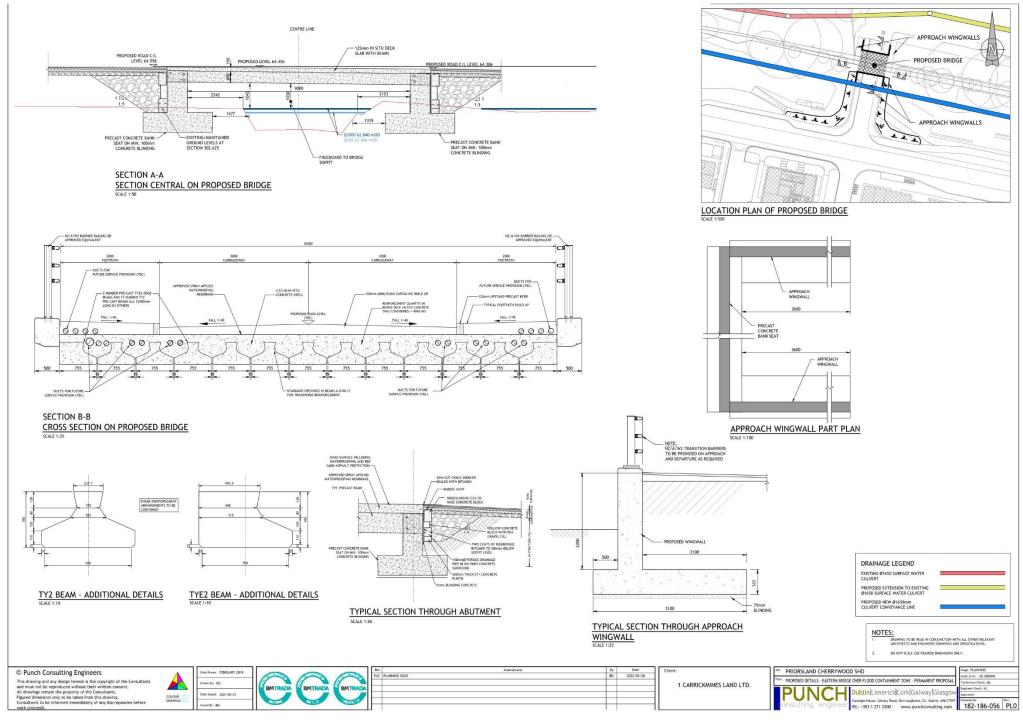


Figure 21. Proposed eastern bridge – Permanent Proposal

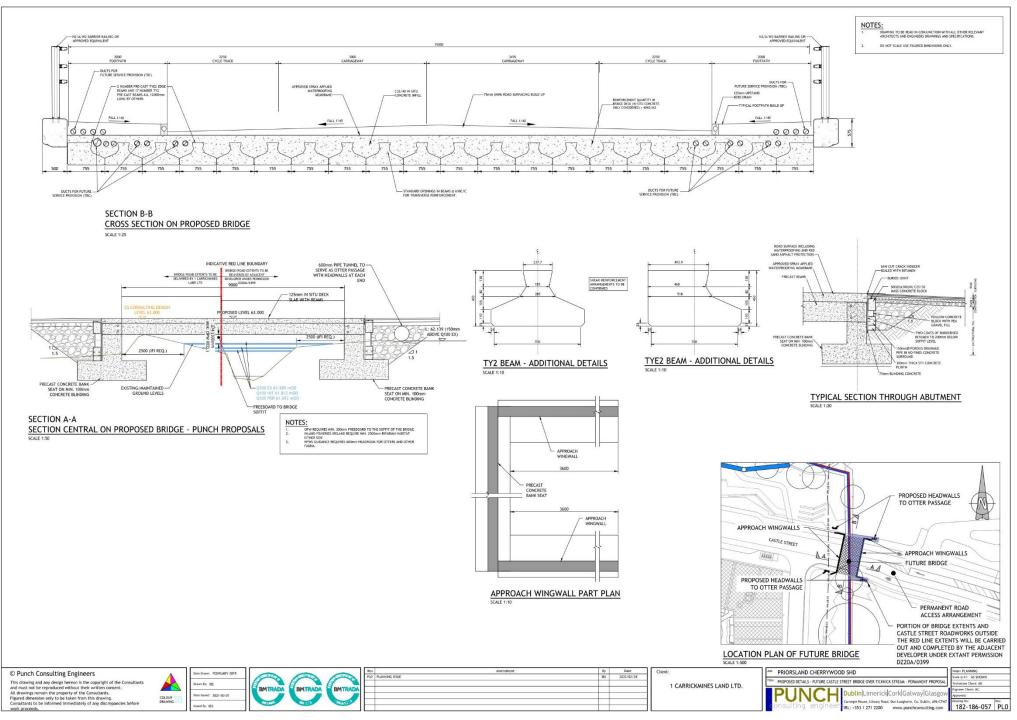


Figure 22. Proposed future Castle Street bridge over Ticknick Stream – Permanent Proposal

Flood Risk Assessment

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

'PUNCH Consulting Engineers have been appointed by 1 Carrickmines Land Ltd. to carry out a Site-Specific Flood Risk Assessment (SSFRA) study for a proposed commercial and residential development in Priorsland, Cherrywood, Carrickmines. A review of flooding and flood risk in the area was carried out and it was noted that there was a fluvial flood risk to the site of the proposed development.

PUNCH Consulting Engineers developed a hydraulic model of the area as part of this Site-Specific Flood Risk Assessment (SSFRA). The purpose of this model was to accurately assess the flood risk to the site and determine the impact that the proposed development would have on flooding in the surrounding lands. The hydraulic model was used to determine the Flood Zones at the site and the resultant flood extent mapping showed the site to be partially located in Flood Zones A and B. The site was assessed on this basis.

Two proposed scenarios are explored in this assessment. The first involves the extension of the existing 1650mm dia. Flood Relief Culvert, north of the Carrickmines River, to a discharge point east of the site. This scenario is referred to as the "Proposed Permanent Scenario". The final downstream portion of this culvert will need to be completed by others and for this reason a second scenario is proposed. This "Proposed Interim Scenario" involves continuing the existing 1650mm culvert underneath the Carrickmines River and then eastwards before discharging back into the river within the site boundary. This will improve conveyance of floodwaters away from the site but will not alleviate flooding issues to the north of the watercourse. The proposed scenarios involve raising of the proposed development lands to the south of the Carrickmines River, thus bringing the proposed development outside of Flood Zones A and B.

The site is not at risk of pluvial, coastal or groundwater flooding.

The ground floor Finished Floor Levels (FFLs) of the proposed buildings on the site have been set above the 1 in 1000 year flood levels from the adjacent Carrickmines River. Basements are included in the development and entrance levels to these basements will also be set above the 1 in 1000 year flood level.

Appropriate measures have been taken to ensure that the proposed development will not be at risk of flooding, and also to ensure that impacts related to flooding elsewhere will not worsen as a result of the development. The proposed mitigation measures will ensure that the development is in compliance with the relevant sections of the Dún Laoghaire-Rathdown County Development Plan as outlined in Section 2.2 as well as in full compliance with SFRA Dún Laoghaire-Rathdown County Council and The Planning System & Flood Risk Management Guidelines.'

Proposed Construction Phasing

An Outline Construction Management Plan has been prepared by PUNCH Consulting Engineers to accompany this planning application. Appendix A of the Outline Construction Management Plan report contains the following drawings that outline the proposed phasing of the construction stage of the proposed development (Figures 23-26).

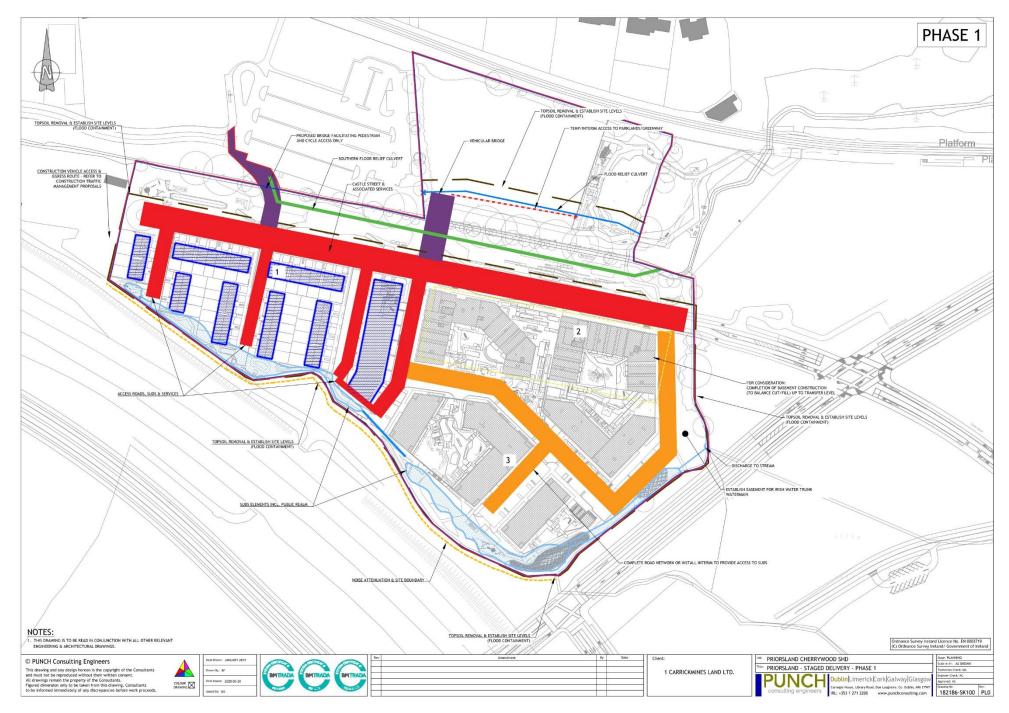


Figure 23. Proposed construction phasing – Phase 1

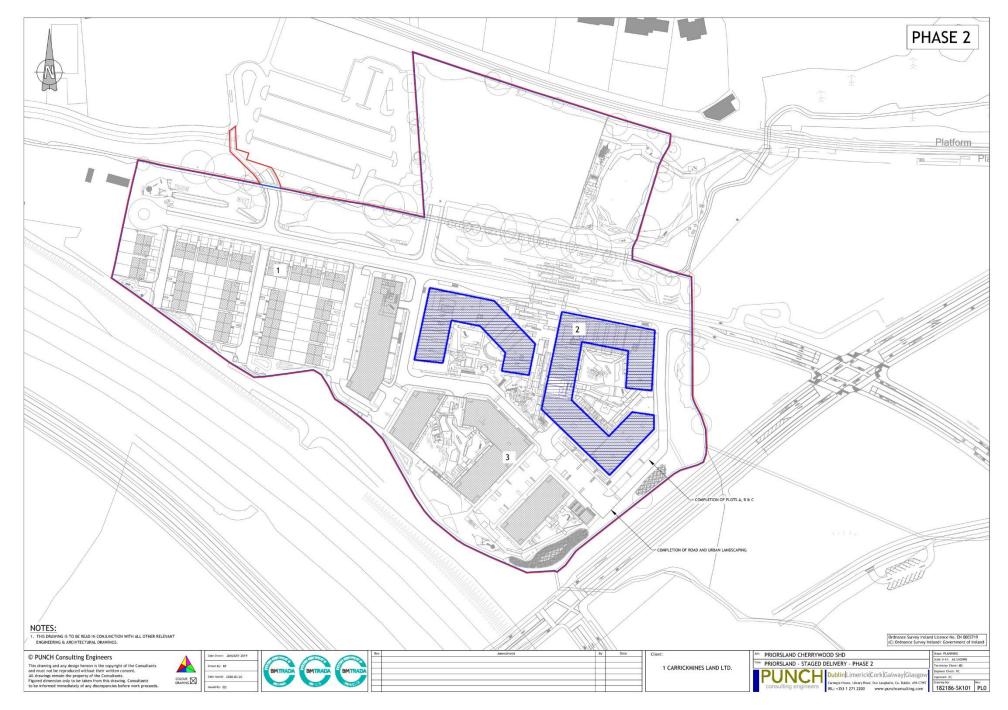


Figure 24. Proposed construction phasing – Phase 2

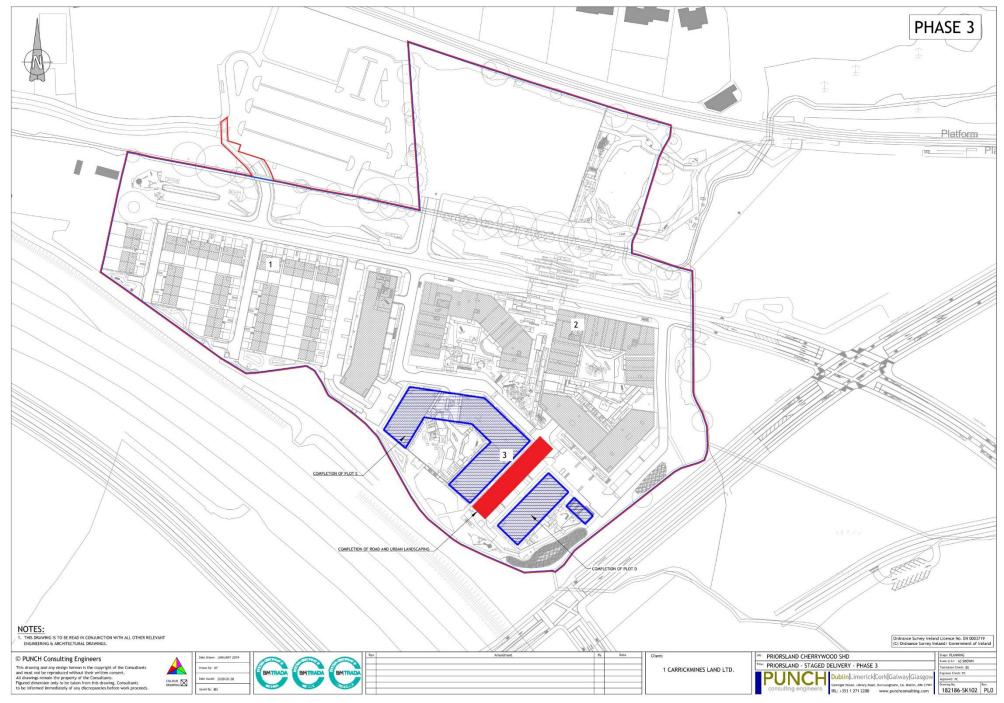


Figure 25. Proposed construction phasing – Phase 3

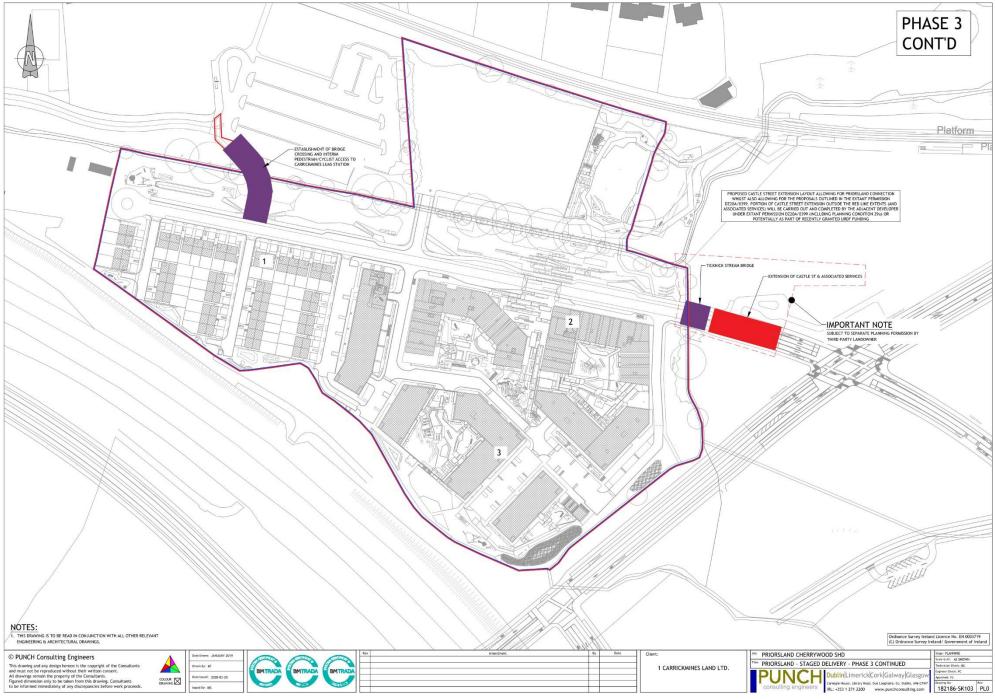


Figure 26. Proposed construction phasing – Phase 3 (ctd.)

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 3.7 km away (South Dublin Bay and River Tolka Estuary SPA). It should also be noted that the proposed project will be on a phased basis and therefore will be developed over several years, which would lengthen the time at which impacts could be foreseen.

The proposed development site is a greenfield site located adjacent to the M50 motorway. The Carrickmines Stream traverses through the subject site. The Ticknick Stream traverses along the eastern boundary of the subject site. These watercourses combine to join the Shanganagh River, which in turn outfalls to the marine environment at Killiney Bay. Given the scale of the proposed development and the proximity of the Carrickmines Stream and Ticknick Stream, out of an abundance of caution, it is considered that the ZoI of the proposed project extends beyond the site outline to the marine environment to include Rockabill to Dalkey Island SAC, due to the direct hydrological pathway to the marine environment. In the absence of mitigation, there is the potential for dust, pollution and contaminated surface water runoff to enter the Carrickmines Stream and Ticknick Stream impacts on Rockabill to Dalkey Island SAC.

In the interest of carrying out a thorough assessment in line with both the Habitats Directive and the precautionary principle, the area of assessment was expanded beyond the ZoI to include designated sites within 15km of the proposed development site, and sites beyond 15km with the potential for a hydrological connection. This was done in the interest of ensuring that any pathways, however indirect or remote, were taken into account. All Natura 2000 sites within 15km, and beyond 15km with the potential for a hydrological pathway are listed in Table 1. The qualifying interests, and the potential impact of the development on each European site and qualifying interest, are screened in/out in Table 2. SPA's and SAC's within 15km are seen in Figures 27 & 28. Watercourses, waterbodies, SACs and SPAs within 5km are demonstrated in Figures 29 - 31. Due to the significant dilution effects within the marine environment, it is considered that no Natura 2000 sites with a direct or indirect pathway are noted beyond 15km and no impacts are foreseen on Natura 2000 sites beyond 15km.

Site Code	NATURA 2000 Site	Distance	Direct Pathway
Special Areas of Co			
IE000713	Ballyman Glen SAC	4.7 km	No
IE000210	South Dublin Bay SAC	4.7 km	No
IE000725	Knocksink Wood SAC	4.9 km	No
IE003000	Rockabill to Dalkey Island SAC	4.9 km	Yes
IE002122	Wicklow Mountains SAC	6.6 km	No
IE000714	Bray Head SAC	7.8 km	No
IE000206	North Dublin Bay SAC	10.2 km	No
IE000719	Glen of the Downs SAC	12.1 km	No
IE001209	Glenasmole Valley SAC	12.2 km	No
IE000202	Howth Head SAC	13.2 km	No
Special Protection A	Area		
IE004024	South Dublin Bay and River Tolka Estuary SPA	4.7 km	No
IE004172	Dalkey Islands SPA	5.3 km	No
IE004040	Wicklow Mountains SPA	6.6 km	No
IE004006	North Bull Island SPA	10.2 km	No
IE004016	Howth Head Coast SPA	14.1 km	No

Table 1. Proximity to designated sites of conservation importance

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

	sed development	Concerned	
NATURA	Name	Screened	Details/Reason
Code	as of Consorvatio	IN/OUT	
IE000713	as of Conservatio Ballyman Glen	OUT	Conservation Objectives
12000713	SAC		The maintenance of habitats and species within Natura 2000 sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level.
			Qualifying Interests Petrifying springs with tufa formation (<i>Cratoneurion</i>) [7220] Alkaline fens [7230]
			Potential Impact The proposed development site is located within a populated environment 4.7 km from this SAC (Figure 27). There is no direct or indirect hydrological or ecological pathway between the proposed development and the SAC. No potential impact is foreseen. The construction and operation of the proposed development will not impact on the conservation interests of the site.
			No significant effects are likely.
IE000210	South Dublin Bay SAC	OUT	Conservation Objectives The maintenance of habitats and species within Natura 2000 sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level.
			Qualifying Interests Mudflats and sandflats not covered by seawater at low tide [1140] Annual vegetation of drift lines [1210] Salicornia and other annuals colonising mud and sand [1310] Embryonic shifting dunes [2110]
			Potential Impact The proposed development site is located within a populated environment at a minimum of 4.7 km from this SAC (Figure 27). There is no direct hydrological or ecological pathway to this SAC (both Interim and Permanent Proposals).
			Out of an abundance of caution, it is considered that there is a remote indirect hydrological pathway to this SAC via the proposed foul and surface water drainage strategy (both Interim and Permanent Proposals). Foul wastewater will be directed to the existing concrete sewer that runs through the subject site, which in turn discharges to Shanganagh WwTP. All foul wastewater drainage will be treated along this public network. After attenuation on-site, surface water drainage will be directed to the Ticknick Stream located to the east of the subject site. This watercourse outfalls to the Carrickmines Stream, which in turn outfalls to the Shanganagh River, and ultimately outfalls to the marine environment at Killiney Bay. Given the minimum distance to this SAC (4.7 km) across a substantial marine environment and around Sorrento Point and Dun Laoghaire Harbour, any silt or pollutants that may enter the watercourse

			the absence of mitigation, no significant effects on the Qualifying Interests of this SAC are likely.
			No potential impact is foreseen. There is no direct pathway from this site to the SAC. The construction and operation of the proposed development will not impact on the conservation interests of the site.
			No significant effects 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 (<i>Cratoneurion</i>) [7220] Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0] Alluvial forests with Alnus glutinosa and Fraxinus excelsior (<i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i>) [91E0]
			Potential Impact The proposed development site is located within a populated environment 4.9 km from this SAC (Figure 27). There is no direct or indirect hydrological or ecological pathway between the proposed development and the SAC (both Interim and Permanent Proposals).
			No potential impact is foreseen. The construction and operation of the proposed development will not impact on the conservation interests of the site.
			No significant effects are likely.
IE003000	Rockabill to Dalkey Island SAC	IN	Conservation Objectives The maintenance of habitats and species within Natura 2000 sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level.
			Qualifying Interests
			Reefs [1170] Phocoena phocoena (Harbour Porpoise) [1351]
			Potential Impact The proposed development site is located within a populated environment at a minimum of 4.9 km from this SAC (Figure 27).
			The Carrickmines Stream traverses through the subject site. The Ticknick Stream traverses along the eastern boundary of the site. As a result, there is a direct hydrological pathway from the proposed development site to the marine environment. Out of an abundance of caution, even though this SAC is 1km from the mouth of where the watercourse enters Kiliney Bay, it is considered that Harbour Porpoise, being a mobile species could be in the vicinity of where the watercourse enters Killiney Bay and that in the unlikely event of a significant sediment influx entering the watercourses as a result of works, there could potentially be deposition of silt within the marine environment and on reef habitat.
			Interim Proposals
			During the construction phase of development, construction works are proposed in close proximity to the Carrickmines Stream and Ticknick Stream, including the construction of new surface water headwalls at the Carrickmines Stream. Further, in-stream works to the Carrickmines Stream

are proposed in the proposed extension of the existing surface water culvert underneath the Carrickmines Stream. Additionally, a number of bridges (both vehicular and pedestrian) will be constructed across the Carrickmines Stream. The construction of the western bridge may include pilling works proximate to the watercourse. In the absence of mitigation measures, significant effects on the conservation objectives of this SAC are likely via contaminated surface water runoff and dust that may enter the Carrickmines Stream and Ticknick Stream during the construction phase of development. Mitigation measures are required to ensure that there are no downstream impacts on this SAC.
During the operational phase of development, it is considered that there is a direct hydrological pathway to this SAC via surface water drainage. It is proposed to attenuate surface water drainage within the site outline through the implementation of the proposed SuDS measures. However, surface water drainage will be directed to the Ticknick Stream watercourse located to the east of the subject site after attenuation. This watercourse outfalls to the Carrickmines Stream, which in turn outfalls to the Shanganagh River, and ultimately outfalls to the marine environment at Killiney Bay. Given that the Shanganagh River outfalls to the marine environment at a minimum of 1.4km from this SAC, it is considered that there is the potential for downstream impacts on this Natura 2000 site. Further, the Carrickmines Stream traverses through the subject site. In the absence of mitigation measures, significant effects on the conservation objectives of this SAC are likely via contaminated surface water runoff that may enter the Carrickmines Stream and Ticknick Stream during the operational phase of development. Mitigation measures are required to ensure that there are no downstream impacts on this SAC.
There is an indirect hydrological pathway to this SAC via foul wastewater. During the construction phase of development, foul wastewater will be connected to the Local Authority sewage system with local authority approval. Foul wastewater will then be treated along this public network. In the absence of mitigation, no significant effects on the Qualifying Interests of this SAC are likely during the construction phase of development. During operation, foul wastewater from the subject site will be directed to the existing foul network that traverses through the site, which in turn outfalls to Shanganagh WwTP for treatment before ultimately discharging to the marine environment. Given that foul wastewater will be treated along this network, in the absence of mitigation, no significant effects on the Qualifying Interests of this SAC are likely.
Permanent Proposals
During the construction phase of development, construction works are proposed in close proximity to the Carrickmines Stream and Ticknick Stream, including the construction of new surface water headwalls at the Carrickmines Stream. Further, in-stream works to the Carrickmines Stream are proposed in the proposed extension of the existing surface water culvert underneath the Carrickmines Stream. Additionally, a number of bridges (both vehicular and pedestrian) will be constructed across the Carrickmines Stream and Ticknick Stream. The construction of the western bridge may include pilling works proximate to the watercourse. In the absence of mitigation measures, significant effects on the conservation objectives of this SAC are likely via contaminated surface water runoff and dust that may enter the Carrickmines Stream and Ticknick Stream during the construction phase of development. Mitigation measures are required to ensure that there are no downstream impacts on this SAC.

	[
			During the operational phase of development, it is considered that there is a direct hydrological pathway to this SAC via surface water drainage. It is proposed to attenuate surface water drainage within the site outline through the implementation of the proposed SuDS measures. However, surface water drainage will be directed to the Ticknick Stream watercourse located to the east of the subject site after attenuation. This watercourse outfalls to the Carrickmines Stream, which in turn outfalls to the Shanganagh River, and ultimately outfalls to the marine environment at Killiney Bay. Given that the Shanganagh River outfalls to the marine environment at a minimum of 1.4km from this SAC, it is considered that there is the potential for downstream impacts on this Natura 2000 site. Further, the Carrickmines Stream traverses through the subject site. In the absence of mitigation measures, significant effects on the conservation objectives of this SAC are likely via contaminated surface water runoff that may enter the Carrickmines Stream and Ticknick Stream during the operational phase of development. Mitigation measures are required to ensure that there are no downstream impacts on this SAC.
			There is an indirect hydrological pathway to this SAC via foul wastewater. During the construction phase of development, foul wastewater will be connected to the Local Authority sewage system with local authority approval. Foul wastewater will then be treated along this public network. In the absence of mitigation, no significant effects on the Qualifying Interests of this SAC are likely during the construction phase of development. During operation, foul wastewater from the subject site will be directed to the existing foul network that traverses through the site, which in turn outfalls to Shanganagh WwTP for treatment before ultimately discharging to the marine environment. Given that foul wastewater will be treated along this network, in the absence of mitigation, no significant effects on the Qualifying Interests of this SAC are likely.
			Conclusion Mitigation measures will need to be in place to prevent silt, dust, contamination and petrochemicals from entering the Carrickmines Stream and the surface water network leading to the Ticknick Stream, which has a direct pathway to this SAC. For these reasons (mitigation measures are required for the prevention of significant effects on a Natura 2000 site), it is necessary to proceed to a NIS on the effects of the project on this site in view of its conservation objectives. Significant effects are likely - Natura Impact Statement required.
150002422	Mickley		
IE0002122	Wicklow Mountains SAC	OUT	Conservation Objectives The maintenance of habitats and species within Natura 2000 sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level.
			Qualifying interests Oligotrophic waters containing very few minerals of sandy plains (<i>Littorelletalia uniflorae</i>) [3110] Natural dystrophic lakes and ponds [3160] Northern Atlantic wet heaths with <i>Erica tetralix</i> [4010] European dry heaths [4030] Alpine and Boreal heaths [4060] Calaminarian grasslands of the <i>Violetalia calaminariae</i> [6130]

			Species-rich 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 (<i>Androsacetalia alpinae</i> and <i>Galeopsietalia ladani</i>) [8110] Calcareous rocky slopes with chasmophytic vegetation [8210] Siliceous rocky slopes with chasmophytic vegetation [8220] Old sessile oak woods with llex and Blechnum in the British Isles [91A0] <i>Lutra lutra</i> (Otter) [1355] Potential Impact The proposed development site is located within a populated environment 6.6 km from the Wicklow Mountains SAC (Figure 27). This SAC is located inland at a higher elevation. Based on objective scientific evidence there is no likelihood of significant effects on the Natura 2000 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 (both Interim and Permanent Proposals). 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.
IE000714	Bray Head SAC	OUT	Conservation Objectives The maintenance of habitats and species within Natura 2000 sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level. Qualifying Interests Vegetated sea cliffs of the Atlantic and Baltic coasts [1230] European dry heaths [4030] Potential Impact The proposed development site is located within a populated environment 7.8 km from this SAC (Figure 27). There is no direct hydrological pathway from the proposed development site to the SAC (both Interim and Permanent Proposals). Out of an abundance of caution, it is considered that there is a remote indirect hydrological pathway to this SAC via the proposed foul and surface water drainage strategy (both Interim and Permanent Proposals). Foul wastewater will be directed to the existing concrete sewer that runs through the subject site, which in turn discharges to Shangangh WwTP. All foul wastewater drainage will be traeted along this public network. After attenuation on-site, surface water drainage will be directed to the Ticknick Stream located to the east of the subject site. This watercourse outfalls to the Carrickmines Stream, which in turn outfalls to the Shanganagh River, and ultimately outfalls to the marine environment at Killiney Bay. Given the minimum distance to this SAC (7.8 km) across a substantial marine environment, any silt or pollutants that may enter the watercourse would settle, be dispersed, or diluted within the marine environment. In the absence of mitigation, no significant effects on the Qualifying Interests of this SAC are likely.

			No potential impact is foreseen. There is no direct pathway from this site to the SAC. The construction and operation of the proposed development will not impact on the conservation interests of the site. No significant effects likely
IE0000206	North Dublin	OUT	Conservation Objectives
	Bay SAC		The maintenance of habitats and species within Natura 2000 sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level.
			Qualifying Interests Mudflats and sandflats not covered by seawater at low tide [1140] Annual vegetation of drift lines [1210] Salicornia and other annuals colonising mud and sand [1310] Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) [1330] Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410] Embryonic shifting dunes [2110] Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) [2120] Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130] Humid dune slacks [2190] <i>Petalophyllum ralfsii</i> (Petalwort) [1395]
			Potential Impact
			The proposed development site is located within a populated environment at a minimum of 10.2 km from this SAC (Figure 27). There is no direct hydrological pathway from the proposed development site to the SAC (both Interim and Permanent Proposals).
			Out of an abundance of caution, it is considered that there is a remote indirect hydrological pathway to this SAC via the proposed foul and surface water drainage strategy (both Interim and Permanent Proposals). Foul wastewater will be directed to the existing concrete sewer that runs through the subject site, which in turn discharges to Shanganagh WwTP. All foul wastewater drainage will be treated along this public network. After attenuation on-site, surface water drainage will be directed to the Ticknick Stream located to the east of the subject site. This watercourse outfalls to the Carrickmines Stream, which in turn outfalls to the Shanganagh River, and ultimately outfalls to the marine environment at Killiney Bay. Given the minimum distance to this SAC (10.2 km) across a substantial marine environment and around Sorrento Point, Dun Laoghaire Harbour, and across Dublin Bay, any silt or pollutants that may enter the watercourse would settle, be dispersed, or diluted within the marine environment. In the absence of mitigation, no significant effects on the Qualifying Interests of this SAC are likely.
			No potential impact is foreseen. There is no direct pathway from this site to the SAC. The construction and operation of the proposed development will not impact on the conservation interests of the site.
			No significant effects likely
IE000719	Glen of the Downs SAC	OUT	Conservation Objectives The maintenance of habitats and species within Natura 2000 sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level.
			Qualifying Interests Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]

			Potential Impact The proposed development site is located within a populated environment 12.1 km from this SAC (Figure 27). There is no direct or indirect hydrological or ecological pathway between the proposed development and the SAC (both Interim and Permanent Proposals).
			No potential impact is foreseen. The construction and operation of the proposed development will not impact on the conservation interests of the site.
			No significant effects are likely.
IE0001209	Glenasmole Valley SAC	OUT	Conservation Objectives To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected.
			Qualifying Interests Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco-Brometalia</i>) (* important orchid sites) [6210] Molinia meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinion</i> <i>caeruleae</i>) [6410] Petrifying springs with tufa formation (<i>Cratoneurion</i>) [7220]
			Potential Impact The proposed development site is located within a populated environment 12.2 km from this SAC (Figure 27). There is no direct or indirect hydrological or ecological pathway between the proposed development and the SAC (both Interim and Permanent Proposals). No potential impact is foreseen. The construction and operation of the proposed development will not impact on the conservation interests of the site.
			No significant effects are likely.
IE0000202	Howth Head SAC	OUT	Conservation Objectives The maintenance of habitats and species within Natura 2000 sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level.
			Qualifying Interests Vegetated sea cliffs of the Atlantic and Baltic coasts [1230] European dry heaths [4030]
			Potential Impact The proposed development site is located within a suburban environment at a minimum of 13.3 km from this SAC (Figure 27). There is no direct hydrological pathway from the proposed development site to the SAC (both Interim and Permanent Proposals).
			Out of an abundance of caution, it is considered that there is a remote indirect hydrological pathway to this SAC via the proposed foul and surface water drainage strategy (both Interim and Permanent Proposals). Foul wastewater will be directed to the existing concrete sewer that runs through the subject site, which in turn discharges to Shanganagh WwTP. All foul wastewater drainage will be treated along this public network. After attenuation on-site, surface water drainage will be directed to the Ticknick Stream located to the east of the subject site. This watercourse outfalls to the Carrickmines Stream, which in turn outfalls to the Shanganagh River, and ultimately outfalls to the marine environment at

			Killiney Bay. Given the minimum distance to this SAC (13.3 km) across a
			substantial marine environment and around Sorrento Point, Dun Laoghaire Harbour, and across Dublin Bay, any silt or pollutants that may enter the watercourse would settle, be dispersed, or diluted within the marine environment. In the absence of mitigation, no significant effects on the Qualifying Interests of this SAC are likely.
			No potential impact is foreseen. There is no direct pathway from this site to the SAC. The construction and operation of the proposed development will not impact on the conservation interests of the site.
			No significant effects likely
Special Pro	tection Areas South Dublin	OUT	Conservation Objective
12004024	Bay and River Tolka Estuary SPA		The maintenance of habitats and species within Natura 2000 sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level.
			Qualifying Interests Light-bellied Brent Goose (Branta bernicla hrota) [A046] Oystercatcher (Haematopus ostralegus) [A130] Ringed Plover (Charadrius hiaticula) [A137] Grey Plover (Pluvialis squatarola) [A141] Knot (Calidris canutus) [A143] Sanderling (Calidris alba) [A144] Dunlin (Calidris alpina) [A149] Bar-tailed Godwit (Limosa lapponica) [A157] Redshank (Tringa totanus) [A162] Black-headed Gull (Chroicocephalus ridibundus) [A179] Roseate Tern (Sterna dougallii) [A192] Common Tern (Sterna hirundo) [A193] Arctic Tern (Sterna paradisaea) [A194] Wetland and Waterbirds [A999]
			Potential Impact The proposed development site is located within an urban environment 4.7 km from this SPA (Figure 28). There is no direct hydrological pathway from the proposed development site to the SPA (both Interim and Permanent Proposals).
			Out of an abundance of caution, it is considered that there is a remote indirect hydrological pathway to this SPA via the proposed foul and surface water drainage strategy (both Interim and Permanent Proposals). Foul wastewater will be directed to the existing concrete sewer that runs through the subject site, which in turn discharges to Shanganagh WwTP. All foul wastewater drainage will be treated along this public network. After attenuation on-site, surface water drainage will be directed to the Ticknick Stream located to the east of the subject site. This watercourse outfalls to the Carrickmines Stream, which in turn outfalls to the Shanganagh River, and ultimately outfalls to the marine environment at Killiney Bay. Given the minimum distance to this SPA (4.7 km) across a substantial marine environment and around Sorrento Point and Dun Laoghaire Harbour, any silt or pollutants that may enter the watercourse would settle, be dispersed, or diluted within the marine environment. In the absence of mitigation, no significant effects on the Qualifying Interests of this SPA are likely.
			Given the minimum distance to this SPA (4.7 km) across a densely populated area, in the absence of mitigation, no significant noise or

			vibration effects on the bird species protected as Qualifying Interests of this SPA are likely. A Wintering Bird Survey Report was prepared to accompany this planning application (Appendix I). Black-headed Gull were recorded on site. However, as outlined in the Wintering Bird Survey Report: <i>'Results from the surveys suggest that the site is not an ex-situ</i> <i>foraging or roosting site for species of qualifying interest from nearby</i> <i>Special protection areas (SPA's).'</i> In the absence of mitigation measures, no significant effects on the conservation objectives of the Qualifying Interests of this SPA are likely. No potential impact is foreseen. There is no direct pathway from this site to the SPA. The construction and operation of the proposed development will not impact on the conservation interests of the site.
			No significant effects likely
IE004172	Dalkey Islands SPA	OUT	Conservation Objectives To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA.
			Qualifying Interests Roseate Tern (<i>Sterna dougallii</i>) [A192] Common Tern (<i>Sterna hirundo</i>) [A193] Arctic Tern (<i>Sterna paradisaea</i>) [A194]
			Potential Impact The proposed development site is located within a populated environment 5.3 km from this SPA (Figure 28). There is no direct pathway from the proposed development site to this SPA (both Interim and Permanent Proposals).
			Out of an abundance of caution, it is considered that there is a remote indirect hydrological pathway to this SPA via the proposed foul and surface water drainage strategy (both Interim and Permanent Proposals). Foul wastewater will be directed to the existing concrete sewer that runs through the subject site, which in turn discharges to Shanganagh WwTP. All foul wastewater drainage will be treated along this public network. After attenuation on-site, surface water drainage will be directed to the Ticknick Stream located to the east of the subject site. This watercourse outfalls to the Carrickmines Stream, which in turn outfalls to the Shanganagh River, and ultimately outfalls to the marine environment at Killiney Bay. Given the minimum distance to this SPA (5.3 km) across a substantial marine environment, any silt or pollutants that may enter the watercourse would settle, be dispersed, or diluted within the marine environment. In the absence of mitigation, no significant effects on the Qualifying Interests of this SPA are likely.
			Given the minimum distance to this SPA (5.3 km) across a densely populated area, in the absence of mitigation, no significant noise or vibration effects on the bird species protected as Qualifying Interests of this SPA are likely. Terns are principally a marine piscivorous species and would not use this site as a foraging area. No Qualifying Interests of this SPA were noted on site. As outlined in the Wintering Bird Survey Report (Appendix I): <i>'Results from the surveys suggest that the site is not an ex- situ foraging or roosting site for species of qualifying interest from nearby</i> <i>Special protection areas (SPA's).'</i> In the absence of mitigation measures, no significant effects on the conservation objectives of the Qualifying Interests of this SPA are likely.

			No potential impact is foreseen. There is no direct pathway from this site to the SPA. The construction and operation of the proposed development will not impact on the conservation interests of the site. No significant effects 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 (<i>Falco columbarius</i>) [A098] Peregrine (<i>Falco peregrinus</i>) [A103]
			Potential Impact The proposed development site is located within a populated environment at a minimum of 6.6 km from this SPA (Figure 28). This SPA is located inland at a higher elevation. Based on objective scientific evidence there is no likelihood of significant effects on the Natura 2000 site. There is no direct or indirect hydrological or ecological pathway from the proposed development site to this SPA (both Interim and Permanent Proposals).
			Given the minimum distance to this SPA (5.3 km), in the absence of mitigation, no significant noise or vibration effects on the bird species protected as Qualifying Interests of this SPA are likely. As outlined in the Wintering Bird Survey Report (Appendix I): <i>'Results from the surveys suggest that the site is not an ex-situ foraging or roosting site for species of qualifying interest from nearby Special protection areas (SPA's).'</i> . In the absence of mitigation measures, no significant effects on the conservation objectives of the Qualifying Interests of this SPA are likely.
			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.
IE0004006	North Bull Island SPA	OUT	Conservation Objective The maintenance of habitats and species within Natura 2000 sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level.
			Qualifying Interests Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046] Shelduck (<i>Tadorna tadorna</i>) [A048] Teal (<i>Anas crecca</i>) [A052] Pintail (<i>Anas acuta</i>) [A054] Shoveler (<i>Anas clypeata</i>) [A056] Oystercatcher (<i>Haematopus ostralegus</i>) [A130] Golden Plover (<i>Pluvialis apricaria</i>) [A140] Grey Plover (<i>Pluvialis squatarola</i>) [A141] Knot (<i>Calidris canutus</i>) [A143] Sanderling (<i>Calidris alba</i>) [A144] Dunlin (<i>Calidris alpina</i>) [A149] Black-tailed Godwit (<i>Limosa limosa</i>) [A156] Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157] Curlew (<i>Numenius arquata</i>) [A162]

			Turnstone (Aronaria internece) [A1(0]
			Turnstone (<i>Arenaria interpres</i>) [A169] Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179]
			Wetland and Waterbirds [A999]
			Potential Impact
			The proposed development site is located within an urban environment 10.2 km from this SPA (Figure 28). There is no direct hydrological pathway from the proposed development site to the SPA (both Interim and Permanent Proposals).
			Out of an abundance of caution, it is considered that there is a remote indirect hydrological pathway to this SPA via the proposed foul and surface water drainage strategy (both Interim and Permanent Proposals). Foul wastewater will be directed to the existing concrete sewer that runs through the subject site, which in turn discharges to Shanganagh WwTP. All foul wastewater drainage will be treated along this public network. After attenuation on-site, surface water drainage will be directed to the Ticknick Stream located to the east of the subject site. This watercourse outfalls to the Carrickmines Stream, which in turn outfalls to the Shanganagh River, and ultimately outfalls to the marine environment at Killiney Bay. Given the minimum distance to this SPA (10.2 km) across a substantial marine environment and around Sorrento Point, Dun Laoghaire Harbour, and across Dublin Bay, any silt or pollutants that may enter the watercourse would settle, be dispersed, or diluted within the marine environment. In the absence of mitigation, no significant effects on the Qualifying Interests of this SPA are likely.
			Given the minimum distance to this SPA (10.2 km) across a densely populated area, in the absence of mitigation, no significant noise or vibration effects on the bird species protected as Qualifying Interests of this SPA are likely. A Wintering Bird Survey Report was prepared to accompany this planning application (Appendix I). Black-headed Gull were recorded on site. However, as outlined in the Wintering Bird Survey Report: 'Results from the surveys suggest that the site is not an ex-situ foraging or roosting site for species of qualifying interest from nearby Special protection areas (SPA's).' In the absence of mitigation measures, no significant effects on the conservation objectives of the Qualifying Interests of this SPA are likely.
			No potential impact is foreseen. There is no direct pathway from this site to the SPA. The construction and operation of the proposed development will not impact on the conservation interests of the site.
			No significant effects likely
IE004113	Howth Head Coast 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 Kittiwake (<i>Rissa tridactyla</i>) [A188]
			Potential Impact The proposed development site is located within an urban environment 10.2 km from this SPA (Figure 28). There is no direct hydrological pathway from the proposed development site to the SPA (both Interim and Permanent Proposals).
			Out of an abundance of caution, it is considered that there is a remote indirect hydrological pathway to this SPA via the proposed foul and surface water drainage strategy (both Interim and Permanent Proposals). Foul

wastewater will be directed to the existing concrete sewer that runs through the subject site, which in turn discharges to Shanganagh WwTP. All foul wastewater drainage will be treated along this public network. After attenuation on-site, surface water drainage will be directed to the Ticknick Stream located to the east of the subject site. This watercourse outfalls to the Carrickmines Stream, which in turn outfalls to the Shanganagh River, and ultimately outfalls to the marine environment at Killiney Bay. Given the minimum distance to this SPA (10.2 km) across a substantial marine environment and around Sorrento Point, Dun Laoghaire Harbour, and across Dublin Bay, any silt or pollutants that may enter the watercourse would settle, be dispersed, or diluted within the marine environment. In the absence of mitigation, no significant effects on the Qualifying Interests of this SPA are likely. Given the minimum distance to this SPA (10.2 km) across a densely populated area, in the absence of mitigation, no significant noise or vibration effects on the bird species protected as Qualifying Interests of this SPA are likely. As outlined in the Wintering Bird Survey Report (Appendix I): ' <i>Results from the surveys suggest that the site is not an ex- situ foraging or roosting site for species of qualifying interest from nearby</i> <i>Special protection areas (SPA's)</i> .'. In the absence of mitigation measures, no significant effects on the conservation objectives of the Qualifying Interests of this SPA are likely
No potential impact is foreseen. There is no direct pathway from this site to the SPA. The construction and operation of the proposed development will not impact on the conservation interests of the site.
No significant effects likely

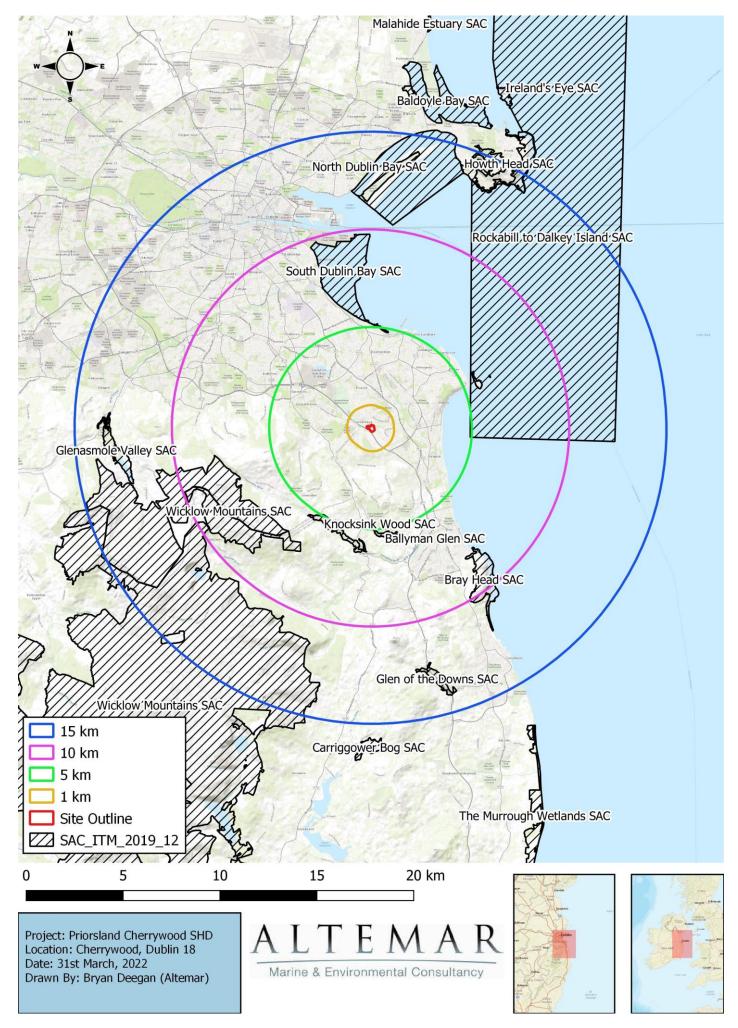


Figure 27. Special Areas of Conservation (SAC) within 15km of the proposed development site

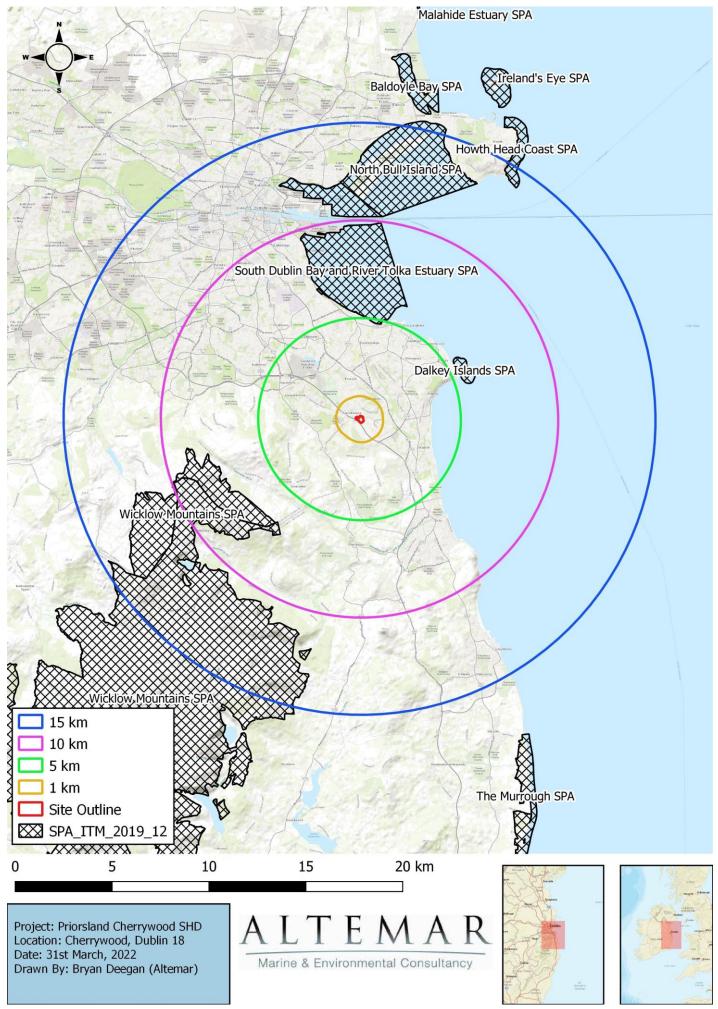


Figure 28. Special Protection Areas (SPA) within 15km of the proposed development site

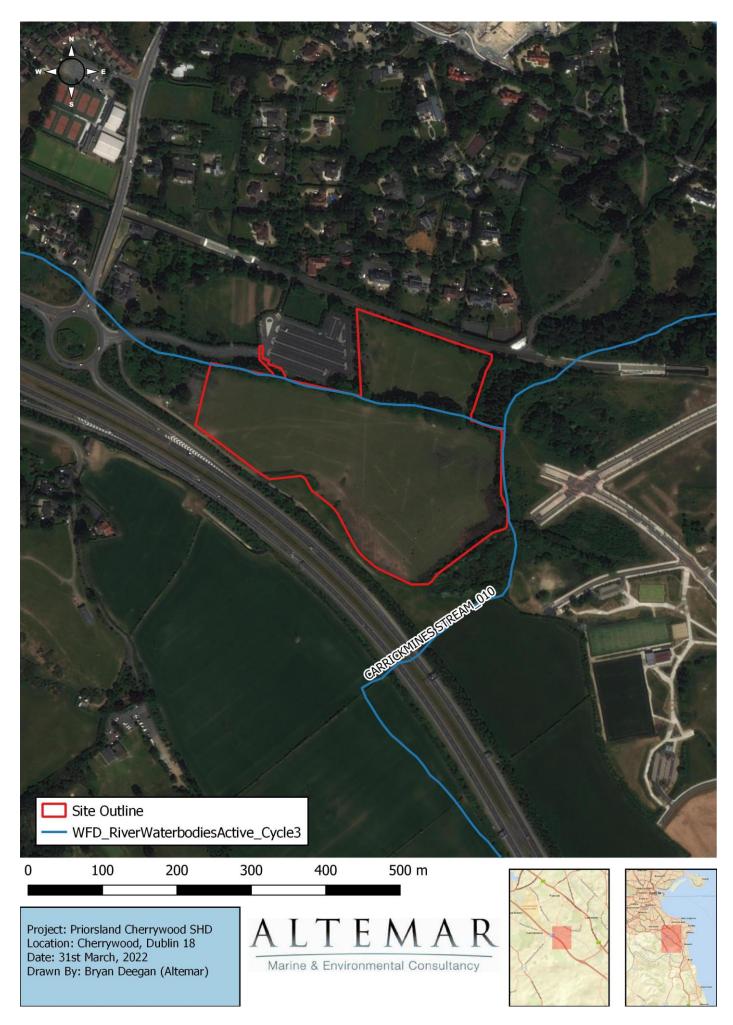


Figure 29. Waterbodies within 500m of the proposed development site



Figure 30. Waterbodies and SACs proximate to the subject site



Figure 31. Waterbodies and SPAs proximate to the subject site

In-Combination Effects

A review of the online planning system (<u>www.myplan.ie</u>) was carried out. The table below outlines a number of planning applications located in close proximity to the subject site that are of note.

Ref. No.	Address	Proposal
DZ20A/0399	Site in townlands of Laughanstown and Brennanstown	Residential development - 136 no. dwellings (total gross floor area of c.15,910 sqm) in a mixture of houses, duplexes, and apartments.
DZ20A/0552	Site in townlands of Laughanstown and Brennanstown	Residential development - 163 no. dwellings in a mixture of houses, duplexes, and apartments.
DZ21A/0334	Site in townlands of Laughanstown and Brennanstown	Residential development - 482 no. dwellings in a mixture of houses, duplexes, and apartments.
DA21/0664	Site in townlands of Laughanstown and Brennanstown	Residential development - 47 apartments with communal space
DZ21A/1042	Townlands of Laughanstown, Brennanstown and Cherrywood	Residential development – 122 dwellings
DZ21A/0699	Townlands of Laughanstown, Brennanstown and Cherrywood	Minor Amendments to DZ20A/0552
DZ21A/1069	Site in townlands of Laughanstown and Brennanstown	Minor Amendments to DZ20A/0399
DZ19A/0597	Development Area 8 -Tully, Cherrywood SDZ, Includes the Res 2 plots ''T9'' and ''T10''	Residential development comprising of 184 dwellings
DZ18A/0208		Residential Development comprising of: • 360 no units • childcare facility
DZ19A/0863	Site measuring approximately 8.24 ha in area generally bounded by Lehaunstown Lane to the west, Carrickmines Stream (partly) to the south and, Cabinteely Stream (partly) to the east and is located within the townland of, Brennanstown, Dublin 18	 Residential development comprising of: 342 new residential dwellings, Childcare Facility 249sq.m. (GFA), Delivery of the Cherrywood SDZ Planning Scheme's Druid's Glen Distributor Road (also known as Q to P3), measuring approximately 390 m in length to include the construction / completion of the part approved 3-span bridge (Option 1) over the Cabinteely Stream under Planning Ref. DZ16A/0587 (ABP Ref. PL06D.247915).
DZ18A/1129	Site (c.0.95ha) at Laughanstown & Brennanstown, Dublin 18 (Development Areas 1 & 8)	 Construction of an attenuation pond (detention basin) with associated outfall to Ticknick stream Infilling of the existing temporary attenuation pond (north of Mercer Link Road, constructed as part of the Phase 1 Roads and Infrastructure works permitted under Reg. Ref. DZ15A/0758) Construction of a new stormwater outfall pipe from Beckett Park attenuation system to Ticknick stream
DZ15A/0758	Lands in the townlands of Cherrywood, Laughanstown, Brennanstown, Loughlinstown and Glebe	Roads and infrastructure (phase 1) to form part of public road network providing access and services for the future development of the adjoining SDZ lands. The total road length proposed is c.5.4kms, of

Table 3. Approved planning applications located in close proximity to the subject site

Ref. No.	Address	Proposal
		which c.4.1kms is new road and c.1.3kms relates to works to existing roads.
D10A/0164	Carrickmines(Priorsland), East of Glenamuck Road, North of M50, & South of Luas Line B1 (Currently under construction)	Park and Ride (temporary) 6 year permission for 350 space park and ride facility with access off existing Carrickmines roundabout. Development will also include pedestrian access to Carrickmines Luas stop (currently under construction).
DZ16A/0585	Off Glenamuck Road, adjacent the Carrickmines roundabout and M50 interchange Carrickmines Dublin	Permission for retention (temporary for 3 years) for park and ride facility previously granted permission under Reg. Ref. D10A/0164.
DZ17A/0114	Lands at Priorsland, Glenamuck Road North, Carrickmines, Dublin 18	Permanent park and ride facility
DZ19A/0683	Lands at Priorsland, Glenamuck Road North, Carrickmines, Dublin 18	Permission for retention (temporary for 3 years) for park and ride facility previously granted permission under Reg. Ref. D10A/0164.

Cherrywood SDZ is the single largest undeveloped land-bank in Dún Laoghaire-Rathdown, and is approximately 360 hectares in size, nestled at the foot of the Dublin Mountains, is strategically located between the M50 and N11 transport corridors approximately 1km north of where they fork from the M11 and approximately 8km south of Dún Laoghaire town centre. It is a significant land bank that is earmarked for major residential and mixed use development over the coming decades and the proposed development forms part of this wider scheme.

The Carrickmines Stream flows through the Cherrywood SDZ. An Appropriate Assessment Screening was carried out by Dún Laoghaire Rathdown County Council for the Cherrywood SDZ. The report stated the following in relation to potential impacts on Natura 2000 sites:

'[T]here are no elements of the draft Planning Scheme that could, on their own, lead to a risk of significant impacts on Natura 2000 site. The SDZ does not contain any Natura 2000 sites nor is it not directly linked to any Natura 2000 site by rivers or ecological corridors.'

'The Screening process has identified that several Natura 2000 sites lie within the zone of influence of the draft Cherrywood SDZ Planning Scheme. None of these Natura 2000 sites are deemed to be at risk of likely significant effects of implementing the draft Planning Scheme. This conclusion has been reached by an analysis of the qualifying interests in the sites and what physical conditions are required to maintain their conservation status. The location of the SDZ lands within catchments detached from any Natura 2000 sites and the absence of any connecting terrestrial or aquatic pathways to these sites has been taken into account. The contribution of other plans in the same area has also been acknowledged in this screening exercise.''

In relation to in combination effects the Cherrywood SDZ stated that 'Since it has been concluded that the draft Planning Scheme on its own will not have interaction with Natura 2000 sites it is not strictly deemed necessary to look at the impacts of other plans and projects as these will be occurring independently of the SDZ.'

The projects outlined above in addition to the supporting ecological information have been assessed for in combination effects on Natura 2000 sites. No in combination effects would be foreseen. The proposed project will require mitigation measures for the protection of the Carrickmines Stream, Ticknick Stream, and Rockabill to Dalkey Island SAC. The developments outlined above would not be seemed to have an in-combination effect that could significantly effect European Sites. In particular, in relation to the Cherrywood SDZ AA Screening states that *"There are no elements of the draft Planning Scheme that could, on their own, lead to a risk of significant impacts on Natura 2000 site"* and that *"None of these Natura 2000 sites are deemed to be at risk of likely significant effects of implementing the draft Planning Scheme."*

It should also be noted that the 2020 Environmental Report for Shanganagh WWTP states that the WwTP is within compliance and has a person equivalent capacity remaining of 56,665.

As a result of the assessment carried out in relation to the above projects and supporting documentation, 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. **No significant effects are likely from in combination effects**.

Conclusions

An initial screening of the proposed works, using the precautionary principle (without the use of any mitigation measures) and the Source/Pathway/Receptor links between the proposed works and Natura 2000 sites with the potential to result in significant effects on the conservation objectives and qualifying interests of the Natura 2000 sites was carried out in Table 2. Based on best scientific knowledge and objective information and assessment, the possibility of significant effects caused by the proposed project was excluded for the following Natura 2000 sites and sites beyond 15km:

Special Areas of Conservation

- (000210) South Dublin Bay SAC
- (000206) North Dublin Bay SAC
- (000202) Howth Head SAC
- (002122) Wicklow Mountains SAC
- (001209) Glenasmole Valley SAC
- (000725) Knocksink Wood SAC
- (000713) Ballyman Glen SAC
- (000714) Bray Head SAC
- (000719) Glen of the Downs SAC

Special Protection Areas

- (004024) South Dublin Bay and River Tolka Estuary SPA
- (004172) Dalkey Islands SPA
- (004040) Wicklow Mountains SPA
- (004006) North Bull Island SPA
- (004113) Howth Head Coast SPA

Given the nature of the works, the scale of the proposed development, the fact that the Carrickmines Stream traverses through the subject site, the proximity of the Ticknick Stream, that it is proposed to direct surface water drainage to the Ticknick Stream, the proposed extension of the existing surface water culvert underneath the Carrickmines Stream, and the proposed construction of vehicular and pedestrian bridges across the Carrickmines Stream (Interim Proposals) and Ticknick Stream (Permanent Proposals), it is considered that the potential ZOI of the proposed works extends beyond the site outline to include Rockabill to Dalkey Island SAC. Out of an abundance of caution, in the absence of mitigation measures, despite significant dilution, settlement and mixing within the Ticknick Stream, Carrickmines Stream, Shanganagh River, and the marine environment, it is considered that there is the potential for petrochemicals, contamination, or silt laden material to enter the marine environment and result in effects on Rockabill to Dalkey Island SAC.

Acting on a strictly precautionary basis, NIS is required in respect of the effects of the project on Rockabill to Dalkey Island SAC because it cannot be excluded on the basis of best objective scientific information following screening, in the absence of control or mitigation measures, that the plan or project, individually and/or in combination with other plans or projects, will have a significant effect on Rockabill to Dalkey SAC.

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

NIS is required for Rockabill to Dalkey Island SAC.

Stage 2: Natura Impact Statement

A Natura Impact Statement (NIS) is Stage 2 of the Appropriate Assessment process. In the case of the proposed Strategic Housing Development (SHD) at Priorsland, Cherrywood, Dublin 18, acting on a strictly precautionary basis, an NIS is required in respect of the potential effects of the project on Rockabill to Dalkey Island SAC due to the direct pathway from the proposed works to the marine environment proximate to this SAC and the potential for downstream effects, because it cannot be excluded on the basis of best objective scientific information, in the absence of control or mitigation measures, following screening that the plan or project, individually and/or in combination with other plans or projects, will have a significant effect on the named European Site/s.

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

The NIS evaluates the potential for direct, indirect effects, alone or in combination with other plans and projects having taken into account the use of mitigation measures. The NIS is informed by the accompanying Environmental Impact Assessment Report (EIAR) and Construction Environmental Management Plan which include mitigation measures to reduce the potential effects of the proposed project on species/habitats of conservation importance and the surrounding environment. A further review of the Conservation Objectives and qualifying interests is necessary to determine if significant effects are likely to impact the identified Natura 2000 sites.

Rockabill to Dalkey Island SAC (Site code: 003000)

As outlined in the Rockabill to Dalkey Island SAC Site Synopsis² (NPWS, version date 10.02.2014):

'This site includes a range of dynamic inshore and coastal waters in the western Irish Sea. These include sandy and muddy seabed, reefs, sandbanks and islands. This site extends southwards, in a strip approximately 7 km wide and 40 km in length, from Rockabill, running adjacent to Howth Head, and crosses Dublin Bay to Frazer Bank in south Co. Dublin. The site encompasses Dalkey, Muglins and Rockabill islands.

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

[1170] Reefs

[1351] Harbour Porpoise (Phocoena phocoena)

Reef habitat is uncommon along the eastern seaboard of Ireland due to prevailing geology and hydrographical conditions. Expansive surveys of the Irish coast have indicated that the greatest resource of this habitat within the Irish Sea is found fringing offshore islands which are concentrated along the Dublin coast. A detailed survey of selected suitable islands has shown areas with typical biodiversity for this habitat both intertidally and subtidally. Species recorded in the intertidal included Fucus spiralis, Fucus serratus, Pelvetia canaliculata, Ascophyllum nodosum, Semibalanus balanoides and Necora puber. Subtidally, a wide range of species include Laminaria hyperborea, Flustra folicacea, Alaria esculenta, Halidrys siliquosa, Pomatocereos triqueter, Alcyonium digitatum, Metridium senile, Caryophyllia smithii, Tubularia indivisa, Mytilus edulis, Gibbula umbilcalis, Asterias rubens, and Echinus esculentus. These reefs are subject to strong tidal currents with an abundant supply of suspended matter resulting in good representation of filter feeding fauna such as sponges, anemones and echinoderms.

The area selected for designation represents a key habitat for the Annex II species Harbour Porpoise within the Irish Sea. Population survey data show that porpoise occurrence within the site boundary meets suitable reference values for other designated sites in Ireland. The species occurs year-round within the site and comparatively high group sizes have been recorded. Porpoises with young (i.e. calves) are observed at favourable, typical reference values for the species. Casual and effort-related sighting rates from coastal observation stations are significant for the east coast of Ireland and the latter appear to be relatively stable across all seasons. The selected site contains a wide array of habitats believed to be important for Harbour Porpoise including inshore shallow sand and mudbanks and rocky reefs scoured by strong current flow. The site also supports Common Seal and Grey Seal, for which terrestrial haul-out sites occur in immediate proximity to the site. Bottlenosed Dolphins has also occasionally been recorded in the area. A number of other marine

² https://www.npws.ie/sites/default/files/protected-sites/synopsis/SY003000.pdf

mammals have been recorded in this area including Minke, Fin and Killer Whales and Risso's and Common Dolphins.

The coastal environment of Co. Dublin is a very significant resource to birds with some nationally and internationally important populations. Of particular note in this site are the large number of terns (Arctic, Common and Roseate) known to use Dalkey Island as a staging area (approx. 2,000) after breeding. Other seabirds commonly seen include Kittiwake, Razorbill, Guillemot, Puffin, Fulmar, Shag, Cormorant, Manx Shearwater, Gannet and gulls.

This site is of conservation importance for reefs, listed on Annex I, and Harbour Porpoise, listed on Annex II, of the E.U. Habitats Directive.'

The Natura 2000 Standard Data Form (2020)³ states that:

'The selected site forms a strip of dynamic inshore and coastal waters in the western Irish Sea, extending approximately 40 km in length and encompassing a range of comparatively shallow marine habitats, including diverse seabed structures, reefs, islets and islands. It borders existing designated sites for Annexed species and habitats and is adjacent to a wide array of coastal features, e.g., mudflats, lagoons, estuaries, coastal cliffs, sea caves, several of which are also designated. Extending east from Dublin Bay towards the offshore Kish Bank, the site contains the entire Burford Bank, a sedimentary seabed structure (i.e. fine sand) at the mouth of Dublin Bay, that on its north side is flanked by gravel and coarse sand deposits. The site also contains the northern segment of the Frazer Bank (i.e. fine sand) off Dalkey Island and Killiney Bay. Reef habitats within the site occur at Dalkey Island, Maiden Rock and Muglins in the southern portion, off Howth Head, Ireland's Eye and Lambay Island in the central portion, and Rockabill in North Dublin.

The area selected for designation represents a key habitat for the Annex II species - harbour porpoise, within the Irish Sea. Population survey data show that porpoise occurrence within the site boundary meets suitable reference values for other designated sites in Ireland. The species occurs year-round within the site and comparatively high group sizes have been recorded. Porpoises with young (i.e. calves) are observed at favourable, typical reference values for the species. Casual and effort-related sighting rates from coastal observation stations are significant for the east coast of Ireland and the latter appear to be relatively stable across all seasons. The selected site contains a wide array of habitats believed to be important for harbour porpoise including inshore shallow sand and mud-banks and rocky reefs scoured by strong current flow. The site also contains two Annex II seal species – Harbour seal (Phoca vitulina vitulina), Grey seal (Halichoerus grypus) for which terrestrial haul-out sites occur in immediate proximity to the site. Bottlenose dolphin (Tursiops truncatus) has also occasionally been recorded in the area. Along the eastern seaboard the habitat type Reef is uncommon due to prevailing geology and hydrographical conditions. Expansive surveys of the Irish coast have indicated that the greatest resource of this habitat within the Irish Sea is found fringing offshore islands which are concentrated along the Dublin coast. A detailed survey of selected suitable islands has shown areas with typical biodiversity for this habitat both intertidally and subtidally. These Reefs are subject to strong tidal currents with an abundant supply of suspended matter resulting in good representation of filter feeding fauna such as sponges, anemones and echinoderms.'

As outlined in the Conservation objectives supporting document⁴ (NPWS, 2013), it is an objective:

'To maintain the favourable conservation condition of Reefs in Rockabill to Dalkey Island SAC, which is defined by the following list of attributes and targets."

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

Target 2: 'The distribution of reefs is stable or increasing, subject to natural processes.'

Target 3: 'Conserve the following community types in a natural condition: Intertidal reef community complex and Subtidal reef community complex.'

'To maintain the favourable conservation condition of harbour porpoise in Rockabill to Dalkey Island SAC, which is defined by the following list of attributes and targets:

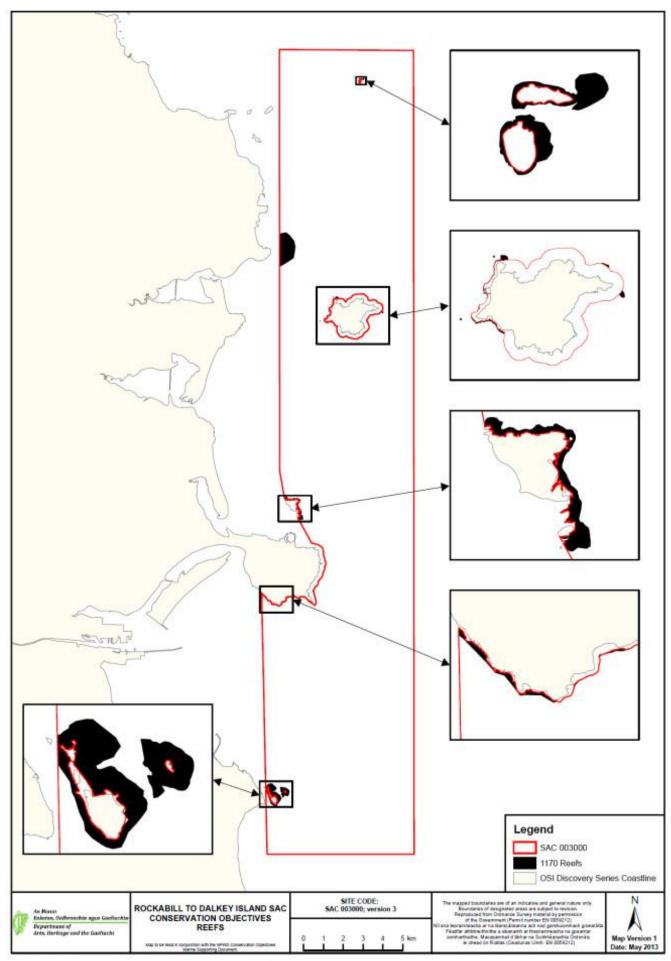
Target 1: 'Species range within the site should not be restricted by artificial barriers to site use.'

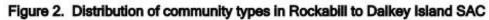
Target 2: 'Human activities should occur at levels that do not adversely affect the harbour porpoise community at the site.'

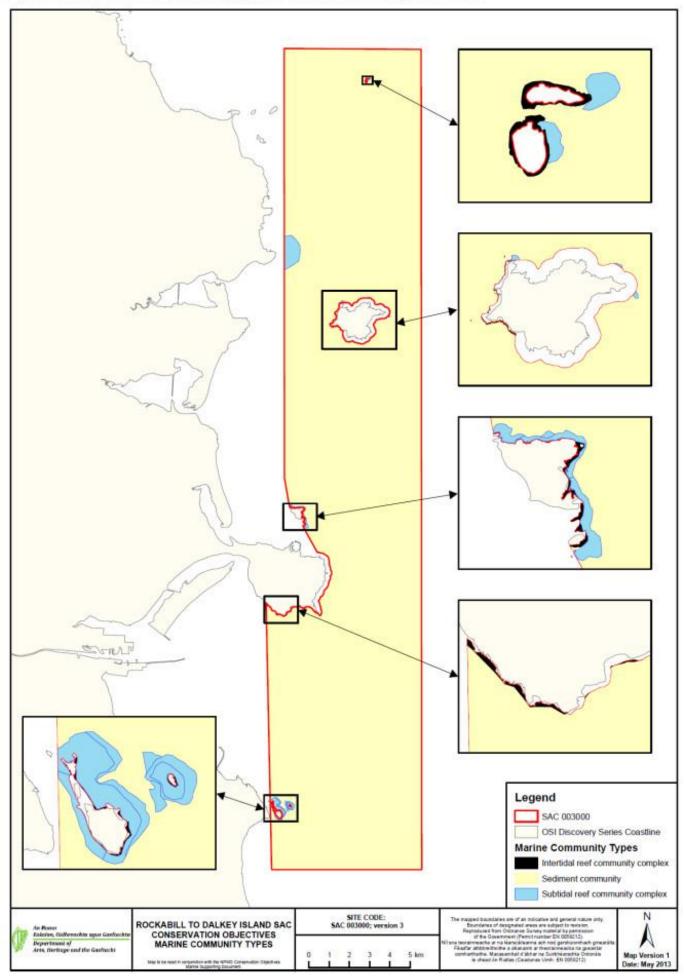
³ <u>https://www.npws.ie/sites/default/files/protected-sites/natura2000/NF003000.pdf</u>

⁴<u>https://www.npws.ie/sites/default/files/publications/pdf/003000_Rockabill%20to%20Dalkey%20Island%20SAC%20Marine</u> <u>%20Supporting%20Doc_V1.pdf</u>









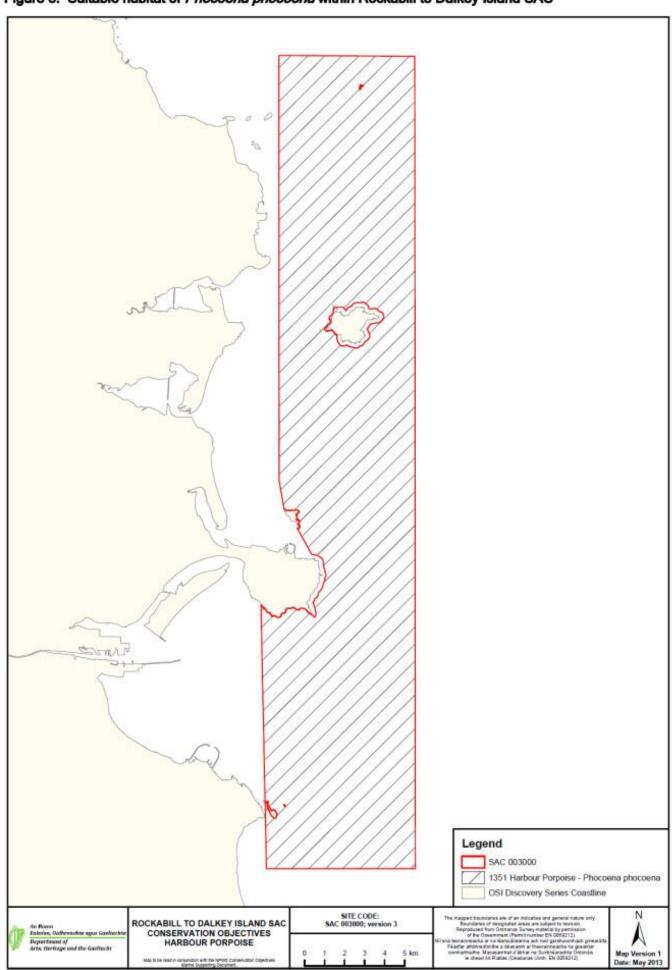


Figure 3. Suitable habitat of Phocoena phocoena within Rockabill to Dalkey Island SAC

The Qualifying Interests (QI) (Features of Interest), Special Conservation Interests (SCIs) for the SAC and SPA sites and the National conservation status of the Natura 2000 sites subject to the NIS are seen in Table 5. The site specific conservation Objectives for Natura 2000 sites are seen in Table 6.

Table 5. Qualifying Interests, Conservation Status, Management Objectives, Conditions underpinning site integrity for Rockabillto Dalkey Island SAC

Qualifying Interests, Conservation Status, Management Objectives, Conditions underpinning site integrity for relevant European sites		
Natura 2000 Site Name	Qualifying Interests	Current Conservation
& Code		Status & Trend
Special Areas of Conservation (SAC)		
Rockabill to Dalkey	Reefs [1170]	Inadequate
Island SAC (003000)		
	Phocoena (Harbour Porpoise) [1351]	Favourable

 Table 6. Site specific conservation objectives for Rockabill to Dalkey Island SAC

Rockabill to Dalkey Island SAC (003000)			
Attribute	Measure	Target	
Reefs [1170] (Maintain	the favourable conservation co	ndition)	
Habitat area	Hectares	The permanent area is stable or increasing, subject to natural processes	
Habitat distribution	Occurrence	Distribution is stable or increasing, subject to natural processes	
Community structure	Biological composition	Conserve the following community types in a natural condition: Intertidal reef community complex; and Subtidal reef community complex	
Harbour Porpoise (Pho	Harbour Porpoise (<i>Phocoena phocoena</i>) [1351] (Maintain the favourable conservation condition)		
Access to suitable habitat	Number of artificial barriers	Species range within the site should not be restricted by artificial barriers to site use.	
Disturbance	Level of impact	Human activities should occur at levels that do not adversely affect the harbour porpoise community at the site	

Analysis of the Potential Impacts on Natura 2000 Sites.

1 Carrickmines Land Limited. intend to apply for planning permission for a proposed Strategic Housing Development at Priorsland, Cherrywood, Dublin 18.

The development will comprise a mixed-use village centre and residential development of 443 no. units comprising 6 no. blocks (A-F) of apartments (up to 5 storeys with basement/undercroft parking) providing 402 no. apartments units (146 no. 1-beds; 218 no. 2-beds and 38 no. 3-beds), and 41 no. houses (19 no. 3-beds and 22 no. 4-beds). All apartments provided with private balconies/terraces. Provision of indoor residential facilities to serve apartment residents.

The Village Centre and non-residential elements will comprise a supermarket, local retail/retail service units, non-retail commercial units, creche, gym, community space, and offices (High Intensity Employment) use.

Provision of car/bicycle/motorcycle parking; ESB sub-stations; bin storages areas, and all associated plant areas.

Provision of the first phase of Priorsland Park (on lands within the applicant's ownership) and other public and communal open spaces.

Construction of Castle Street through the subject lands and two road bridges across the Carrickmines Stream, one to serve the future school site/ park, the second to provide pedestrian and cyclist access to the Carrickmines Luas station and future Transport Interchange to the north. Provision of an additional pedestrian bridge to the park. Provision of an acoustic barrier along the southern/western edge of the site.

All associated site development works, landscaping, boundary treatments and services provision.

Potential Construction Impacts

The proposed development is not within a designated conservation site. The nearest Natura 2000 sites are Ballyman Glen SAC, South Dublin Bay SAC, and South Dublin Bay and River Tolka Estuary SPA (4.7 km). Given the nature of the works, the scale of the proposed development, the fact that the Carrickmines Stream traverses through the subject site, the proximity of the Ticknick Stream, that it is proposed to direct surface water drainage to the Ticknick Stream, the proposed extension of the existing surface water culvert underneath the Carrickmines Stream, and the proposed construction of vehicular and pedestrian bridges across the Carrickmines Stream (Interim Proposals) and Ticknick Stream (Permanent Proposals), it is considered that there is a direct hydrological pathway to Rockabill to Dalkey Island SAC. Out of an abundance of caution, it is considered that there is the potential for dust and contaminated surface water runoff to enter the Ticknick Stream, Carrickmines Stream, and Shanganagh River and impact on the integrity of Rockabill to Dalkey Island SAC.

The potential impacts on Natura 2000 sites are seen in Table 7. The proposed site clearance, excavation, and construction works, including instream works, would potentially impact on the existing ecology of the site and the surrounding area. In relation to European sites, these works could lead to the transportation of dust, silt, and contaminated surface water runoff to the proximate Ticknick Stream and Carrickmines Stream, with the potential for downstream impacts on the integrity of Rockabill to Dalkey Island SAC.

Construction phase mitigation measures are required on site, particularly as clearance of the site is proposed which will remove all existing terrestrial habitats and can lead to silt laden and contaminated runoff. Mitigation measures are required to ensure that there are no downstream effects from the proposed works which is seen as the pathway to the marine environment and Rockabill to Dalkey SAC.

It should also be noted that the proposed project will be constructed on a phased basis and therefore will be developed over several years, which would lengthen the time at which impacts would be foreseen.

Potential Operational Impacts

Once constructed, all onsite drainage will be connected to separate foul and surface water systems. Surface water runoff will comply with SUDS and Water Pollution Act drainage requirements. Measures will be in place to prevent downstream impacts. Following the implementation of mitigation measures outlined below, there will be no adverse effects on the integrity of downstream designated sites during operation.

	Table 7. Potential for adverse effects on the qualifying interests and conservation objectives of Natura 2000 sites		
Natura 2000 Site &	Qualifying Interests	Potential for Adverse Effects	
Site Code			
Rockabill to Dalkey Island SAC	Reefs [1170] <i>Phocoena</i> (Harbour Porpoise) [1351]	Given the nature of the works, all of these effects would be expected to be localised in nature, restricted to the vicinity of the site. However, as there is a watercourse passing through the site with a direct pathway to this SAC, without the presence of mitigation measures there is a potential for downstream effects if significant quantities of pollution or silt were introduced into the watercourse with potential for downstream impacts on Rockabill to Dalkey Island SAC.	
		Out of an abundance of caution unmitigated works have the potential for downstream impacts on Harbour Porpoise and Reef through the introduction of silt and pollution. Site reprofiling, instream works, storage of topsoil or construction works in the vicinity of the watercourse or drains leading to the watercourse could lead to dust, soil, pollution, or silt laden runoff entering the watercourse with potential downstream impacts. Contaminated surface water runoff on site during construction or operation may lead to silt, cement or contaminated materials from the site entering the watercourse with downstream impacts on the SAC. If on-site concrete production is required or cement works are carried out in the vicinity of watercourses/drains, there is potential for contamination of watercourses. The use of plant and machinery, as well as the associated temporary storage of construction materials, oils, fuels and chemicals could lead to pollution on site or in adjacent watercourses.	
		In the absence of mitigation measures impacts on the qualifying interests of this SAC, primarily due to potential siltation of the habitat, cannot be ruled out. Out of an abundance of caution, in the absence of mitigation measures there is the potential to impact on the habitat area, habitat distribution, and community structure of the following qualifying interests:	
		• Reefs [1170]	
		In the absence of mitigation measures there is the potential to impact the access to suitable habitat due to siltation and pollution and could result in the localised disturbance of the following qualifying interests:	
		Harbour Porpoise (<i>Phocoena phocoena</i>) [1351]	
		Mitigation measures are required to remove the potential of impacts on this SAC from direct pathways via surface water runoff and the watercourse on site.	

Table 8. Mitigation measures

Sensitive Potential Receptors Impacts on SPA & SAC	Mitigation Measures to Prevent Impacts on Natura 2000 sites
Rockabill to Dalkey Island SAC Dust deposition Pollution Silt ingress from site runoff Downstrea impacts Negative impacts or reef and harbour porpoise.	 A final CEMP and instream works methodology statement will be submitted to Inland Fisheries Ireland at least three weeks prior ro the commencment of enabling works on site. This will include the name and details of the Ecological Clerk of Works. The ecological clerk of works will have previous experience of the installation of bridges and culverts in addition to the use of instream flumes during instream works. All instream works methodologies will have prior approval of Inland Fisheries Ireland. An arborist will place a tree ptotection zone at the initial phase of the project prior to machinery commencing enabling works on site. This will assist in protecting the main waterourse on site from impacts. The Carrickmines Stream and Ticknick Stream will be protected from dust, silt and surface water throughout the works. Local silt traps established throughout site.

 No discharges will be to the watercourse during and post works
 Silt traps established throughout site including a double silt fence between the site and the watercourse.
• Sufficient onsite cleaning of vehicles prior to leaving the site and on nearby roads, will be carried out, particularly during groundworks.
• The Site Manager will be responsible for the pollution prevention programme and will ensure that at least daily checks are carried out to ensure compliance. A record of these checks will be maintained.
• The site compound will include a dedicated bund for the storage of dangerous substances including fuels, oils etc. Refuelling of unbigles (machinemy will only be carried out within the bunded area.
vehicles/machinery will only be carried out within the bunded area.
• A project ecologist will be appointed and be consulted in relation to all onsite drainage during construction works.
• Dewatering of excavations may be necessary. Appropriate monitoring of groundwater levels during site works will be undertaken. Standard
construction phase filtering of surface water for suspended solids will be carried out. Unfiltered surface water discharges or runoff are not
permitted from the site into the Carrickmines Stream or Ticknick Stream during the works. Trenched double silt fencing shall be put in place
along boundary of the proposed development site with 10m buffer from the Carrickmines Stream and Ticknick Stream. This fencing must
be in place as one of the first stages on site and prior to the full site clearance. Clearance of scrub in these areas will be monitored by the
project ecologist while on site. The silt fencing will act as a temporary sediment control device to protect the watercourse from sediment and potential site water runoff but also act as a tree protection zone for the riparian buffer. The fencing will be inspected twice daily, based
on site and weather conditions, for any signs of contamination or excessive silt deposits.
 Concrete trucks, cement mixers or drums/bins are only permitted to wash out in designated wash out area greater than 50m from sensitive
 concrete trucks, cement mixers or drums/bins are only permitted to wash out in designated wash out area greater than som from sensitive receptors including drains and drainage ditches.
• Spill containment equipment shall be available for use in the event of an emergency. The spill containment equipment shall be replenished if used and shall be checked on a scheduled basis.
• All site personnel will be trained in the importance of good environmental practices including reporting to the site manager when pollution,
or the potential for pollution, is suspected. All persons working on-site will receive work specific induction in relation to surface water
management and run off controls. Daily environmental toolbox talks / briefing sessions will be conducted to outline the relevant environmental control measures and to identify any environment risk areas/works.
• Environmental risks due to construction and operation of the proposed development do potentially exist, particularly in relation runoff from
sloping site, drains that could lead to the Carrickmines Stream and Ticknick Stream. Ecological supervision will be required during demolition,
excavation and enabling works stages. Silt interception measures will need to be in place to ensure that the watercourses are not impacted
during works and in particular during the site clearance, instream works and reprofiling stages. Landscaping of the grassed areas of the site
proximate to the Carrickmines Stream and Ticknick Stream should take place immediately following re-profiling, to act as a buffer to protect
the watercourse.
• Daily turbidity monitoring of the Carrickmines Stream and Ticknick Stream should take place during works in consultation with the project
ecologist. This monitoring will be particularly important following high rainfall events. It is recommended that sufficient baseline readings
are made prior to construction. Monitoring will take place upstream, within the works area and immediately downstream of the works. This
will include the taking of digital photograph images that will be catalogued so that the dates of the creation of the images can be inspected
by the project ecologist and Inland Fisheries Ireland. Monitoring will take place at least 2 times per working day within the range of 11-1pm
and 3-5 pm. This will ensure that works that are being carried out during the day are assessed, rather than monitoring is carried out early in
the morning when impacts may be minimal as works may not have commenced on site.

• maintenance of any drainage structures (e.g. de-silting operations) must not result in the release of contaminated water to the surface water network.
• no entry of solids to the associated stream or drainage network during the connection of pipework to the existing surface water system
• Landscaping of the Riparian corridor will be carried out to the satisfaction of IFI and the biodiversity officer of DLR.
Air & Dust
Dust may enter the Carrickmines Stream and Ticknick Stream via air or surface water with potential downstream impacts. Mitigation measures will be carried out reduce dust emissions to a level that avoids the possibility of adverse effects on the Carrickmines Stream and Ticknick Stream. The main activities that may give rise to dust emissions during construction include the following:
 Demolition
Excavation of material;
Materials handling and storage;
Movement of vehicles (particularly HGV's) and mobile plant.
Contaminated surface runoff
Mitigation measures to be in place:
Maintain the existing 10m buffer with the Carrickmines Stream and Ticknick Stream with a double layer of silt fences
Consultation will be carried with an ecologist throughout the construction phase;
Trucks leaving the site with excavated material will be covered so as to avoid dust emissions along the haulage routes.
Speed limits on site (15kmh) to reduce dust generation and mobilisation.
• The stream is to be protected from dust on site. This may require additional measures in the vicinity of the building during demolition e.g. placing of terram/protective material over the stream.
Site Management
• Regular inspections of the site and boundary should be carried out to monitor dust, records and notes on these inspections should be logged.
• Record all dust and air quality complaints, identify cause(s), take appropriate measures to reduce emissions in a timely manner, and record the measures taken.
Make the complaints log available to the local authority when asked.
• Record any exceptional incidents that cause dust and/or air emissions, either on- or offsite, and the action taken to resolve the situation in the log book.
Monitoring
• Undertake daily on-site and off-site inspection, where receptors are nearby, to monitor dust, record inspection results, and make the log available to the local authority when asked. This should include regular dust soiling checks of surfaces within 100 m of site boundary, integrity of the silt control measures, with cleaning and / or repair to be provided if necessary.

Preparing and Maintaining the Site
 Plan site layout so that machinery and dust causing activities are located away from receptors, as far as is possible.
• Fully enclose specific operations where there is a high potential for dust production and the site is active for an extensive period.
 Avoid site runoff of water or mud.
 Keep site fencing, barriers and scaffolding clean using wet methods.
 Remove materials that have a potential to produce dust from site as soon as possible, unless being re-used on site. If they are being re-used on-site cover as described below.
 Cover, seed or fence stockpiles to prevent wind whipping.
• Hard surface roads will be swept to remove mud and aggregate materials from their surface while any un-surfaced roads will be restricted to essential site traffic.
• Any road that has the potential to give rise to fugitive dust will be regularly watered, as appropriate, during dry and/or windy conditions.
• Maintain a vegetated strip and vehicle exclusion zone between the works and the Carrickmines Stream and Ticknick Stream in consultation with the project ecologist.
Operations
• Only use cutting, grinding or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction, e.g. suitable local exhaust ventilation systems.
• Ensure an adequate water supply on the site for effective dust/particulate matter suppression/mitigation, using non-potable water where possible and appropriate.
Use enclosed chutes and conveyors and covered skips.
• Minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate.
• Ensure equipment is readily available on site to clean any dry spillages and clean up spillages as soon as reasonably practicable after the event using wet cleaning methods.
Waste
 Avoid bonfires and burning of waste materials.
Measures Specific to Earthworks
 Re-vegetate earthworks and exposed areas/soil stockpiles to stabilise surfaces as soon as practicable. Use Hessian multiples or trackifiers where it is not possible to revegetate or sover with targetill as soon as practicable.
Use Hessian, mulches or trackifiers where it is not possible to re-vegetate or cover with topsoil, as soon as practicable.
 Only remove the cover in small areas during work and not all at once. During dry and windy parieds and when there is a likelihood of dust puisance, a howser will operate to ensure moisture content is high
• During dry and windy periods, and when there is a likelihood of dust nuisance, a bowser will operate to ensure moisture content is high enough to increase the stability of the soil and thus suppress dust.
• Due to the proximity of the Carrickmines Stream and Ticknick Stream, an ecologist will oversee works in particular the excavation of material from the perimeter of the site.

• The Contractor will be required to consult with an ecologist prior to the beginning of works to identify any additional measures that may be appropriate and/or required.
 Storage/Use of Materials, Plant & Equipment Materials, plant and equipment shall be stored in the proposed site compound location; Plant and equipment will not be parked within 50m of the Carrickmines Stream and Ticknick Stream at the end of the working day; Hazardous liquid materials or materials with potential to generate run-off shall not be stored within 50m of the Carrickmines Stream and Ticknick Stream or pond. All oils, fuels and other hazardous liquid materials shall be clearly labelled and stored in an upright position in an enclosed bunded area within the proposed development site compound. The capacity of the bunded area shall conform with EPA Guidelines – hold 110% of the contents or 110% of the largest container whichever is greater; Fuel may be stored in the designated bunded area or in fuel bowsers located in the proposed compound location. Fuel bowsers shall be double skinned and equipped with certificates of conformity or integrity tested, in good condition and have no signs of leaks or spillages; Smaller quantities of fuel may be carried/stored in clearly labelled metal Jeri cans. Green for diesel and red for petrol and mixes. The Jeri cans shall be tored on the tarickmines Stream or Ticknick Stream; Drip trays will be turned upside down if not in use to prevent the collection of rainwater; Waters collected in drip trays must be assessed prior to discharge. If classified as contaminated, they shall be disposed by a permitted waste contractor in accordance with current waste management legal and regulatory requirements; Plant and equipment to be used during works, will be in good working order, fit for purpose, regularly serviced/maintained and have no evidence of leaks or drips; No plant used shall cause a public nuisance due to fumes, noise, and leakage or by causing an obstruction; Re-fuelling of machinery, plant or equipment will be carried out in the site compound as per the appointe
Mitigation Measures During Operational Phase
Petrochemical interceptors will be in place on site.

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

A robust series of mitigation measures will be implemented. These will ensure that the proposed works will not impact on the Carrickmines Stream and Ticknick Stream which, out of an abundance of caution, has been determined to be a direct hydrological pathway to Rockabill to Dalkey Island SAC. It should be noted that the early implementation of ecological supervision on site will be prior to the initial mobilisation and enabling works. This is seen as an important element to the project, particularly in relation to the implementation of surface water runoff and instream works mitigation strategies.

With the successful implementation of the mitigation measures to limit surface water impacts on the Ticknick Stream, Carrickmines Stream, and Shanganagh River, including mitigation/supervision, no significant impacts are foreseen from the site clearance and construction works of the proposed project. Residual impacts of the proposed project will be localised to the immediate vicinity of the proposed works and will not adversely affect the integrity of Natura 2000 sites.

The mitigation measures proposed for the construction and operational phases of the development satisfactorily address the potential for significant effects on Rockabill to Dalkey Island SAC, through the application of the mitigation measures as outlined above. In particular, the mitigation measures to prevent silt and pollution entering proximate watercourses will satisfactorily address the potential for significant effects on downstream biodiversity and Rockabill to Dalkey Island SAC. No adverse effects on the integrity of Natura 2000 sites are likely following the implementation of the mitigation measures outlined above.

In-Combination Effects

A review of the online planning system (<u>www.myplan.ie</u>) was carried out. The table below outlines a number of planning applications located in close proximity to the subject site that are of note.

Ref. No.	Address	Proposal
DZ20A/0399	Site in townlands of Laughanstown and Brennanstown	Residential development - 136 no. dwellings (total gross floor area of c.15,910 sqm) in a mixture of houses, duplexes, and apartments.
DZ20A/0552	Site in townlands of Laughanstown and Brennanstown	Residential development - 163 no. dwellings in a mixture of houses, duplexes, and apartments.
DZ21A/0334	Site in townlands of Laughanstown and Brennanstown	Residential development - 482 no. dwellings in a mixture of houses, duplexes, and apartments.
DA21/0664	Site in townlands of Laughanstown and Brennanstown	Residential development - 47 apartments with communal space
DZ21A/1042	Townlands of Laughanstown, Brennanstown and Cherrywood	Residential development – 122 dwellings
DZ21A/0699	Townlands of Laughanstown, Brennanstown and Cherrywood	Minor Amendments to DZ20A/0552
DZ21A/1069	Site in townlands of Laughanstown and Brennanstown	Minor Amendments to DZ20A/0399
DZ19A/0597	Development Area 8 -Tully, Cherrywood SDZ, Includes the Res 2 plots "T9" and "T10"	Residential development comprising of 184 dwellings
DZ18A/0208	Site approx. 6.57ha in area and generally bounded by, Lehaunstown Lane to the west, Carrickmines Stream (partly) to the south, and Cabinteely Stream, (partly) to the east that is, located within the townland of, Brennanstown, Dublin 18	Residential Development comprising of: • 360 no units • childcare facility

Table 3. Approved planning applications located in close proximity to the subject site

Ref. No.	Address	Proposal
DZ19A/0863	Site measuring approximately 8.24 ha in area generally bounded by Lehaunstown Lane to the west, Carrickmines Stream (partly) to the south and, Cabinteely Stream (partly) to the east and is located within the townland of, Brennanstown, Dublin 18	 Residential development comprising of: 342 new residential dwellings, Childcare Facility 249sq.m. (GFA), Delivery of the Cherrywood SDZ Planning Scheme's Druid's Glen Distributor Road (also known as Q to P3), measuring approximately 390 m in length to include the construction / completion of the part approved 3-span bridge (Option 1) over the Cabinteely Stream under Planning Ref. DZ16A/0587 (ABP Ref. PL06D.247915).
DZ18A/1129	Site (c.0.95ha) at Laughanstown & Brennanstown, Dublin 18 (Development Areas 1 & 8)	 Construction of an attenuation pond (detention basin) with associated outfall to Ticknick stream Infilling of the existing temporary attenuation pond (north of Mercer Link Road, constructed as part of the Phase 1 Roads and Infrastructure works permitted under Reg. Ref. DZ15A/0758) Construction of a new stormwater outfall pipe from Beckett Park attenuation system to Ticknick stream
DZ15A/0758	Lands in the townlands of Cherrywood, Laughanstown, Brennanstown, Loughlinstown and Glebe	Roads and infrastructure (phase 1) to form part of public road network providing access and services for the future development of the adjoining SDZ lands. The total road length proposed is c.5.4kms, of which c.4.1kms is new road and c.1.3kms relates to works to existing roads.
D10A/0164	Carrickmines(Priorsland), East of Glenamuck Road, North of M50, & South of Luas Line B1 (Currently under construction)	Park and Ride (temporary) 6 year permission for 350 space park and ride facility with access off existing Carrickmines roundabout. Development will also include pedestrian access to Carrickmines Luas stop (currently under construction).
DZ16A/0585	Off Glenamuck Road, adjacent the Carrickmines roundabout and M50 interchange Carrickmines Dublin	Permission for retention (temporary for 3 years) for park and ride facility previously granted permission under Reg. Ref. D10A/0164.
DZ17A/0114	Lands at Priorsland, Glenamuck Road North, Carrickmines, Dublin 18	Permanent park and ride facility
DZ19A/0683	Lands at Priorsland, Glenamuck Road North, Carrickmines, Dublin 18	Permission for retention (temporary for 3 years) for park and ride facility previously granted permission under Reg. Ref. D10A/0164.
DZ15A/0813	Laughanstown, Dublin 18, (Tully Park)	Permission granted for a public park known as Tully Park
DZ15A/0814	Laughanstown, Dublin 18, (Beckett Park)	Planning permission granted for a public park known as Beckett Park
DZ16A/0570	Lands in the townlands of Ticknick, Co Dublin and Laughanstown, Dublin 18	Planning permission granted for a public park known as Ticknick Park
DZ17A/0862	Lands in the townlands of Cherrywood, Dublin 18	Permission for Mixed Use Town Centre development, including amendments to Tully Park entrance
DZ18A/0458	Lands in the townland of Laughanstown, Dublin 18	Permission granted for Tully Primary School
DZ19A/0874	Ticknick, Co. Dublin, and Laughanstown, Dublin 18	Split decision - Permission granted for revised proposals for previously approved pavilion building at Ticknick Park, and permission refused for a temporary car park off Lehaunstown Lane.

Ref. No.	Address	Proposal
DZ20A/0478	Laughanstown and Cherrywood, Dublin 18	Permission granted for the provision of a temporary car park for approximately 75 cars, 3 coaches and 4 motorcycles on lands at Laughanstown (on a site of c.0.6 ha) west of Lehaunstown Park (a Protected Structure RPS No. 026-093). The proposed carpark is a temporary facility (0-3 years) and is to serve the Ticknick Park development.
DZ20A/0946	Lands known as Tully Park Laughanstown, Dublin 18	Permission granted for amendments to Tully Park.

Cherrywood SDZ is the single largest undeveloped land-bank in Dún Laoghaire-Rathdown, and is approximately 360 hectares in size, nestled at the foot of the Dublin Mountains, is strategically located between the M50 and N11 transport corridors approximately 1km north of where they fork from the M11 and approximately 8km south of Dún Laoghaire town centre. It is a significant land bank that is earmarked for major residential and mixed use development over the coming decades and the proposed development forms part of this wider scheme.

The Carrickmines Stream flows through the Cherrywood SDZ. An Appropriate Assessment Screening was carried out by Dún Laoghaire Rathdown County Council for the Cherrywood SDZ. The report stated the following in relation to potential impacts on Natura 2000 sites:

'[T]here are no elements of the draft Planning Scheme that could, on their own, lead to a risk of significant impacts on Natura 2000 site. The SDZ does not contain any Natura 2000 sites nor is it not directly linked to any Natura 2000 site by rivers or ecological corridors.'

'The Screening process has identified that several Natura 2000 sites lie within the zone of influence of the draft Cherrywood SDZ Planning Scheme. None of these Natura 2000 sites are deemed to be at risk of likely significant effects of implementing the draft Planning Scheme. This conclusion has been reached by an analysis of the qualifying interests in the sites and what physical conditions are required to maintain their conservation status. The location of the SDZ lands within catchments detached from any Natura 2000 sites and the absence of any connecting terrestrial or aquatic pathways to these sites has been taken into account. The contribution of other plans in the same area has also been acknowledged in this screening exercise."

In relation to in combination effects the Cherrywood SDZ stated that 'Since it has been concluded that the draft Planning Scheme on its own will not have interaction with Natura 2000 sites it is not strictly deemed necessary to look at the impacts of other plans and projects as these will be occurring independently of the SDZ.'

The projects outlined above in addition to the supporting ecological information have been assessed for in combination effects on Natura 2000 sites. No in combination effects would be foreseen. The proposed project will require mitigation measures for the protection of the Carrickmines Stream, Ticknick Stream, and Rockabill to Dalkey Island SAC. The developments outlined above would not be seemed to have an in-combination effect that could significantly effect European Sites. In particular, in relation to the Cherrywood SDZ AA Screening states that "There are no elements of the draft Planning Scheme that could, on their own, lead to a risk of significant impacts on Natura 2000 site" and that "None of these Natura 2000 sites are deemed to be at risk of likely significant effects of implementing the draft Planning Scheme."

It should also be noted that the 2020 Environmental Report for Shanganagh WWTP states that the WwTP is within compliance and has a person equivalent capacity remaining of 56,665.

As a result of the assessment carried out in relation to the above projects and supporting documentation, 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.

No adverse effects on the integrity of Rockabill to Dalkey SAC are likely.

Conclusion

In a strict application of the precautionary principle, it has been concluded that effects are likely on Rockabill to Dalkey Island SAC from the proposed works in the absence of mitigation measures, primarily as a result of direct hydrological connection to the site via the Ticknick Stream and Carrickmines Stream. For this reason, an NIS was carried out to assess whether the proposed project, either alone or in combination with other plans or projects, in view of best scientific knowledge and in view of the sites' conservation objectives, will adversely affect the integrity of the European Site. All other European sites were screened out at initial screening.

Mitigation measures will be in place to ensure that there are no significant impacts on the watercourse network that leads to Killiney Bay. Surface water discharge from site will include petrochemical interception.

The mitigation measures proposed for the construction and operational phases of the development satisfactorily address the potential for significant effects on Rockabill to Dalkey Island SAC, through the application of the standard construction phase controls as outlined above. In particular, the mitigation measures to prevent silt and pollution entering the Ticknick Stream and Carrickmines Stream will satisfactorily address the potential for significant effects on downstream biodiversity and Rockabill to Dalkey Island SAC. No significant adverse effects on the conservation objectives of Rockabill to Dalkey SAC are likely following the implementation of the mitigation measures proposed.

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

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

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

References

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

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- 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
- 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
- Assessment of Plans and Projects Significantly Affecting EUROPEAN Sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC; ec.europa.eu/environment/nature/Natura2000management/docs/art6/Natura 2000 assess en.pdf
- Assessment of plans and projects in relation to Natura 2000 sites Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EC; <u>https://eur-lex.europa.eu/legal-</u> <u>content/EN/TXT/PDF/?uri=CELEX:52021XC1028(02)&from=EN</u>
- 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
- Guidance document on the implementation of the birds and habitats directive in estuaries and coastal zones with particular attention to port development and dredging; ec.europa.eu/environment/nature/Natura2000/management/docs/guidance_doc.pdf
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11. NPWS (2013) Conservation Objectives: North Dublin Bay SAC 000206. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

- 12. NPWS (2021) Conservation Objectives: Glenasmole Valley SAC 001209. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
- 13. NPWS (2021) Conservation Objectives: Knocksink Wood SAC 000725. Version 1. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage.
- 14. NPWS (2013) Conservation Objectives: Rockabill to Dalkey Island SAC 003000. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht
- 15. 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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- 18. NPWS (2017) Conservation Objectives: Bray Head SAC 000714. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.
- 19. NPWS (2015) Conservation Objectives: South Dublin Bay and River Tolka Estuary SPA 004024. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
- 20. NPWS (2022) Conservation objectives for Wicklow Mountains SPA [004040]. Generic Version 9.0. Department of Housing, Local Government and Heritage.
- 21. NPWS (2015) Conservation Objectives: North Bull Island SPA 004006. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
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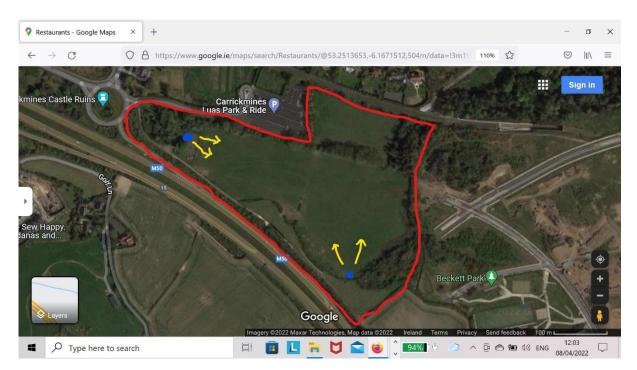
Priorsland (Cherrywood) Winter Bird Surveys 2020-2022

Introduction

Between October 2020 and March 2022, a total of 22 winter bird surveys were conducted at lands at Priorsland at Cherrywood, 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. Priorsland site – The sites marked in blue are the optimal vantage points for the site, giving optimal viewing over the largest area of the site.

Site Description

A large green field with a smaller adjacent field bordering the Luas Line to the north. A stream borders the length of the larger field on its northern side that flows east. Interspersed hedgerow and trees around the site, notably some large Oak trees between the large field and small field. Mixed patch of Trees and low cover at the western corner of the site. A hedgerow with a few larger trees borders the large field at its western side.

Specific site survey methodology

Observations made from the vantage points alternately each 1-2 hours during the surveys. The site was also traversed every few hours around the boundary of large field and small field and then vantage point observations resumed.

Survey results

October 22nd, 2020

Sunrise- 08.05hrs/Sunset 18.12hrs. Weather – Wind F3 Southwest, Cloud 6/8, Dry, 10c, Excellent visibility. Onsite 08.15hrs – 16.15hrs.

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

Observations from 08.15hrs - 12.00hrs -

Survey commenced with a walk around of site, followed by vantage point observations. Primary species noted foraging on main (larger) field were Jackdaw and Starling, small numbers of Jackdaw early in morning (<10) with a maximum count of 22 noted at 11.55hrs. Foraging Starling flock maximum count was 110 on the west side of the main field at 11.26hrs. 6 Linnet and 4 Chaffinch were foraging at the east end of the main field from 11.00hrs. A Tree Sparrow at the west end of the site at 09.45hrs was noteworthy (locally very scarce). Small numbers of Black-headed Gull noted passing over the site (<10). A Buzzard was noted soaring over the southeast corner of the main field at 11.01hrs. Only species noted foraging in small field were small numbers (<5) of Jackdaw. A Grey Wagtail was noted foraging on the stream throughout the morning. Other species recorded were Robin (<4), Blackbird (<2), Goldcrest (<1), Long-tailed tit (<1), Wren (<1), Blue Tit (<5), Goldfinch (<4), Blackcap (<1), Woodpigeon (<8), Dunnock (<3), Hooded Crow (<2) and Rook (<5).

Observations from 12.00hrs – 16.15hrs –

Three Redpoll were observed at the west end from 12.04-12.20hrs. In afternoon, again Jackdaw and Rook were the primary species foraging on the main field with smaller numbers of Jackdaw (<10) foraging on the small field. Maximum count was Jackdaw (<80) and Rook (<18) foraging on main field at 13.30hrs. A Jay was noted foraging along north side of main field at 14.04hrs with Siskin (<1) and Bullfinch (<1) noted foraging in same area. Other species recorded – Goldfinch (<8), Blue Tit (<3), Great Tit (<2), Coal Tit (<1), Siskin (<1), Wren (<4), Robin (<4), Mistle Thrush (<1), Dunnock (<5) and Woodpigeon (<15).

October 31st, 2021

Sunrise- 07.22hrs/Sunset 16.53hrs. Weather – Wind F3 Southeast, Cloud 7/8, Light showers, 11c, Excellent visibility. On-site 07.30hrs – 15.30hrs.

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

Observations from 07.30hrs – 12.00hrs –

Small numbers of Jackdaw and Rook foraging on the main field in the morning (<10 each), later in morning numbers building to a peak at 11.40hrs of Jackdaw (<65) and Rook (<8) feeding at west end of field. Two Jay foraging in southeast corner of main field at intervals during morning. Single Grey Wagtail noted at west side of main field near culvert under M50. Other species recorded (mainly in hedgerows/tree line) – Bullfinch (<5), Blue Tit (<6), Dunnock (<6), Song Thrush (<4), Blackbird (<8), Wren (<3), Robin (<5), Meadow Pipit (<4), Goldcrest (<3), Redpoll (<9), Chaffinch (<8), Greenfinch (<1), Long-tailed Tit (<10), Goldfinch (<12), Linnet (<1), Hooded Crow (<2), Magpie (<3) and Woodpigeon (<5).

Observations from 12.00hrs - 15.30hrs -

Peak count of Jackdaw (<32), Rook (<8), Hooded Crow (<2) and Black-headed Gull (<3) recorded foraging at west end of main field at 14.10hrs. Other species recorded included Starling (<10 foraging on main field), Dunnock (<5), Blackbird (<4), Song Thrush (<2), Goldcrest (<1), Chaffinch (<5 foraging at west end main field), Goldfinch (<2), Robin (<3) and Pied Wagtail (<1). Small numbers of Black-headed Gull (<15) and Herring Gull (<10) passing east over site in late afternoon.

November 13th, 2020

Sunrise- 07.47hrs/Sunset 16.31hrs. Weather – Wind F4 Southwest, Cloud 7/8, Dry, 9c, Excellent visibility. Onsite 07.15hrs – 15.15hrs.

Species recorded – Black-headed Gull, Herring Gull, Mediterranean Gull, Robin, Goldcrest, Blue Tit, Longtailed Tit, Grey Wagtail, Pied Wagtail, Jackdaw, Rook, Magpie, Jay, Pheasant, Hooded Crow, Chaffinch, Siskin, Tree Sparrow, Blackbird, Mistle Thrush, Song Thrush, Wren, Goldfinch, Bullfinch, Redpoll, Linnet, Woodpigeon, Stock Dove, Dunnock, Meadow Pipit, Starling, Buzzard, Sparrowhawk, Kestrel, Grey heron, Snipe.

Observations from 07.15hrs – 12.00hrs –

A flock of 11 Black-headed Gulls foraging on the main field at 08.10hrs increased to 52 birds and a Mediterranean Gull at 08.37hrs, with the gulls then moving off-site. 3 Grey Wagtail were noted foraging near culvert under M50 at 08.08hrs. A Pheasant, 4 Redpoll, 5 linnet and a Chaffinch were foraging at the west end of the main field at 08.15hrs. A Snipe was flushed from a wet area at the southeast corner of the main field at 08.22hrs. A Tree Sparrow was observed at the next to the vantage point at the west end of the site at 09.46hrs (likely same bird as on 22/10/20). A Buzzard was noted soaring along the north side of the main field at 10.20hrs. A peak count of 37 Jackdaw and 8 Magpie were noted foraging on the main field at 10.43hrs. A Sparrowhawk was recorded perched next to the west end vantage point at 11.09hrs and a Kestrel was observed just east of the east end of the main field at 11.39hrs (off-site). Other species recorded – Stock Dove (<1), Robin (<7), Blackbird (<2), Goldcrest (<1), Bullfinch (<2), Mistle Thrush (<2), Goldfinch (<18), Dunnock (<3) and Woodpigeon (<8).

Observations from 12.00hrs – 15.15hrs –

A foraging flock of 40 Starling were noted on the main field at 13.20-14.05hrs, with small numbers (<15) Jackdaw foraging also during afternoon. A Grey Heron was noted at stream at entrance to site at west end at 12.45hrs. Other species recorded – Grey Wagtail (<1), Dunnock (<4), Blackbird (<3), Bullfinch (<1) and Jay (<1).

November 25th, 2020

Sunrise- 08.08hrs/Sunset 16.15hrs. Weather – Wind F2 West, Cloud 7/8, Dry, 7c, Excellent visibility. On-site 07.30hrs – 15.15hrs.

Species recorded – Black-headed Gull, Herring Gull, Lesser black-backed Gull, Robin, Goldcrest, Blue Tit, Great Tit, Long-tailed Tit, Grey Wagtail, Pied Wagtail, Jackdaw, Rook, Magpie, Jay, Hooded Crow, Chaffinch, Blackbird, Mistle Thrush, Song Thrush, Redwing, Wren, Goldfinch, Bullfinch, Redpoll, Linnet, Chiffchaff, Woodpigeon, Dunnock, Meadow Pipit, Starling, Pheasant, Buzzard.

Observations from 07.30hrs - 12.00hrs -

At the main field the only foraging species noted during the morning were a flock of 37 Black-headed Gull from 10.01hrs-10.20hrs. Other species noted around the site in the hedgerows (mainly east end of main field) and tree lines were – Redwing (<3), Robin (<12), Wren (<5), Rook (<2), Starling (<15), Magpie (<4), Jackdaw (<10), Blackbird (<12), Dunnock (<14), Meadow Pipit (<1), Bullfinch (<2), Grey Wagtail (<1), Mistle Thrush (<3), Chaffinch (<15), Goldfinch (<3), Jay (<2), Song Thrush (<3), Redpoll (<1), Lesser black-backed Gull (<1), Blue Tit (<1), Woodpigeon (<5) and Goldcrest (<2).

Observations from 12.00hrs – 15.15hrs –

A peak count of foraging Jackdaw on main field was 27 birds at 14.30hrs, smaller numbers (<10) intermittently at other times during afternoon. Chaffinch (<10), Pheasant (<3) and Stock Dove (<1) foraging at east end of main field at 12.15hrs. Other species noted around the site – Goldcrest (<2), Blackbird (<7), Robin (<4), Magpie (<4), Dunnock (<6), Linnet (<2), Bullfinch (<3), Wren (<4), Song Thrush (<2), Buzzard (<1), Chiffchaff (<1), Blue Tit (<2) and Mistle Thrush (<1). Small numbers (<10) of Herring Gull noted passing east over the site from 14.15hrs.

December 2nd, 2020

Sunrise- 08.19hrs/Sunset 16.10hrs. Weather – Wind F2 West, Cloud 3/8, Dry, 8c, Excellent visibility. On-site 08.15hrs – 15.30hrs.

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

Observations from 08.15hrs – 12.00hrs –

Foraging flocks of Black-headed Gulls on the main field were a flock of 13 at 09.00hrs, increasing to 16 at 10.48hrs and to 24 at 11.03hrs. A Kestrel landed next to the west vantage point at 08.39hrs, but was not seen to hunt on-site. Peak count of Jackdaw foraging on the main field was 30 at 11.15hrs accompanied by 5 Rook. A Buzzard passed north over the middle of the site at 09.26hrs. Other species noted on site were – Goldfinch (<3), Dunnock (<10), Robin (<8), Blackbird (<12), Mistle Thrush (<1), Song Thrush (<2), Chaffinch (<1), Blue Tit (<1), Wren (<2), Grey Wagtail (<2), Meadow Pipit (<1), Goldcrest (<3), Great Tit (<1), Bullfinch (<1), Starling (<5), Linnet (<7), Woodpigeon (<6), Pied Wagtail (<1), Magpie (<4) and Pheasant (<3).

Observations from 12.00hrs – 15.30hrs –

Black-headed Gulls foraging on the main field in the afternoon peaked at 15 at 13.40hrs. Small numbers of Jackdaw (<10), Rook (<6), Hooded Crow (<5), Meadow Pipit (<2), Pied Wagtail (<1) and Magpie (<3) foraging intermittently also. Other species recorded – Redpoll (<2), Song Thrush (<4), Blackbird (<8), Mistle Thrush (<2), Woodpigeon (<10), Goldfinch (<7), Dunnock (<6), Wren (<3), Grey Wagtail (<1), Jay (<1), Long-tailed Tit (<8), Goldcrest (<2), Herring Gull (<11 passing over site).

December 18th, 2020

Sunrise- 08.37hrs/Sunset 16.07hrs. Weather – Wind F4 South, Cloud 8/8, Light showers, 12c, Excellent visibility. On-site 08.30hrs – 15.30hrs.

Species recorded – Black-headed Gull, Herring Gull, Lesser black-backed Gull, Common Gull, Robin, Goldcrest, Blue Tit, Long-tailed Tit, Grey Wagtail, Pied Wagtail, Jackdaw, Rook, Magpie, Jay, Hooded Crow, Chaffinch, Blackbird, Mistle Thrush, Song Thrush, Redwing, Wren, Goldfinch, Bullfinch, Linnet, Woodpigeon, Dunnock, Meadow Pipit, Starling, Pheasant, Buzzard, Sparrowhawk.

Observations from 08.30hrs - 12.00hrs -

At the main field foraging Black-headed Gulls increased from 20 at 08.40hrs to 43 (including one Common Gull and one Lesser black-backed Gull) at 09.15hrs and peaking at 60 birds at 11.25hrs. Jackdaw were also noted foraging in the main and smaller field with a peak count of 32 birds at 09.32hrs, smaller numbers (<5) of Rook also noted on the main the field. A Sparrowhawk was noted hunting at the west end of the site at 08.35hrs and at the east end at 09.37hrs. Other species noted were- Blackbird (<3), Mistle Thrush (<3), Pied Wagtail (<2), Robin (<4), Dunnock (<4), Pheasant (<3), Woodpigeon (<10), Grey Wagtail (<1), Chaffinch (<5), Meadow Pipit (<1), Redwing (<1), Jay (<1), Goldcrest (<3), Hooded Crow (<2), Magpie (<1), Song Thrush (<1), Blue Tit (<1), Starling (<25), Goldfinch (<1) and Long-tailed Tit (<1).

Observations from 12.00hrs – 15.30hrs –

In the afternoon at the main field the peak number of corvids foraging on site was at the west end at 12.40hrs with Jackdaw (<22), Rook (<2), Magpie (<7) and Hooded Crow (<1). No foraging gulls noted. Other species recorded on-site were – Buzzard (<1 in small field at 12.40hrs), Dunnock (<3), Blackbird (<6), Robin (<4), Mistle Thrush (<4), Goldfinch (<1), Bullfinch (<2), Redwing (<4), Pied Wagtail (<2), Chaffinch (<8), Woodpigeon (<3), Jay (<1), Grey Wagtail (<1) and Blue Tit (<1).

January 6th, 2021

Sunrise- 08.38hrs/Sunset 16.23hrs. Weather – Wind F2 North, Cloud 7/8, Light showers, 3c, Excellent visibility. On-site 08.45hrs – 15.30hrs.

Species recorded – Black-headed Gull, Herring Gull, Lesser black-backed Gull, Robin, Goldcrest, Blue Tit, Longtailed Tit, Great Tit, Grey Wagtail, Pied Wagtail, Jackdaw, Rook, Magpie, Jay, Hooded Crow, Chaffinch, Blackbird, Mistle Thrush, Song Thrush, Redwing, Wren, Blackcap, Goldfinch, Redpoll, Linnet, Woodpigeon, Stock Dove, Dunnock, Meadow Pipit, Starling, Pheasant, Snipe, Buzzard.

Observations from 08.45hrs – 12.00hrs –

At the center of the main field from 09.20hrs a foraging flock of Gulls grew from 16 Black-headed Gull to a peak of 48 at 11.10hrs through the morning, joining the flock also were 1-3 Herring Gull and a single Lesser black-backed Gull. Also foraging on the main field were Meadow Pipit (<3), Mistle Thrush (<2) and a Snipe was flushed from the southeast corner at 10.30hrs. Small numbers of Jackdaw (<8) also recorded foraging. Other species recorded on-site were Blackbird (<6), Song Thrush (<4), Jay (<2), Woodpigeon (<15), Stock Dove (<2), Hooded Crow (<4), Rook (<6), Redwing (<4 foraging in small field at 09.45hrs), Wren (<6), Goldfinch (<8), Chaffinch (<14), Redpoll (<4), Linnet (<15 foraging at east end main field), Pheasant (<1), Starling (<30), Dunnock (<8), Robin (<7) and Great Tit (<1).

Observations from 12.00hrs – 15.30hrs –

Jackdaw numbers foraging on main field peaked at 26 at 13.48hrs, small numbers (<5) Rook also associating with the Jackdaw flock. A flock of Starling (<50) were foraging at center of main field intermittently from 13.00-15.00hrs. Small numbers (<5) of Black-headed Gulls occasionally landing into main field in afternoon to forage. Other species recorded on-site in afternoon – Woodpigeon (<25), Blackbird (<6), Song Thrush (<2), Chaffinch (<12), Goldfinch (<16), Redpoll (<1), Goldcrest (<2), Blue Tit (<4), Robin (<3), Blackcap (<1), Buzzard (<2 soaring over east end main field at 14.40hrs), and Long-tailed Tit (<8).

January 19th, 2021

Sunrise- 08.28hrs/Sunset 16.44hrs. Weather – Wind F4 Southwest, Cloud 8/8, Light showers, 10c, Excellent visibility. On-site 08.30hrs – 16.00hrs.

Species recorded – Black-headed Gull, Herring Gull, Mediterranean Gull, Robin, Goldcrest, Blue Tit, Longtailed Tit, Great Tit, Grey Wagtail, Pied Wagtail, Jackdaw, Rook, Magpie, Hooded Crow, Chaffinch, Blackbird, Song Thrush, Redwing, Wren, Goldfinch, Redpoll, Linnet, Siskin, Woodpigeon, Dunnock, Meadow Pipit, Starling, Pheasant, Buzzard.

Observations from 08.30hrs - 12.00hrs -

At the west end of the main field a flock of Chaffinch (<25) were foraging from 09.05hrs-09.30hrs. A flock of foraging Black-headed Gull (<30) were present in the center of the main field from 09.10-10.45hrs. Two Buzzard circled over the small field at 09.19hrs. A minimum of 20 Jackdaw and 25 Woodpigeon were foraging at intervals on the main field during the morning. Other species recorded – Blackbird (<3), Long-tailed Tit (<2), Pied Wagtail (<2), Dunnock (<3), Song Thrush (<1), Robin (<3), Redwing (<14), Wren (<2), Goldfinch (<4), Goldcrest (<1), Magpie (<4) and Blue Tit (<2).

Observations from 12.00hrs - 16.00hrs -

A flock of 25 Woodpigeon were noted foraging in the small field from 14.25-1515hrs. A flock of 17 Blackheaded Gull at the west end of the main field at 15.05hrs increased to 86 birds by 15.30hrs accompanied by Mediterranean Gull (<1) and Herring Gull (<3). Other species recorded on-site were – Song Thrush (<1), Blackbird (<3), Great Tit (<1), Siskin (<1), Redpoll (<3), Linnet (<5), Hooded Crow (<2), Wren (<2), Dunnock (<4), Robin (<5), Pheasant (<1), Meadow Pipit (<1) and Grey Wagtail (<1).

February 4th, 2021

Sunrise- 08.04hrs/Sunset 17.14hrs. Weather – Wind F2 Southwest, Cloud 5/8, Dry, 8c, Excellent visibility. Onsite 09.30hrs – 18.15hrs.

Species recorded – Black-headed Gull, Herring Gull, Lesser black-backed Gull, Robin, Goldcrest, Blue Tit, Longtailed Tit, Great Tit, Grey Wagtail, Pied Wagtail, Jackdaw, Rook, Magpie, Hooded Crow, Chaffinch, Blackbird, Song Thrush, Chiffchaff, Siberian Chiffchaff, Redwing, Wren, Goldfinch, Redpoll, Linnet, Bullfinch, Woodpigeon, Dunnock, Meadow Pipit, Starling, Pheasant, Mallard, Woodcock.

Observations from 09.30hrs - 12.00hrs -

At the main field 29 Woodpigeon were recorded foraging in center from 10.45hrs to 11.15hrs, small numbers of Jackdaw (<12) and Rook (<5) foraging also on main field at intervals during the morning. At the east end of the main field a foraging flock of 8 Chaffinch and 2 Goldfinch was present from 11.35hrs, a Siberian Chiffchaff was also in this area at 11.20hrs (scarce winter visitor). Other species recorded – Pied Wagtail (<1), Grey Wagtail (<1), Chiffchaff (<1), Blackbird (<6), Pheasant (<3), Dunnock (<5), Mistle Thrush (<2), Goldcrest (<2), Song Thrush (<4), Robin (<1), Goldfinch (<3), and Blue Tit (<1).

Observations from 12.00hrs – 18.15hrs –

The foraging flock of 15 Chaffinch and 5 Goldfinch still present at east end of main field in the afternoon from 13.10hrs. A flock of 25 Redwing and a Mistle Thrush were recorded foraging in the southeast corner of the main field from 13.15-14.00hrs. No Gull flocks recorded on main field in afternoon (occasional birds passing over only), small flocks of Jackdaw (<6) recorded foraging at intervals. A late stay on the site to dark (to attempt to record Owls, Woodcock etc.) resulted in a Mallard being recorded at 17.49hrs landing into a small pool at the southeast corner of the main field and a Woodcock was recorded flying out from the woodland at the southeast corner of main field at 17.54hrs, it flew across the main field towards M50 out of sight going southwest. Other species recorded – Robin (<6), Siberian Chiffchaff (<1), Bullfinch (<3), Redpoll (<1), Linnet (<2), Blue Tit (<2), Song Thrush (<4), Great Tit (<1), Pied Wagtail (<2), Blackbird (<5) and Woodpigeon (<2).

February 22nd, 2021

Sunrise- 07.27hrs/Sunset 17.49hrs. Weather – Wind F2 Southwest, Cloud 5/8, Dry, 8c, Excellent visibility. Onsite 07.45hrs – 16.30hrs.

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

Observations from 07.45hrs – 12.00hrs –

Flock of 32 Jackdaw and 6 Rook foraging in center of main field from 08.30hrs, continuing to forage in same area throughout the morning, with a peak count of 38 Jackdaw, 6 Rook, 3 Hooded Crow and 4 Magpie at 10.15hrs. Two Buzzard were observed soaring over the southeast corner at 11.25hrs. Foraging flock of 18 Chaffinch, 8 Goldfinch and 2 Redpoll recorded at the east end of the main field from 08.40hrs remained throughout the morning. Other species recorded – Blackbird (<6), Song Thrush (<2), Dunnock (<7), Redwing (<3), Goldcrest (<2), Robin (<5), Linnet (<8), Pied Wagtail (<1), Wren (<4), Pheasant (<2), Starling (<15), Long-tailed Tit (<8), Blue Tit (<5) and Woodpigeon (<10).

Observations from 12.00hrs - 16.30hrs -

A flock of 25 Black-headed Gull and 1 Herring Gull were observed foraging in the center of the main field from 12.50hrs-13.30hrs. Flocks of Jackdaw (maximum count <15) recorded foraging on main field at intervals

during the day joined by occasional Rooks (<4) and Hooded Crow (<2). A Sparrowhawk was noted hunting along hedgerow at the east end of the main field at 15.40hrs. Foraging flock of a minimum 15 Chaffinch and 10 Goldfinch present at the east end of the main field throughout the afternoon. Other species recorded- Jay (<2), Song Thrush (<8), Blackbird (<6), Robin (<6), Redpoll (<2), Siskin (<3 foraging in small field), Woodpigeon (<15), Pied Wagtail (<1), Meadow Pipit (<2 on main field), Goldcrest (<2), Dunnock (<7), Wren (<5), Coal tit (<1) and Blue Tit (<3).

March 1st, 2021

Sunrise- 07.12hrs/Sunset 18.03hrs. Weather – Wind F1 East, Cloud 3/8, Dry, 9c, Excellent visibility. On-site 07.45hrs – 16.30hrs.

Species recorded – Black-headed Gull, Herring Gull, Lesser black-backed Gull, Robin, Goldcrest, Blue Tit, Longtailed Tit, Great Tit, Coal Tit, Grey Wagtail, Pied Wagtail, Jackdaw, Rook, Magpie, Hooded Crow, Raven, Jay, Chaffinch, Blackbird, Song Thrush, Redwing, Wren, Goldfinch, Redpoll, Linnet, Greenfinch, Woodpigeon, Dunnock, Meadow Pipit, Starling, Pheasant, Buzzard, Lapwing.

Observations from 07.45hrs – 12.00hrs –

Two Raven passed over the main field going east at 10.09hrs. Two Buzzard were soaring over the southeast corner of the main field at 10.20hrs. At 11.05hrs 4 **Lapwing** arrived on-site, feeding on the main field towards the east end, at 11.40hrs 5 birds were present, the 5 birds remained feeding in the area until 13.15hrs when they moved off-site flying in a southeasterly direction. Small flocks of Woodpigeon (<8) noted foraging on main field during the morning, no significant foraging flocks of corvids or gulls recorded. Other species recorded on-site – Robin (<2), Magpie (<7), Greenfinch (<1), Song Thrush (<3), Goldfinch (<2), Linnet (<4), Dunnock (<9), Starling (<3), Grey Wagtail (<1), Meadow Pipit (<1), Chaffinch (<2), Goldcrest (<1), Redwing (<2), Mistle Thrush (<1), Blue Tit (<2),

Observations from 12.00hrs – 16.30hrs –

A flock of 35 Woodpigeon were foraging at the west end of the main field from 14.45-15.00hrs. Foraging flocks of Jackdaw peaked at 18 birds at 15.20hrs with smaller numbers (<10) intermittently at other times. No foraging Gull flocks were recorded, small numbers of Herring, Lesser black-backed, and Black-headed Gull noted passing over the site (<10 of each species). Other species recorded – Starling (<3), Pied Wagtail (<1), Pheasant (<2), Grey Wagtail (<1), Chaffinch (<6), Robin (<3), Blue Tit (<1), Great Tit (<2), Goldfinch (<3), Redpoll (<1), Song Thrush (<2) and Mistle Thrush (<2).

March 15th, 2021

Sunrise- 06.39hrs/Sunset 18.38hrs. Weather – Wind F2 West, Cloud 8/8, Dry, 11c, Excellent visibility. On-site 09.30hrs – 18.40hrs.

Species recorded – Herring Gull, Lesser black-backed Gull, Robin, Goldcrest, Blue Tit, Long-tailed Tit, Great Tit, Coal Tit, Grey Wagtail, Pied Wagtail, Jackdaw, Rook, Magpie, Hooded Crow, Jay, Raven, Chaffinch, Bullfinch, Blackbird, Song Thrush, Redwing, Wren, Goldfinch, Redpoll, Linnet, Siskin, Greenfinch, Woodpigeon, Stock Dove, Dunnock, Meadow Pipit, Starling.

Observations from 09.30hrs - 12.00hrs -

Foraging flock of 20 Redwing, 8 Starling and 2 Mistle Thrush recorded at the north side of the main field from 11.00-12.15hrs. No foraging gull flocks or larger foraging corvid flocks recorded, small numbers of Jackdaw (<8) noted foraging in the same field. Herring Gull (<14) and Lesser black-backed Gull (<3) noted passing over the site, most birds moving east to west. Other species recorded – Woodpigeon (<4), Robin (<3), Pied Wagtail (<2), Blackbird (<4), Redpoll (<3), Stock Dove (<1), Chaffinch (<2), Meadow Pipit (<2), Song Thrush (<4), Dunnock (<1), Greenfinch (<1), Goldfinch (<18), Goldcrest (<1), Blue Tit (<2) and Wren (<1).

Observations from 12.00hrs - 18.40hrs -

Remained on site until dark looking for nocturnal emerging species like Owls and Woodcock (none recorded), during afternoon only corvids recorded foraging on the main field with a peak count of 11 Jackdaw at 13.35hrs. Other species recorded – Jay (<1), Robin (<5), Mistle Thrush (<1) Blackbird (<3), Song Thrush (<1), Dunnock (<3), Chaffinch (<2), Bullfinch (<4), Linnet (<6), Wren (<2), Great Tit (<1) and Blue Tit (<2).

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November 18th, 2021

Sunrise- 07.55hrs/Sunset 16.24hrs. Weather – Wind F3 Southwest, Cloud 7/8, Light showers, 12c, Excellent visibility. On-site 08.30hrs – 15.30hrs.

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

Observations from 08.30hrs – 12.00hrs –

At the main field a foraging flock of Black-headed Gull (<42) and Common Gull (<4) were present in the center from 09.35hrs-10.50hrs. Small numbers of Herring Gull (<10) were noted passing over site from east to west. A Buzzard was noted foraging in the small field from 11.10hrs-11.30hrs. Three Jays were noted foraging in the Oak tree line separating the fields intermittently throughout the morning. Other species recorded – Song Thrush (<10 foraging south side main field), Blackbird (<6), Redwing (<2), Mistle Thrush (<1), Goldcrest (<1), Pheasant (<2), Goldfinch (<12), Magpie (<8), Blue Tit (<3), Dunnock (<7) and Robin (<4).

Observations from 12.00hrs – 18.40hrs –

A Sparrowhawk was noted hunting at the east end of the main field at 13.25hrs and seen perched at the east side of the small field at 14.10hrs. Black-headed Gulls foraging on the main field peaked at 36 birds at 14.50hrs, smaller numbers (averaging <15) present intermittently during the afternoon. A flock of 15 foraging Woodpigeon was noted in the small field at 12.30hrs and smaller numbers (<10) noted foraging intermittently on the main field during the afternoon. Other species recorded – Song Thrush (<6), Blackbird (<8), Starling (<20), Dunnock (<9), Robin (<6), Wren (<3), Pied Wagtail (<1), Grey Wagtail (<1 on stream), Bullfinch (<2), Redpoll (<3), Linnet (<5) and Chaffinch (<8), Coal Tit (<1) and long-tailed Tit (<6).

November 29th, 2021

Sunrise- 08.16hrs/Sunset 16.12hrs. Weather – Wind F3 West, Cloud 6/8, Light showers, 12c, Excellent visibility. On-site 08.30hrs – 15.30hrs.

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

Observations from 08.30hrs – 12.00hrs –

At the main field during morning only corvids noted foraging with a peak count of 34 Jackdaw and 8 Rook recorded at 10.05hrs, smaller numbers (<10) of Jackdaw recorded intermittently at other times. A foraging flock of 18 Woodpigeon noted foraging in the southeast corner of the main field at 11.40hrs. A Stonechat was recorded on the south side of the main field was a new species record for the site. Other species recorded – Song Thrush (<4), Blackbird (<6), Dunnock (<8), Robin (<4), Blue Tit (<6), Wren (<7), Grey Wagtail (<1), Chaffinch (<15), Goldfinch (<8), Linnet (<13), Starling (<30) and Meadow Pipit (<1).

Observations from 12.00hrs - 15.30hrs -

Two Buzzard were noted soaring low over the west end of the main field at 12.36hrs. A Sparrowhawk was noted hunting in the small field at 13.15hrs. Two Buzzard were noted soaring at the east end of the main field

at 15.31hrs. A Raven was recorded passing north over the main field at 16.18hrs. The Stonechat remained on the south side of the main field throughout the afternoon. No significant corvid or gull flocks noted foraging on the main field. Other species recorded – Dunnock (<5), Goldcrest (<5 foraging along tree line separating fields), Long-tailed Tit (<8), Blue Tit (<2), Goldfinch (<5), Bullfinch (<2), Chaffinch (<8), Starling (<22), Pied Wagtail (<1) and Robin (<2).

December 11th, 2021

Sunrise- 08.30hrs/Sunset 16.06hrs. Weather – Wind F1 Southeast, Cloud 8/8, Dry, 6c, Excellent visibility. Onsite 08.45hrs – 15.30hrs.

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

Observations from 08.45hrs - 12.00hrs -

A flock of foraging Black-headed Gull (<30), Herring Gull (<2) and Common Gull (<3) were present on the main field from 09.40hrs-10.30hrs. Smaller numbers of Black-headed (<10) then present until 12.30hrs. A flock of Woodpigeon (<15) were recorded foraging in the small field from 11.00-11.30hrs. Small numbers of Jackdaw (<6) were foraging intermittently on the main field throughout the morning. At the east end of the main field a flock of 20 Chaffinch, 7 Goldfinch and 2 Redpoll were recorded foraging in hedgerow and rank vegetation adjacent from 10.20hrs-12.45hrs. Other species recorded – Blackbird (<5), Song Thrush (<8), Robin (<2), Dunnock (<6), Meadow Pipit (<3 in center of main field), Pied Wagtail (<1), Blue Tit (<2), Long-tailed Tit (<12) and Woodpigeon (<10).

Observations from 12.00hrs – 15.30hrs –

Two Buzzard were seen soaring over the east end of the main field at 13.05hrs with a bird also recorded perched at west end of small field at 13.20hrs. Black-headed Gulls numbers foraging on the main field peaked at 14.10hrs with 44 Black-headed Gull and 1 Common Gull recorded. A Stonechat was recorded at the south side of the main field. A foraging flock of a minimum 50 Starling were recorded intermittently on the main field feeding at the south end during the afternoon. Other species recorded – Dunnock (<6), Song Thrush (<10), Blackbird (<4), Mistle Thrush (<1), Chaffinch (<22), Meadow Pipit (<2), Grey Wagtail (<1 on stream), Woodpigeon (<12), Robin (<4) and Magpie (<6).

December 23rd, 2021

Sunrise- 08.39hrs/Sunset 16.09hrs. Weather – Wind F2 Southeast, Cloud 7/8, Dry, 9c, Excellent visibility. Onsite 09.15hrs – 15.30hrs.

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

Observations from 09.15hrs – 12.00hrs –

Two Snipe were flushed from the east end of the main field at 09.40hrs (birds flew east off-site). A flock of foraging Black-headed Gulls in center of the main field increased from 15 birds at 10.20hrs to a peak of 55 at 11.45hrs joined then by 2 Herring Gulls. Jackdaws foraging peaked at 22 birds at 11.10hrs at the west end of the main field. A Sparrowhawk was noted hunting in the small field at 11.30hrs. A foraging finch flock at the east and southeast corner of the main field from 10.00hrs numbered 18 Chaffinch, 10 Linnet, 15 Goldfinch and 2 Bullfinch. Other species recorded – Blackbird (<6), Song Thrush (<7), Pied Wagtail (<1), Goldcrest (<2), Siskin (<1), Jay (<2 in small field), Woodpigeon (<13), Grey Wagtail (<1), Rook (<20) and Dunnock (<8).

Observations from 12.00hrs – 15.30hrs –

Corvids foraging on the main field peaked in number at 13.40hrs with 38 Jackdaw, 4 Rook, 2 Hooded Crow and 2 Magpie foraging at the center of the main field. Small numbers of Black-headed Gull (<10) were recorded foraging intermittently on the main field during the afternoon. A Buzzard was perched at the east end of the main field from 14.15-14.25hrs. Other species recorded were – Song Thrush (<5), Blackbird (<8), Meadow Pipit (<1), Jay (<2), Goldcrest (<3), Robin (<4), Woodpigeon (<20), Starling (<30), Blue Tit (<4), long-tailed Tit (<3) and Great Tit (<1).

January 6th, 2022

Sunrise- 08.38hrs/Sunset 16.23hrs. Weather – Wind F2 North, Cloud 7/8, Light showers, 3c, Excellent visibility. On-site 08.45hrs – 15.30hrs.

Species recorded – Black-headed Gull, Herring Gull, Robin, Goldcrest, Blue Tit, Long-tailed Tit, Great Tit, Grey Wagtail, Pied Wagtail, Jackdaw, Rook, Magpie, Jay, Hooded Crow, Chaffinch, Blackbird, Mistle Thrush, Song Thrush, Redwing, Wren, Goldfinch, Redpoll, Linnet, Woodpigeon, Dunnock, Meadow Pipit, Starling, Pheasant, Buzzard.

Observations from 08.45hrs – 12.00hrs –

Foraging Black-headed Gulls increased from 17 birds at 09.20hrs to a peak of 38 birds at 10.15hrs. Two Buzzard were present at the east end from 10.40-11.15hrs. Four Redwing foraging at the east end of main field at 14.00hrs.

Observations from 12.00hrs - 15.30hrs -

A peak count of 58 Black-headed Gull and 4 Herring Gull were recorded at 12.50hrs. Smaller gull numbers (Black-headed Gull) recorded thereafter maximum counts of 15 recorded.

January 22nd, 2022

Sunrise- 08.24hrs/Sunset 16.49hrs. Weather – Wind F2 West, Cloud 7/8, Dry, 6c, Excellent visibility. On-site 09.00hrs – 15.30hrs.

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

Observations from 09.00hrs – 12.00hrs –

56 Black-headed Gull foraging at east end of main field at 11.20hrs with 2 Herring was the peak count in the morning. Two Buzzard noted foraging in small field from 10.10-10.30hrs.

Observations from 12.00hrs – 15.30hrs –

Minimal numbers of gulls in the afternoon recorded with a maximum of 8 Black-headed recorded on the main field at 13.50hrs. Flock of 15 Redwing noted foraging in the small field from 14.30-15.00hrs.

February 6th, 2022

Sunrise- 08.01hrs/Sunset 17.18hrs. Weather – Wind F4 West, Cloud 3/8, Light showers, 8c, Excellent visibility. On-site 08.45hrs – 15.30hrs.

Species recorded – Black-headed Gull, Herring Gull, Robin, Goldcrest, Blue Tit, Grey Wagtail, Pied Wagtail, Jackdaw, Rook, Magpie, Jay, Hooded Crow, Chaffinch, Blackbird, Mistle Thrush, Song Thrush, Redwing, Wren, Goldfinch, Redpoll, Linnet, Woodpigeon, Dunnock, Meadow Pipit, Starling, Pheasant, Buzzard.

Observations from 08.45hrs - 12.00hrs -

Peak count of 42 Black-headed and 5 Herring Gull noted foraging on the main field at 09.25hrs. Smaller numbers (<15 Black-headed) after that time.

Observations from 12.00hrs - 15.30hrs -

Two Buzzard at the west end of the main field at 13.45hrs, no foraging gulls recorded.

February 27th, 2022

Sunrise- 07.17hrs/Sunset 17.59hrs. Weather – Wind F3 Southeast, Cloud 6/8, Dry, 7c, Excellent visibility. Onsite 07.45hrs – 15.30hrs.

Species recorded – Black-headed Gull, Herring Gull, Mediterranean Gull, Robin, Goldcrest, Blue Tit, Longtailed Tit, Great Tit, Grey Wagtail, Pied Wagtail, Jackdaw, Rook, Magpie, Jay, Hooded Crow, Chaffinch, Blackbird, Mistle Thrush, Song Thrush, Redwing, Wren, Goldfinch, Greenfinch, Linnet, Woodpigeon, Dunnock, Meadow Pipit, Starling, Pheasant, Buzzard.

Observations from 07.45hrs - 12.00hrs -

Black-headed Gull numbers foraging on the main field peaked at 24 at 09.50hrs, with smaller numbers (<10) noted intermittently during the morning.

Observations from 12.00hrs - 15.30hrs -

Peak of 25 Black-headed Gull recorded at 13.25hrs accompanied by 1 Herring and 1 Mediterranean Gull. Three Buzzard present at the east end of the main field from 14.15-14.40hrs.

March 6th, 2022

Sunrise- 07.01hrs/Sunset 18.12hrs. Weather – Wind F4 West, Cloud 3/8, Dry, 1c, Excellent visibility. On-site 07.30hrs – 15.30hrs.

Species recorded – Black-headed Gull, Herring Gull, Robin, Goldcrest, Blue Tit, Long-tailed Tit, Grey Wagtail, Pied Wagtail, Jackdaw, Rook, Magpie, Hooded Crow, Chaffinch, Blackbird, Mistle Thrush, Song Thrush, Redwing, Wren, Goldfinch, Redpoll, Linnet, Woodpigeon, Dunnock, Meadow Pipit, Starling, Pheasant, Buzzard, Kestrel, Snipe.

Observations from 07.30hrs – 12.00hrs –

Peak count of 34 Black-headed Gull and 1 Herring foraging on the main field at 10.55hrs. A Kestrel passed west over the main field at 11.00hrs.

Observations from 12.00hrs - 15.30hrs -

A Snipe was flushed from the center of the main field at 12.20hrs. Peak counts of Black-headed Gull were 26 foraging at east end of main field at 15.10hrs.

March 26th, 2022

Sunrise- 06.13hrs/Sunset 18.49hrs. Weather – Wind F1 North, Cloud 4/8, Light showers, 8c, Excellent visibility. On-site 07.15hrs – 15.30hrs.

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

Observations from 07.15hrs – 12.00hrs –

A Sparrowhawk was observed hunting at the east end of the main field at 10.10hrs. Peak gull numbers foraging on the main field were 15 Black-headed Gull and 5 Herring Gull at 09.40hrs.

Observations from 12.00hrs - 15.30hrs -

No foraging gulls recorded in the afternoon, Jackdaw maximum counts peaking at 20 at 13.15hrs. Three Buzzard at east end of main field at 14.50hrs.

Comments and observations on survey results

44 bird species were recorded in the survey area covered by these 22 winter bird surveys. A good proportion of the species utilizing the mature hedgerow habitat bordering the fields on the site. 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, Snipe and Lapwing were recorded. Four gull species listed in the amber wintering species category were recorded, these being Herring, Lesser black-backed, Common and Black-headed Gull. Results from the surveys suggest that the site is not an ex-situ foraging or roosting site for species of qualifying interest from nearby Special protection areas (SPA's).