ALTEMAR
Marine & Environmental Consultancy

Appropriate Assessment Screening for a proposed Strategic Housing Development (SHD) at Ballyoulster, Celbridge, Co. Kildare.

15th June 2022

Prepared by: Bryan Deegan (MCIEEM) of Altemar Ltd.
On behalf of: Kieran Curtin, Receiver over certain assets of Maplewood Developments Unlimited Company (in liquidation and in receivership).

Altemar Ltd., 50 Templecarrig Upper, Delgany, Co. Wicklow. 00-353-1-2010713. info@altemar.ie
Directors: Bryan Deegan and Sara Corcoran
Company No.427560 VAT No. 9649832U
www.altemar.ie

Document Control Sheet			
Project	Appropriate Assessment Screening for a proposed Strategic Housing Development (SHD) at Ballyoulster, Celbridge, Co. Kildare.		
Report	Appropriate Assessment Screening		
Date	15th June 2022		
Version	Author	Reviewed	Date
Draft 01	Bryan Deegan	Jack Doyle/Kate Kerrigan	01st June 2022
Planning	Bryan Deegan		15th June 2022

Table of Contents

Introduction

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

The following Appropriate Assessment Screening has been prepared by Altemar Ltd. at the request of Kieran Curtin, Receiver over certain assets of Maplewood Developments Unlimited Company (in liquidation and in receivership). Kieran Curtin, Receiver over certain assets of Maplewood Developments Unlimited Company (in liquidation and in receivership) intend to apply for planning permission for a proposed Strategic Housing Development (SHD) at Ballyoulster, Celbridge, Co. Kildare.

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

Altemar Ltd.

Since its inception in 2001, Altemar has been delivering ecological and environmental services to a broad range of clients. Operational areas include residential, infrastructural, renewable, oil & gas, private industry, local authorities, EC projects and State/semi-State Departments. Bryan Deegan is the managing director of Altemar. Bryan is an environmental scientist and marine biologist with 26 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 (2009/147/EC)) forms the cornerstone of Europe's nature conservation policy. The Directive protects over 1000 animals and plant species and over 200 "habitat types" which are of European importance. In the Habitats Directive, Articles 3 to 9 provide the legislative means to protect habitats and species of European Community interest through the establishment and conservation of an EU-wide network of conservation sites (NATURA, 2000). These are Special Areas of Conservation (SACs) designated under the Habitats Directive and Special Protection Areas (SPAs) designated under the Birds Directive), Article 6(3) and 6(4) of the Habitats Directive set out the decision-making tests for plans and projects likely to affect European sites (Annex 1.1). Article 6(3) establishes the requirement for Appropriate Assessment:

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

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

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

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

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

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

Stages of the Appropriate Assessment

This Appropriate Assessment screening was undertaken in accordance with the European Commission Methodological Guidance on the provision of Article 6(3) and 6(4) of the 'Habitats' Directive 92/43/EEC (EC, 2001), Part XAB of the Planning and Development Act 2000, as amended, in addition to the December 2009 publication from the Department of Environment, Heritage and Local Government; 'Appropriate

[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;

Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities' and the European Communities (Birds and Natural Habitats) Regulations 2011. In order to comply with the above Guidelines and legislation, the Appropriate Assessment process must be structured as follows:

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

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

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

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

Description of the Proposed Project

Kieran Curtin, Receiver over certain assets of Maplewood Developments Unlimited Company (in liquidation and in receivership), intends to apply for a seven year planning permission for a Strategic Housing Development at lands at Dublin Road and the Shinkeen Road, within the townlands of Donaghcumper and Ballyoulster, Celbridge, Co. Kildare. The application site has an area of c. 13.4 ha and bound by a greenfield site, Donaghcumper Cemetery, Retronix Semiconductor company and the Dublin Road to the north, the Rye River Brewing Company and the Ballyoulster Park housing estate to the north east, the Primrose Gate housing estate to the south, agricultural lands to the east and Shinkeen Road to the west. Donaghcumper Medieval Church Ruins (RPS No. B11-02) and the house on Dublin Road, Donaghcumper (RPS No. B11-26), are protected structures located north of the application site.

The proposed development comprises a Strategic Housing Development of 344 no. residential units (comprising 54 no. 1 beds, 30 no. 2 beds, 210 no. 3 beds and 50 no. 4 beds), a 2 no. storey childcare facility with a GFA of c. 369 sq.m, public and communal open space, landscaping, car and cycle parking spaces, provision of an access road from Dublin Road and Shinkeen Road, associated vehicular accesses, internal roads, pedestrian and cycle paths, bin storage, cycle storage, pumping station and all associated site and infrastructural works.

The residential component of the development consists 214 no. apartments / duplex units, and 130 no. houses of to be provided as follows:

- 4 no. 3 bed two storey detached houses;
- 28 no. 3 bed two storey semi-detached houses;
- 48 no. 3 bed two storey terraced houses;
- 50 no. 4 bed three storey semi-detached houses;
- 214 no. duplex apartments / apartments (54 no. 1 beds, 30 no. 2 beds, and 130 no. 3 beds) in a series of 15 no. duplex apartment / apartment blocks of 3 no. storeys in height, and all duplex apartments / apartments are provided with a terrace / balcony or private garden;

The development includes a total of 585 no. car parking spaces, 4 no. loading bays and a total of 770 no. cycle spaces. The proposal includes hard and soft landscaping, lighting, boundary treatments, the provision of public and communal open space, including 3 no. Local Parks, children's play areas, and an ancillary play area for the childcare facility.

The proposed development includes road upgrades, alterations and improvements to the Dublin Road / R403 and the Shinkeen Road, including the provision of new vehicular accesses and signalised junctions, pedestrian crossing points, and associated works to facilitate the same. The proposal includes internal roads, including 3 no. bridge crossings, cycle paths, footpaths, with proposed infrastructure and access points provided up to the application site boundary to facilitate potential future connections to adjoining lands.

The development includes foul and surface water drainage, pumping station, 3 no. ESB Substations, services and all associated and ancillary site works and development.

The application contains a statement indicating why permission should be granted for the proposed development, having regard to a consideration specified in Section 37(2)(b) of the Planning and Development Act, 2000, as amended, notwithstanding that the proposed development materially contravenes a relevant development plan or local area plan other than in relation to the zoning of the land.

The application contains a statement setting out how the proposal will be consistent with the objectives of the Kildare County Development Plan 2017-2023 and the Celbridge Local Area Plan 2017-2023.

An Environmental Impact Assessment Report has been prepared in respect of the proposed development and accompanies this application. The proposed site outline, location, and site plan are demonstrated in Figures 1-4.

Landscape

A Landscape Strategy Report has been prepared by Bernard Seymour Landscape Architects to accompany this planning application. In relation to the proposed green infrastructure for the subject site, this report outlines the following:

'To provide for the development of a new residential neighbourhood, a local park that integrates with its surroundings whilst having its own unique character and a strong sense of place. A permeable network of pedestrian and cycle friendly streets and spaces that incorporate existing site features such as the Shinkeen stream and existing mature trees will be required. The Shinkeen Stream should be incorporated into new developments as a landscape feature that includes a continuous pedestrian and cycle link along its bank. This green link should include natural landscaping that will enhance the ecological value of the stream. New residential areas should be structured around a variety of open spaces that provide for both active and passive recreation. Landscape proposals should provide for the retention of existing mature trees and the planting of new trees along the Ballyoulster/Loughlinstown townland boundary.'

'We have liaised with the IFI and been advised that they require a 10m riparian corridor to a stream of this scale and character. Footpaths and access can be allowed within this zone. An additional 10m setback has been provided from this riparian corridor to integrate greenlinks, cycle paths, public lighting and landscape thresholds in compliance with current IFI guidelines.'

The proposed landscape masterplan is demonstrated in Figure 5.

Figure 1. *Site outline and location on satellite imagery (ESRI)*

Figure 2. *Outline of proposed site.*

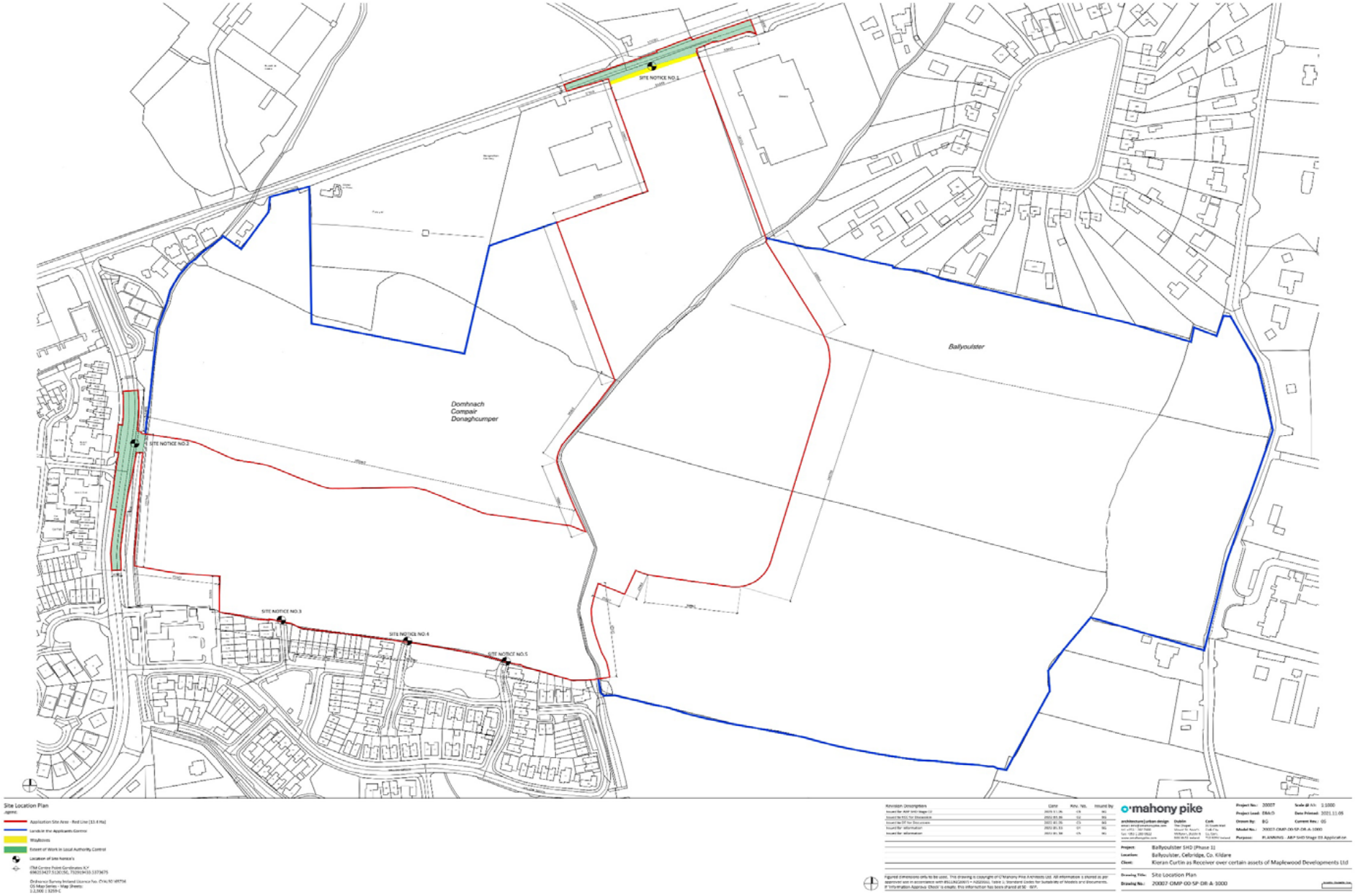


Figure 3. *Site location map*

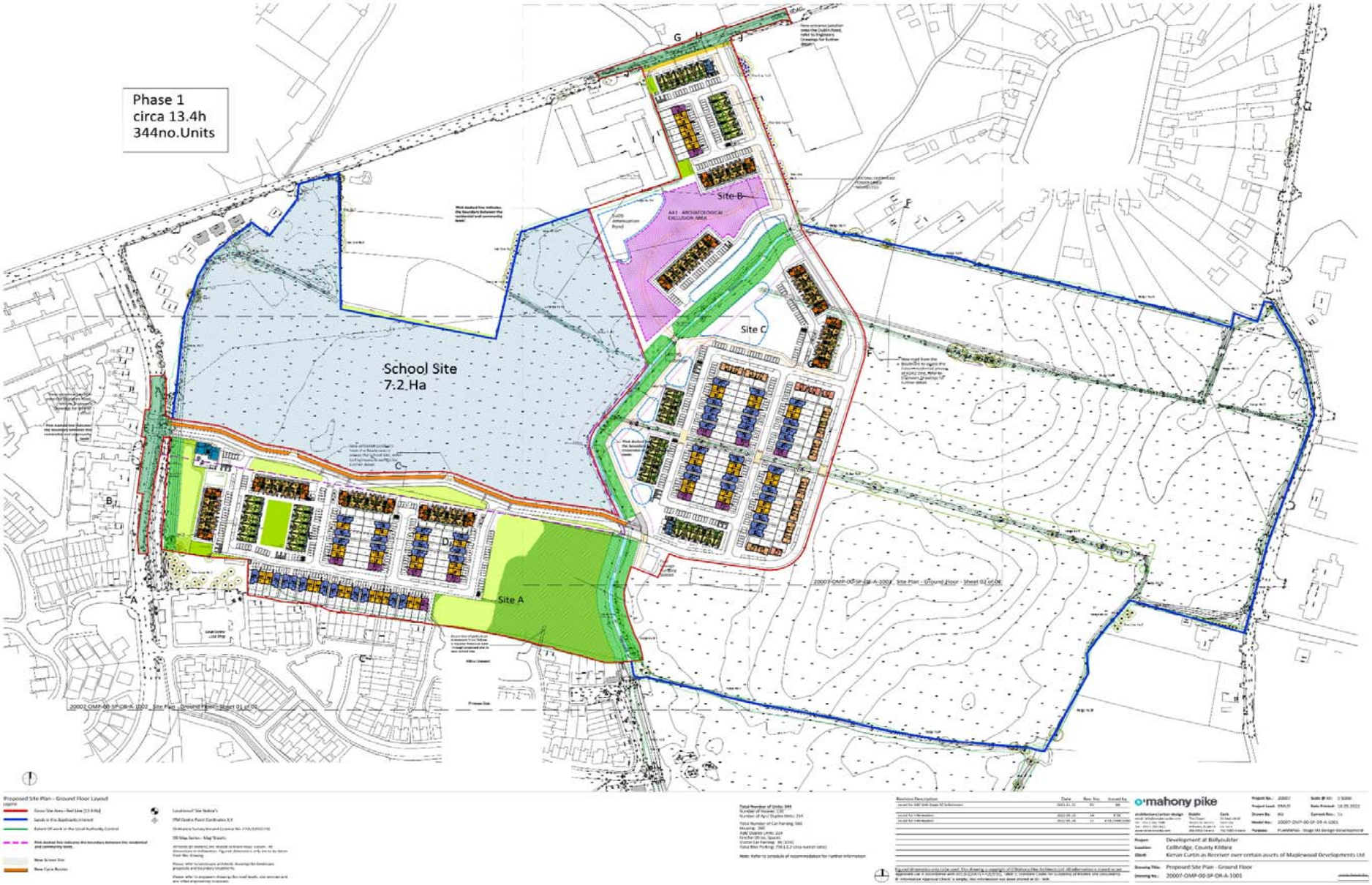


Figure 4. *Proposed site plan – ground floor*

Figure 5. *Ecological Corridor within Landscape masterplan*

Drainage

An Infrastructure Design Report has been prepared by DBFL Consulting Engineers to accompany this planning application. This report outlines the following foul and surface water drainage strategy for the proposed development site:

Foul Water

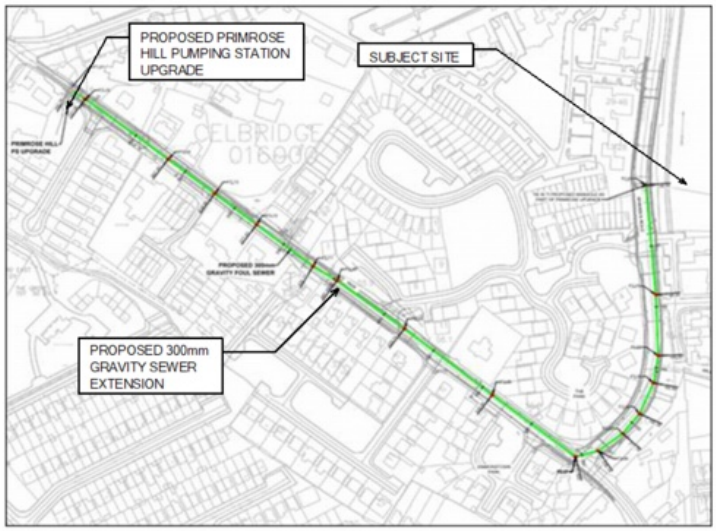
In relation to existing foul drainage, this report outlines the following:

'A Confirmation of Feasibility from Irish Water has been received and Irish Water have confirmed both a wastewater and water connection are feasible subject to upgrades. Reference should be made to Appendix C.

The Confirmation of Feasibility confirms that Irish Water's Capital Investment Plan includes for projects in the Celbridge and Lower Liffey Valley Catchment which will provide long term strategic solutions and ensure sufficient capacity for the proposed development. Two such capital projects include the:

• Primrose Hill WwPS Project

• New gravity sewer extension conveying flow from the edge of the site boundary along the Shinkeen Road and Hazelhatch Roads and to a proposed outfall manhole located upstream of Primrose Pumping Station (figure 4.1)



Figure·4.1·extract·from·Irish·Water's·Capital·Network·Upgrade·Plan.¶

The Primrose Hill pumping station project is due to be complete in Q4 of 2023 while the gravity sewer upgrade is scheduled to be complete by 2025. Correspondence with Irish water have been conducted to obtain further details and timeframes for the delivery of the gravity sewer.

Irish Water provided the upgrade plans (as shown in Figure 4.1) which confirm the extent of works to be completed up to the subject site and allow for the connection to the site. The upgrade works can be delivered in a timely manner as they are to be delivered by or on behalf of Irish Water and whilst it would be preferential if the gravity sewer programme could be brought forward to match that of the Primrose Hill pumping station project, however, a programme of delivery for the gravity sewer by 2025 would be in line with the delivery of the first phase of units in the Ballyoulster SHD assuming a 6 month pre-construction phase and an 18 month construction time frame Reference should be made to Section 1.7 of the IDR for phasing requirements.

The proposed gravity sewer extension forms part of Irish Waters capital delivery programme and thus costs included as part of these capital works are included in the standard connection fee, DBFL have confirmed with Irish Water that no other planning or other third party consents are required to deliver the infrastructure

This proposed infrastructure is expected to provide a suitable foul discharge point for the proposed development as confirmed by Irish Water in their Confirmation of Feasibility and Statement of Design Acceptance'

In relation to the proposed foul wastewater design strategy, this report outlines the following:

The proposed foul drainage network within the development has been designed in compliance with Irish Water's Code of Practice for Wastewater Infrastructure. As noted earlier, the topography of the site is largely flat. Consequently, a new strategic foul pumping station for the site and for future development lands will be provided. Therefore, a foul rising main and associated pumping station and rising main discharge (header) manhole will be required to service the entire development lands. This is presented on DBFL drawing series 180221-DBFL-CS-SP-DR-C-1011 and 1012.

The proposed foul pumping station is to be located in the central area of the developed lands on the western side of the Shinkeen Watercourse (in accordance with the requirements of Irish Water Code of Practice for Wastewater Infrastructure) and constructed in accordance with Irish Water Standard Details. It will accommodate 24 hours of emergency storage as agreed with Irish Water. A rising main will pump forward flows to the proposed new gravity network on the Shinkeen Stream and discharge (header) manhole shall be located upstream of the new gravity network (constructed in accordance with Irish Water Standard Details).

The proposed foul drainage network comprises of a series of 225/300mm diameter pipes, discharging to the pumping station described above. Each residential unit is serviced by individual 100mm diameter connections in accordance with Irish Waters Code of Practice for Wastewater. Refer to DBFL Drawing Series 180221-DBFL-FW-SP-DR-C-1100 for the proposed foul drainage layout.

The proposed foul drainage discharge point is located adjacent to the South Western corner of the site (refer to Figure 4.1) and drawings 180221-DBFL-FW-SP-DR-C-1100, & 180221-DBFL-FW-SP-DR-C-1101. DBFL have been in contact with Irish Water Asset Planning Department to confirm the levels of the proposed gravity sewer that will allow a discharge to the Primrose Pumping Station'

Surface Water

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

'As noted in Section 1.4, the site is predominately flat with minimal falls towards its Eastern and Western Boundaries. The Shinkeen stream bisects the site in a South to North direction and there is a further watercourse known as the Hazelhatch Watercourse located along the eastern boundary which also flows in a south to north direction. Both watercourses form part of the Liffey Catchment and is contained within the Liffey_SC_09 Sub-catchment area. Both surface watercourses will provide the required outfalls for the site.'

In relation to the proposed surface water drainage strategy for the proposed development site, this report

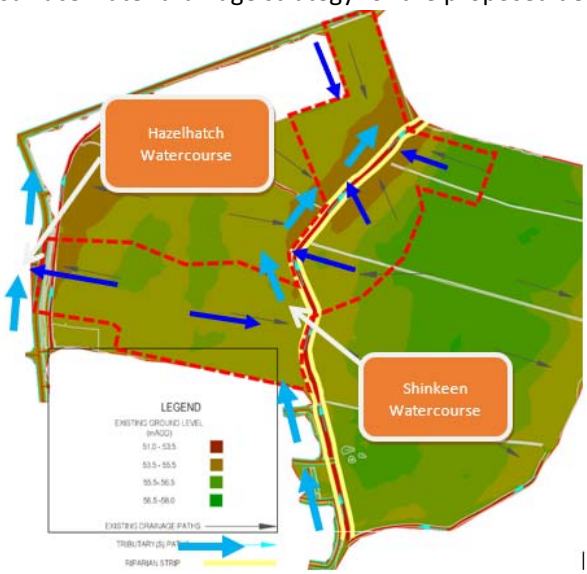


Figure 3.1 Extract from Topographical survey. (Boundary Indicative Only)

outlines the following:

'***3.2 Basis of Design***

An overall surface water drainage strategy has been developed by DBFL Consulting Engineers for the development site. This strategy shown on drawing number 180221-DBFL-SW-SP-DR-C-1321 outlines each catchment and its corresponding attenuation facility. Drawings 180221-DBFL-SW-SP-DR-C-1000 to 180221-

DBFL-SW-SP-DR-C-1002 identifies the location of Suds features including, tree pits, bio-retention areas and swales, permeable parking bays, rain gardens, bio swales, ponds detention basins and the like.
Surface water runoff from the development will be attenuated to greenfield runoff rates (Qbar) in accordance with the Greater Dublin Strategic Drainage Study (GDSDS). It should be noted that "Long Term" storage in accordance with Section 6.7 of the GDSDS is not required where outflows are limited to Qbar in accordance with Table 6.3 in the GDSDS. See Appendix F for permissible outflow calculation.
Surface water discharged from the proposed surface water drainage network will be controlled by a vortex flow control device (Hydrobrake or equivalent) and associated SUDS features and overland nature-based systems such as ponds, swales and detention basins. Surface water discharge will also pass via a full retention fuel / oil separator (sized in accordance with permitted discharge from the site) and shall be restricted to 2.2l/s/ha. Figure 5 below outlines the proposed treatment terrain for this proposed development.'
' Surface water runoff from the site's road network will be directed to the proposed pipe network via conventional road gullies where there are no adjacent open green areas. Where there are open green adjacent areas surface water shall overflow into open green areas via strategically placed dropped kerbs where there will be bio-swales installed to collect the surface water while surface water runoff from driveways will be captured by permeable paving. Both of these features will be fitted with an overflow to drain into the main pipe network. Refer to drawing 180221-DBFL-RD-SP-DR-C-3002 Road Section Details Sheet 1 & 180221-DBFL-RD-SP-DR-C-3002 Road Section Details Sheet 2 and below (figure 6) for details of the bio-swale.'

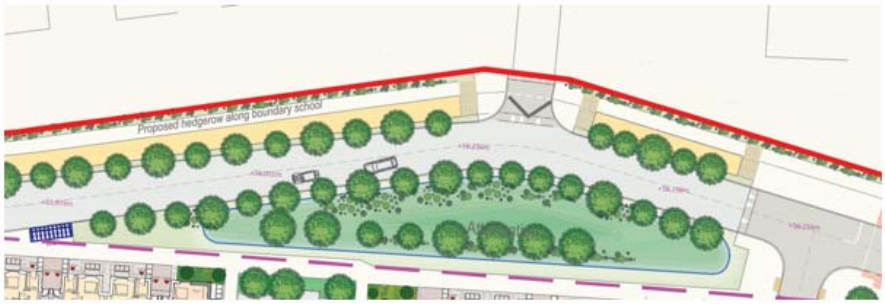


Figure 3.3 Proposed Treatment Terrain (dropped kerbs directly into bioswale

'3.3 General Description of Surface Water Design
The Watercourses (as described above in Section 3.2) is expected to provide a suitable surface water discharge point for the proposed development. Refer to DBFL Drawings 180221-DBFL-CS-SP-DR-C-1001 and 180221-DBFL-CS-SP-DR-C-1002 for proposed surface water outfall locations and details of the surface water outfall route.
Surface water discharge rates from the proposed surface water drainage network will be controlled by a vortex flow control device (Hydrobrake or equivalent) and water shall be retained primarily using the following method
- *Nature based retention measures such as retention ponds, swales and overground detention basins.*
- *Filter Strips and rain gardens*
- *Tree pit catchments pits*
- *Roadside bioswales*

Surface water discharge will also pass via an oil separators (sized in accordance with permitted discharge from the site). The proposed surface water drainage network will collect surface water runoff and convey towards the primary attenuation features, before discharging through the vortex-controlled flow control device and separator arrangement as noted above.
Surface water runoff from the site's road network will be directed to the proposed pipe network via conventional road gullies where there are no adjacent open green areas where there are open green areas. Direct storm water runoff will be provided into green/bioretention areas. Surface water runoff from driveways will be captured by permeable paving. Tree catch pits will also be used to for surface water run off but will have an overflow into the main gully and pipe network.
Surface water runoff from roofs will be primarily routed to the proposed surface water pipe network via the porous aggregates beneath permeable paved driveways (providing an additional element of attenuation). However, in some instances as noted in the drawing packages, rain gardens will be provided at the backs of some properties to act as a form of attenuation and biodiversity.'

Further, in relation to SuDS, this report outlines the following:

'*In accordance with the GDSDS it is proposed to use Sustainable Urban Drainage Systems (SUDS) for managing stormwater for the proposed development. The aim of the SUDS strategy for the site will be to;*

- *Attenuate storm-water runoff.*
- *Reduce storm-water runoff.*
- *Reduce pollution impact.*
- *Replicate the natural characteristics of rainfall runoff for the site.*
- *Recharge the groundwater profile*

The proposed layout of the drainage and SUDS is detailed on drawing 180221 DBFL-CS-SP-DR-C-1001 & 1002 and drawing 180221-DBFL-SW-SP-DR-C-5011 and 180221-DBFL-SW-SP-DR-C-5012'.

An assessment of the potential SUDS that could be incorporated within the site was conducted using the SUDS Manual, CIRIA 753. The SUDS elements which were found applicable to the proposed scheme design and layout include the following:

1. *Permeable paving driveways for all on-curtilage driveways. Some infiltration is possible across the site and the permeable driveways will also act to attenuate a volume of storage prior to discharge to the stormwater network through an overflow facility.*
2. *Overland nature based attenuation systems have been proposed for the entirety of the development. Due to the groundwater levels observed and which are further discussed in this chapter the overland drainage basins have been designed shallow with the exceptions of an open pond area within Site A.*
3. *The attenuation storage systems will be an on-line system for treatment of run-off. The storage systems will be designed to maximise water quality.*
4. *Swales are provided where possible adjacent to roads.*
5. *Tree pits connected to gullies to be provided.*
6. *A petrol interceptor will be provided before surface water discharges to the attenuation areas where infiltration occurs.*

The incorporation of the above SUDS elements will provide a sustainable manner in which to disperse surface water from the site, encourage groundwater recharge and provide treatment of run-off and subsequent improvement of discharge quality.'

The proposed surface water drainage layout, foul drainage layout, and flood zone map are demonstrated in Figures 6-11.

Flood Risk Assessment

A Flood Risk Assessment has been prepared by McCloy Consulting Engineers to accompany this planning application. This report outlines the following summary of findings:

'It has been determined through detailed site-specific hydraulic modelling parts of the site are affected by flooding during the present day, climate change, and culvert blockage events.

Development proposals have been developed in accordance with the Flood Zones at the site (i.e., 'highly vulnerable development' in Flood Zone C and 'less vulnerable development' in Flood Zone B) and have been shown to be resilient to flooding during climate change and culvert blockage events.

No other significant flood mechanisms are anticipated at the site.'

Figure 6. *Surface water drainage layout - overall*

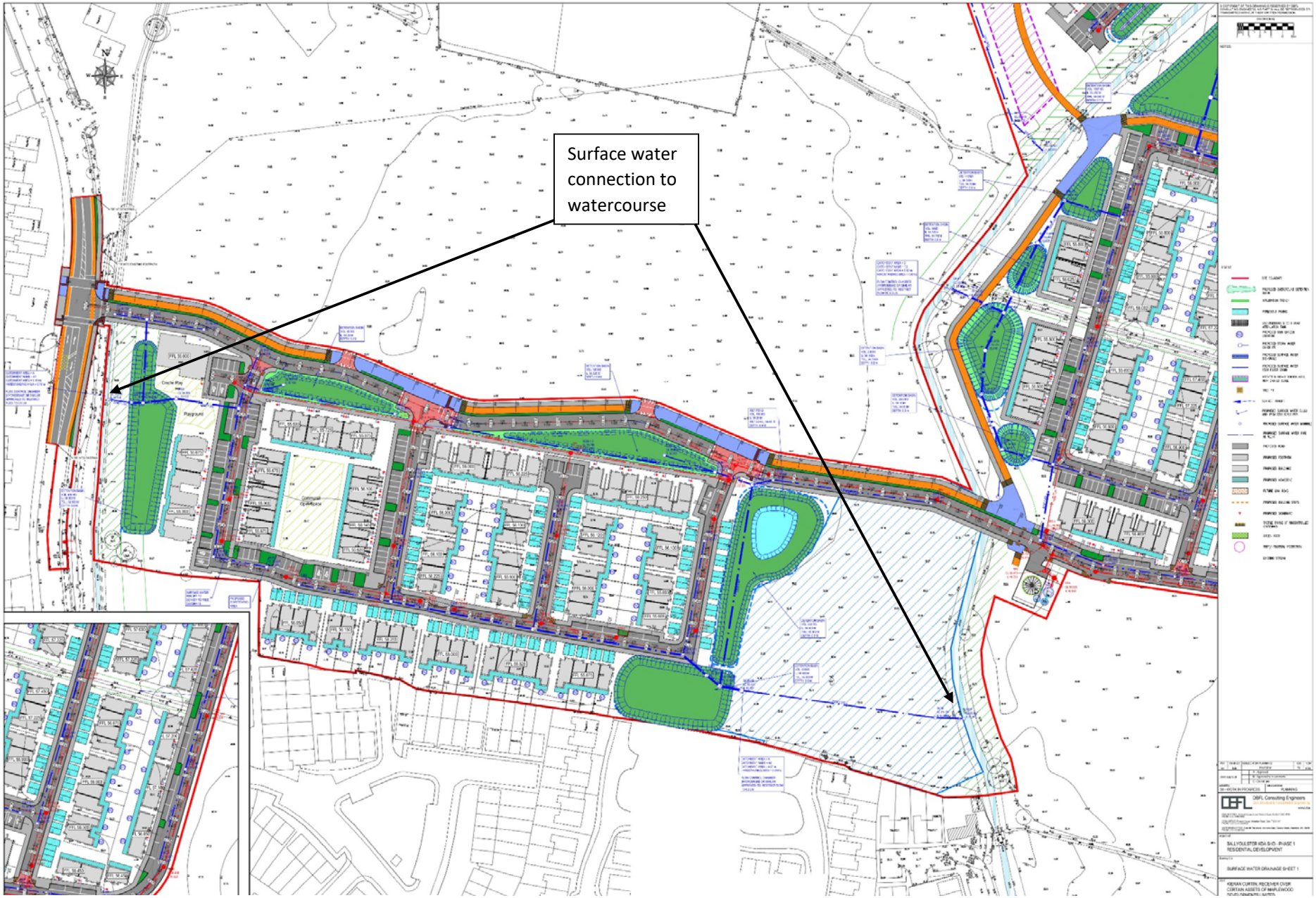


Figure 7. *Surface water drainage sheet 1*

Figure 8. *Surface water drainage sheet 2*

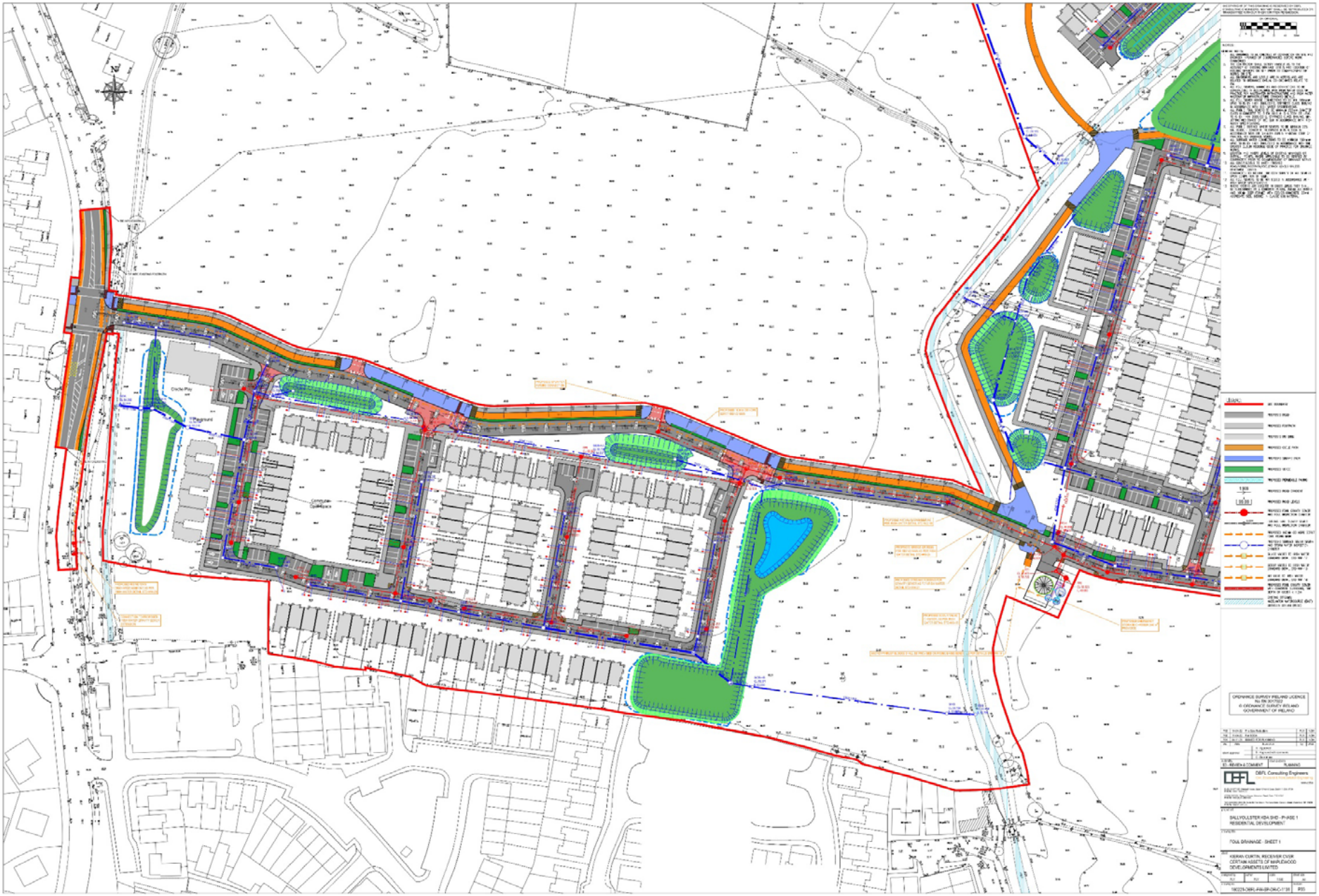


Figure 9. *Foul drainage sheet 1*

Figure 10. *Foul drainage sheet 2*

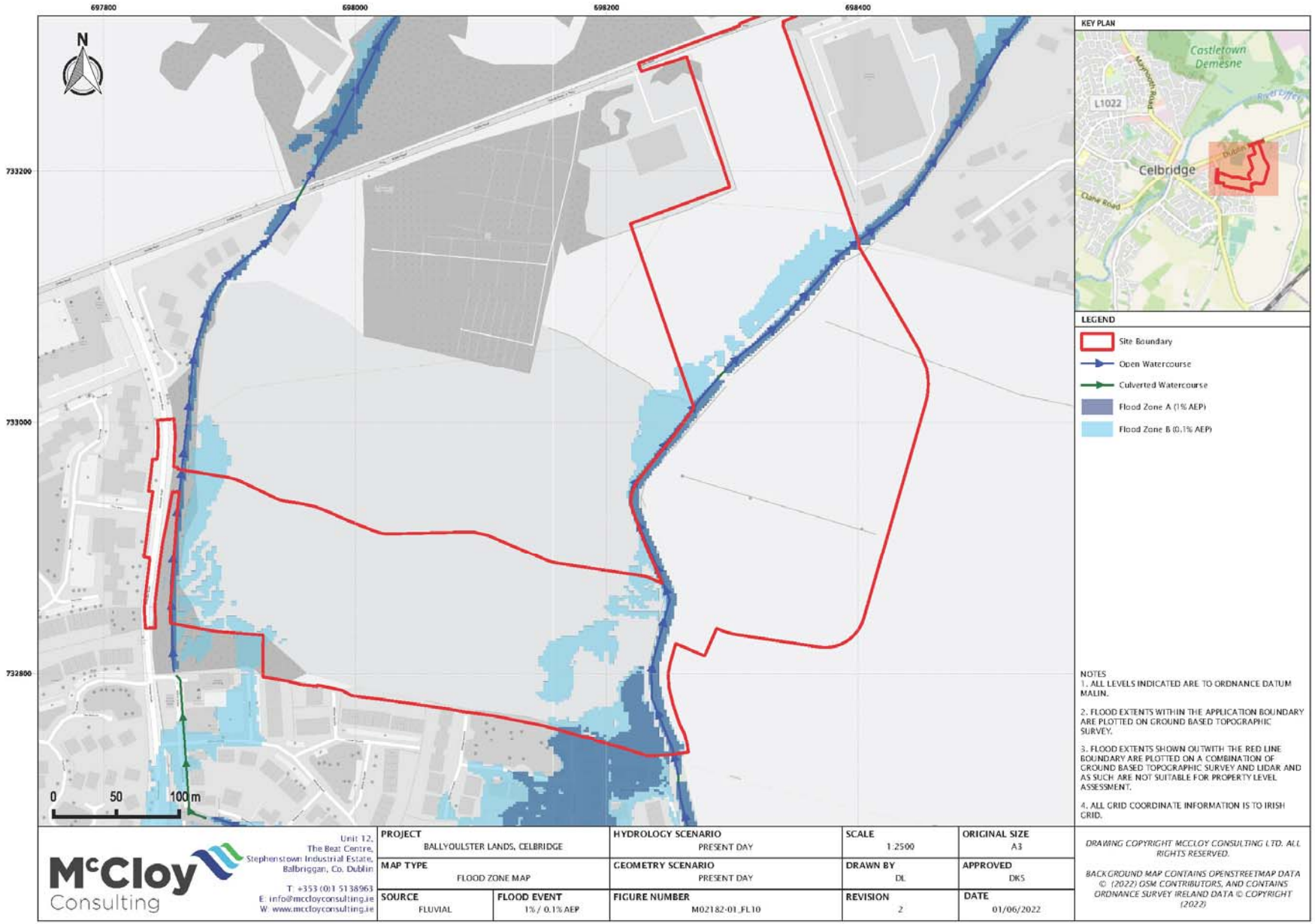


Figure 11. *Flood Zone Map*

Winter Bird Surveys October 2021-March 2022

Twice monthly Bird Surveys were undertaken at lands at Ballyoulster near Celbridge, County Kildare by Hugh Delaney (ornithologist), between October 2021 and March 2022. The surveys were dedicated to identifying the avifauna wintering in the wider survey area, in particular if any species foraging or roosting in on the site are of qualifying interest from SPA's (Special protection area's). The site comprises arable farmland bordered in parts by hedgerows and some larger trees and bisected by a small watercourse.

The survey results are seen in Appendix 1. As outlined in Appendix I "*50 bird species were recorded at lands at Ballyoulster near Celbridge in County Kildare during 11 winter bird surveys from October 2021 to March 2022. The species diversity was quite typical of that expected in the context of inland arable lands in Leinster. 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 and Snipe were recorded in small numbers. 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).*

Some of the more notable species recorded wintering on-site were Yellowhammer, Reed Bunting, Skylark, and Kingfisher (recorded on four dates on the stream) with several sightings of Kestrel and once a Merlin. Snipe was mostly recorded at the south field section of the site. Mallard is amber listed as a wintering species of conservation concern in Ireland and was recorded in small numbers on the stream on-site. Four species were noted passing almost exclusively over the site and were not noted to forage on the site itself."

Identification of Relevant Natura 2000 Sites

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

A key factor in the consideration as to whether or not a particular European site is likely to be affected by the proposed works is its distance from the location of the works. It is generally, but not necessarily, the case that the greater the distance from the plan or project the smaller the likelihood of impacts. In this case, the nearest European site to the proposed development is 3.1 km away (Rye Water valley/Carton SAC). The ZoI of the proposed project would be seen to be restricted to the site outline, with potential for minor localised noise and lighting impacts, with potential for downstream impacts of from silt or localised pollution during construction. The 5000 acre reservoir and power station constructed by the ESB at Leixlip is approximately 500m downstream of the proposed development. Settlement of silt will occur in this long linear reservoir and no significant quantities of silt would be expected to flow downstream beyond this reservoir. In the absence of these measures silt would settle within the River Liffey system and in the event of a pollution incident dilution and mixing would occur within the river catchment and estuarine element of the River Liffey prior to reaching the nearest Natura 2000 site via this pathway, some 20km downstream on the far side of the Leixlip Dam.

In the interest of carrying out a thorough assessment in line with both the Habitats Directive, and the precautionary principle, the ZoI was expanded for this assessment to include designated sites within 15km of the proposed development site, 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. The Natura 2000 sites within 15km are seen in Figures 12 & 13. Watercourses, SACs and SPAs proximate to the proposed development are demonstrated in Figures 14 - 16. All Natura 2000 sites within 15km and with a potential indirect pathway are listed in Table 1. The conservation objectives, qualifying interests, and the potential impact of the development on each European site and qualifying interest, are outlined in Table 2. Out of an abundance of caution, it is considered that there is the potential for an indirect hydrological pathway to Natura 2000 sites located within Dublin Bay (min 19.5 km from the subject site) via the proposed surface water drainage strategy. These sites within Dublin Bay have been determined to be an indirect pathway due to the presence of the Leixlip Dam reservoir downstream of the works, the significant distance (>19.5km) and the presence of the estuarine element of the estuarine element of the River Liffey where tidal mixing will occur, prior to reaching the Natura 2000 sites downstream.

Table 1. Proximity to designated sites of conservation importance

NATURA 2000 Site	Distance
Special Areas of Conservation	
Rye Water Valley/Carton SAC	3.1 km
Glenasmole Valley SAC	13.3 km
Wicklow Mountains SAC	14.6 km
South Dublin Bay SAC	20.4 km
North Dublin Bay SAC	22.6 km
Special Protection Areas	
South Dublin Bay and River Tolka Estuary SPA	19.5 km
North Bull Island SPA	22.6 km

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

Natura Code	Name	Screened In/Out	Details/Reason
Special Areas of Conservation			
IE001398	Rye Water Valley/Carton SAC	**OUT**	**Conservation Objectives** To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected. **Qualifying Interests** Petrifying springs with tufa formation (*Cratoneurion*) [7220] Narrow-mouthed Whorl Snail (*Vertigo angustior*) [1014] Desmoulin's Whorl Snail (*Vertigo moulinsiana*) [1016] **Potential Impact** The proposed development site is located within a suburban/agricultural area, 3.1 km from this SAC. There is no 'direct' or 'indirect' Source-Pathway linkage between the proposed development site and the SAC. The SAC is within the same catchment but upstream on a separate tributary. No potential impact is foreseen. There is no direct or indirect pathway from this site to the SAC. The construction and operation of the proposed development will not impact on the conservation interests of the site. **No significant effects are likely.**
IE001209	Glenasmole Valley SAC	**OUT**	**Conservation Objectives** 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 (*Festuco-Brometalia*) (* important orchid sites) [6210] Molinia meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*) [6410] Petrifying springs with tufa formation (*Cratoneurion*) [7220] **Potential Impact** The proposed development site is located within a suburban/agricultural area, 13.3 km from this SAC. There is no 'direct' or 'indirect' Source-Pathway linkage between the proposed development site and the SAC. No potential impact is foreseen. There is no direct or indirect pathway from this site to the SAC. The construction and operation of the proposed development will not impact on the conservation interests of the site. **No significant effects are likely.**
IE002122	Wicklow Mountains SAC	**OUT**	**Conservation Objectives** The maintenance of habitats and species within Natura 2000 sites at favourable conservation condition will contribute to the overall

Natura Code	Name	Screened In/Out	Details/Reason
			maintenance of favourable conservation status of those habitats and species at a national level. **Qualifying Interests** Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*) [3110] Natural dystrophic lakes and ponds [3160] Northern Atlantic wet heaths with Erica tetralix [4010] European dry heaths [4030] Alpine and Boreal heaths [4060] Calaminarian grasslands of the Violetalia calaminariae [6130] Species-rich Nardus grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe) [6230] Blanket bogs (* if active bog) [7130] Siliceous scree of the montane to snow levels (*Androsacetalia alpinae* and *Galeopsietalia ladani*) [8110] Calcareous rocky slopes with chasmophytic vegetation [8210] Siliceous rocky slopes with chasmophytic vegetation [8220] Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0] Otter (*Lutra lutra*) [1355] **Potential Impact** The proposed development site is located within a suburban/agricultural area, 14.6 km from this SAC. There is no 'direct' or 'indirect' Source-Pathway linkage between the proposed development site and the SAC. No potential impact is foreseen. There is no direct or indirect pathway from this site to the SAC. The construction and operation of the proposed development will not impact on the conservation interests of the site. **No significant effects are likely.**
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 suburban/agricultural area, 20.4 km from this SAC. There is no 'direct' or Source-Pathway linkage between the proposed development site and the SAC. Out of an abundance of caution, it is considered that there is an indirect hydrological pathway to this SAC via the proposed foul and surface water drainage strategy. Foul wastewater will discharge to a pumping station that is to be constructed on-site, which in turn

Natura Code	Name	Screened In/Out	Details/Reason
			discharges to an existing public foul sewer located near the south-west corner of the subject site. Any silt or pollutants will be treated along this network by Irish Water. After attenuation, surface water drainage will be directed to the Skinkeen (Castletown) Watercourse (which passes through the site) and the Hazelhatch watercourse (which passes through the eastern portion of the site). Both watercourses form part of the Liffey Catchment and, as such, outfall to the Leixlip Dam reservoir and the River Liffey, which in turn outfalls to the marine environment at Dublin Bay. As a result, out of an abundance of caution, it is considered that there is an indirect hydrological pathway to this SAC via surface water drainage. However, the proposed development site is located upstream of the Leixlip Reservoir and Leixlip Hydro Electric Power Station. As a result, in the absence of any mitigation, silt produced during operation and construction will settle within the 5000 acre reservoir prior to reaching the Leixlip Hydro Station. Given the extensive distance (20.4 km) to this SAC, the dilution, mixing and the flocculation of potential pollutants within the estuarine element of the River Liffey estuary, silt or pollutants will settle, be dispersed or diluted and will not impact on the conservation objectives or features of interest of this SAC. No potential impact is foreseen. There is no direct or indirect pathway from this site to the SAC. The construction and operation of the proposed development will not impact on the conservation interests of the site. **No significant effects are likely.**
IE000206	North Dublin Bay SAC	**OUT**	**Conservation Objectives** The maintenance of habitats and species within Natura 2000 sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level. **Qualifying Interests** Mudflats and sandflats not covered by seawater at low tide [1140] Annual vegetation of drift lines [1210] Salicornia and other annuals colonising mud and sand [1310] Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) [1330] Mediterranean salt meadows (*Juncetalia maritimi*) [1410] Embryonic shifting dunes [2110] Shifting dunes along the shoreline with Ammophila arenaria (white dunes) [2120] Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130] Humid dune slacks [2190] Petalwort (*Petalophyllum ralfsii*) [1395] **Potential Impact** The proposed development site is located within a suburban/agricultural area, 22.6 km from this SAC. There is no 'direct' or Source-Pathway linkage between the proposed development site and the SAC. Out of an abundance of caution, it is considered that there is an

Natura Code	Name	Screened In/Out	Details/Reason
			indirect hydrological pathway to this SAC via the proposed foul and surface water drainage strategy. Foul wastewater will discharge to a pumping station that is to be constructed on-site, which in turn discharges to an existing public foul sewer located near the south-west corner of the subject site. Any silt or pollutants will be treated along this network by Irish Water. After attenuation, surface water drainage will be directed to the Skinkeen (Castletown) Watercourse (which passes through the site) and the Hazelhatch watercourse (which passes through the eastern portion of the site). Both watercourses form part of the Liffey Catchment and, as such, outfall to the Leixlip Dam reservoir and the River Liffey, which in turn outfalls to the marine environment at Dublin Bay. As a result, out of an abundance of caution, it is considered that there is an indirect hydrological pathway to this SAC via surface water drainage. However, the proposed development site is located upstream of the Leixlip Reservoir and Leixlip Hydro Electric Power Station. As a result, in the absence of any mitigation, silt produced during operation and construction will settle within the 5000 acre reservoir prior to reaching the Leixlip Hydro Station. Given the extensive distance (22.6 km) to this SAC, the dilution, mixing and the flocculation of potential pollutants within the estuarine element of the River Liffey estuary, silt or pollutants will settle, be dispersed or diluted and will not impact on the conservation objectives or features of interest of this SAC. No potential impact is foreseen. There is no direct pathway from this site to the SAC. The construction and operation of the proposed development will not impact on the conservation interests of the site. **No significant effects are likely.**

Natura Code	Name	Screened In/Out	Details/Reason
Special Protection Areas			
IE0004024	South Dublin Bay and River Tolka Estuary SPA	**OUT**	**Conservation Objectives** The maintenance of habitats and species within Natura 2000 sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level. **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 a suburban/agricultural area, 19.5 km from this SPA. There is no 'direct' or Source-Pathway linkage between the proposed development site and the SPA. Out of an abundance of caution, it is considered that there is an indirect hydrological pathway to this SPA via the proposed foul and surface water drainage strategy. Foul wastewater will discharge to a pumping station that is to be constructed on-site, which in turn discharges to an existing public foul sewer located near the south-west corner of the subject site. Any silt or pollutants will be treated along this network by Irish Water. After attenuation, surface water drainage will be directed to the Skinkeen (Castletown) Watercourse (which passes through the site) and the Hazelhatch watercourse (which passes through the eastern portion of the site). Both watercourses form part of the Liffey Catchment and, as such, outfall to the Leixlip Dam reservoir and the River Liffey, which in turn outfalls to the marine environment at Dublin Bay. As a result, out of an abundance of caution, it is considered that there is an indirect hydrological pathway to this SPA via surface water drainage. However, the proposed development site is located upstream of the Leixlip Reservoir and Leixlip Hydro Electric Power Station. As a result, in the absence of any mitigation, silt produced during operation and construction will settle within the 5000 acre reservoir prior to reaching the Leixlip Hydro Station. Given the extensive distance (20.4 km) to this SPA, the dilution, mixing and the flocculation of potential pollutants within the estuarine element of the River Liffey

Natura Code	Name	Screened In/Out	Details/Reason
			estuary, silt or pollutants will settle, be dispersed or diluted and will not impact on the conservation objectives or features of interest of this SPA. No potential impact is foreseen. There is no direct pathway from this site to the SPA. The construction and operation of the proposed development will not impact on the conservation interests of the site. **No significant effects likely**
IE004006	North Bull Island SPA	**OUT**	**Conservation Objectives** The maintenance of habitats and species within Natura 2000 sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level. **Qualifying Interests** Light-bellied Brent Goose (*Branta bernicla hrota*) [A046] Shelduck (*Tadorna tadorna*) [A048] Teal (*Anas crecca*) [A052] Pintail (*Anas acuta*) [A054] Shoveler (*Anas clypeata*) [A056] Oystercatcher (*Haematopus ostralegus*) [A130] Golden Plover (*Pluvialis apricaria*) [A140] Grey Plover (*Pluvialis squatarola*) [A141] Knot (*Calidris canutus*) [A143] Sanderling (*Calidris alba*) [A144] Dunlin (*Calidris alpina*) [A149] Black-tailed Godwit (*Limosa limosa*) [A156] Bar-tailed Godwit (*Limosa lapponica*) [A157] Curlew (*Numenius arquata*) [A160] Redshank (*Tringa totanus*) [A162] Turnstone (*Arenaria interpres*) [A169] Black-headed Gull (*Chroicocephalus ridibundus*) [A179] Wetland and Waterbirds [A999] **Potential Impact** The proposed development site is located within a suburban/agricultural area, 22.6 km from this SPA. There is no 'direct' or Source-Pathway linkage between the proposed development site and the SPA. Out of an abundance of caution, it is considered that there is an indirect hydrological pathway to this SPA via the proposed foul and surface water drainage strategy. Foul wastewater will discharge to a pumping station that is to be constructed on-site, which in turn discharges to an existing public foul sewer located near the south-west corner of the subject site. Any silt or pollutants will be treated along this network by Irish Water. After attenuation, surface water drainage will be directed to the Skinkeen (Castletown) Watercourse (which passes through the site) and the Hazelhatch watercourse (which passes through the eastern portion of the site). Both watercourses form part of the Liffey Catchment and, as such, outfall to the Leixlip Dam reservoir and the

Natura Code	Name	Screened In/Out	Details/Reason
			River Liffey, which in turn outfalls to the marine environment at Dublin Bay. As a result, out of an abundance of caution, it is considered that there is an indirect hydrological pathway to this SPA via surface water drainage. However, the proposed development site is located upstream of the Leixlip Reservoir and Leixlip Hydro Electric Power Station. As a result, in the absence of any mitigation, silt produced during operation and construction will settle within the 5000 acre reservoir prior to reaching the Leixlip Hydro Station. Given the extensive distance (22.6 km) to this SPA, the dilution, mixing and the flocculation of potential pollutants within the estuarine element of the River Liffey estuary, silt or pollutants will settle, be dispersed or diluted and will not impact on the conservation objectives or features of interest of this SPA. No potential impact is foreseen. There is no direct pathway from this site to the SPA. The construction and operation of the proposed development will not impact on the conservation interests of the site. **No significant effects likely**

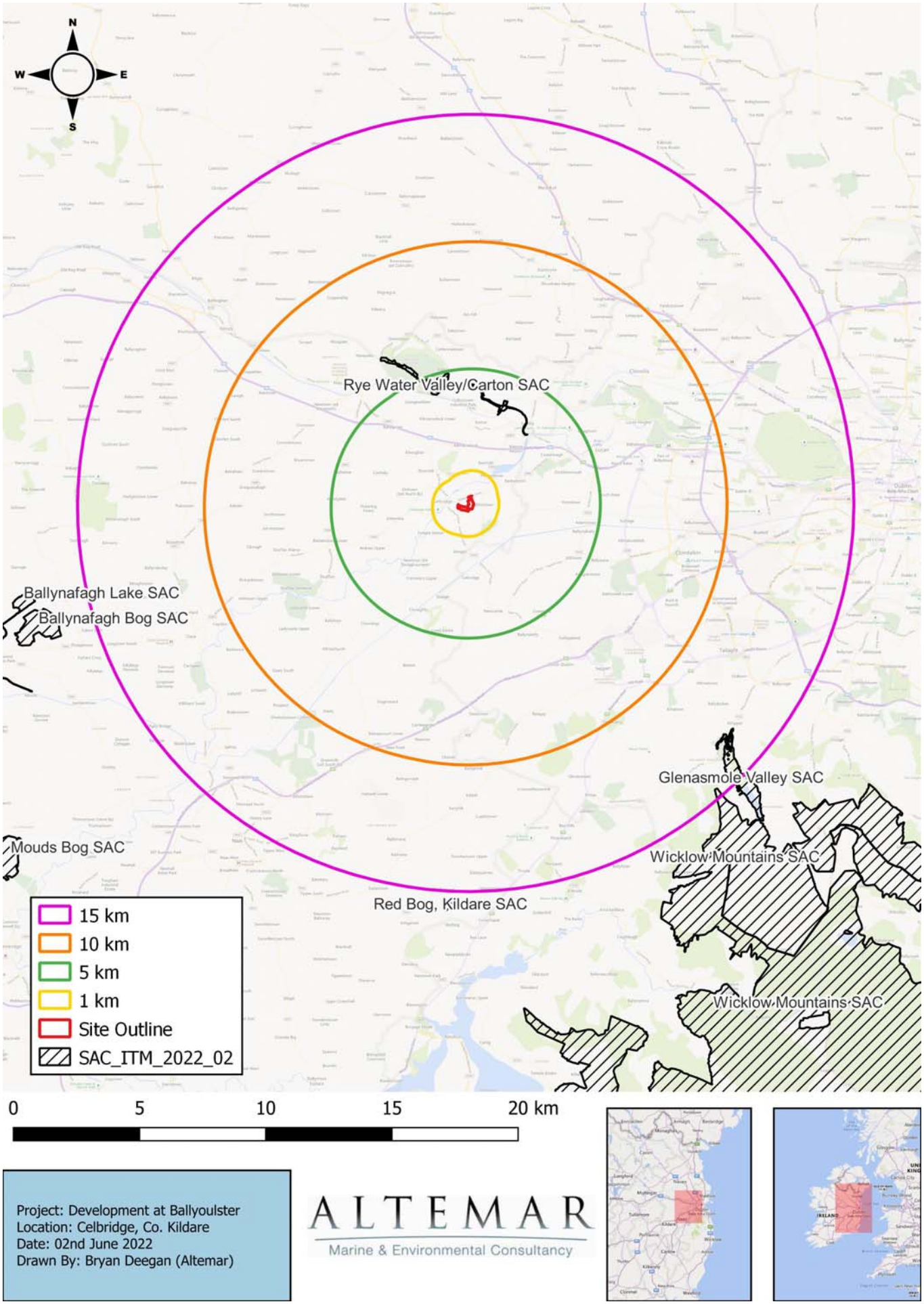


Figure 12. *Special Areas of Conservation (SAC) located within 15km of the proposed development*

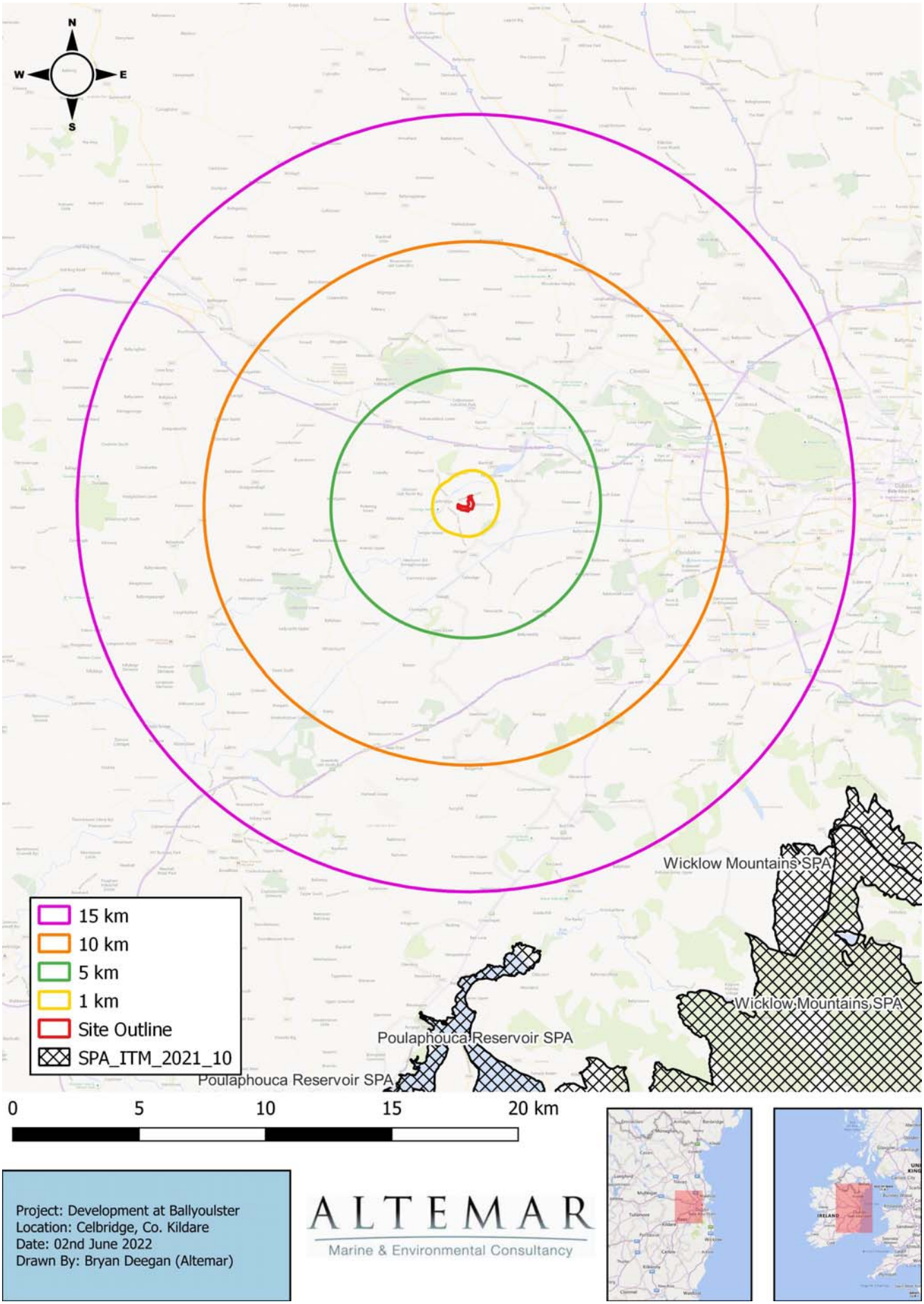


***Figure 13**. Special Protection Areas (SPA) within 15km of the proposed development*

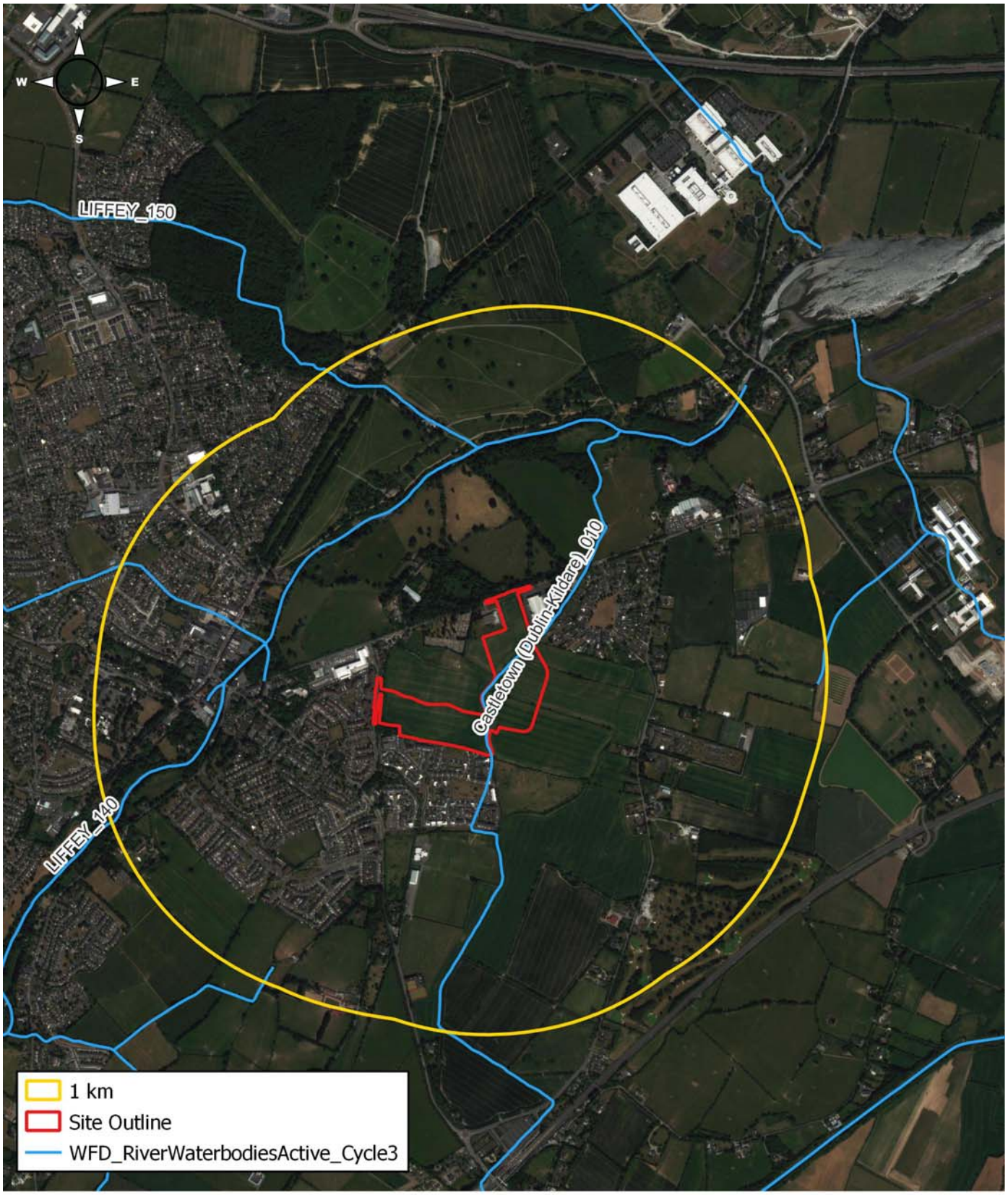


Figure 14. *Watercourses proximate to the proposed development site*

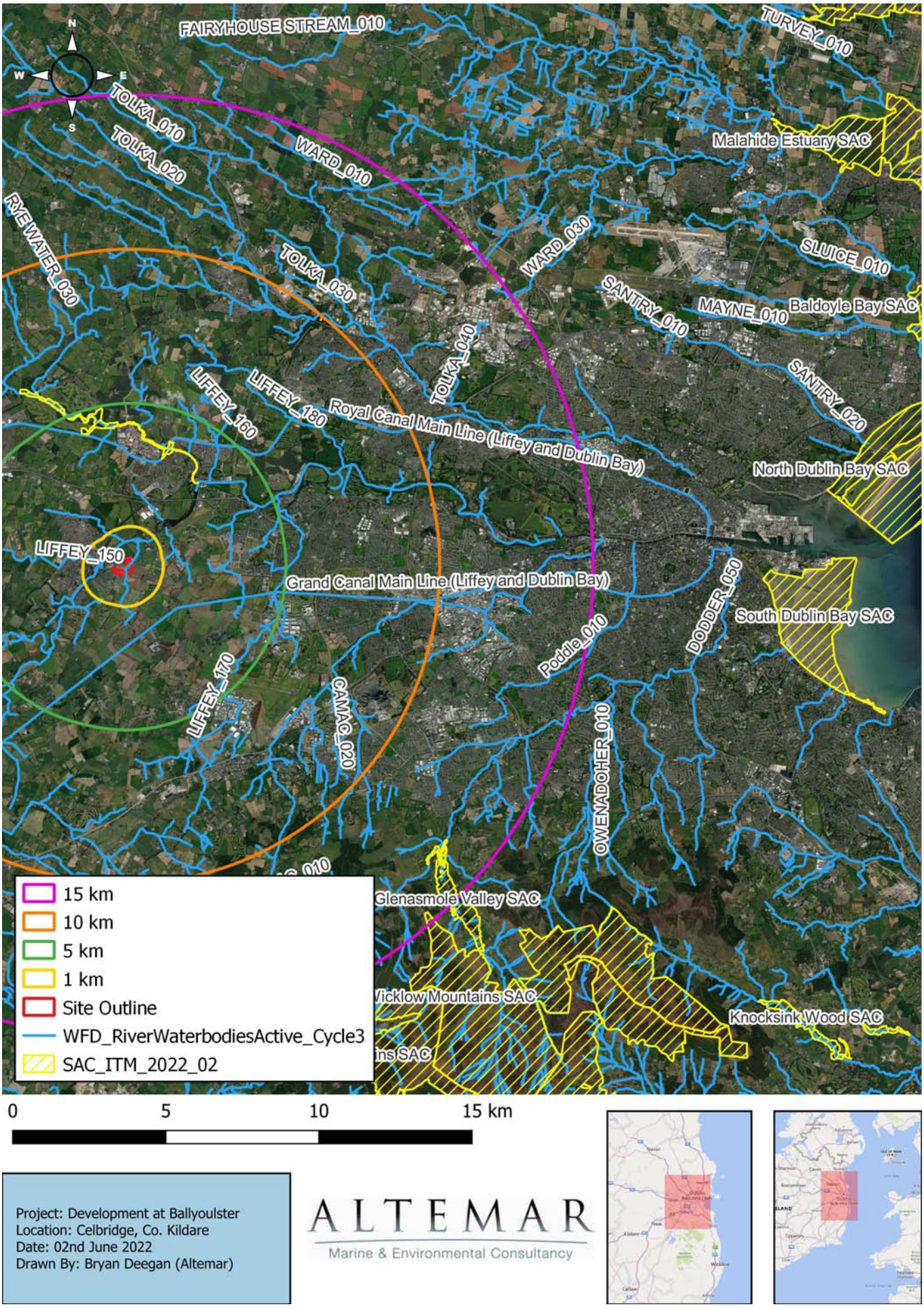


Figure 15. *Watercourses and SACs within and beyond 15km of the proposed development site*

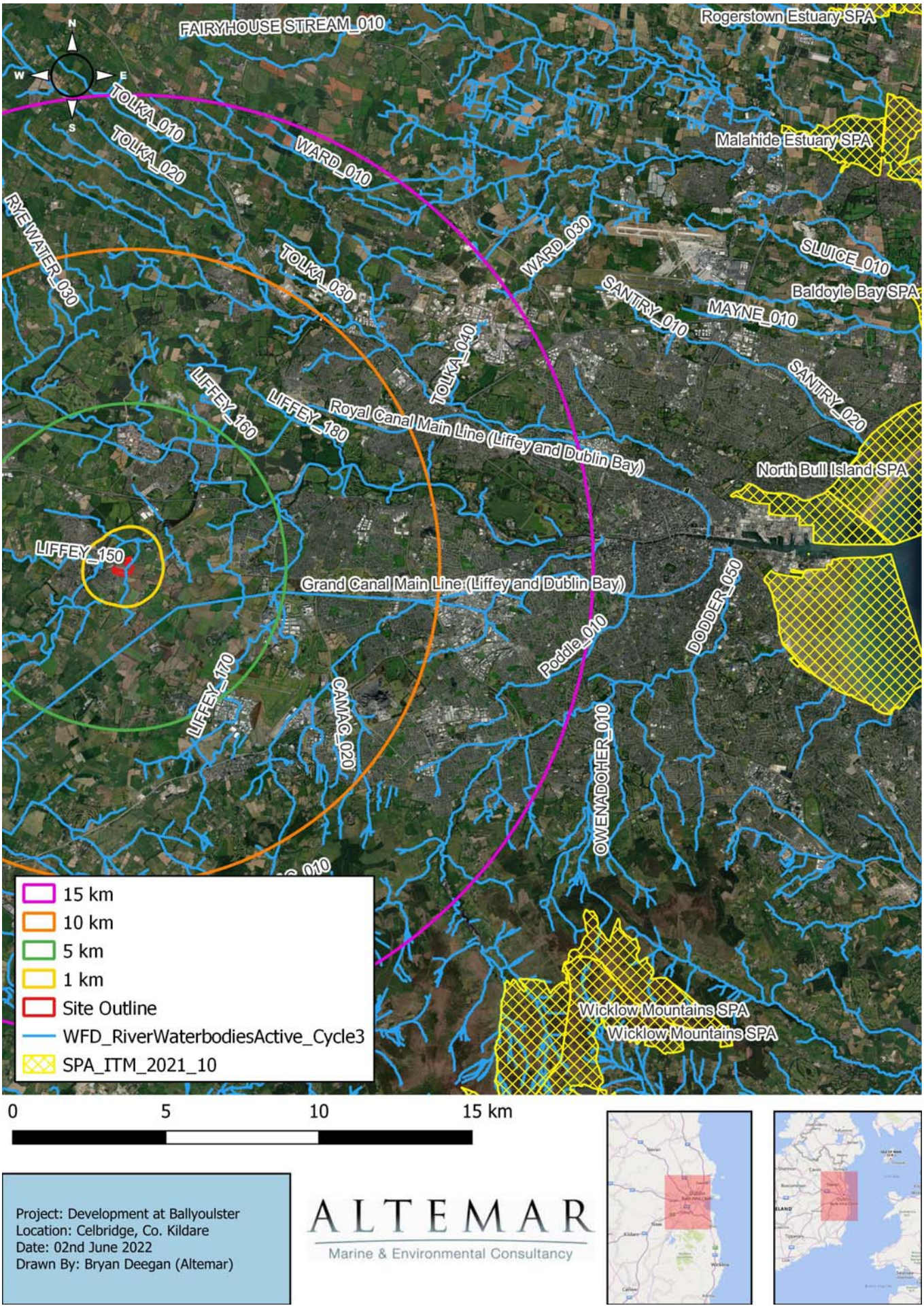


Figure 16. *Watercourses and SPAs within and beyond 15km of the proposed development site*

In-Combination Effects

There are several developments that received planning permission located in the area immediately surrounding the subject site. The following is a list of planning applications as identified on the Department of Housing, Local Government and Heritage's 'National Planning Application Map' portal:

Table 3. In combination effects evaluated (developments surrounding the subject site)

Planning Ref.	Address	Proposal
2179	Barnhall Road,, Leixlip,, Co. Kildare.	the change of use of the existing and permitted (Reg. Ref:. 95/923) Ancillary Production Support Office associated with part of Building No. 2 to a standalone independent Office use including break room and tea station (c. 1,139sqm). The proposed development specifically relates to Building No. 2 located to the north-east of the centre of the site. (No alteration to the balance of the development is sought by this Application.) The site is principally bounded by: Barnhall Road to the north; Celbridge Road to the east; Barnhall Rugby Football Club to the south; and by grounds associated with Castletown House to the west. At a site of c.80.56 hectares at Liffey Business Campus (formerly known as the Hewlett Packard Campus)
20873	Barnhall Road,, Leixlip,, Co. Kildare, W23 X93P	the construction of a logistics warehouse with ancillary office accommodation (total c. 25,268 sqm) to an overall height of 14.86 metres. The warehouse element of the development is principally single storey including an ancillary mezzanine level (554 sqm). The ancillary offices, comprising c. 1,737 sqm, are provided over three storeys and include toilets, change rooms, showers, cafeteria, gym, plant areas and circulation spaces. The proposed development will also include: the provision of a new vehicular access from Barnhall Road roundabout with ancillary associated entry/exit gates, access road and footpath; 179 no. surface car parking spaces including electric vehicle charging stations and 18 no. bicycle parking; solar pv panels on the warehouse roof; hard and soft landscaping; signage; sprinkler storage tanks and pump house; an electrical substation (c. 54 sqm); and all ancillary works including boundary treatments, street lighting, site excavation and development works above and below ground. The site is principally bounded by: Liffey Business Campus to the north; Barnhall Road to the east; Barnhall Rugby Football Club to the south; and by grounds associated with Castletown House to the west. At this site of c. 8.19 hectares at Liffey Business Campus (formerly known as the Hewlett Packard Campus)
20232	Site 1, Wolstan's Court,, Link Road,, Celbridge,, Co. Kildare.	a new two storey, part single storey, 4 bed dwelling with connection to existing site services and all associated site works
191068	Rye River Brewing Co., Donaghcumper, Dublin Road, Celbridge,, Co. Kildare, W23 AX07	change of use of part of the ground floor of existing Light Industrial Building from existing office & associated use to new commercial use for the storage, sorting, preparation/assembly, and distribution of flowers & flower arrangements (both for off site distribution and on line sales), for new retail sales area, & to include alterations to front façade with new entrance doors, over head canopy/awning and new high level façade signage, and for minor alterations to existing car parking to front, and other minor internal & external associated works
16927	Ashbrook, Dublin Road, Celbridge, Co. Kildare	two 2 storey 4 bed detached houses and one 2 bed detached dormer bungalow, 3 new site entrances and all associated site works. Revised by Significant Further Information which consists of revision to site entrances / access onto the Dublin Road

In relation to Planning Ref. **20873**, an Appropriate Assessment (AA) Screening was prepared by Environmental Resources Management Ireland Limited to accompany this planning application. This report concludes with the following:

'*The Rye Water Valley/Carton SAC, initially screened in for assessment of likely significant effects, at its closest point, is located approximately 1.3 km north east of the Proposed Development. The Petrifying springs and sensitive habitats (marsh vegetation) associated with Narrow-mouthed Whorl Snail and Desmoulin's Whorl Snail are located approximately 1.8km further upstream of the Rye Water. Considering the limited range (c. 3m) of the QI species and there habitat according to Moorkens and Killen (2011) and there being no direct connectivity between the Proposed Development and the sensitive habitats or the petrifying springs, there are no likely significant effects on the European site from the Proposed Development.*

There is no possibility for the Proposed Development, either alone or in-combination with other plans or projects to result in likely significant effects of European sites considered in this assessment. In accordance with Article 6(3) of the Habitats Directive, an AA is therefore not required.'

No significant projects are proposed or currently under construction that could potentially cause in combination effects on Natura 2000 sites.

Given this, it is considered that in combination effects with other existing and proposed developments in proximity to the application area would be unlikely, neutral, not significant and localised. It is concluded that no significant effects on Natura 2000 sites will be seen as a result of the proposed development alone or combination with other projects.

No projects in the vicinity of the proposed development would be seen to have a significant in combination effect on Natura 2000 sites.

Conclusions

No Natura 2000 sites are within the zone of influence of this development. Having taken into consideration the effluent discharge from the proposed development works, the distance between the proposed development site to designated conservation sites, lack of direct hydrological pathway or biodiversity corridor link to conservation sites and the settlement of silt over the intervening distance, particularly within the Leixlip Dam reservoir and dilution effect with other effluent and surface runoff, it is concluded that this development would not give rise to any significant effects to designated sites. The construction and operation of the proposed development will not impact on the conservation objectives of features of interest of Natura 2000 sites.

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

On the basis of the content of this report, the competent authority is enabled to conduct a Stage 1 Screening for Appropriate Assessment and consider whether, in view of best scientific knowledge and in view of the conservation objectives of the relevant European sites, the Proposed Development, individually or in combination with other plans or projects is likely to have a significant effect on any European site. There is no possibility of significant impacts on Natura 2000 sites, features of interest or site specific conservation objectives. A Natura Impact Statement is not required.

Accordingly, having carried out the Stage 1 Appropriate Assessment Screening, the competent authority may determine that a Stage 2 Appropriate Assessment of the Proposed Development is not required as it can be excluded, on the basis of objective scientific information that the Proposed Development, individually or in combination with other plans or projects, will have a significant effect on any European site.

Data Used for AA Screening

NPWS site synopses and Conservation objectives of sites within 15km, and sites outside 15km with a potential pathway, were assessed. The most recent SAC and SPA boundary shapefiles were downloaded and overlaid on ESRI road maps and satellite imagery. Numerous site visits were carried out including a full wintering bird survey (Appendix I), with the most recent site visit being carried out on the 30th May 2022.

Findings of No Significant Effects Report

Details of Project	Appropriate Assessment Screening for a proposed Strategic Housing Development (SHD) at Ballyoulster, Celbridge, Co. Kildare.
Name and Location of NATURA 2000 Sites Within 15km / outside 15km with a potential pathway	Rye Water Valley/Carton SAC Glenasmole Valley SAC Wicklow Mountains SAC South Dublin Bay SAC North Dublin Bay SAC South Dublin Bay and River Tolka Estuary SPA North Bull Island SPA
Project Description	Proposed Strategic Housing Development (SHD) at Ballyoulster, Celbridge, Co. Kildare.
Is the Project directly connected with the management of the NATURA 2000 site?	No
Details of any other projects or plans that together with this project could affect the NATURA 2000 site	None
The assessment of significant effects	
Describe how the project is likely to affect the NATURA 2000 site	No Impact Predicted
Response to consultation	N/A
Data collected to carry out the assessment	Site Visit and Supporting NPWS data.
Who carried out the assessment	Altemar Ltd.
Sources of data	NPWS website, standard data form, conservation objectives data of the site and references outlined in the AA Screening Report.
Explain why the effects are not considered significant	The proposed works are approximately 500m upstream of the Leixlip Dam reservoir which consists of a 5000 acre lake and a Hydro Electric Power Station. Having taking into consideration the effluent discharge from the proposed development works, lack of direct hydrological pathway or biodiversity corridor link to conservation sites and the dilution effect with other effluent and surface runoff, in addition to the significant distance to Natura 2000 sites downstream (>19.5km), it is concluded that this development that would not give rise to any significant effects to designated sites.
Level of assessment completed	Stage 1 Screening
Overall conclusions	On the basis of the content of this report, the competent authority is enabled to conduct a Stage 1 Screening for Appropriate Assessment and consider whether, in view of best scientific knowledge and in view of the conservation objectives of the relevant European sites, the Proposed Development, individually or in combination with other plans or projects is likely to have a significant effect on any European site.

References

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

1. Department of Environment Heritage and Local Government Circular NPW 1/10 and PSSP 2/10 on Appropriate Assessment under Article 6 of the Habitats Directive – Guidance for Planning Authorities March 2010.
2. Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities, Department of the Environment, Heritage and Local Government 2009; http://www.npws.ie/publications/archive/NPWS_2009_AA_Guidance.pdf
3. Managing NATURA 2000 Sites: the provisions of Article 6 of the Habitats Directive 92/43/EEC, European Commission 2000; http://ec.europa.eu/environment/nature/Natura2000/management/docs/art6/provision_of_art6_en.pdf
4. Assessment of Plans and Projects Significantly Affecting NATURA 2000 Sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC; http://ec.europa.eu/environment/nature/Natura2000management/docs/art6/Natura_2000_assess_en.pdf
5. Guidance document on Article 6(4) of the 'Habitats Directive' 92/43/EEC – Clarification of the concepts of: alternative solutions, imperative reasons of overriding public interest, compensatory measures, overall coherence, opinion of the commission; http://ec.europa.eu/environment/nature/Natura2000/management/docs/art6/guidance_art6_4_en.pdf
6. Guidance document on the implementation of the birds and habitats directive in estuaries and coastal zones with particular attention to port development and dredging; http://ec.europa.eu/environment/nature/Natura2000/management/docs/guidance_doc.pdf
7. The Status of EU Protected Habitats and Species in Ireland. http://www.npws.ie/publications/euconservationstatus/NPWS_2007_Conservation_Status_Report.pdf
8. NPWS (2021) Conservation Objectives: Rye Water Valley/Carton SAC 001398. Version 1. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage.
9. NPWS (2021) Conservation Objectives: Glenasmole Valley SAC 001209. Version 1. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage.
10. NPWS (2017) Conservation Objectives: Wicklow Mountains SAC 002122. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.
11. NPWS (2013) Conservation Objectives: South Dublin Bay SAC 000210. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
12. 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.
13. NPWS (2013) Conservation Objectives: North Dublin Bay SAC 000206. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
14. NPWS (2015) Conservation Objectives: North Bull Island SPA 004006. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

Introduction

In the winter of 2021-2022, a total of 11 winter bird surveys were conducted at lands at Ballyoulster, East of Celbridge, County Kildare, 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. Survey Location (outlined in red) at Ballyoulster, County Kildare. The field marked (1) will be referred to as such in the notes as in differs quite markedly in habitat type from the rest of the site. Green marking marks the bridge over the stream that bisects the site.

Site Description

The site comprises almost entirely arable fields east of Celbridge Town (fallow for the much of the duration of the survey period, it then all ploughed over in early February). The fields are bordered largely by hedgerows, interspersed with some larger trees. Housing estates bordered the site to the east and north. The field marked (1) at the south of the site differed from the rest of the site, it was not arable, comprising rough ground with willow patches and patches of wet ground. The site was bisected in the middle by a stream running south to north, well vegetated especially on it's east side, a small bridge at the north side allowed access across the site (location marked in green).

Specific site survey methodology

Site traversed from west to east repeatedly during the day following field margins around the site, going from north to south and then repeating this working south to north. Vantage point observations also made from bridge over the stream and from points at east and west sides of the site where optimal views across the site were apparent.

Survey results

October 30th, 2021

Sunrise- 08.20hrs/Sunset 17.56hrs. Weather – Wind F3 Southwest, Cloud 0/8, Dry, 12c, Excellent visibility. On-site 08.10hrs – 15.30hrs.

Species recorded – Herring Gull, Common Gull, Grey Heron, Dunnock, Robin, Wren, House Sparrow, Skylark, Meadow Pipit, Woodpigeon, Starling, Blue Tit, Great Tit, Coal Tit, Linnet, Goldcrest, Redpoll, Greenfinch, Chaffinch, Yellowhammer, Reed Bunting, Blackbird, Mistle Thrush, Redwing, Pied Wagtail, Mallard, Magpie, Hooded Crow, Rook, Jackdaw, Cormorant, Sparrowhawk, Buzzard, Kestrel, Merlin, Raven, Snipe.

Observations from 08.10hrs – 12.00hrs –

A Buzzard was observed foraging on ground at northeast of the site at 08.30hrs, a Grey Heron was observed foraging on stream south of the bridge at 08.40hrs. Yellowhammer (<3) were noted foraging in the field north of the bridge at 08.45hrs. A Sparrowhawk was noted hunting at the east side of the site at 09.15hrs. Yellowhammer (<1), Chaffinch (<2) and Skylark (<1) were noted foraging the middle field at the east side of the site at 09.30hrs. A Mallard was observed foraging on the stream south of the bridge at 09.45hrs. Yellowhammer (<7) were noted foraging in stubble at along hedgerow west of the bridge at 10.00hrs. In the large field at west side of the site Linnet (<20), Mistle Thrush (<10), Starling (<15), Yellowhammer (<3), Meadow Pipit (<8), Skylark (<25) from 10.00-10.20hrs, with a Cormorant and Sparrowhawk observed passing over this area. At the field (1) at south side of the site Yellowhammer (<1), Reed Bunting (<1) and Meadow Pipit were observed foraging at 10.45hrs. Snipe (<3) were flushed from the middle of the south field at 10.55hrs. A Kestrel was noted chasing a Merlin at the west side of the south field at 10.50hrs.

Observations from 12.00hrs – 15.30hrs –

Yellowhammer (<5), Chaffinch (<3) and Goldcrest (<2) were observed foraging along hedgerow along stream south of the bridge at 12.20hrs. Two Raven passed south over the east side of the site at 12.42hrs. Two Skylark were noted foraging at the northeast of the site at 13.05hrs. House Sparrow (<15), Dunnock (<3), Robin (<2) and Great Tit (<2) were noted along hedgerows bordering the north of the site at 13.15hrs. Mallard (<2) were noted foraging on the stream north of the bridge at 13.40hrs. At the large field in the west of the site Linnet (<25), Yellowhammer (<3), Skylark (<4), Redwing (<2), Pied Wagtail (<1) and Blackbird (<3) were noted foraging from 13.45hrs-14.10hrs. A Buzzard was foraging in a field west of the bridge at 15.20hrs. Small numbers (<10 of each) of Herring Gull and Common Gull noted passing mainly over the west of the site during the day, not recorded foraging on-site. No other target species recorded.

November 8th, 2021

Sunrise- 07.37hrs/Sunset 16.15hrs. Weather – Wind F1 South, Cloud 8/8, Occasional showers, 10c, Excellent visibility. On-site 08.15hrs – 15.30hrs.

Species recorded – Herring Gull, Common Gull, Black-headed Gull, Grey Heron, Dunnock, Robin, Wren, House Sparrow, Skylark, Meadow Pipit, Woodpigeon, Starling, Blue Tit, Great Tit, Long-tailed Tit, Linnet, Goldcrest, Redpoll, Greenfinch, Chaffinch, Goldfinch, Yellowhammer, Reed Bunting, Blackbird, Mistle Thrush, Redwing, Song Thrush, Pied Wagtail, Mallard, Magpie, Hooded Crow, Rook, Jackdaw, Sparrowhawk, Buzzard, Raven, Snipe, Kingfisher.

Observations from 08.15hrs – 12.00hrs –

A Kingfisher was observed foraging on the stream north of the bridge from 08.40-08.50hrs. At the large field at the west side of the site Linnet (<40), Skylark (<6), Yellowhammer (<3), Redpoll (4) and Greenfinch (<1) were observed foraging in the stubble from 09.00-09.25hrs. A Grey Heron was observed foraging south of the bridge on the river at 09.50hrs with Mallard (<3) also in the same area. At the middle field in the east of the site Skylark (<5), Yellowhammer (<4), Chaffinch (<8) and Goldfinch (<10) were recorded foraging from 10.20-10.45rs. Two Buzzards were noted foraging in the northeast corner of the site at 11.05hrs. Goldcrest (<2), Woodpigeon (<8), Reed Bunting (<1), House Sparrow (<5), Blue Tit (<4) and Redwing (<5) were noted foraging in the hedgerow and adjacent stubble field bordering the north side of the site from 11.00-11.30hrs. A Sparrowhawk was observed hunting in the south field (1) of the site at 11.55hrs. Also at the south field were Snipe (<4 flushed

again from middle area), Yellowhammer (<4), Mistle Thrush (<2), Blackbird (<1) and Song Thrush (<2) also noted foraging in this area.

Observations from 12.00hrs – 15.30hrs –

In the northwest field of the site Yellowhammer (<3), Redpoll (<2), Dunnock (<2) and Goldfinch (<5) were observed foraging at 12.30hrs. Mallard (<2) were foraging north of the bridge at 12.40hrs. In the large field at the west of the site Linnet (<35), Skylark (<2), Redpoll (<2), Woodpigeon (<15) and Meadow Pipit (<6) were observed foraging from 13.05-13.40hrs. Snipe (<2) were also flushed from the south side of this field at 13.32hrs. In the middle field at the east side of the site Yellowhammer (<2) and Chaffinch (<12) were observed foraging at 14.05hrs. A Raven passed east over the east side at 14.10hrs. In the south field (1) Yellowhammer (<2), Reed Bunting (<2), Song Thrush (<1), Dunnock (<2), Robin (<1), Long-tailed tit (<6) and Wren (<2) were observed foraging from 14.30-14.45hrs. Small numbers of Gulls again noted passing over the site with most birds in the southwest area of site nearer Celbridge Town. Mainly Herring Gulls (<15) with smaller numbers of Black-headed and Common Gull, none recorded foraging on-site. No other targets recorded.

November 24th, 2021

Sunrise- 08.06hrs/Sunset 16.16hrs. Weather – Wind F2 Southwest, Cloud 6/8, Dry, 3c, Excellent visibility. On-site 08.30hrs – 15.30hrs.

Species recorded – Herring Gull, Black-headed Gull, Grey Heron, Dunnock, Robin, Stonechat, Wren, House Sparrow, Skylark, Meadow Pipit, Woodpigeon, Starling, Blue Tit, Long-tailed Tit, Linnet, Goldcrest, Bullfinch, Chaffinch, Goldfinch, Yellowhammer, Reed Bunting, Blackbird, Mistle Thrush, Redwing, Song Thrush, Pied Wagtail, Mallard, Pheasant, Magpie, Hooded Crow, Rook, Jackdaw, Kestrel, Buzzard, Snipe.

Observations from 08.30hrs – 12.00hrs –

At the northwest field on-site Yellowhammer (<3), Reed Bunting (<1), Redwing (<7), Skylark (<2) and Linnet (<6) were foraging at 08.45hrs. Two Mallard were foraging on the stream north of the bridge at 08.50hrs. At the large field at the west of the site Goldfinch (<8), Skylark (<10), Yellowhammer (<1), Linnet (<15) and Bullfinch (<2) were foraging on-site from 09.00-09.30hrs, a Grey Heron was observed roosting at the south side of the field at 09.10hrs. Herring Gull and Black-headed Gull (<10 each) were noted passing over the site but not foraging on-site. At the north field at the east side of the site Skylark (<4), House Sparrow (<8), Blue Tit (<2), Wren (<2), Goldcrest (<1), Meadow Pipit (<4) and Goldfinch (<10) were observed foraging from 09.50-10.10hrs. Skylark (<2), Yellowhammer (<4) and a Snipe (<1) were flushed from the central field at the east side of the site at 10.30hrs. At the south field (1) of the site a Kestrel was observed hunting at the east side from 10.45-10.50hrs. Also foraging in the south field were Yellowhammer (<1), Song Thrush (<5), Reed Bunting (<2), Stonechat (<1), Blue Tit (<1) and Pheasant (<1). Rook (<10), Jackdaw (<15) and Hooded Crow (<2) were noted foraging in fields across the east side of the site.

Observations from 12.00hrs – 15.30hrs –

At the large field in the west of the site Linnet (<22), Goldfinch (<9), Skylark (<4) and Meadow Pipit (<2) and Mistle Thrush (<2) were recorded foraging from 12.40-13.20hrs. Two Buzzard also past east over the large field at 13.08hrs. A Mallard (<1) and Grey Heron were noted foraging on the stream south of the bridge at 13.25hrs. At the north field at the east side of the site Yellowhammer (<2), Linnet (<5), Meadow Pipit (<1) and Chaffinch (<3) were foraging from 13.40-14.00hrs. Yellowhammer (<4), Chaffinch (<6) and Song Thrush (<1) were foraging in the central field at the east side at 14.15hrs. At the south field (1) a Snipe (<1) was flushed from the middle at 14.40hrs, also foraging in the area were Yellowhammer (1), Blackbird (<3), Blue Tit (1) and Long-tailed Tit (<5). No other target species recorded.

December 5th, 2021

Sunrise- 08.23hrs/Sunset 16.08hrs. Weather – Wind F3 West, Cloud 3/8, Dry, 2c, Excellent visibility. On-site 08.30hrs – 15.30hrs.

Species recorded – Herring Gull, Black-headed Gull, Dunnock, Robin, Wren, House Sparrow, Skylark, Meadow Pipit, Woodpigeon, Starling, Blue Tit, Great Tit, Long-tailed Tit, Goldcrest, Linnet, Redpoll, Chaffinch, Siskin, Goldfinch, Yellowhammer, Reed Bunting, Blackbird, Mistle Thrush, Song

Thrush, Starling, Pied Wagtail, Pheasant, Magpie, Hooded Crow, Rook, Jackdaw, Buzzard, Kingfisher.

Observations from 08.45hrs – 12.00hrs –

At the northwest field of the site Yellowhammer (<3), Redpoll (<1), Meadow Pipit (<5), Dunnock (<2) and Song Thrush (<1) were observed from 08.45-09.05hrs. At the large field at the west side of the site Skylark (<10), Linnet (<15), Chaffinch (<5), Goldfinch (<3), Yellowhammer (<4), Dunnock (<2) and Pheasant (1) were recorded foraging from 09.20-09.45hrs. A Kingfisher was noted foraging south of the bridge at 10.05hrs. At the north field at the east of the site House Sparrow (<5), Wren (<3), Great Tit (<2), Woodpigeon (<7), Robin (<1) and Meadow Pipit (<1) were noted foraging from 10.15-10.40hrs. Yellowhammer (<3), Chaffinch (<5) and Mistle Thrush (<2) were noted in the central field at the east side from 10.50-11.10hrs. In the south field (1) of the site Reed Bunting (<1), Yellowhammer (<3), Blackbird (<2), Buzzard (<1), Redpoll (<2) and Pied Wagtail were recorded from 11.30-11.55hrs.

Observations from 12.00hrs – 15.45hrs –

A Kingfisher was again observed north of the bridge foraging on the stream at 12.15hrs. Yellowhammer (<5), Siskin (<1), Chaffinch (<11), Dunnock (<2) and Meadow Pipit (<1) were observed at the field at the northwest of the site from 12.30-12.50hrs. In the large field at the west of the site Skylark (<5), Linnet (<10), Meadow Pipit (<3) and Starling (<20) were recorded foraging from 13.10-13.30hrs. At the east of the site Skylark (<2), Goldfinch (<6), Wren (<1) and House Sparrow (<5) were recorded at the north field at 13.50hrs. Yellowhammer (<2), Blackbird (<4), Robin (<1) and Mistle Thrush (<2) were noted in the central field at the east side from 14.10-14.30hrs. At the south field (1) Reed Bunting (<2), Yellowhammer (<1), Chaffinch (<5), Meadow Pipit (<2) and Song Thrush (<2) were noted from 14.44-15.15hrs. No other target species recorded.

December 18th, 2021

Sunrise- 08.36hrs/Sunset 16.06hrs. Weather – Wind F2 East, Dry, Cloud 4/8, 6c, Excellent visibility. On-site 09.00hrs – 15.45hrs.

Species recorded – Herring Gull, Black-headed Gull, Common Gull, Dunnock, Robin, Wren, House Sparrow, Skylark, Meadow Pipit, Woodpigeon, Starling, Blue Tit, Great Tit, Long-tailed Tit, Goldcrest, Linnet, Chaffinch, Goldfinch, Yellowhammer, Reed Bunting, Blackbird, Mistle Thrush, Redwing, Song Thrush, Starling, Pied Wagtail, Pheasant, Magpie, Hooded Crow, Rook, Jackdaw, Sparrowhawk, Buzzard, Grey Heron, Mute Swan, Mallard, Snipe.

Observations from 09.00hrs – 12.00hrs –

At the northwest field of the site Yellowhammer (<2), Dunnock (<2), Redwing (<1), Wren (<1) and Linnet (<4) were recorded at 09.15hrs. A Grey Heron was observed foraging south of the bridge on the stream at 09.30hrs. In the large field at the west of the site Skylark (<4), Meadow Pipit (<8), Linnet (<15), Woodpigeon (<10), Starling (<40) and House Sparrow (<2) were noted foraging from 09.45-10.15hrs. Mute Swan (<3) were observed flying south over the site following the stream at 10.22hrs. At the north end of the east side of the site a Sparrowhawk was observed hunting at 10.40hrs, also recorded in the same area were Skylark (<1), House Sparrow (<7), Yellowhammer (<1), Meadow Pipit (<2) and Blackbird (<3). In the central field at the east side Yellowhammer (<2), Song Thrush (<4), Dunnock (<2) and Buzzard (<1) were noted foraging from 11.00-11.20hrs. At the south field (1) Snipe (<4 -flushed from middle), Yellowhammer (<1), Reed Bunting (<2), Long-tailed Tit (<1), Goldcrest (<1) and Robin (<2) were recorded from 11.30-11.55hrs.

Observations from 12.00hrs – 15.45hrs –

Mallard (<2) two observed foraging north of the bridge at 12.20hrs. At the northwest field of the site Yellowhammer (<3), Redwing (<12), Blackbird (<3), Dunnock (<2) and Wren (<1) were noted foraging from 12.15-12.40hrs. At the large field at the west of the site Skylark (<1), Yellowhammer (<3), Linnet (<16), Goldfinch (<10) and Meadow Pipit (<4) were noted from 13.00-13.20hrs. Black-headed Gull (<4) were noted briefly foraging in the large field from 13.15-13.25hrs. Small numbers of Herring Gull (<8) and Common Gull (<2) passing overhead in same area but not foraging on-site. At the east side of the site Yellowhammer (<3), Chaffinch (<8) and Goldfinch (<2) were noted in the central field at 13.50hrs. At the south field (1) Reed Bunting (<2), Chaffinch (<1), Meadow Pipit (<4) and Pheasant (<1) were recorded at 14.15hrs. A Snipe was flushed from the central field at 14.35hrs and Mallard (<2) were noted foraging south from the bridge at 14.40hrs. No other target species recorded.

January 7th, 2022

Sunrise- 08.38hrs/Sunset 16.24hrs. Weather – Wind F3 West, Cloud 7/8, Dry, 2c, Excellent visibility. On-site 09.15hrs – 15.30hrs.

Species recorded – Herring Gull, Black-headed Gull, Dunnock, Robin, Wren, House Sparrow, Skylark, Meadow Pipit, Woodpigeon, Starling, Blue Tit, Coal Tit, Long-tailed Tit, Goldcrest, Linnet, Bullfinch, Chaffinch, Goldfinch, Yellowhammer, Reed Bunting, Blackbird, Mistle Thrush, Redwing, Fieldfare, Song Thrush, Starling, Pied Wagtail, Pheasant, Magpie, Hooded Crow, Rook, Jackdaw, Raven, Buzzard, Mallard, Snipe, Kingfisher.

Observations from 09.15hrs – 12.00hrs –

In the northwest field of the site Yellowhammer (<4), Fieldfare (<2), Redwing (<18), Dunnock (<2), Song Thrush (<1) and Blackbird (<2) were noted foraging from 09.15-09.40hrs. Mallard (<3) were noted foraging north of the bridge at 09.28hrs. In the large field at the west side of the site Snipe (<2 flushed from middle), Skylark (<4), Yellowhammer (<2), Linnet (<22), Meadow Pipit (<2), Chaffinch (<12), Goldfinch (<5) and Wren (<2) were recorded from 09.45-10.15hrs. At the east side of the site at the north field Redwing (<8), House Sparrow (<2), Yellowhammer (<2), Coal Tit (<1), Dunnock (<4), Woodpigeon (<15) and Robin (<1) were noted from 10.30-10.50hrs. At the central field Yellowhammer (<2), Reed bunting (<1), Song Thrush (<5), and a foraging Buzzard (<1) were noted from 10.55-11.15hrs. At the south field (1) Snipe (<2), Reed Bunting (<3), Chaffinch (<10), Blackbird (<4), Goldcrest (<1) and Goldfinch (<2) were recorded from 11.25-11.45hrs.

Observations from 12.00hrs – 15.30hrs –

At the large field at the west of the site Yellowhammer (<5), Fieldfare (<2), Linnet (<30), House Sparrow (<9), Pheasant (<2), Blackbird (<5), Meadow Pipit (<1) and Starling (<40) were noted from 12.10-12.50hrs. A Kingfisher was noted south of the bridge close to the south end of the site at 12.45hrs on the stream. At the north end of the east side of the site Redwing (<10), Dunnock (<3), Wren (<4), House Sparrow (<10) and Robin (<2) were noted at 13.00hrs. Yellowhammer (<3), Chaffinch (<5) and Bullfinch (<2) were noted in the central field at the east of the site at 13.30hrs. At the south end of the site (1) Yellowhammer (<2), Skylark (<3), Pied Wagtail (<1), Goldcrest (<2), Reed Bunting (<1) and Redwing (<2) were noted from 13.50-14.15hrs. A Raven (<1) flew north over the east side of the site at 14.40hrs. Small numbers (<10 each) of Herring and Black-headed Gulls noted passing over the site but were not observed to forage on-site, no other target species recorded.

January 24th, 2022

Sunrise- 08.38hrs/Sunset 16.24hrs. Weather – Wind F3 Southeast, Cloud 6/8, 4c, Excellent visibility. On-site 09.30hrs – 15.30hrs.

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

Observations from 09.30hrs – 12.00hrs –

At the northwest field of the site Yellowhammer (<2), Blackbird (<4), Song Thrush (<3), Dunnock (<1) and Robin (<1) were recorded foraging from 09.30-09.45hrs. At the large field at the west of the site Yellowhammer (<5), House Sparrow (<8), Chaffinch (<12), Starling (<30), Skylark (<2) and Meadow Pipit (<3) were noted foraging from 09.50-10.25hrs. At the north end of the east side of the site a Kestrel was noted hunting at 10.45hrs. Also in this area were Skylark (<2), Linnet (<8), Song Thrush (<2), Dunnock (<4) and Stonechat (<1). In the central area of the east side of the site Buzzard (<1), Yellowhammer (<3), Woodpigeon (<5), Redpoll (<8) and Blue Tit (<4) were noted foraging from 11.00-11.25hrs. At the south field of the site Snipe (<8 flushed), Yellowhammer (<1), Reed Bunting (<2), Stonechat (<1), Meadow Pipit (<2) and Goldfinch (<10) were noted foraging from 11.35-12.10hrs.

Observations from 12.00hrs – 15.30hrs –

Mallard (<4) were noted foraging south of the bridge at 12.35hrs. At the northwest field of the site Yellowhammer (<3), Song Thrush (<5), Meadow Pipit (<2) and Dunnock (<2) were noted foraging from 12.45-13.05hrs. At the large field at the west of the site Skylark (<8), Linnet (<15),

Yellowhammer (<4), Chaffinch (<2), House Sparrow (<6) and Meadow Pipit (<10) were recorded foraging from 13.20-13.50hrs. At the east side of the site at the north end Woodpigeon (<30), Yellowhammer (<4), Dunnock (<6), Wren (<3) and Robin (<4) were recorded from 14.15-14.40hrs. At the south field of the site Snipe (<3), Yellowhammer (<1), Chaffinch (<10), Dunnock (<2) and Reed Bunting (<1) were noted at 15.10hrs. Small numbers of Herring, Black-headed and Common Gull were noted passing over site but note observed foraging on-site, no other target species recorded.

February 10th, 2022

Sunrise- 07.51hrs/Sunset 17.26hrs. Weather – Wind F4 West, Cloud 5/8, Dry, 7c, Excellent visibility. On-site 08.30hrs – 15.00hrs.

Species recorded – Herring Gull, Black-headed Gull, Common Gull, Dunnock, Robin, Wren, House Sparrow, Skylark, Meadow Pipit, Woodpigeon, Starling, Blue Tit, Great Tit, Long-tailed Tit, Goldcrest, Linnet, Chaffinch, Goldfinch, Yellowhammer, Reed Bunting, Blackbird, Song Thrush, Starling, Blackcap, Pied Wagtail, Magpie, Hooded Crow, Rook, Raven, Jackdaw, Buzzard, Mallard, Snipe, Kingfisher.

Observations from 09.00hrs – 12.00hrs –

Entire site (except for south field) very recently ploughed over, immediately apparent that the resulting effect was much reduced numbers of foraging passerines, with almost none now foraging in the fields (mainly corvids only – small numbers of Rook and Jackdaw). Almost all passerines recorded from the hedgerows. At the northwest field Yellowhammer (<1), Blackbird (<2), Song Thrush (<1), Dunnock (<2), Robin (<1) recorded from 08.30-09.00hrs. At the large field at the west side of the site Skylark (<2), Yellowhammer (<1), Buzzard (<1), Chaffinch (<3), Long-tailed Tit (<4), Starling (<25), Pied Wagtail (<1) and House Sparrow (<5) recorded from 09.00-09.40hrs. Mallard (<2) noted foraging south of the bridge on river at 10.05hrs. At east side of the site Yellowhammer (<4), Great Tit (<2), Blackcap (<1), Goldcrest (<1), Woodpigeon (<10), Meadow Pipit (<3) and Raven (<1) recorded from 10.15-11.20hrs. At the south field of the site Snipe (<1), Linnet (<8), Skylark (<2), Wren (<2) and Reed Bunting (<1) recorded from 11.30-12.00hrs.

Observations from 12.00hrs – 15.00hrs –

A Kingfisher was noted north of the bridge foraging at 12.18hrs. Bird diversity and numbers similar to the morning around the site with highlights of Yellowhammer (<3) and Reed Bunting (<1) in the center of the east side at 13.30hrs and Snipe (<2) recorded at the south field at 14.10hrs. Herring, Common and Black-headed Gull recorded in small numbers passing over the site but not observed to forage on-site. No other target species recorded.

February 25th, 2022

Sunrise- 07.21hrs/Sunset 17.55hrs. Weather – Wind F2 Southwest, Cloud 3/8, Dry, 8c, Excellent visibility. On-site 08.30hrs – 15.30hrs.

Species recorded – Herring Gull, Black-headed Gull, Dunnock, Robin, Wren, House Sparrow, Skylark, Meadow Pipit, Woodpigeon, Starling, Blue Tit, Great Tit, Long-tailed Tit, Goldcrest, Linnet, Redpoll, Chaffinch, Goldfinch, Yellowhammer, Reed Bunting, Blackbird, Redwing, Song Thrush, Mistle Thrush, Starling, Pied Wagtail, Magpie, Hooded Crow, Rook, Jackdaw, Buzzard, Mallard, Snipe.

Observations from 08.30hrs – 12.00hrs –

At the northwest field of the site Yellowhammer (<2), Song Thrush (<4), Dunnock (<2), Wren (<1) and Woodpigeon (<3) were recorded from 08.30-08.45hrs. At the large field at the west of the site Yellowhammer (<2), Blue Tit (<1), House Sparrow (<8), Pied Wagtail (<1), Chaffinch (<3), Blackbird (<2), Linnet (<3) and Goldfinch (<5) were recorded from 09.00-09.40hrs. At the east side of the site Yellowhammer (<3), Chaffinch (<7), Mistle Thrush (<3), Skylark (<4), Starling (<35), Goldcrest (<1), Redpoll (<2), Wren (<3), Long-tailed Tit (<8) and Dunnock (<4) were recorded from 10.00-11.15hrs. At the south field Snipe (<2), Reed Bunting (<1), Great Tit (<2), Skylark (<1) and Goldfinch (<4) were recorded from 11.35-12.05hrs.

Observations from 12.00hrs – 15.30hrs –

At the northwest field of the site Yellowhammer (<1), Chaffinch (<4), Dunnock (<3), Wren (<3), Woodpigeon (<6), Song Thrush (<2) and Robin (<1) were noted from 12.20-12.45hrs. At the large

field at the west of the site Yellowhammer (<3), Linnet (<10), Pied Wagtail (<2), Meadow Pipit (<1), Dunnock (<2) and Skylark (<2) were recorded from 13.00-13.45hrs. Mallard (<3) were noted foraging north of the bridge at 14.05hrs. East side of the site quiet with the notables being Yellowhammer (<2), Reed Bunting (<3), Redwing (<6) and Buzzard (<2) foraging from 14.15-15.015hrs. Again no foraging Gulls on-site. No other target species recorded.

March 5th, 2022

Sunrise- 07.03hrs/Sunset 18.10hrs. Weather – Wind F2 Southeast, Cloud 3/8, Dry, 6c, Excellent visibility. On-site 08.15hrs – 16.00hrs.

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

Observations from 08.15hrs – 12.00hrs –

At the northwest field of the site Chaffinch (<3), Linnet (<8), Woodpigeon (<10), Dunnock (<2), Blackbird (<3) and Wren (<1) were recorded from 08.15-08-40hrs. At the large field at the west side of the site Yellowhammer (<3), Skylark (<2), Dunnock (<3), Woodpigeon (<5), Blackbird (<2), Mistle Thrush (<2), House Sparrow (<10) and Blue Tit (<2) were recorded from 08.50-09.45hrs. At the east side of the site during the morning highlights recorded were Yellowhammer (<4 maximum count), Reed Bunting (<3), Goldcrest (<1), Sparrowhawk (<1 hunting at north end).

Observations from 12.00hrs – 16.00hrs –

At the large field at the west of the site Yellowhammer (<2), Skylark (<1), Starling (<20), Blackbird (<5), Song Thrush (<1), House Sparrow (<8) and Goldfinch (<15) from 12.15-13.15hrs. A Buzzard (<1), and Yellowhammer (<2) were noted foraging at the northwestern field at 13.40hrs. At the east side of the site from 13.50-15.15hrs Yellowhammer (<4 maximum count), Reed Bunting (<2), Starling (<30), Long-tailed Tit (<8), Song Thrush (<4), Blackbird (<6), Wren (<3), Skylark (<2) were recorded. No other target species recorded.

March 18th, 2022

Sunrise- 06.32hrs/Sunset 18.34hrs. Weather – Wind F3 Northwest, Cloud 5/8, Dry, 10c, Excellent visibility. On-site 08.15hrs – 16.00hrs.

Species recorded – Herring Gull, Black-headed Gull, Lesser black-backed Gull, Dunnock, Robin, Wren, House Sparrow, Skylark, Meadow Pipit, Woodpigeon, Starling, Blue Tit, Great Tit, Long-tailed Tit, Goldcrest, Linnet, Chaffinch, Greenfinch, Goldfinch, Yellowhammer, Reed Bunting, Blackbird, Song Thrush, Mistle Thrush, Starling, Pied Wagtail, Magpie, Hooded Crow, Rook, Jackdaw, Mallard.

Observations from 08.15hrs – 12.00hrs –

At the northwest field of the site Yellowhammer (<1), Meadow Pipit (<2), Dunnock (<2), Song Thrush (<1) and Blackbird (<1) were recorded from 08.15-08.45hrs. Mallard (<2) and Grey Heron (<1) were observed foraging south of the bridge at 09.05hrs. At the large field at the west side of the site Skylark (<1), Meadow Pipit (<2), Blackbird (<5), House Sparrow (<8), Chaffinch (<6) and Greenfinch (<1) were recorded from 09.15-10.20hrs. At the east side of the site Yellowhammer (<4 maximum), Reed Bunting (<2), Skylark (<1), Blackbird (<4), Wren (<3), Mistle Thrush (<2), Great Tit (<2), Goldcrest (<1), Linnet (<4), Woodpigeon (<10) and Robin (<3) were noted from 10.40-11.45hrs.

Observations from 12.00hrs – 16.00hrs –

At the large field at the west side of the site Yellowhammer (<2), Chaffinch (<5), House Sparrow (<10), Skylark (<3), Pied Wagtail (<2), Woodpigeon (<14), Blackbird (<5), Wren (<2), Dunnock (<4) and Song Thrush (<1) were recorded from 12.15-12.35hrs. At the northwest field Yellowhammer (<2), Dunnock (<3), Blackbird (<2) and Pied Wagtail (<1) were present from 12.45-13.05hrs. At the east side of the site during the afternoon Yellowhammer (<5 in central field and south field), Reed Bunting (<2 in south field), Mistle Thrush (<4), Blackbird (<5), Song Thrush (<2), Dunnock (<4), Wren (<3), Woodpigeon (<15) and Goldfinch (<8) were recorded from 13.15-15.00hrs. Small numbers of Herring (<15), Black-headed Gull (<10) and Lesser black-backed Gull (<3) noted passing over the site during the day, none observed foraging on-site. No other target species recorded.

Comments and observations on the survey results

50 bird species were recorded at lands at Ballyoulster near Celbridge in County Kildare during 11 winter bird surveys from October 2021 to March 2022. The species diversity was quite typical of that expected in the context of inland arable lands in Leinster. 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 and Snipe were recorded in small numbers. 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).

Some of the more notable species recorded wintering on-site were Yellowhammer, Reed Bunting, Skylark, and Kingfisher (recorded on four dates on the stream) with several sightings of Kestrel and once a Merlin. Snipe was mostly recorded at the south field section of the site. Mallard is amber listed as a wintering species of conservation concern in Ireland and was recorded in small numbers on the stream on-site. Four species were noted passing almost exclusively over the site and were not noted to forage on the site itself.