

Appropriate Assessment Screening for a Proposed Strategic Housing Development (SHD) at Ratoath South, Co. Meath



19th May 2022

Prepared by: Bryan Deegan (MCIEEM) of Altemar Ltd.

On behalf of: Beo Properties Ltd.

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

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Introduction

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

The following Appropriate Assessment (AA) (Screening Stage) has been prepared by **Altemar Ltd.** at the request of Beo Properties Ltd. The development will consist of the construction of 452 no. residential units which are located in 12 neighbourhoods. Building heights range across the site from 2- and 3-storey terraced houses, through to 4-storey maisonette buildings, and 6-storey apartment blocks.

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

Altemar Ltd.

Since its inception in 2001, Altemar has been delivering ecological and environmental services to a broad range of clients. Operational areas include residential, infrastructural, renewable, oil & gas, private industry, local authorities, EC projects and State/semi-State Departments. Bryan Deegan is the managing director of Altemar. Bryan is an environmental scientist and marine biologist with 27 years' experience working in Irish terrestrial and aquatic environments, providing services to the State, Semi-State and industry. Bryan Deegan (MCIEEM) holds a MSc in Environmental Science, BSc (Hons.) in Applied Marine Biology, NCEA National Diploma in Applied Aquatic Science and a NCEA National Certificate in Science (Aquaculture). Bryan Deegan carried out all elements of this Appropriate Assessment Screening.

Background to the Appropriate Assessment

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

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

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

As outlined in the 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 Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities' and the European Communities (Birds and

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;

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 European site, then no further AA (Stage 2) will be required. It is important to note that there is a requirement to apply a precautionary approach to AA screening. Therefore, where effects are possible, certain or unknown at the screening stage, AA will be required.

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

Stage 1 Screening Assessment

Management of the Site

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

Description of the Proposed Project

Beo Properties Limited, intend to apply to An Bord Pleanála for permission for a strategic housing development at this site (c.14.166 ha), on existing agricultural lands located immediately to the south of the existing built area of Ratoath in County Meath. The site is generally bound to the north by Glascarn Lane, the rear of houses at Glascarn Lane, further existing residential dwellings and a permitted strategic housing development (Reg Ref: TA17/305196); to the east and south by existing agricultural fields and by Glascarn Lane; and to the west by Fairyhouse Road (R155), the rear of houses at Fairyhouse Road, the Carraig Na Gabhna and Cairn Court developments, and existing agricultural fields. The subject site is located on lands within the following town lands (in part): Legagunia, Commons, Jamestown, Glascarn and Newtown.

The proposed development will principally consist of the construction of 452 no. residential units and all associated ancillary accommodation, open space and site development works. The total gross floorspace (GFA) of the overall development is c.55,714.4 (c.59,177 with ancillary uses included) of which c.54,175 is residential and c.1,539.4 is non-residential uses. The proposed development will principally consist of 150 no. semi-detached and terraced dwelling houses (3-bed - with option to convert attic in 89 no. units, thereby creating 4-bed houses), 182 no. maisonettes (15 no. 1-bed & 167 no. 3-bed) and 120 no. apartments (100 no. 2-bed and 20 no. 3-bed)(with balconies/terraces across all elevations), with heights ranging from 2-3 storey terraced houses and 3-4-storey duplex buildings (1 storey ground floor units and 2 storey first and second floor units; 2 storey ground and first floor units and 2 storey second and third floor units) and 6-storey apartment blocks. The scheme provides the following house types (as detailed in the application pack materials):61 no. A1 (with the option to provide as A2 given similar appearance), 28 no. A2 (with the option to provide as A1 given similar appearance), 30 no. B1, 31 no. B2, 42 no. M1, 42 no. M2, 34 no. M3, 34 no. M4, 15 no. M5, 15 no. M6, 60 no. D1, 20 no. D2, 20 no. D3, 20 no. D4. The scheme is presented across 12 neighbourhoods (A-H & J-M), each with its own designated central communal open space, car and cycle parking (746 no. car parking spaces and 816 no. cycle parking space) as follows:

Neighbourhood A: consisting of 38 no. units comprising 4 no. 2 storey three-bedroom terraced housing units, 30 no. apartments (25 no. two-bedroom units and 5 no. three-bedroom units), 4 no. 2 storey three-bedroom maisonettes, ancillary accommodation, including lobby (c.53 sq. m), post room (c.13 sq. m), ESB storage (c.11 sq. m), water storage (c.14 sq. m), refuse storage (c.29 sq. m), bike storage (c.135 sq. m), car park (c.702 sq. m) associated private balconies/terraces/rear gardens, communal open space (c.662 sq. m), 51 no. surface and undercroft car parking spaces (42 no. residential and 9 no. visitor) and 92 no. cycle parking spaces.

Neighbourhood B: consisting of 43 no. units comprising 23 no. terraced housing units (10 no. 2 storey three-bedroom units and 13 no. 3 storey three-bedroom units), 20 no. 2 storey three-bedroom maisonettes, ancillary accommodation including, associated private balconies/terraces/rear gardens/winter gardens, communal open space (c.1,753 sq. m), 76 no. car parking spaces (66 no. residential and 10 no. visitor) and 52 no. cycle parking spaces.

Neighbourhood C: consisting of 62 no. units comprising 12 no. 2 storey terraced housing units, 30 no. apartment units (25 no. two-bedroom units and 5 no. three-bedroom units), 20 no. maisonette units (18 no. 2 storey three-bedroom units and 2 no. single storey one-bedroom units), ancillary accommodation, including lobby (c.53 sq. m), post room (c.13 sq. m), ESB storage (c.11 sq. m), water storage (c.14 sq. m), refuse storage (c.29 sq. m), bike storage (c.135 sq. m), , car park (c.702 sq. m), associated private balconies/ terraces/rear gardens, communal open space (c. 1,270 sq. m), 96 no. surface and undercroft car parking spaces (74 no. residential and 22 no. visitor) and 142 no. cycle parking spaces.

Neighbourhood D: consisting of 38 units comprising 14 no. terraced housing units (7 no. 2 storey three-bedroom units and 7 no. 3 storey three-bedroom units), 24 no. maisonettes (20 no. 2 storey three-bedroom

units and 4 no. single storey one-bedroom units), ancillary accommodation, including associated private balconies/terraces/rear gardens, communal open space (c.798 sq. m), 62 no. car parking spaces (52 no. residential and 10 no. visitor), 60 no. cycle parking spaces and an ESB substation (c.14 sq. m).

Neighbourhood E: consisting of 30 units comprising 18 no. 2 storey three-bedroom terraced housing units, 12 no. 2 storey three bedroom maisonettes, ancillary accommodation, including associated private balconies/terraces/rear gardens, communal open space (c.643 sq. m), 56 no. car parking spaces (48 no. residential and 8 no. visitor), 30 no. cycle parking spaces and an ESB substation (c.14 sq. m).

Neighbourhood F: consisting of 36 units comprising 20 no. terraced housing units (12 no. 2 storey three-bedroom units and 8 no. 3 storey three-bedroom units), 16 no. 2 storey three-bedroom maisonettes, ancillary accommodation, including associated private balconies/terraces/rear gardens, communal open space (c.664 sq. m), 64 no. car parking spaces (56 no. residential and 8 no. visitor) and 42 no. cycle parking spaces.

Neighbourhood G: consisting of 29 units comprising 11 no. 3 storey three-bedroom terraced housing units, 18 no. maisonettes (15 no. 2 storey three-bedroom units and 3 no. single storey one-bedroom units), ancillary accommodation, including associated private balconies/terraces/rear gardens/winter gardens, communal open space (c.430 sq.m), 48 no. car parking spaces (40 no. residential and 8 no. visitor), 48 no. cycle parking spaces and an ESB substation (c.14 sq.m).

Neighbourhood H: consisting of 50 units comprising 8 no. terraced housing units (4 no. 2 storey three-bedroom terraced housing units, 4 no. 3 storey three-bedroom terraced housing units), 30 no. apartment units (25 no. two-bedroom units and 5 no. three-bedroom units), 12 no. 2 storey three-bedroom maisonettes, ancillary accommodation, including associated private balconies/terraces/rear gardens/winter gardens, 4 no. commercial/local retail units (c.533.6 sq. m), 4 no. wc (c.44 sq. m), lobby (c.50 sq. m), post room (c.14 sq. m), ESB storage(c.13 sq. m), water storage (c.14 sq. m), refuse storage (c.30 sq. m), communal bins (c.11 sq. m), bike storage (107 sq. m), communal open space (c.1,153 sq. m), 76 no. surface and undercroft car parking spaces (58 no. residential and 18 no. visitor) and 118 no. cycle parking spaces and an ESB substation (c.14 sq. m).

Neighbourhood J: consisting of 37 units comprising 13 no. terraced housing units (5 no. 2 storey three-bedroom units and 8 no. 3 storey three-bedroom units), 24 no. maisonette units (20 no. 2 storey three-bedroom units and 4 no. single storey one-bedroom units), ancillary accommodation, including associated private balconies/terraces/rear gardens/winter gardens, communal open space (c.1,148 sq. m), 56 no. car parking spaces (50 no. residential and 6 no. visitor) and 60 no. cycle parking spaces.

Neighbourhood K: consisting of 30 no. apartment units (25 no. two-bedroom units and 5 no. three-bedroom units), ancillary accommodation, including associated private balconies, ancillary childcare facility (c.1,003 sq. m) with associated play areas (c.727 sq. m), lobby (c.53 sq. m), post room (c.14 sq. m), ESB storage (c.13 sq. m), water storage (c.14 sq. m), refuse storage (c.28 sq. m), bike storage (c.132 sq. m), car park (c.702 sq. m) communal open space (c.200 sq. m), 38 no. surface and undercroft car parking spaces (30 no. residential and 8 no. visitor) and 92 no. cycle parking spaces, in addition to 22 no. car parking spaces for the creche.

Neighbourhood L: consisting of 35 units comprising 15 no. terraced housing units (11 no. 2 storey three-bedroom units and 4 no. 3 storey three-bedroom units), 20 no. maisonettes (18 no. 2 storey three-bedroom units and 2 no. single storey one-bedroom units), ancillary accommodation, including associated private balconies/terraces/rear gardens/winter gardens, communal open space (c.845 sq. m), 57 no. car parking spaces (50 no. residential and 7 no. visitor), 50 no. cycle parking spaces and an ESB substation (c.14 sq. m).

Neighbourhood M: consisting of 24 units comprising 12 no. terraced housing units (6 no. 2 storey three-bedroom units and 6 no. 3 storey three-bedroom units), 12 no. 2 storey three-bedroom maisonettes, ancillary accommodation, including associated balconies/terraces/rear gardens/winter gardens, communal open space (c.1,017 sq. m), 39 no. car parking spaces (36 no. residential and 3 no. visitor), 30 no. cycle parking spaces and an ESB substation (c.14 sq. m).

The proposed development also includes 2.247 ha of landscaped public open space which includes a civic plaza (0.513 ha), greenway spine (1.087 ha) and parklands (0.674 ha); solar PV Panels in various locations; and public

lighting. All associated site development works above and below ground including hard and soft landscaping, roads/footpaths/cycle paths, play areas, boundary treatments, SuDs, pumping station, EV charging points, green roofs, ESB substations and services to facilitate the development.

Planning permission is also sought for a second phase of the Ratoath Outer Relief Road (RORR) (c. 22,825 sq. m), that will run along the southern boundary of the application site and join up to the existing constructed section of the RORR. The section of the RORR proposed as part of this development runs from a new signalised junction on the R155, east for approximately 1100m, to the end of the site boundary. The proposed roadway will provide access for the site in the form of two priority controlled junctions. A series of pedestrian and cycle connections are provided to site from the Fairyhouse Road (R155), Glascarn Lane and the new RORR as well as a pedestrian link to Carraig Na Gabhna. The site provides permeability through its internal road and shared surface networks, including pedestrian and cycle paths (implementing a segregated pedestrian and cycle path proposed along the RORR) but also within the site. A greenway will be provided across the site that will connect the R155 Fairyhouse Road with Garraig Na Gabhna road and Glascarn Lane. This greenway will provide pedestrian/cyclist connection to the newly proposed pedestrian/cyclist infrastructure along the RORR. Planning permission is also sought for all associated site development and infrastructural works, services provision, foul and surface water drainage, an extension to the foul water network, surface water and watermain along the RORR required to facilitate the development, access roads/footpaths, lighting, landscaping and boundary treatments. The site context map, proposed site boundary and proposed site layout are seen in Figures 1-3.

Landscape

A Landscape Design Rationale was composed by BSM to outline the proposed landscape design for the development at Ratoath South. The report states that: *'Existing hedgerows are to be retained where possible and augmented where necessary. Necessary paths allowing easy pedestrian movement throughout the site are to be constructed with consideration for the tree roots protection zones where possible. Retained hedges to have 10m buffer zones to protect during the construction. Removed hedges are to be replaced in suitable locations.*

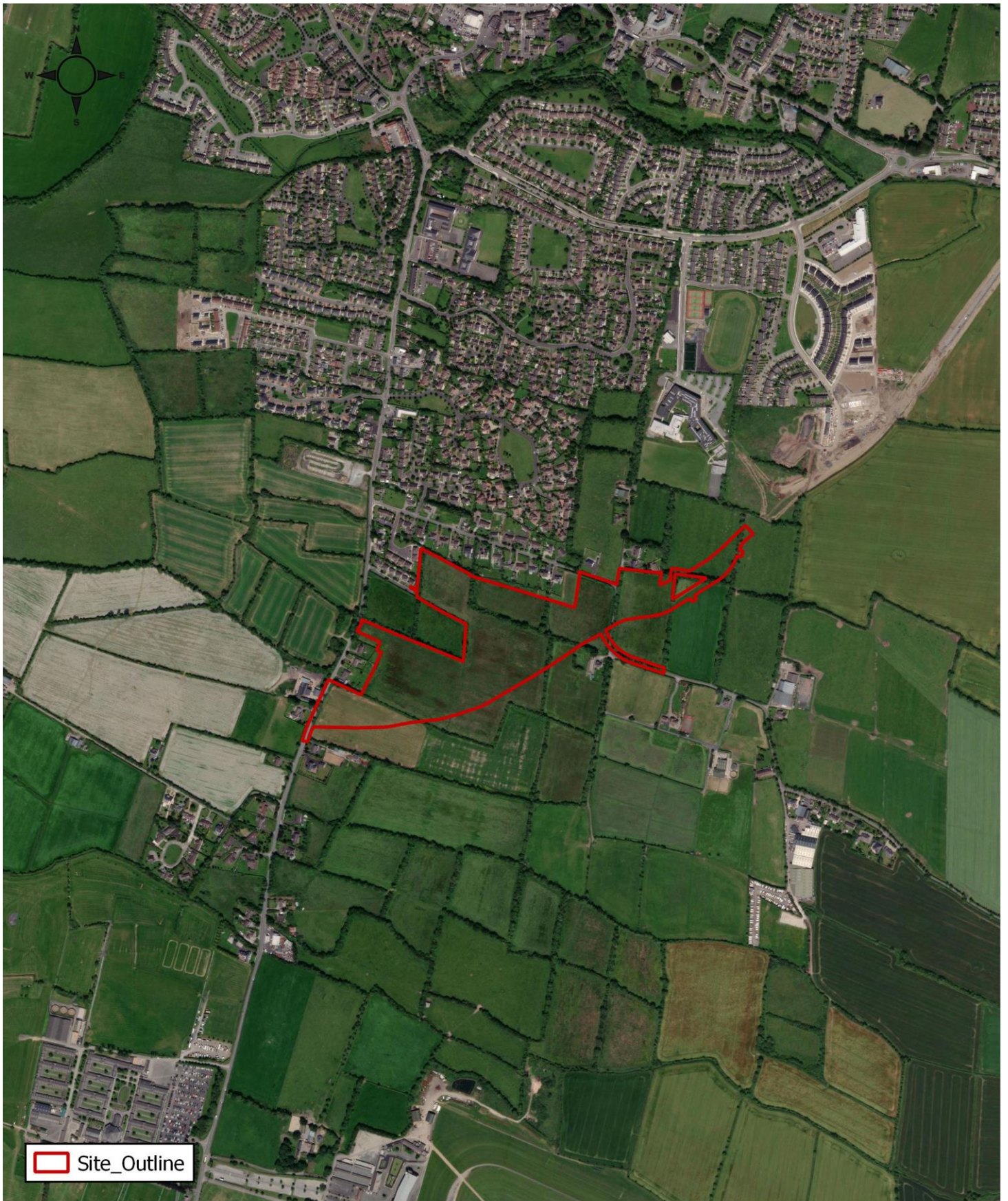
Existing hedgerows to the site boundary are to be retained and augmented where possible. Creating path 10m from the existing hedgerow allows for the buffer area and crated usable space for the habitants. Path with low level lighting and rear gardens entrances are creating safe spaces for the users.

Linear Park with existing hedgerow provides green corridor throughout the site.

Linear park provides:

- *Improved biodiversity*
- *Animals and insects migration routes*
- *Existing hedgerow retention*
- *Provides drainage though net of existing and proposed SUDs*
- *Provides open spaces*
- *adds privacy*
- *and reduces the hard surface.'*

The Proposed Landscape Masterplan is seen in Figure 4.



Project: Ratoath South
 Location: Ratoath, Co. Meath
 Date: 12th May 2022
 Drawn By: Bryan Deegan (Altamar)

ALTEMAR
 Marine & Environmental Consultancy



Figure 1. Site context



0 0.2 0.4 0.6 km

Project: Ratoath South
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 Marine & Environmental Consultancy

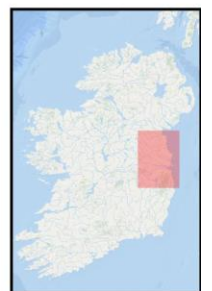


Figure 2. Proposed Site boundary

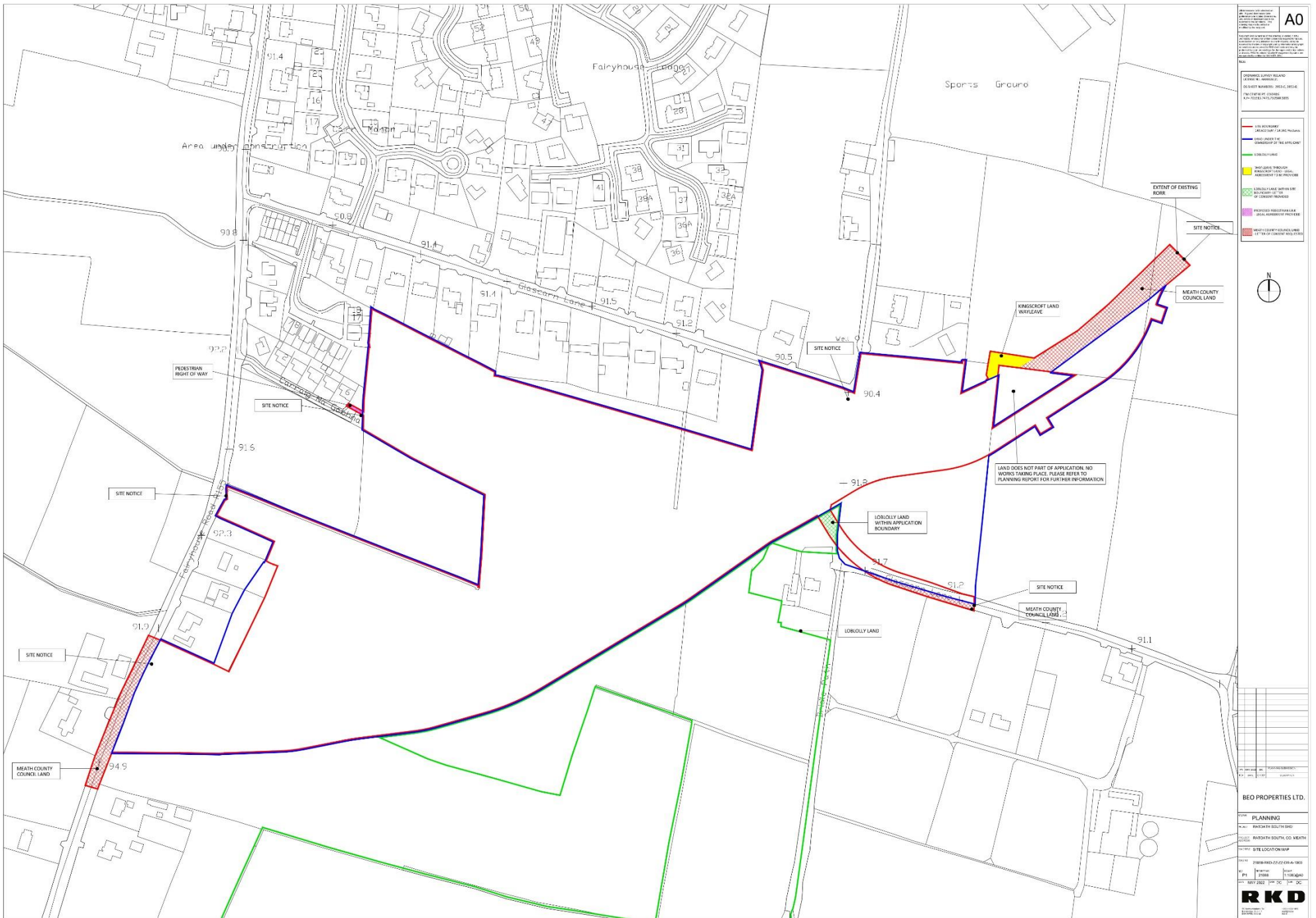


Figure 3. Proposed site layout



Figure 4. Proposed Landscape Masterplan

Drainage

An Engineering Services Report was composed by OCSC Consulting Engineers. The Engineering Services Report outlines the proposed drainage network for the development.

Surface Water Drainage

In relation to the existing surface water drainage, the report states that: *'The catchment area for the surface water network is 13.165 hectares which includes the subject development and an additional 2.18 hectares to the west.*

The site is split into 2, virtue of the existing surface water drain onsite. The northern catchment drains in a northerly direction.

The southern catchment drains naturally to the drainage ditch, which travels under the Fairyhouse Road where it then travels in a westerly direction towards the Bradystown Stream (see Figure 3-2).

While there is an existing drainage ditch onsite, the site is not located in an area which benefits from an OPW Arterial Scheme.

There is minimal surface water infrastructure in the vicinity of the proposed site. There is an existing drain which runs east west within the site boundary which drains the lands at present, see Figure 3-1.

There is a surface water network constructed as part of the Ratoath Outer Relief Road to the north-east of the proposed development, please see Figure 3-3. This network has been sized to accommodate greenfield runoff flows from upstream catchment, and discharges attenuated flows to adjacent stream via an attenuation pond.

There is minimal surface water infrastructure in the vicinity of the proposed site. There is an existing drain which runs east west within the site boundary which drains the lands at present, see Figure 3-1.

There is a surface water network constructed as part of the Ratoath Outer Relief Road to the north-east of the proposed development, please see Figure 3-3. This network has been sized to accommodate greenfield runoff flows from upstream catchment, and discharges attenuated flows to adjacent stream via an attenuation pond.'

In relation to the existing site rainfall runoff, the report states that: *'All surface water runoff on the existing site currently drains naturally to the drainage ditches onsite. Refer to Section 1.4 for overview details of the existing site topography.*

A site investigation was carried out by IGSL on the site in September 2020. Infiltration tests were attempted at 4 no locations across the site. There was no fall in water recorded during the tests.

The results of the investigation confirm the presence of glacial till or boulder clay deposits over the site area at depths of up to 10 m below ground level. Please refer to Appendix B for an extract of the site investigation.

Based on the site investigation, a Soil Type of 3 was selected to reflect the clays encountered.

Using the ICPSuDS Input (Flood Studies Report (FSR)) Method, the rainfall runoff discharging from the greenfield site area that is to be developed in its existing condition has been estimated at QBARRURAL = 54.67 l/s (3.56 l/s/ha) from the entire development, which includes for a portion of lands to the west of the red line boundary which has been included in the design of the surface water system for future development.

Refer to Appendix C for an excerpt of the results from the MicroDrainage Runoff Calculator, which also provides the calculated QBAR runoff rate along with the discharge rate for varying Annual Recurrence Intervals (ARI).

The southern catchment naturally drains to the existing surface water drain, and as such it is proposed to maintain this drainage route. The maximum attenuation entering the existing drain will be limited to 14.21 l/s (3.56 l/s/ha).

The remainder of the site (including the road) will drain to the existing surface water network to the north, and flows will be limited to 40.46 l/s (3.56 l/s/ha).'

In relation to the proposed surface water drainage strategy the report states that: *'It is proposed to separate the surface water and wastewater drainage networks, which will serve the proposed development, and independent connections to the existing surface water and wastewater sewer networks respectively. Refer to Section 4 for details of the proposed wastewater drainage design.*

It is proposed to provide an integrated SuDS network, to serve the proposed development, which will fall by gravity to discharge attenuated flow to the existing network to the north of the site as mentioned above.

A gravity surface water network will be provided throughout the proposed road layout, with the development's surface water runoff being attenuated to restrict the outfall flow rate to equivalent to the greenfield runoff.

Attenuation will be predominantly provided in the form of proprietary underground concrete tank prior to the outfall and at intermediary locations, in order to temporarily store excessive runoff volumes during significant rainfall events.

The attenuation in the central open space will comprise of a of detention basin and landscaped depressions with concrete storage tank below. Runoff from the more frequent events, up to and including the 1 in 30-year return period with a 10% increase in intensities to account for climate change is to be temporarily stored below ground. Less frequent events are to be temporarily stored within the detention basin.

A flow control chamber, immediately downstream of the attenuation systems will act to restrict the development's runoff to a flow rate equivalent to the existing networks.

The surface water has been designed to cater for the proposed development and an additional 2.18 ha to th west, see blue area in Figure 3-4.'

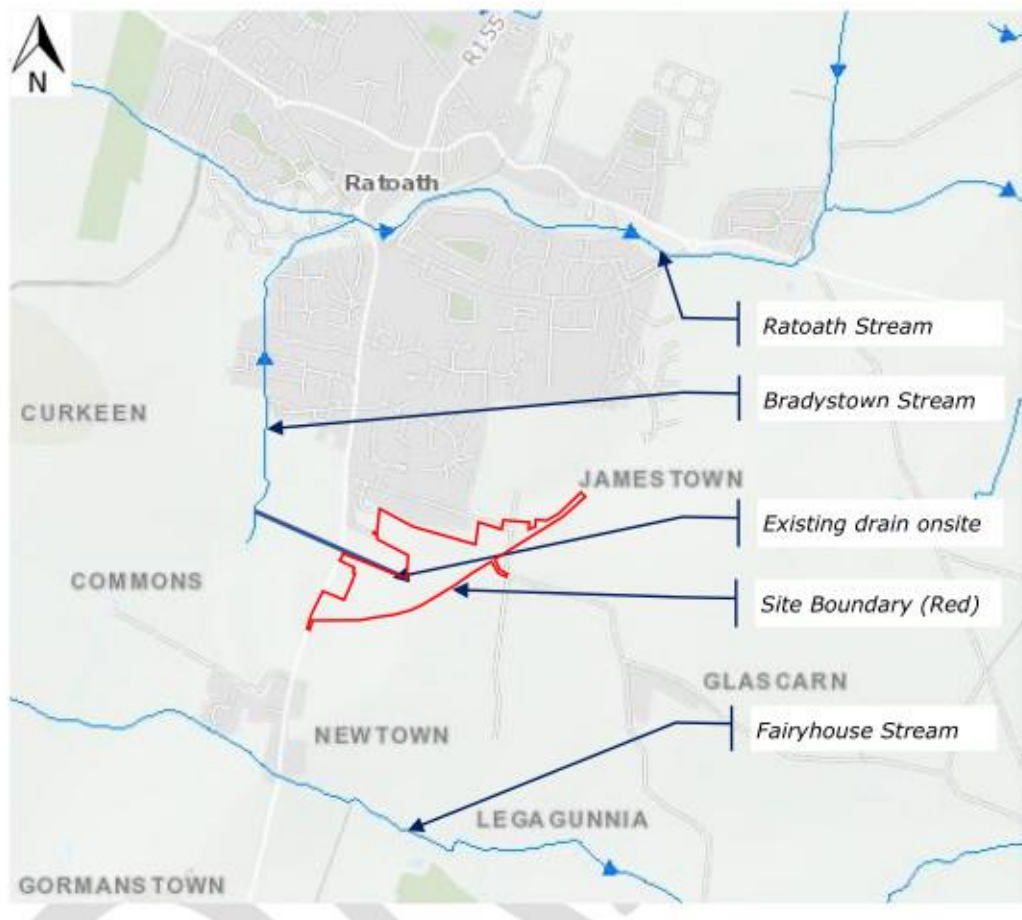


Figure 5. Existing surface water drainage (EPA Surface Water Map Viewer)

In relation to the surface water outfall locations, the report states that: *'There are 2 no. surface water outfalls proposed as part of the development, see Figure 3-4. The total discharge from the site to the existing surface water networks will be limited to 54.67 l/s (3.56 l/s/ha).*

Surface water from the south-west portion of the site will discharge to the existing surface water drain onsite with the discharge rate at the outfall location is to be restricted to a maximum flow rate of 14.2 l/s, which is the current greenfield equivalent runoff rate.

The remainder of the site will discharge attenuated flows to the existing surface water network on the Ratoath Outer Relief Road to the north-east. The discharge rate at the outfall location is to be restricted to a maximum flow rate of 40.46 l/s (3.56 l/s/ha), which is less than the current greenfield equivalent runoff rate (includes for Ratoath Outer Relief Road drainage).

The above is to ensure that there is no increase in flow rates and volumes, from the development site, being discharged to the receiving infrastructure and waterbodies; thus causing no adverse impact on adjoining and other downstream properties.'

Foul Water Drainage

In relation to the foul water drainage network the report states that: *'All proposed wastewater sewer design has been carried out in accordance with Irish Water's Code of Practice for Wastewater Infrastructure. The existing site is currently greenfield, with no wastewater discharge to the local wastewater infrastructure.*

A new wastewater connection, serving the proposed development, is to be provided to the wastewater infrastructure in the Ratoath Outer Relief Road. A Pre-Connection Enquiry Form (IW Ref No. CDS21005058) was submitted to Irish Water for the entire development. Irish Water records indicate that there is minimal existing wastewater infrastructure in the vicinity of the proposed development. There is an existing 300 mm sewer located in the Ratoath Outer Relief Road which has not been captured on the Irish Water GIS database, see Figure 4-1. A Pre-Connection Enquiry Form (IW Ref No. CDS21005058) was submitted to Irish Water for 600 no. domestic units. Irish Water have noted that a connection is feasible subject to the following:

"An approx. 300m network extension is required to connect to the new infrastructure installed as part of the new Ratoath Outer Relief Road, part of this extension is through third party lands, it is the applicants responsibility to obtain the relevant permissions before construction of these works."

Furthermore, the report states that: *'It is proposed to separate the wastewater and surface water drainage networks, which will serve the proposed development, and provide independent connections to the local public foul and surface water sewers respectively. Please refer to Section 3 for details of the proposed surface water drainage design strategy.*

The wastewater from each unit is to connect to the new gravity pipe network within the development, which has been designed in accordance with the Irish Code of Practice for Wastewater Infrastructure. The proposed wastewater design network, which will serve the proposed development and drain by gravity to an existing wastewater network on Ratoath Outer Relief Road.

The proposed wastewater network is to be designed and constructed in accordance with Irish Water Code of Practice for Wastewater Infrastructure, will be discharge through a gravity sewer from a constructed discharge manhole, at a location to be agreed with Irish Water.'

The completion of the Ashbourne/Ratoath/Kilbride Sewerage Scheme Stage 2 in 2010 has provided a modern and efficient wastewater and collection system for Ratoath. Wastewater from Ratoath is discharged to the Greater Dublin Drainage network where it flows to the Regional Wastewater Treatment Plant at Ringsend.

It is considered that adequate Wastewater capacity exists to facilitate the development and growth provided for Ratoath in County Development Plan². The proposed drainage layout is displayed in Figures 6-9.

² [Ratoath | Meath County Council Online Consultation Portal](#)

Flood Risk Assessment

A Site-Specific Flood Risk Assessment has been carried out by OCSC for the proposed development. In conclusion, the report states that: *'The assessment is carried out in full compliance with the requirements of "The Planning System & Flood Risk Management Guidelines" published by the Department of the Environment, Heritage and Local Government in November 2009.*

From the information reviewed, it is considered that the site of the proposed development is not within the 1 in 100 and 1 in 1000-year flood extents.

The site is located in Flood Zone C as outlined in the Meath County Development plan and, as such, the proposed residential development is considered appropriate.'

Noise and Dust

A Construction and Environmental Management Plan was composed by OCSC. The report states that: *'Measures will be implemented to minimise the impact of noise emissions at sensitive locations during the construction phase. Such measures will include the following:*

- *Construction contractors will be required to comply with the requirements of the European Communities (Construction Plant and Equipment) (Permissible Noise Levels) Regulations and the Safety, Health and Welfare at Work (Control of Noise at Work) Regulations;*
- *All plant items used during the construction phase should comply with standards outlined in the 'Safety, Health and Welfare at Work (Control of Noise at Work) Regulations' and the 'European Communities (Construction Plant and Equipment) (Permissible Noise Levels) Regulations'. Reference will be made to BS 5228: Part 1: 2009 (Noise Control on Construction and Open Sites - Part 1. Code of Practice for Basic Information and Procedures for Noise Control) and will include the following mitigation measures:*
 - *Training of site staff in the proper use and maintenance of tools and equipment;*
 - *The positioning of machinery on site to reduce the emission of noise and to site personnel;*
 - *Sources of significant noise will be enclosed where practicable;*
 - *Machines that could be in intermittent use will be shut down between work periods or will be throttled down to a minimum;*
 - *Plant known to emit noise strongly in one direction will, when possible, be orientated so that the noise is directed away from noise sensitive areas; and*
 - *Plant and/or methods of work causing significant levels of vibration at sensitive premises will be replaced by other less intrusive plant and/or methods of working where practicable.*
- *Inherently quiet plant will be selected where appropriate;*
- *Screening and enclosures will be utilised in areas where construction works are continuing in one area for a long period of time or around items such as generators or high duty compressors. For maximum effectiveness, a screen will be positioned as close as possible to either the noise source or receiver. The screen will be constructed of material with a mass of >7kg/m² and should have no gaps or joints in the barrier material. This can be used to limit noise impact to any noise sensitive receptors;*
- *Operators of all mobile equipment will be instructed to avoid unnecessary revving of machinery and mobile equipment will be throttled down or switched off when not in use;*
- *Accordingly, where possible all construction traffic to be used on site will have effective well- maintained silencers; and*
- *All mobile plant will be maintained to a high standard to reduce any tonal or impulsive sounds.'*

- *Mitigation measures will also be implemented on site in relation to dust control: 'Vehicles exiting site will use a wheelwash to ensure dust emissions are not generated from tyres. It will also prevent vehicles from carrying excess material onto public roads;*
- *Site roads shall be regularly cleaned and maintained as appropriate;*
- *Hard surface roads shall be swept to remove mud and aggregate materials from their surface as a result of the development works;*
- *Any un-surfaced roads shall be restricted to essential site traffic only;*
- *Any road that has the potential to give rise to fugitive dust may be regularly watered, as appropriate, during extended dry and/or windy conditions;*
- *On-site speed limits will be stipulated to prevent unnecessary generation of fugitive dust emissions;*
- *Material handling systems and site stockpiling of materials shall be designed and laid out to minimise exposure to wind;*
- *A complaints register will be maintained on-site and any complaints relating to dust emissions will be immediately dealt with;*
- *In periods of dry weather when dust emissions would be greatest, a road sweeper, which would also dampen the road, will be employed in order to prevent the generation of dust;*
- *Water misting or sprays shall be used as required if particularly dusty activities are necessary during dry or windy periods; and*
- *If appropriate, dust monitoring will be carried out during the construction phase of the scheme. If the level of dust is found to exceed 350mg/m²/day in the vicinity of the site, further mitigation measures will be incorporated into the construction of the proposed scheme.'*



Figure 6. Drainage Layout (Sheet 1 of 4)



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PROPOSED ATTENUATION TO TEMPORARILY STORE RAINFALL UP TO AND INCLUDING 1 IN 100 YEAR EVENT (INCLUDING 20% INCREASE FOR CLIMATE CHANGE).
PROPOSED CONCRETE TANK. RAINFALL UP TO AND INCLUDING 1 IN 30 YEAR TO BE STORED BELOW GROUND. 62m³ TO BE PROVIDED BELOW GROUND RAINFALL FROM VENET'S EXCESS OF 1 IN 30 YEAR UP TO AND INCLUDING 1 IN 100 YEAR (INCLUDING 20% INCREASE FOR CLIMATE CHANGE TO BE STORED IN LANDSCAPED DETENTION BASIN AT GROUND LEVEL. DESIGN TO BE COORDINATED WITH LANDSCAPE ARCHITECT'S DETAILS

PROPOSED FLOW CONTROL CHAMBER WITH PENSTOCK AT INLET.
HYDROBRAKE OR SIMILAR APPROVED DESIGN HEAD = 1.95 m
MAXIMUM FLOW RATE = 19 US

PROPOSED MANHOLE TO BE FITTED WITH 600mm DEEP SILT TRAP

PROPOSED FLOW CONTROL CHAMBER WITH PENSTOCK AT INLET.
HYDROBRAKE OR SIMILAR APPROVED DESIGN HEAD = 1.800m
MAXIMUM FLOW RATE = 25.5 US

PROPOSED CONCRETE TANK.
BED LEVEL: 87.970 MADD
AREA: 300 m²
DEPTH: 1.8 m
STORAGE VOLUME: 630 m³

PROPOSED MANHOLE TO BE FITTED WITH 600mm DEEP SILT TRAP

- LEGEND:**
- PROPOSED SURFACE DRAINAGE (UPVC TWINWALL OR SIMILAR APPROVED)
 - PROPOSED FILTER DRAIN, PERFORATED UPVC TWINWALL OR SIMILAR APPROVED
 - PROPOSED SURFACE DRAINAGE MANHOLE
 - PROPOSED CONCRETE ATTENUATION TANK
 - PROPOSED PERVIOUS PAVING
 - PROPOSED OIL/PETROL SEPARATOR
 - PROPOSED WASTEWATER DRAINAGE (UPVC SWS OR SIMILAR APPROVED)
 - PROPOSED WASTEWATER DRAINAGE MANHOLE
 - EXISTING SURFACE WATER DRAINAGE (FROM TOPO SURVEY RECORDS)
 - EXISTING SURFACE WATER DRAINAGE MANHOLE (FROM TOPO SURVEY RECORDS)
 - EXISTING WASTEWATER DRAINAGE (FROM TOPO SURVEY RECORDS)
 - EXISTING WASTEWATER DRAINAGE MANHOLE (FROM TOPO SURVEY RECORDS)
 - PROPOSED PERVIOUS PAVING
 - DEFENTION BASIN TOP OF SLOPE
 - DEFENTION BASIN BOTTOM OF SLOPE

- NOTES**
1. ALL NOTED LEVELS ARE TO ORDNANCE DATUM, MAIN HEAD.
 2. REFER TO ARCHITECT'S LAYOUT FOR ALL SET OUT INFORMATION.
 3. REFER TO ARCHITECT / LANDSCAPE ARCHITECT'S DESIGN DRAWINGS FOR DETAILS OF PROPOSED SURFACE FINISHES AND LANDSCAPING.
 4. ALL SURFACE WATER DRAINAGE IS TO BE INSTALLED IN ACCORDANCE WITH THE GREATER DUBLIN REGION CODE OF PRACTICE FOR DRAINAGE WORKS, THE BUILDING REGULATIONS PART H AND THE SITE DEVELOPMENT SPECIFICATION.
 5. ALL WASTEWATER DRAINAGE IS TO BE INSTALLED IN ACCORDANCE WITH THE IRISH WATER CODE OF PRACTICE FOR WASTEWATER INFRASTRUCTURE, THE BUILDING REGULATIONS PART H AND THE SITE DEVELOPMENT SPECIFICATION.
 6. ALL DRAINAGE COVER LEVELS ARE TO BE COORDINATED WITH THE PROPOSED ROAD SIDEWALK LEVELS AND ARCHITECT DESIGN FINISH DETAILS.
 7. ALL CONNECTIONS TO NEW DRAINAGE NETWORKS ARE TO BE MADE AT AN ANGLE OF 90 DEGREES TO THE DIRECTION OF FLOW.
 8. THE CONTRACTOR IS TO VERIFY INVERT LEVEL AT PROPOSED CONNECTION TO EXISTING SLEEVES, PRIOR TO ANY OTHER WORKS BEING CARRIED OUT, AND MAKE ANY DISCREPANCIES KNOWN TO THE ENGINEER.
 9. THE CONTRACTOR IS RESPONSIBLE FOR CONFIRMATION OF PRESENCE ALL EXISTING UTILITIES, IF ANY, ALONG ROUTE OF PROPOSED DRAINAGE NETWORKS, BY IN TRENCH INVESTIGATION OR GEAU.
 10. EXISTING PUBLIC SEWER TO BE JET CLEANED AND CCTV SURVEYED PRIOR TO, AND AFTER PROPOSED CONNECTIONS FROM NEW NETWORK.
 11. ALL NEW DRAINAGE INFRASTRUCTURE TO BE JET CLEANED AND CCTV SURVEYED, WITH ANY NOTED DEFECTS REMEDIATED, ON COMPLETION OF WORKS, TO THE SATISFACTION OF THE LOCAL AUTHORITY.
 12. REFER TO ARCHITECT'S DRAWINGS FOR DETAILS OF PRIVATE DRAINAGE.
 13. ALL COVER LEVELS ARE TO BE COORDINATED WITH ROAD DESIGN LEVELS AND LANDSCAPE ARCHITECT'S PROPOSED FINISH LEVELS.

- FOR SETTING OUT REFER TO ARCHITECT'S DRAWINGS
- THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL OTHER ARCHITECTURAL AND ENGINEERING DRAWINGS AND ALL OTHER RELEVANT DRAWINGS AND SPECIFICATIONS
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|---------|----------|-----------------------------|--------|---------|---------|------|---------------|--------|---------|
| P01 | 23/07/21 | SUITABLE FOR INFORMATION | RM | DR | | | | | |
| P02 | 17/09/21 | SUITABLE FOR INFORMATION | RM | DR | | | | | |
| P03 | 04/10/21 | SUITABLE FOR STAGE APPROVAL | RM | DR | | | | | |
| P04 | 22/10/21 | SUITABLE FOR STAGE APPROVAL | RM | DR | | | | | |
| P05 | 25/04/22 | SUITABLE FOR STAGE APPROVAL | ZB | MK | | | | | |

Head Office,
9 Prussia Street,
Dublin 7,
D07 KTS7

TEL +353 (0)1 8682000
e: contactus@ocsc.ie
w: www.ocsc.ie

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Client: **BEO PROPERTIES LIMITED**
RATOATH SOUTH SHD

Title: **PROPOSED DRAINAGE LAYOUT**
SHEET 2 OF 4

| | | | | | | | | |
|---------------------------|------------|------|-------|------|------|--------|--------|----------|
| Code | Originator | Zone | Level | Type | Role | Number | Status | Revision |
| L308-OCSC-XX-XX-DR-C-0502 | S4 | | | | | | | P05 |

Date: NOV'20 Scale: 1:500 @ A1 Dwn by: RM Chkd by: DR Apvd by: AH

Figure 7. Drainage Layout (Sheet 2 of 4)



PROPOSED FLOW CONTROL CHAMBER WITH FENESTRATION INLET HYDROBRAKE OR SIMILAR APPROVED DESIGN HEAD = 1.20 m MAXIMUM FLOW RATE = 3 l/s

LEGEND:

| | |
|--|--|
| PROPOSED SURFACE DRAINAGE (UPVC TWINWALL OR SIMILAR APPROVED) | |
| PROPOSED FILTER DRAIN (PERFORATED UPVC TWINWALL OR SIMILAR APPROVED) | |
| PROPOSED SURFACE DRAINAGE MANHOLE | |
| PROPOSED CONCRETE ATTENUATION TANK | |
| PROPOSED PERVIOUS PAVING | |
| PROPOSED OIL/PETROL SEPARATOR | |
| PROPOSED WASTEWATER DRAINAGE (UPVC SNB OR SIMILAR APPROVED) | |
| PROPOSED WASTEWATER DRAINAGE MANHOLE | |
| EXISTING SURFACE WATER DRAINAGE (FROM TOPO SURVEY RECORDS) | |
| EXISTING SURFACE WATER DRAINAGE MANHOLE (FROM TOPO SURVEY RECORDS) | |
| EXISTING WASTEWATER DRAINAGE (FROM TOPO SURVEY RECORDS) | |
| EXISTING WASTEWATER DRAINAGE MANHOLE (FROM TOPO SURVEY RECORDS) | |
| PROPOSED PERVIOUS PAVING | |
| RETENTION BASIN TOP OF SLOPE | |
| RETENTION BASIN BOTTOM OF SLOPE | |

- NOTES**
- ALL NOTED LEVELS ARE TO ORDNANCE DATUM, MAIN HEAD.
 - REFER TO ARCHITECT'S LAYOUT FOR ALL SET-OUT INFORMATION.
 - REFER TO ARCHITECT / LANDSCAPE ARCHITECT'S DESIGN DRAWINGS FOR DETAILS OF PROPOSED SURFACE FINISHES AND LANDSCAPING.
 - ALL SURFACE WATER DRAINAGE IS TO BE INSTALLED IN ACCORDANCE WITH THE GREATER DUBLIN REGION CODE OF PRACTICE FOR DRAINAGE WORKS, THE BUILDING REGULATIONS PART H AND THE SITE DEVELOPMENT SPECIFICATION.
 - ALL WASTEWATER DRAINAGE IS TO BE INSTALLED IN ACCORDANCE WITH THE IRISH WATER CODE OF PRACTICE FOR WASTEWATER INFRASTRUCTURE, THE BUILDING REGULATIONS PART H AND THE SITE DEVELOPMENT SPECIFICATION.
 - ALL DRAINAGE COVER LEVELS ARE TO BE COORDINATED WITH THE PROPOSED ROAD DESIGN LEVELS AND ARCHITECT DESIGN FINISH DETAILS.
 - ALL CONNECTIONS TO NEW DRAINAGE NETWORKS ARE TO BE MADE AT AN ANGLE OF 90° OR IN THE DIRECTION OF FLOW.
 - THE CONTRACTOR IS TO VERIFY INVERT LEVEL AT PROPOSED CONNECTION TO EXISTING SEWERS, PRIOR TO ANY OTHER WORKS BEING CARRIED OUT, AND MAKE ANY DISCREPANCIES KNOWN TO THE ENGINEER.
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 - EXISTING PUBLIC SEWER TO BE JET CLEANED AND CCTV SURVEYED PRIOR TO, AND AFTER PROPOSED CONNECTIONS FROM NEW NETWORK.
 - ALL NEW DRAINAGE INFRASTRUCTURE TO BE JET CLEANED AND CCTV SURVEYED, WITH ANY NOTED DEFECTS REMEDIATED, ON COMPLETION OF WORKS, TO THE SATISFACTION OF THE LOCAL AUTHORITY.
 - REFER TO ARCHITECT'S DRAWINGS FOR DETAILS OF PRIVATE DRAINAGE.
 - ALL COVER LEVELS ARE TO BE COORDINATED WITH ROAD DESIGN LEVELS AND LANDSCAPE ARCHITECT'S PROPOSED FINISH LEVELS.



DRAINAGE PIPES AND MANHOLES SCHEDULE PROVIDED ON THE DRAWING L305-OCSC-XX-XX-DR-C-0505

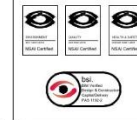
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| P05 | 25/04/22 | SUITABLE FOR STAGE APPROVAL | ZB | MK |

| Rev No. | Date | Revision Note | Drn by | Chkd by |
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| | | | | |
| | | | | |



Head Office,
9 Phyllis Street,
Dublin 7,
D07 KT57

TEL +353 (0)1 8682000

e: contactus@ocsc.ie
w: www.ocsc.ie

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|---|--|
| Client: | BEO PROPERTIES LIMITED |
| Project: | RATOATH SOUTH SHD |
| Title: | PROPOSED DRAINAGE LAYOUT SHEET 3 OF 4 |
| Code Originator Zone Level Type Role Number Status Revision | L30B-OCSC-XX-XX-DR-C-0503-S4-P05 |
| Date: | NOV 20 Scale: 1:500 @ A1 Drn by: RM Chkd by: DR Aprvd by: AH |

Figure 8. Drainage Layout (Sheet 3 of 4)

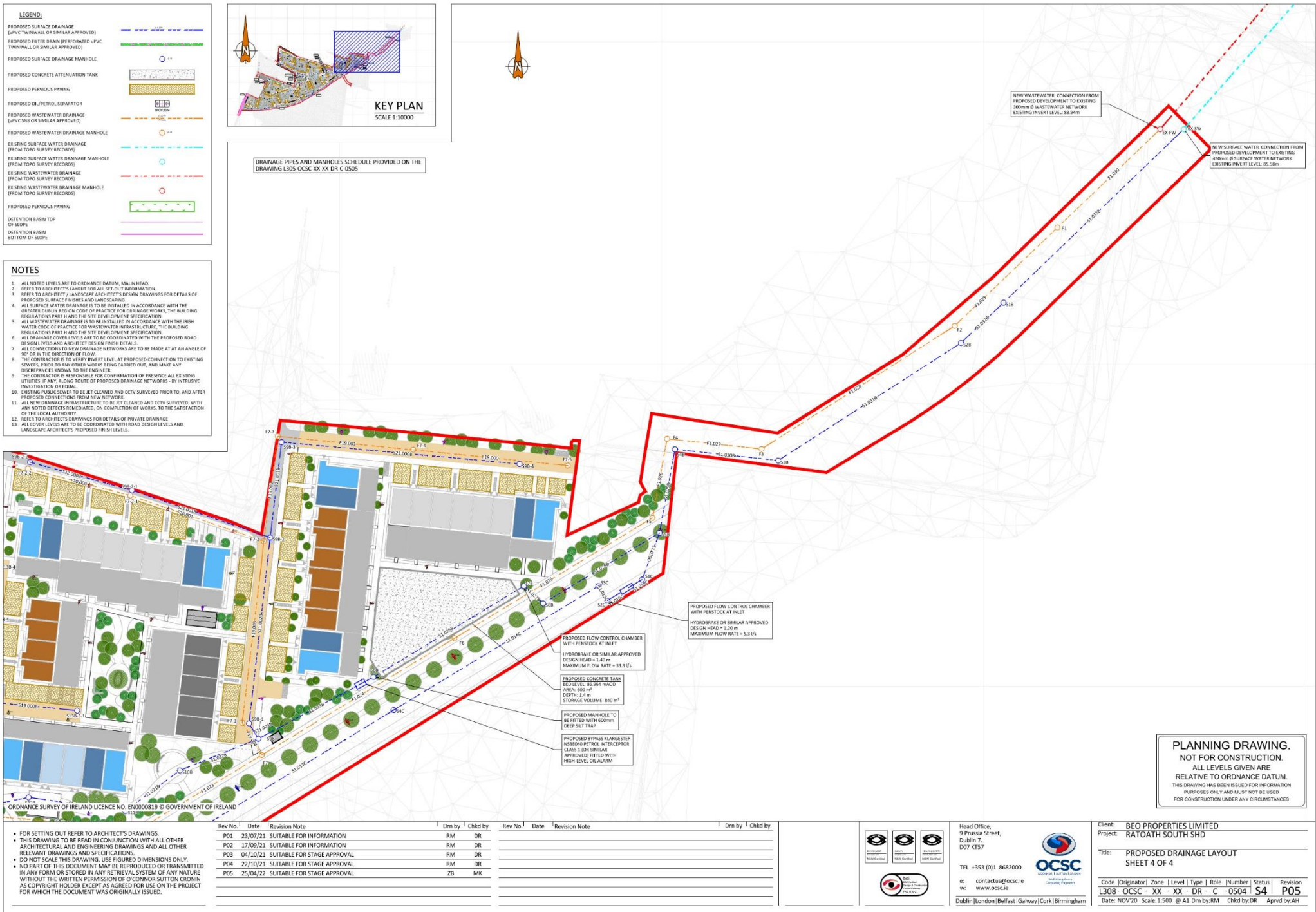


Figure 9. Drainage Layout (Sheet 4 of 4)

Identification of Relevant European Sites

The proposed development site is not within a European site. No European sites are within the potential Zone of Influence (Zoi). As outlined in Office of the Planning Regulator (2021) *“The zone of influence of a proposed development is the geographical area over which it could affect the receiving environment in a way that could have significant effects on the Qualifying Interests of a European site. This should be established on a case-by-case basis using the Source- Pathway-Receptor framework and not by arbitrary distances (such as 15 km).”*

A key factor in the consideration as to whether or not a particular European site is likely to be affected by the proposed development is its distance from the development location. It is generally, but not necessarily, the case that the greater the distance from the plan or project the smaller the likelihood of impacts. In this case, the nearest European site to the proposed development is 12.8 km away (Rye Water Valley Carton SAC) (Figure 10). There is no direct or indirect hydrological pathway or biodiversity corridor from the proposed development site to this SAC. The potential impacts from the proposed development on the European sites at Malahide Estuary (Malahide Estuary SAC and Malahide Estuary SPA) were considered as there is an indirect pathway via the surface water network (Figure 14). Although the European sites at Malahide Estuary (SAC and SPA) are greater than 15 km from the proposed development site (16.6 km and 16.9 km respectively), the potential impact on these sites are detailed in Table 2, due to the indirect pathway.

The Ratoath Stream and the Fairyhouse Stream are approximately 303 m and 415 m respectively from the proposed development site. Surface water from the south-west portion of the site will drain naturally to the drainage ditch, which travels under the Fairyhouse Road where it then travels in a westerly direction towards the Bradystown Stream, which ultimately connects to the Ratoath Stream and the Broadmeadow Stream. The Broadmeadow Stream outfalls to Malahide Estuary. The remainder of the site will discharge attenuated flows to the existing surface water network on the Ratoath Outer Relief Road to the north-east.

The proposed development site is not located within any European sites. European sites within 15 km of the proposed development site are seen in Figures 9-11. Watercourse proximate to the proposed development are seen in Figure 12. Potential pathways from the proposed development site to European sites are seen in Figure 13-14. The proximity to European sites is displayed in Table 1 and the potential impact on these sites are seen in Table 2.

Table 1. Proximity to designated sites of conservation importance

| Site | Distance | Direct pathway |
|-------------------------------|----------|----------------|
| Special Areas of Conservation | | |
| Rye Water Valley Carton SAC | 12.8 km | No |
| Malahide Estuary SAC | 16.6 km | No |
| Special Protected Areas | | |
| Malahide Estuary SPA | 16.9 km | No |

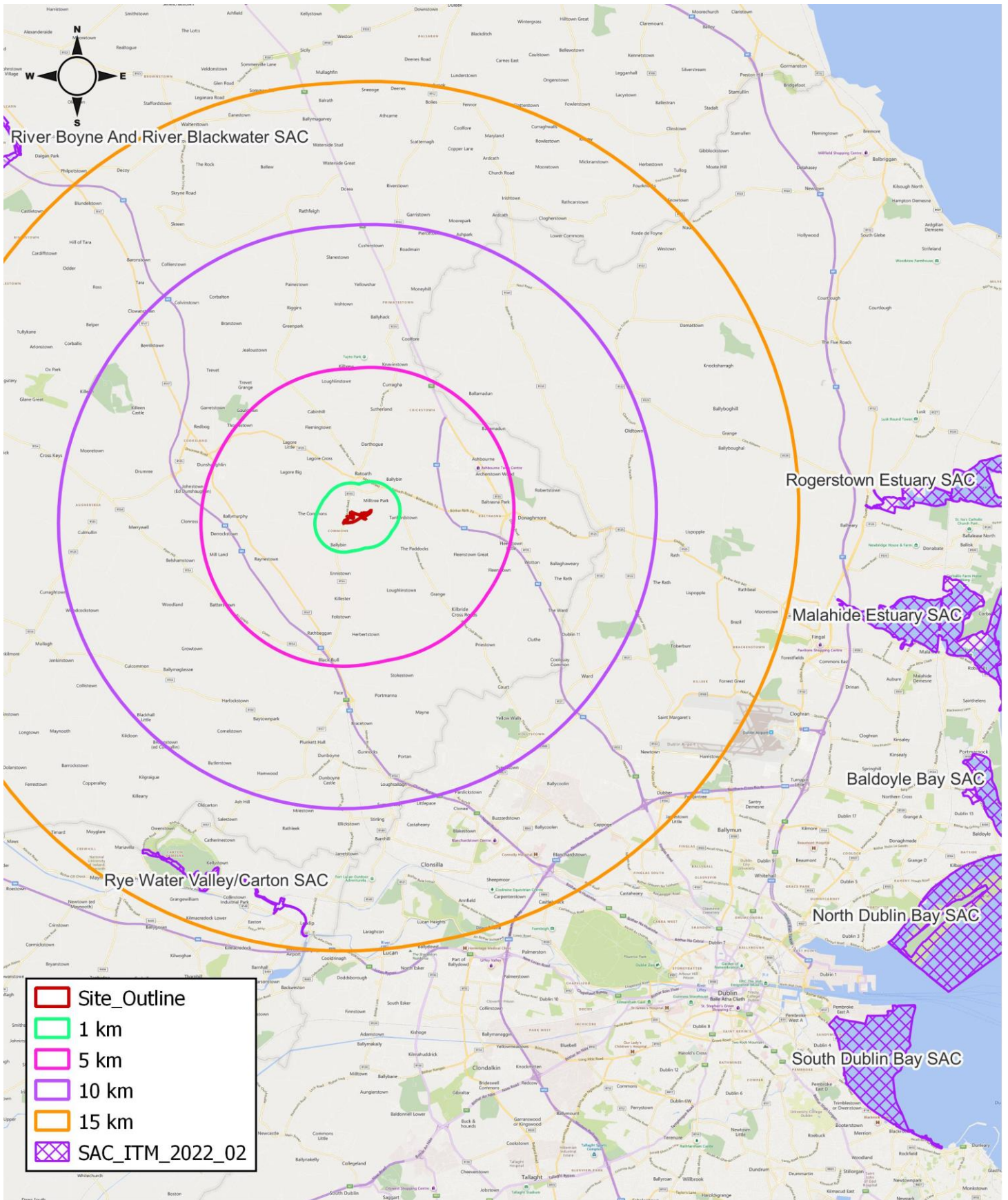
Table 2. Initial screening of European sites within 15km and European sites within 15km with potential of hydrological connection to the proposed development

| European Site Code | Name | Screened IN/OUT | Details/Reason |
|--------------------------------------|------------------------------|-----------------|---|
| Special Areas of Conservation | | | |
| IE001398 | Rye Water Valley/ Carton SAC | OUT | <p>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.</p> <p>Features of Interest 1014 Narrow-mouthed Whorl Snail <i>Vertigo angustior</i> 1016 Desmoulin's Whorl Snail <i>Vertigo moulinsiana</i> 7220 Petrifying springs with tufa formation (Cratoneurion)*</p> <p>Potential Impact The proposed development site is located approximately 12.8 km from the Rye Water Valley/Carton SAC (Figure 10). There is no direct or indirect pathway from the proposed development site to this SAC. Foul water from the proposed development site will connect to the new gravity pipe network within the development, which has been designed in accordance with the Irish Code of Practice for Wastewater Infrastructure. The proposed wastewater design network will serve the proposed development and drain by gravity to an existing wastewater network on Ratoath Outer Relief Road. The foul water from the site will then be treated at Ringsend Wastewater Treatment Plant. Surface water from the south-west portion of the site will drain naturally to the drainage ditch, which travels under the Fairyhouse Road where it then travels in a westerly direction towards the Bradystown Stream, which ultimately connects to the Ratoath Stream and the Broadmeadow Stream. The remainder of the site will discharge attenuated flows to the existing surface water network on the Ratoath Outer Relief Road to the north-east.</p> <p>There is no direct or indirect hydrological connection from the proposed development to the Rye Water Valley/Carton SAC. The construction and operation of the proposed development site will not have a significant effect on the conservation objectives of the features of interest of this SAC.</p> <p>No significant effects are likely.</p> |

| European Site Code | Name | Screened IN/OUT | Details/Reason |
|--------------------|----------------------|-----------------|---|
| IE000205 | Malahide Estuary SAC | OUT | <p>Conservation Objectives</p> <p>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.</p> <p>Features of Interest</p> <p>1140 Mudflats and sandflats not covered by seawater at low tide 1310 Salicornia and other annuals colonising mud and sand 1320 <i>Spartina</i> swards (<i>Spartinion maritimae</i>) 1330 Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) 1410 Mediterranean salt meadows (<i>Juncetalia maritimi</i>) 2120 Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) 2130 Fixed coastal dunes with herbaceous vegetation (grey dunes)*</p> <p>Potential Impact</p> <p>The proposed development site is located approximately 16.6 km from the Malahide Estuary SAC (Figure 10). There is no direct pathway from the proposed development site to this SAC. Foul water from the proposed development site will connect to the new gravity pipe network within the development, which has been designed in accordance with the Irish Code of Practice for Wastewater Infrastructure. The proposed wastewater design network will serve the proposed development and drain by gravity to an existing wastewater network on Ratoath Outer Relief Road. The foul water from the site will then be treated at Ringsend Wastewater Treatment Plant.</p> <p>Surface water from the south-west portion of the site will drain naturally to the drainage ditch, which travels under the Fairyhouse Road where it then travels in a westerly direction towards the Bradystown Stream, which ultimately connects to the Ratoath Stream and the Broadmeadow Stream. This stream ultimately outfalls to the Malahide Estuary SAC. There is, therefore, an indirect pathway from the proposed development site to this SAC via vegetated drainage ditches which lead to watercourses. However, given the distance (16.6 km) from the proposed development site to this SAC and the fact that settlement will occur within the drainage ditches and watercourses over the significant intervening distance. It should also be noted that the hedgerow associated with this drainage ditch is to be retained and there is a landscaped area between this drainage ditch and the development. It is expected that in the absence of mitigation any pollutants, dust or silt laden run off that enters the surface water, will settle primarily within the drainage ditch and then be diluted, settle or dispersed to negligible levels prior to reaching this SAC.</p> <p>The construction and operation of the proposed development will not have a significant effect on the conservation objectives of the features of interest of this SAC.</p> <p>No significant effects are likely.</p> |

| European Site Code | Name | Screened IN/OUT | Details/Reason |
|--------------------------------|----------------------|-----------------|--|
| Special Protected Areas | | | |
| IE000205 | Malahide Estuary SPA | OUT | <p>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.</p> <p>Features of Interest A005 Great Crested Grebe <i>Podiceps cristatus</i> A046 Brent Goose <i>Branta bernicla hrota</i> A048 Shelduck <i>Tadorna tadorna</i> A054 Pintail <i>Anas acuta</i> A067 Goldeneye <i>Bucephala clangula</i> A069 Red-breasted Merganser <i>Mergus serrator</i> A130 Oystercatcher <i>Haematopus ostralegus</i> A140 Golden Plover <i>Pluvialis apricaria</i> A141 Grey Plover <i>Pluvialis squatarola</i> A143 Knot <i>Calidris canutus</i> A149 Dunlin <i>Calidris alpina alpina</i> A156 Black-tailed Godwit <i>Limosa limosa</i> A157 Bar-tailed Godwit <i>Limosa lapponica</i> A162 Redshank <i>Tringa totanus</i> A999 Wetlands</p> <p>Potential Impact The proposed development site is located approximately 16.9 km from the Malahide Estuary SPA (Figure 11). There is no direct pathway from the proposed development site to this SPA. Foul water from the proposed development site will connect to the new gravity pipe network within the development, which has been designed in accordance with the Irish Code of Practice for Wastewater Infrastructure. The proposed wastewater design network will serve the proposed development and drain by gravity to an existing wastewater network on Ratoath Outer Relief Road. The foul water from the site will then be treated at Ringsend Wastewater Treatment Plant.</p> <p>Surface water from the south-west portion of the site will drain naturally to the drainage ditch, which travels under the Fairyhouse Road where it then travels in a westerly direction towards the Bradystown Stream, which ultimately connects to the Ratoath Stream and the Broadmeadow Stream. This stream ultimately outfalls to the Malahide Estuary SPA. There is, therefore, an indirect pathway from the proposed development site to this SPA via vegetated drainage ditches which lead to watercourses. However, given the distance (16.9 km) from the proposed development site to this SPA and the fact that settlement will occur within the drainage ditches and watercourses over the significant intervening distance. It should also be noted that the hedgerow associated with this drainage ditch is to be retained and there is a landscaped area between this drainage ditch and the development. It is expected that in the absence of mitigation any pollutants, dust or silt laden run off that enters the surface water, will settle primarily within the drainage ditch and then</p> |

| European Site Code | Name | Screened IN/OUT | Details/Reason |
|--------------------|------|-----------------|---|
| | | | <p>be diluted, settle or dispersed to negligible levels prior to reaching this SPA.</p> <p>Noise pollution generated during the construction or operation of the proposed development will be localised to the immediate site and would have not have a significant effect on the conservation objectives of this SPA. The construction and operation of the proposed development will not have a significant effect on the conservation objectives of the features of interest of this SPA.</p> <p>No significant effects are likely.</p> |



0 6 12 18 km

Project: Ratoath South
 Location: Ratoath, Co. Meath
 Date: 12th May 2022
 Drawn By: Bryan Deegan (Altamar)

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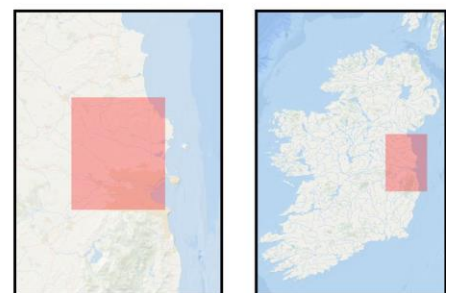
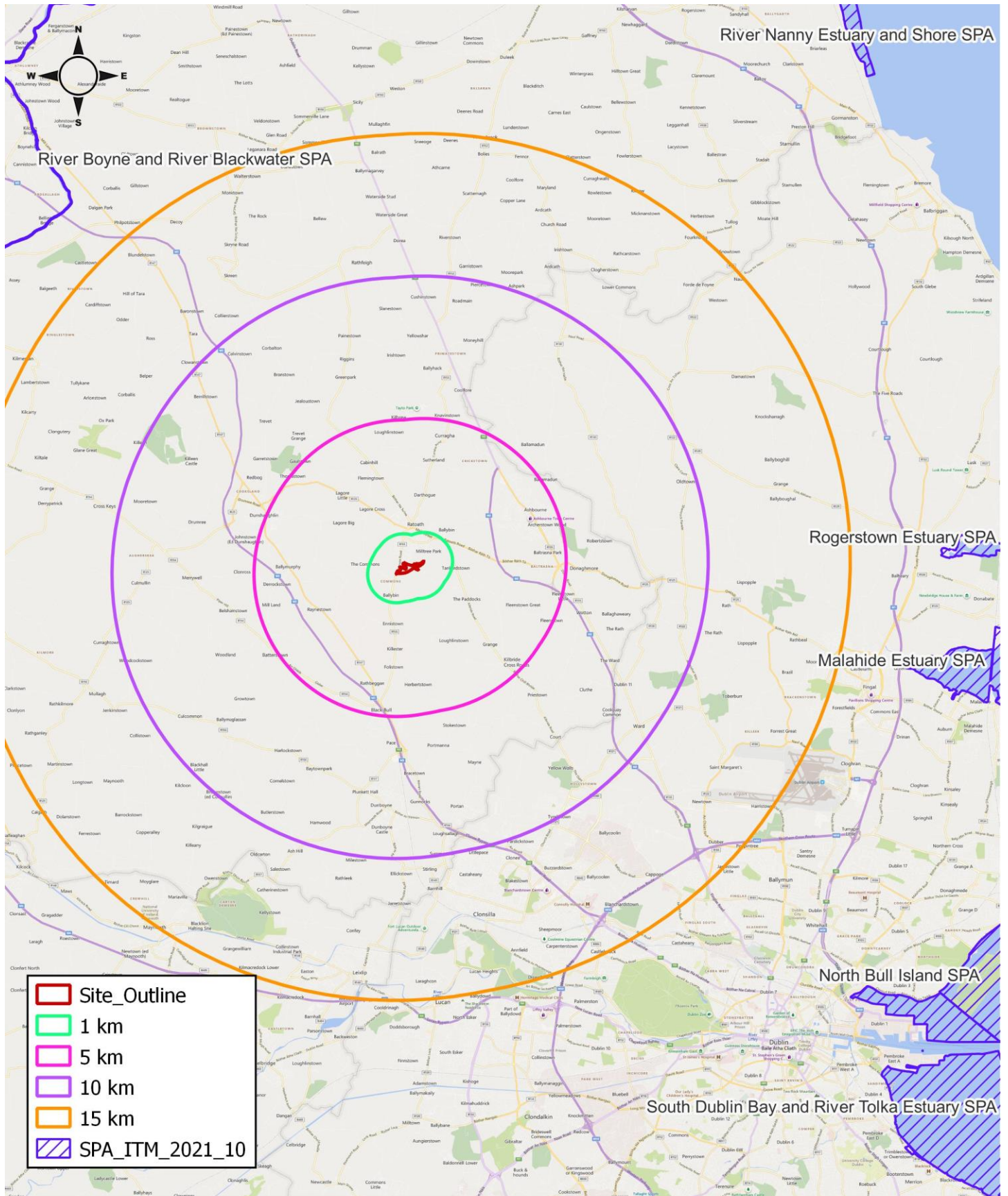


Figure 10. Special Areas of Conservation (SAC) within 15km of the subject site



Project: Ratoath South
 Location: Ratoath, Co. Meath
 Date: 12th May 2022
 Drawn By: Bryan Deegan (Altamar)

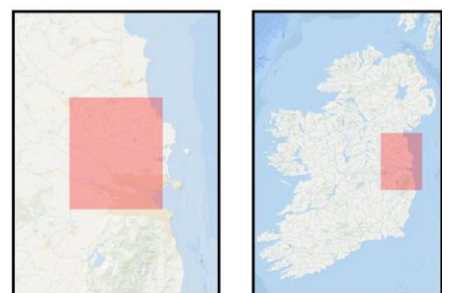
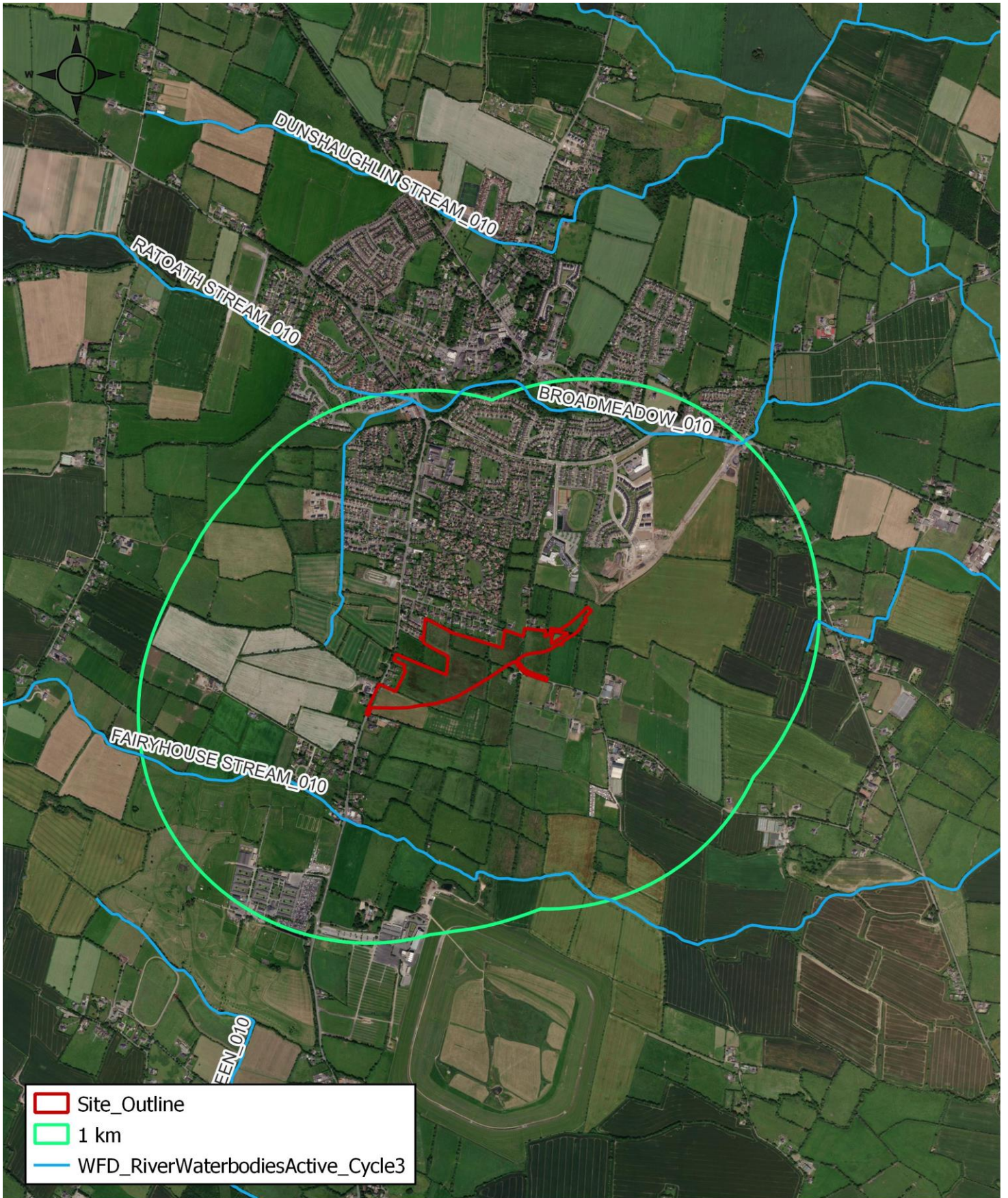


Figure 11. Special Protection Areas (SPA) within 15km of the subject site



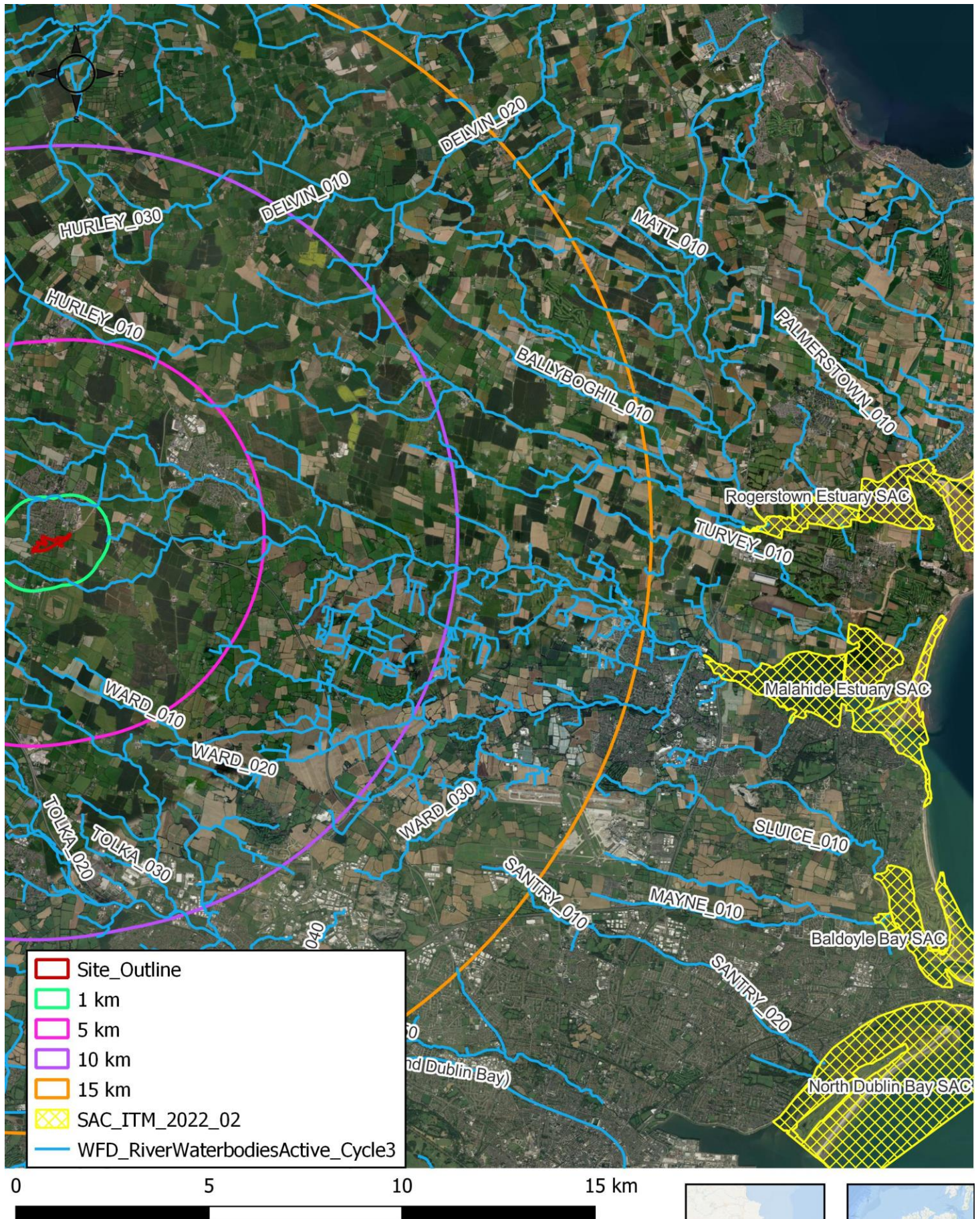
0 0.7 1.4 2.1 km

Project: Ratoath South
 Location: Ratoath, Co. Meath
 Date: 12th May 2022
 Drawn By: Bryan Deegan (Altamar)

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Figure 12. Watercourses proximate to the proposed development



Project: Ratoath South
 Location: Ratoath, Co. Meath
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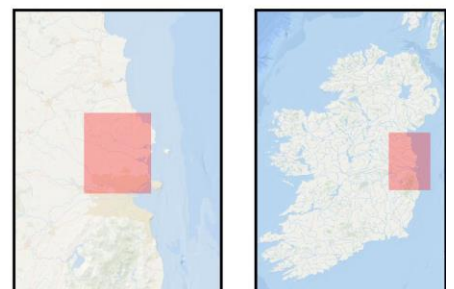
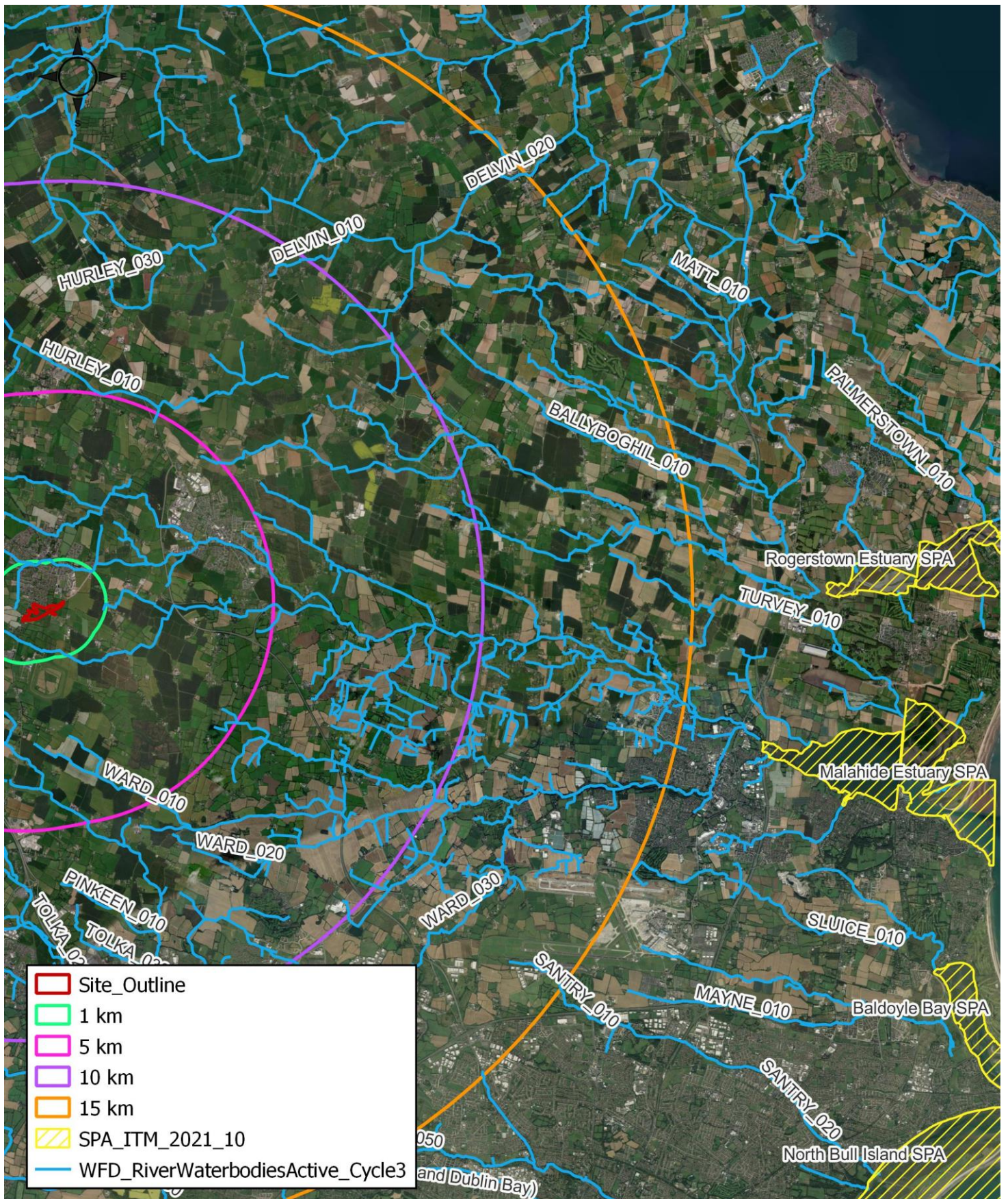


Figure 13. SACs and watercourses proximate to the proposed development



Project: Ratoath South
 Location: Ratoath, Co. Meath
 Date: 12th May 2022
 Drawn By: Bryan Deegan (Altamar)

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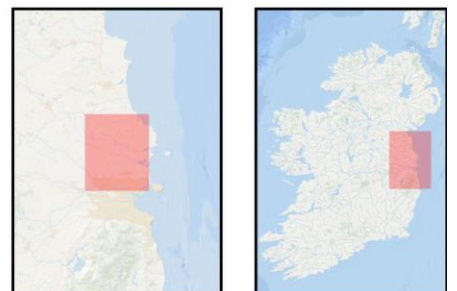


Figure 14. SPAs and watercourses proximate to the proposed development

In-Combination Effects

There are several development proposals located in the areas surrounding the subject site that have been granted permission. The following is a list of planning application(s) as identified on the Department of Housing, Local Government and Heritage's 'National Planning Application Database' portal:

Table 3. Approved planning applications proximate to the subject site

| Ref. No. | Address | Proposal |
|----------|---|--|
| RA160969 | 27 Fairyhouse Lodge, Ratoath, Co. Meath | for modifications to existing openings/fenestration of all facades, a new opening to the side, modification to rooflights to the front and rear roof and all associated site works. |
| RA140582 | 19 Fairyhouse Lodge, Ratoath, Co. Meath | construction of a new single storey extension to the side of existing dwelling, amendments to three elevations inc. front, side and rear, internal alterations. New external walls and glass covered terrace pergola and all associated site works |
| RA181201 | Glascarn Lane , Glascarn, Ratoath, Co. Meath | revised floor plans, elevations and roof design from that previously granted under RA170966 and complete all ancillary site works. |
| DA130908 | Ground Floor Unit, Riverwalk Court, Fairyhouse Road, Ratoath, Co. Meath | change of use from retail to restaurant use with provision for the sale and consumption of hot food off the premises, to include an external eating area of not more than 30 sqm to the front of the premises for seasonal use. New awning to the front of the premises and internal alterations including provision of part M compliant toilets, staff area and kitchen |
| RA160109 | Park House, Skryne Road, Ratoath, Co. Meath | the development consists of the removal of outbuildings and existing rear extension, construction of new rear extension, alterations to existing porch, internal alterations, new driveway and all associated siteworks (on a Protected Structure) |

There are no significant projects that have been granted planning or currently under construction, proximate to the development, that could potentially cause in combination effects on European sites.

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 are likely as a result of the proposed development in combination with other projects. No in combination effects are foreseen.

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

Conclusions

The proposed site is located 12.8 km from the nearest European site (Rye Water Valley/Carton SAC). There is no direct or indirect hydrological pathway or biodiversity corridor from the proposed development site to this SAC. The potential impacts from the proposed development on the European sites at Malahide Estuary (Malahide Estuary SAC and Malahide Estuary SPA) were considered as there is an indirect pathway via the surface water network. The Ratoath Stream and the Fairyhouse Stream are approximately 303 m and 415 m respectively from the proposed development site. Surface water from the south-west portion of the site will drain naturally to the vegetated drainage ditch, which travels under the Fairyhouse Road where it then travels in a westerly direction towards the Bradystown Stream, which ultimately connects to the Ratoath Stream and the Broadmeadow Stream. The Broadmeadow Stream outfalls to Malahide Estuary. There is, therefore, an indirect pathway via the surface water drainage network to Malahide Estuary SAC and Malahide Estuary SPA. The remainder of the site will discharge attenuated flows to the existing surface water network on the Ratoath Outer Relief Road to the north-east. However, given the distance (16.6 km and 16.9 km respectively) from the proposed development site to Malahide Estuary SAC and Malahide Estuary SPA, any pollutants, silt laden run off or dust would settle, be diluted or dispersed to negligible levels prior to reaching any European 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 European 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 European 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 following screening under this Regulation 42 of the European Communities (Birds and Natural Habitats) Regulations 2011, as amended, 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 were assessed. The most recent SAC and SPA boundary shapefiles were downloaded and overlaid on ESRI road maps and satellite imagery.

Findings of No Significant Effects Report

| | |
|--|--|
| Details of Project | Appropriate Assessment Screening for a Proposed Strategic Housing Development (SHD) at Ratoath South, Co. Meath |
| Name and Location of European Sites Within 15km | Rye Water Valley/Carton SAC Malahide Estuary SAC Malahide Estuary SPA |
| Project Description | The development will consist of the construction of 452 no. residential units which are located in 12 neighbourhoods. Building heights range across the site from 2- and 3-storey terraced houses, through to 4-storey maisonette buildings, and 6-storey apartment blocks |
| Is the Project directly connected with the management of the European site? | No |
| Details of any other projects or plans that together with this project could affect the EUROPEAN site | None |
| The assessment of significant effects | |
| Describe how the project is likely to affect the EUROPEAN site | 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 | Altamar Ltd. |
| Sources of data | NPWS website, standard data form, conservation objectives data of the site and references outlined in the AA Screening Report. |
| Explain why the effects are not considered significant | No European sites are within the zone of influence of these works. There is no direct or indirect hydrological pathway for pollutants to European sites. Having taken into consideration the surface water discharge from the proposed development, the distance between the proposed development site to designated conservation sites, lack of direct hydrological pathway to conservation sites and the dilution effect and treatment of effluent and surface runoff, it is concluded that the proposed development 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. 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
2. Assessment of Plans and Projects Significantly Affecting EUROPEAN Sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC;
3. 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.
4. 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;
5. 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
6. Managing Natura Sites: the provisions of Article 6 of the Habitats Directive 92/43/EEC, European Commission 2000;
7. NPWS (2021) Conservation Objectives: Rye Water Valley/Carton SAC 001398. Version 1. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage.
8. NPWS (2013) Conservation Objectives: Malahide Estuary SPA 004025. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
9. NPWS (2013) Conservation Objectives: Malahide Estuary SAC 000205. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
10. The Status of EU Protected Habitats and Species in Ireland.
http://www.npws.ie/publications/euconservationstatus/NPWS_2007_Conservation_Status_Report.pdf