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Appropriate Assessment Screening & Natura Impact Statement – Information for a Stage 1 (AA Screening) and Stage 2 (Natura Impact Statement) AA for the Strategic Housing Development (SHD) Application for a Proposed Mixed-Use Development at the former Blake's and Esmonde Motors Site, Stillorgan, Co. Dublin

5th April 2022

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On behalf of: Cairn Homes Properties Ltd.

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Project	Appropriate Assessment Screening & Natura Impact Statement for the SHD Application for a Proposed Mixed-Use Development at the Blake's and Esmonde Site, Stillorgan, Co. Dublin		
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Introduction

The following Appropriate Assessment (AA) (Screening Stage) and Natura Impact Screening has been prepared by **Altemar Ltd.** at the request of Cairn Homes Properties Ltd. The proposed project involves the development of 377 no. Build to Rent apartment units at the former Blakes site and Esmonde Motors site in Stillorgan, Co. Dublin.

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 (Natura 2000 sites). European sites are those sites designated as Special Areas of Conservation (SAC) or Special Protection Areas (SPA).

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

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

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, the managing director of Altemar, 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. He is currently contracted to Inland Fisheries Ireland as the sole "External Expert" to environmentally assess internal and external projects. He is also chair of an internal IFI working group on environmental assessment. 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 and Natura Impact Statement.

Background to the Appropriate Assessment

The Habitats Directive (92/43/EEC), together with the Birds Directive (2009/1477/EC), forms the cornerstone of European nature conservation policy. The Directive protects over 1000 animals and plant species and over 200 *"habitat types"* which are of European importance. In the 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 (European sites).

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."

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

> As outlined revised Guidance published in October 2021 (EC, 2021) *"in Identifying the Natura 2000 sites that may be affected should be done by taking into consideration all aspects of the plan or project that could have potential effects on any Natura 2000 sites located within the zone of influence of the plan or project. This should take into account all of the designating features (species, habitat types) that are significantly present on the sites and their conservation objectives. In particular, it should identify:*
>
> - *any Natura 2000 sites geographically overlapping with any of the actions or aspects of the plan or project in any of its phases, or adjacent to them;*
> - *any Natura 2000 sites within the likely zone of influence of the plan or project. Natura 2000 sites located in the surroundings of the plan or project (or at some distance) that could still be indirectly affected by aspects of the project, including as regards the use of natural resources (e.g. water) and various types of waste, discharge or emissions of substances or energy;*
> - *Natura 2000 sites in the surroundings of the plan or project (or at some distance) which host fauna that can move to the project area and then suffer mortality or other impacts (e.g. loss of feeding areas, reduction of home range);*
> - *Natura 2000 sites whose connectivity or ecological continuity can be affected by the plan or project.*
> - *The range of Natura 2000 sites to be assessed, i.e. the zone in which impacts from the plan or project may arise, will depend on the nature of the plan or project and the distance at which effects may occur. For Natura 2000 sites located downstream along rivers or wetlands fed by aquifers, it may be that a plan or project can affect water flows, fish migration and so forth, even at a great distance. Emissions of pollutants may also have effects over a long distance."*

[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.

Methodology

This Appropriate Assessment screening was undertaken in accordance with the European Commission Methodological Guidance on the provision of Article 6(3) and 6(4) of the 'Habitats' Directive 92/43/EEC (EC, 2001), Part XAB of the Planning and Development Act 2000, as amended, in addition to the December 2009 publication from the Department of Environment, Heritage and Local Government; 'Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities' and the European Communities (Birds and Natural Habitats) Regulations 2011 and the provision of Article 6 of the Habitats Directive 92/43/EEC (European Commission, 21 November 2018).

In order to comply with the above Guidelines and legislation, the Appropriate Assessment Screening process must be structured as follows:

- Description of the proposed project or plan;
- Identification of European sites potentially affected;
- 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.

Stage 1 Screening Assessment

Description of the Proposed Project

The site of 1.41 hectares is bounded by the Lower Kilmacud Road to the north, The Hill to the south and west and the N11 and Dun Laoghaire owned lands to the east. The proposal is a mixed-use scheme of "Built to Rent" BTR apartments, retail, childcare and residents' facilities laid out in 6 no. blocks ranging in height from 3-9 storeys (over basement) comprising 377 no. apartment units (21 no. studios, 189 no. 1 beds, 159 no. 2 beds, & 8 no. 3 beds).

Building 01 (Part 3 – 4, 6 & 7 storeys over basement) consists of 77 no. apartments comprising 13 no. studio apartments, 30 no. 1 bedroom apartments, 33 no. 2 bedroom apartments, 1 no. 3 bedroom apartment (with a creche of c. 215 sq. m with associated play area at ground floor);

Building 02 (Part 3 – 5, 7 & 8 storeys over basement) consists of 95 no. apartments comprising 7 no. studio apartments, 57 no. 1 bedroom apartments, 24 no. 2 bedroom apartments, 7 no. 3 bedroom apartments;

Building 03 (Part 7 and 9 storeys over part basement) consists of 54 no. apartments comprising 18 no. 1 bedroom apartments and 36 no. 2 bedroom apartments (and office of c. 195 sq. m);

Building 04 (7 storeys over basement) consists of 60 no. apartments consists of 42 no. 1 bedroom apartments & 18 no. 2 bedroom apartments;

Building 05 (6 storeys, over basement to Lower Kilmacud Road & 7 storeys to the south and west) consists of 62 no. units comprising 1 no. studio apartment, 26 no. 1 bedroom apartments, & 35 no. 2 bedroom apartments (restaurant/café unit c. 219 sq. m at lower ground floor/plaza level & 2 no. restaurant/café units c. 234.1 sq. m and c. 133.9 sq. m respectively at ground floor level onto Lower Kilmacud Road) along with a double height Community Sports Hall including ancillary areas (c. 933 sq. m);

Building 06 (5 & 6 storeys) consists of 29 no. units comprising 16 no. 1 bedroom apartments and 13 no. 2 bedroom apartments (restaurant/café unit c. 185.9 sq. m at lower ground floor/plaza level & 68.1 sq. m restaurant/café unit at ground floor level onto Lower Kilmacud Road);

The BTR development will also include ancillary Residents' Support Facilities/Services (c. 1,016 sq. m at ground floor of Building 03 and 04) as well as open space areas and improvements to the public realm along the Lower Kilmacud Road (to footpath and cyclepath) and The Hill, new road layout (omission of left turning lane, widening of footpath) to The Hill, hard and soft landscaping, set down area on the Lower Kilmacud Road.

Provision of 2 no. vehicular access points from 'The Hill' into 2 no. separate basements to include basement car parking spaces (119 no.); 1 no. set down surface car parking space as well as 866 no. cycle spaces (basement and surface levels) and ancillary areas; pumping stations at basement level, along with solar panels, and green roofs at roof level;

All associated site development works, open spaces, landscaping, boundary treatment, plant areas, waste management areas, and services provision (including ESB substation).

The location of the proposed development is shown in Figures 1-4 below.

Spatial Scope and Zone of Influence

The proposed development site is not located within a European site. The potential ZOI of the construction and operational phases of the project is deemed to be within the vicinity the site outline with the potential for downstream impacts via surface water and foul water networks. There is no

direct hydrological connection to the European sites. However, there is an indirect connection to the Dublin Bay European sites via the surface water networks via the existing surface water sewer to the Priory Stream. During operation the foul water will be sent to Ringsend WWTP. In order to assess the potential risk of the indirect connections to European sites AWN consulting was commissioned to carry out a Hydrological and Hydrogeological Qualitative Risk Assessment for the proposed development. This Risk Assessment accompanies this application. However, abstracts from the Risk Assessment report have been included within the AA Screening and NIS. In addition, details of the drainage strategy have also been included.

There is also a smaller watercourse proximate to the proposed development site, the Priory Stream. This stream is located approximately 200 m north-west of the site (Figure 16). The Priory Stream is the receiving watercourse for all surface water drainage from the site. As the Priory Stream ultimately outfalls to the sea at Blackrock, European sites are deemed to be within the potential Zone of Influence (ZoI). There is another watercourse located close to the site, the Carysfort-Maretimo River, which flows in a northern direction and then discharges to the sea at Blackrock. The river is culverted for approximately 750m in the vicinity of the proposed development. The inlet to this culvert is adjacent to the Brewery Road and Leopardstown Oaks. Surface water drainage from site, would be seen as the output from the site during construction and operation that could potentially extend the potential ZoI. The ZoI of the proposed project would be seen to be restricted to the site outline with potential for minor localised surface water impacts on European sites via the surface water network and Priory stream. As a result, further information is provided in relation to the works on site, the proposed landscape design, the drainage strategy in addition to the flood risk assessment.

Site Context

The site is located to the south of Dublin, in the Stillorgan area, approximately 2 km inland from the Dublin Bay coastline. The site is a triangular shaped area formed by the surrounding roads. It is bounded to the east primarily by a continuous steel railing, a wall and a belt of deciduous trees beyond which lies the N11 dual carriageway. This boundary treatment creates a visually impermeable screen along most of the eastern site boundary. The northern boundary allows views into the site from the Lower Kilmacud Road where the boundary treatment is a low stub wall and railing. The western boundary of the site, The Hill, is made up by a low stone wall at the northern section and a recently erected timber hoarding. The streetscape of the Hill in general is of poor quality being made up of various degraded and low-quality surface materials with little aesthetic value. On the opposite side of the street at the Hill several of the properties are used for commercial purposes, including a number of pubs and restaurants. Due to the shape of the site the southern boundary is the shortest at only 50m in length. This boundary is formed by the residence directly to the south and current boundary walls.

In the wider landscape, the lands are situated between the commercial centre of Stillorgan to the north and west and the wider residential landscape of low density detached housing to the east and south. The N11 dual carriageway forms a barrier that creates a level of separation between the site and the landscape to the east.

Landscape of the Proposed Project

The landscape strategy aims to integrate the new build development with the existing landscape and create a high-quality public realm incorporating a significant civic space. Throughout the scheme a series of attractive and usable open spaces are created that respond to the needs of future users. The proposed landscape of the development site can be seen in Figures 5-6.

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

Figure 2. Outline of proposed site.

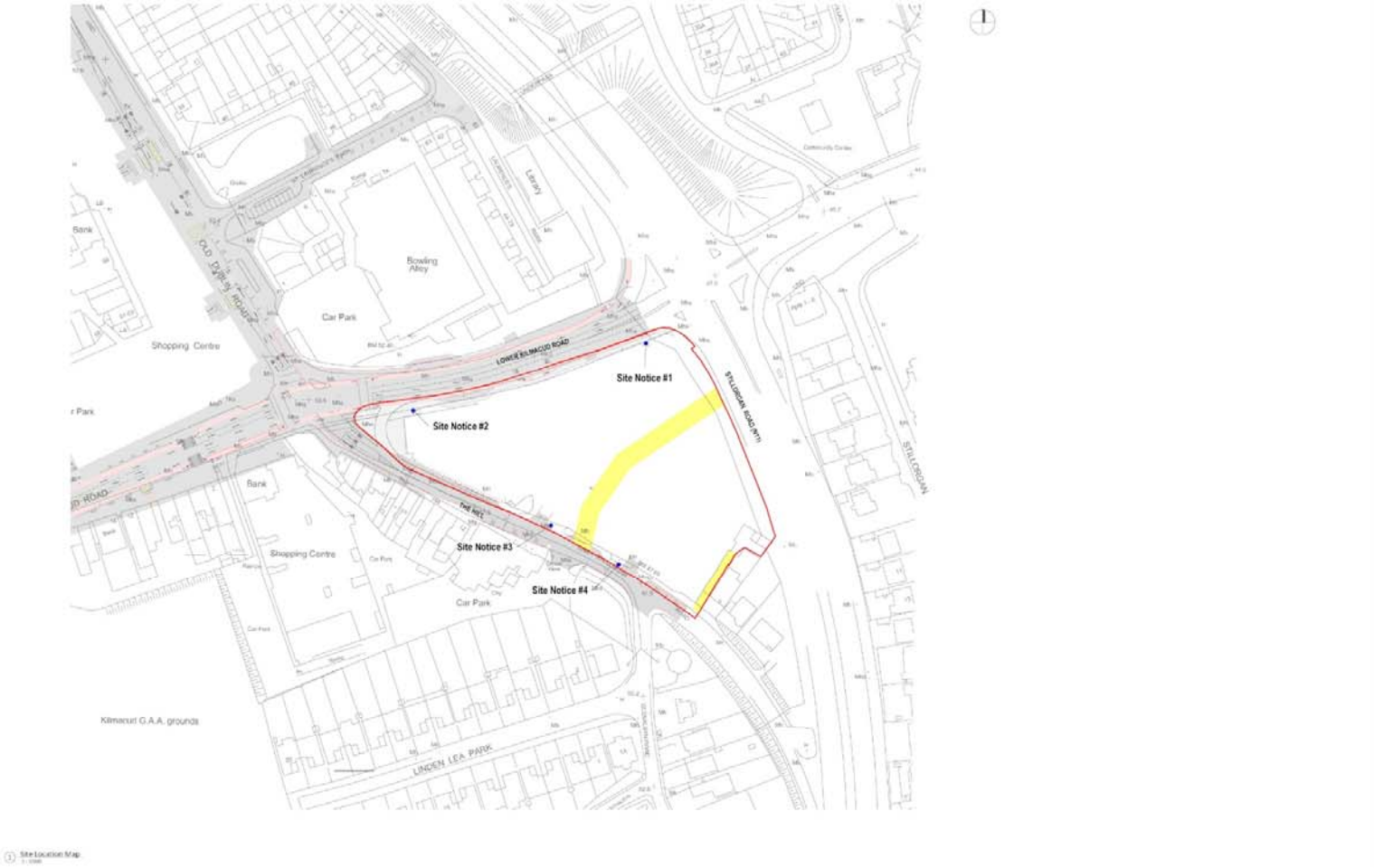

Figure 3. Site location map

Figure 4. Proposed site plan

Figure 5. Landscape masterplan (Sheet 1)

Figure 6. Landscape masterplan (Sheet 2)

Drainage

Receiving Environment

As outlined in the Waterman Moylan Engineering Assessment Report "

Currently the site is served by 2 No. existing foul sewer networks in the vicinity of the subject site:

• an existing 600mm diameter foul sewer immediately to the north of the site in Lower Kilmacud Road with a connecting 300mm diameter foul branch sewer to the east of the proposed development in the N11 Stillorgan Road

• an existing 300mm diameter combined sewer which traverses the site from west to east. There are 2 no. 225mm diameter foul sewers connecting into this 300mm diameter on The Hill one from the north, and one from the south. There is also a 225 mm connection across Lower Kilmacud Road from the Dun Laoghaire Rathdown Library site and St. Laurence's Park.

This 600mm diameter sewer discharges north-eastwards with a connection from the 300 mm sewer traversing the site further east. These networks ultimately discharge to the Municipal Waste Water Treatment Plant at Ringsend.."

"A Pre-Connection Enquiry form was submitted to Irish Water for the provision of foul sewer connection for the proposed development. A response was received in January 2022 (Refer to Appendix F), which stated that the new connection to the existing network is feasible without upgrade."

Proposed Foul Water Drainage

As outlined in the Waterman Moylan Engineering Assessment Report '*It is proposed to divert the existing 300mm diameter combined sewer which traverses the site in order to facilitate the subject development. All existing branch connections to these sewers carrying foul water flows will be retained. The private connections from the Former Blakes and Esmonde Motor site will be removed as part of the proposed works. The foul drainage from the subject site will generally connect to the diverted sewer, with some local connections provided to the 600 mm sewer at the northwest corner of the site serving the ground floor units of Blocks 3 - 5.*

As set out above it is proposed to discharge the subject site to the 300 mm sewer traversing the site by gravity in accordance with Irish Water requirements, with some local connections to the 600 mm sewer at the northwest corner of the site. The proposal to divert the existing sewer has been agreed in principle with Irish Water and will be subject to a diversion agreement at the appropriate stage, approved under the Planning Register Reference: (ABP-300520-17).

It is proposed to construct a new sewer manhole on the existing 600mm sewer network to facilitate diversion of the existing 225 mm diameter which traverses the site from the north. Please refer to Waterman Moylan drawing No's. 20-071-P119 for the details of the diversion. The drainage will generally drain by gravity via slung drainage to be strapped to the underside of the ground floor slab within a dedicated service zone within the basement areas and by gravity below ground to its outfall location in all other areas. The foul drainage in the basement of building No's 1 & 2 will be pumped to a standoff manhole before draining by gravity to the proposed diverted existing 300mm diameter foul sewer located between the 2 No. basement / building areas. The foul drainage in the basement of building No's 3-5 will be pumped to a standoff manhole before draining by gravity to the existing 600mm diameter foul sewer located northeast of the site in the Lower Kilmacud Road.

The basement foul pumping stations will take foul drainage from the basement level only. This will include water runoff / snow melt from cars and drains in stores and plant rooms. These pump stations will be private pump stations, within the building basements, that will be operated and maintained by the applicant. As part of the proposals, run-off from the basement car park areas will discharge through petrol interceptors before discharge via a pump chamber and rising main to the external foul gravity drainage systems.' The foul water will discharge to the foul network which discharges to the West Pier Pumping station, which has an intermittent overflow, and discharges to Ringsend WwTP for treatment.

Surface water Drainage

As outlined in the Waterman Moylan Engineering Assessment Report '*There is an existing surface water sewer / culvert traversing the site in a north-east direction. This culverted watercourse, which forms part of the Priory Stream catchment, ultimately discharges under the N11 to the Priory Stream east of the N11. The culvert varies in size through the site. It is initially a 1500mm wide x 800mm high stone arch culvert under the Old Stillorgan Road (The Hill) as it enters the subject site. It then changes in profile to a 1200mm wide x 1200mm high square concrete culvert c. 14 m east of The Hill before changing again in profile to a 1200mm diameter circular concrete pipe c.50 m east of the Hill. It remains a 1200 mm diameter circular concrete pipe as it exits the site and crosses the N11 and onwards to the Priory Stream.*

There is an existing 300mm surface water sewer traversing the Former Blakes and Esmonde Motors site from north to south, which also crosses the Lower Kilmacud Road draining the Dun Laoghaire Rathdown Library site and St. Laurence's Park and connecting same into the storm water culvert traversing the subject site. There are 2 no. 225mm surface water sewers on the Lower Kilmacud Road to the north and a 225mm and 300mm on the N11 to the east which also outfall via the existing 300 mm sewer to the culvert traversing the site.' 'There are a further 2 No. surface water sewers either side of N11 which connect to the culvert east of the subject site.

Surface water run-off from the Former Blakes and Esmonde Motors site currently discharges through a series of on-site private surface water drains and outfalls to the 1200mm storm culvert traversing the site. The runoff from the site is currently unattenuated.

The proposed surface water drainage strategy is to divert both the existing public surface water culvert and the 300 mm surface water traversing the subject to a new location within the site in order to facilitate the proposed development. Please refer to Waterman Moylan drawing No's. 20-071-P120 to P122 for details of surface water diversion and associated wayleaves. Surface water runoff from the development will be attenuated to the equivalent greenfield runoff rate prior to outfalling to the diverted surface water culvert traversing the subject site. There will be 2 No. drainage catchments for the subject site, one north of the diverted culvert and one south of same.

The drainage strategy for the development is to drain all of the building, podium level and internal courtyards through various SUDS measures, into the onsite private surface water drainage system before out falling to the existing storm sewer at a restricted rate. Excess storm water will be stored in attenuation tanks which will be locate within each catchment and which will store storm water for the 1 in 100 year storm event including a 30% allowance for climate change. This is consistent with the drainage strategy approved under the Planning Register Reference: (ABP-300520-17) relating to the application site.' The drainage drawings are seen in Figure 3 and Figure 4.

Hydrological and Hydrogeological Qualitative Risk Assessment

A Hydrological and Hydrogeological Qualitative Risk Assessment was carried out by AWN Consulting. The report states that '

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

During construction and operation phases there is no direct source pathway linkage between the proposed development site and open waters. There is no direct source pathway linkage between the Proposed Development site and any Natura 2000 sites (i.e. South Dublin Bay SAC/SPA/pNHA). There are indirect source pathway linkages from the proposed development through the stormwater drainage (via Priory Stream) which discharges into the Dublin Bay Natura Site and through the foul sewer which will eventually discharge to the Ringsend WWTP and ultimately discharges to South Dublin Bay SAC/SPA/pNHA. The future development has a peak foul discharge that would equate to 0.058% of the licensed discharge at Ringsend WWTP (peak hydraulic capacity).

Even disregarding the operation of design measures including an attenuation system and petrol interceptors on site, it is concluded that there will be imperceptible impacts from the proposed development to the water bodies due to emissions from the site stormwater drainage infrastructure to the wider drainage network. It should be noted the proposal also includes an attenuation system and petrol interceptors as part of best practice project design, and these features will provide additional filtration from the site to the drainage network.

It is concluded that there are potential pollutant linkages as a result of the construction of the proposed development which could result in a water quality impact which would be capable of having a significant effect on the Natura 2000 sites within Dublin Bay. However, there are no pollutant linkages as a result of the operation of the proposed development which could result in a water quality impact which would be capable of having a significant effect on the Natura 2000 sites within Dublin Bay.

Finally, and in line with good practice, appropriate and effective mitigation measures will be included in the construction design, management of construction programme and during the operational phase of the proposed development. With regard the construction phase, adequate mitigation measures will be incorporated in the Construction Environmental Management Plan (CEMP). These specific measures will provide further protection to the receiving soil and water environments.

Mitigation measures during construction are required at this development to ensure the protection of the Priory Stream and downgradient Natura 2000 sites as such a Natura Impact Statement (NIS) is required. Mitigation measures set out in the NIS & CEMP will be implemented to ensure the protection of receiving watercourses and therefore, the downgradient Natura 2000 sites.

Flood Risk Assessment

A Flood Risk Assessment (FRA) Report was carried out for the proposed development site at Blakes in Stillorgan, by JBA Consulting. In conclusion, the report states that: ‘

• The primary driver of fluvial risk to the site is the culvert inlet at Brewery Road/Leopardstown Oaks, and its trash screen. At least one historic flood event can be attributed to blinding of the screen, allowing flow to overtop the inlet and inundate the Brewery Road as far as St. Bridget's Church.

• Historic flood events have verified that the flow route shown on the CFRAM mapping is plausible and could occur if enough blockage/flow was applied to the system.

• There are a number of limitations to the CFRAM model that would make it inappropriate for application to a site-specific study. It does not account for the SW system between the site and the Carysfort-Maretimo River; nor for any blockage to the aforementioned culvert.

• Flooding of the site is likely from pluvial sources, as highlighted in the PFRA mapping and historic flood reports.

• Drainage outfall from the site is restricted to the capacity of the SW system of the Priory Stream.

• Some sacrificial storage may have to be provided on the site to 'hold-back' both pluvial contributions, as well as overland flows, before discharging to the receiving pipe at a sustained rate that will not put undue pressure on the SW system.

• To appropriately determine flood risk to the site, a site-specific flood model is required. This model should include:

- *o Detailed Stormwater Sewer representation including dynamic linkages to the overland flowpaths;*
- *o Sensitivity assessment of culvert blockages, climate change and obstructions to flow paths by solid walls and other structures;*
- *o Detailed topographic survey of the site;*
- *o Interaction with the Priory Stream culvert system; and,*
- *o Locations of surcharging manholes in the Carysfort-Maretimo Stream*

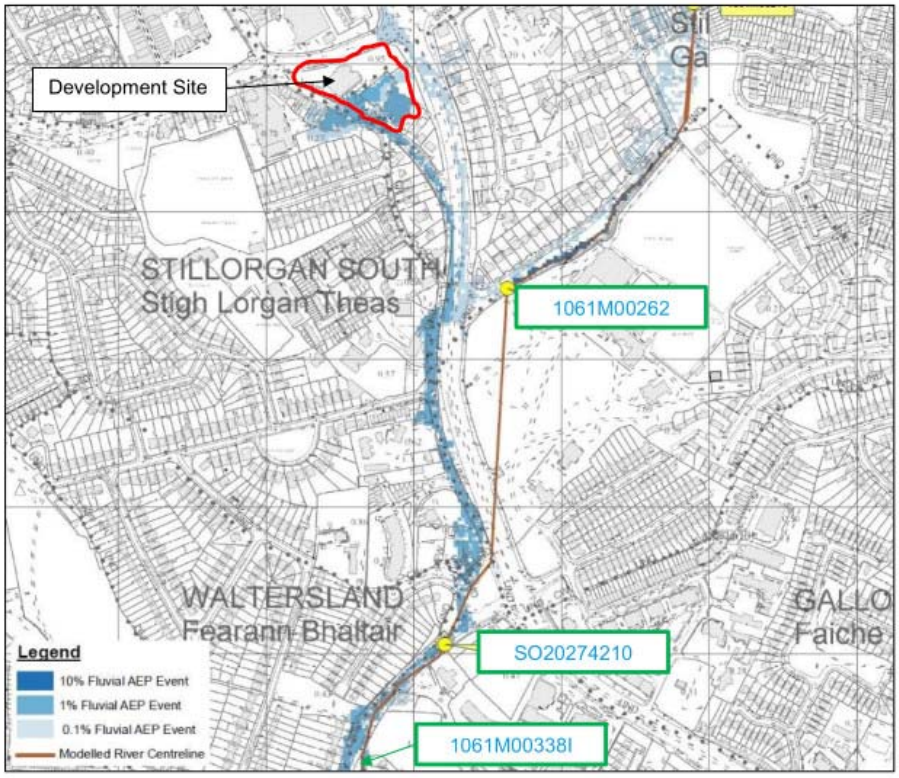

Figure 7. Eastern Catchment Flood Risk Assessment (CFRAM) study (from FRA Report)

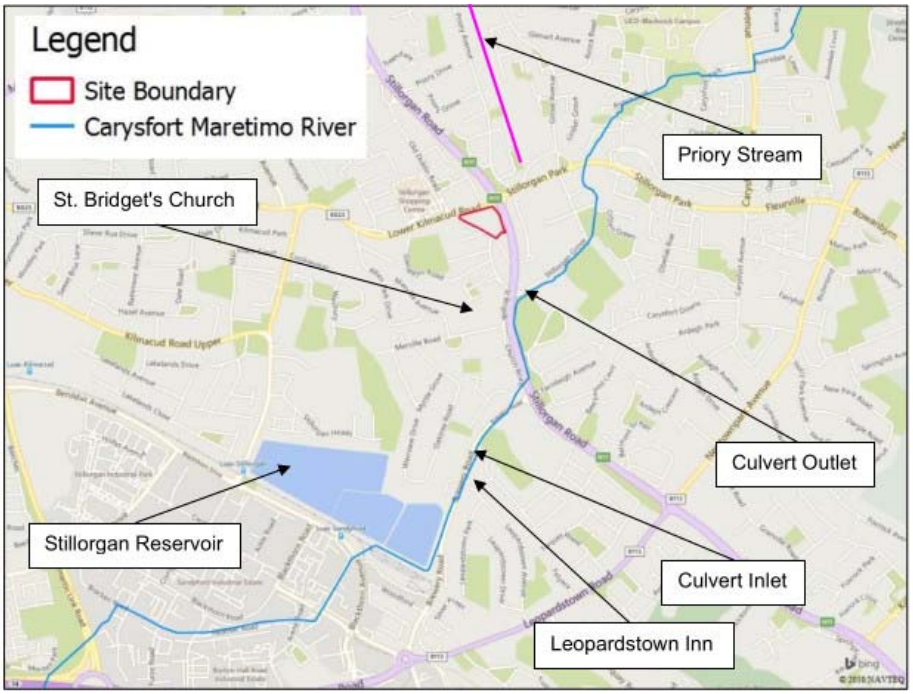

Figure 8. Site location and Watercourses proximate to the site (from FRA Report)

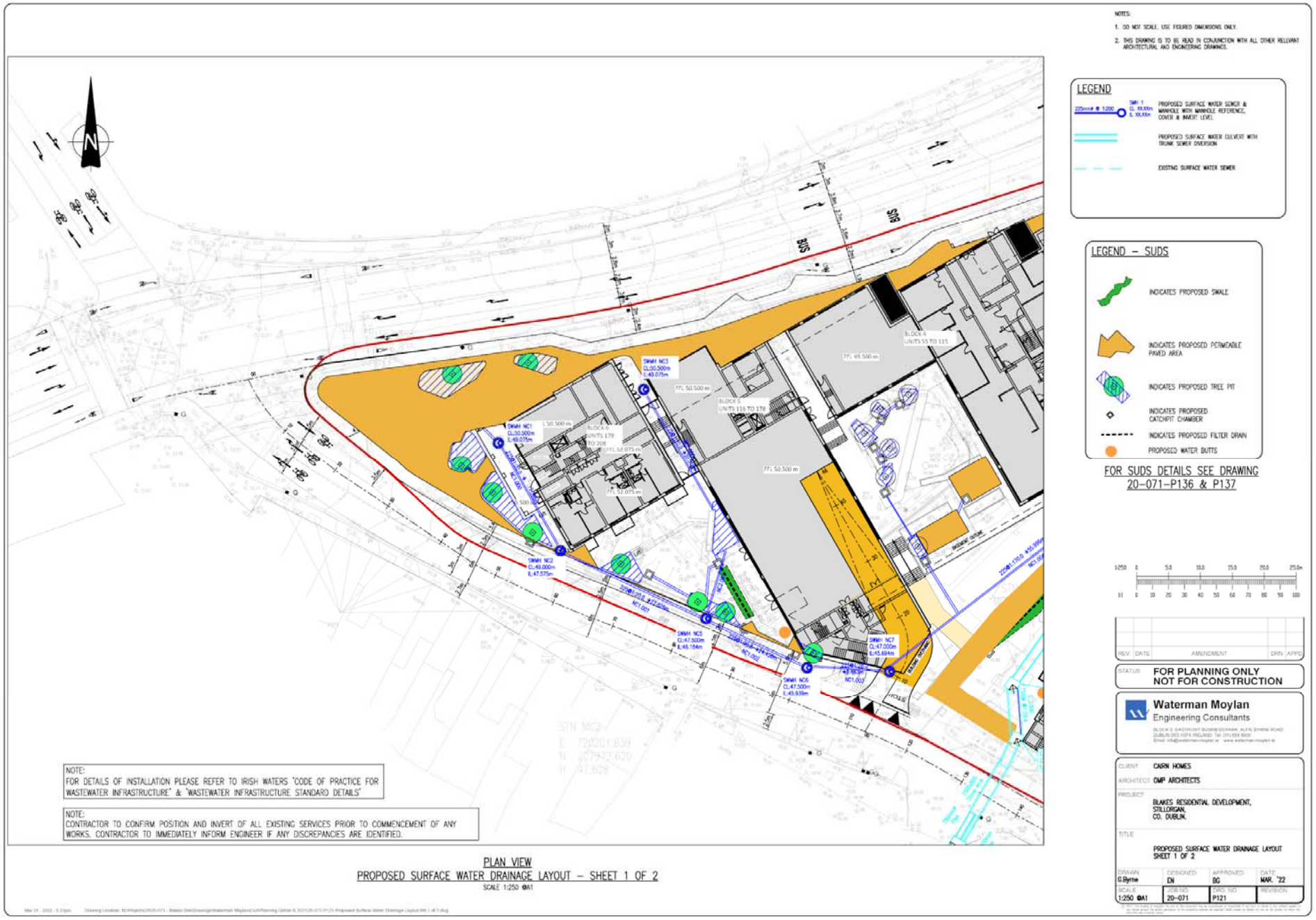

Figure 9. Proposed Surface Water drainage layout (Sheet 1)

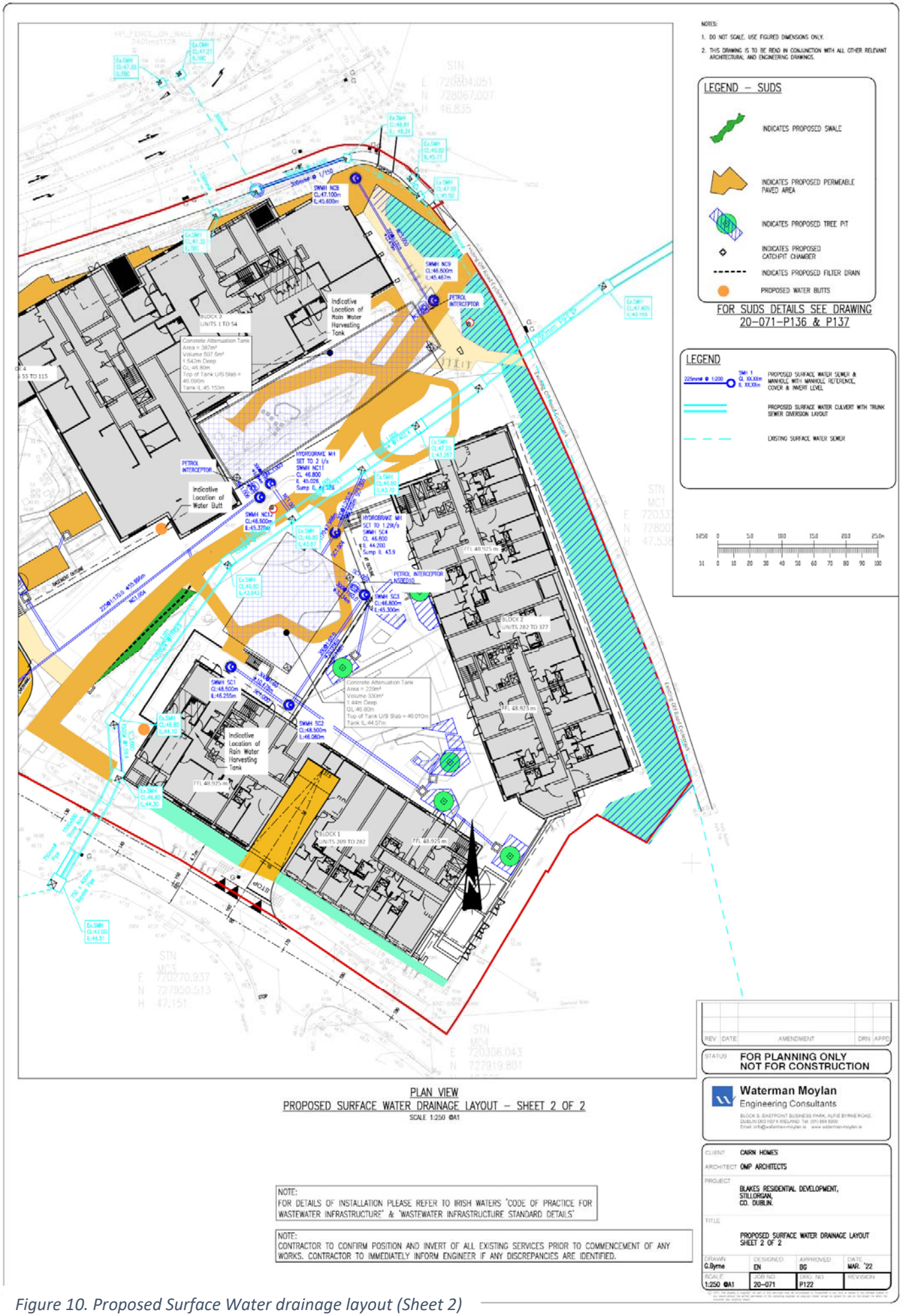

Figure 10. Proposed Surface Water drainage layout (Sheet 2)

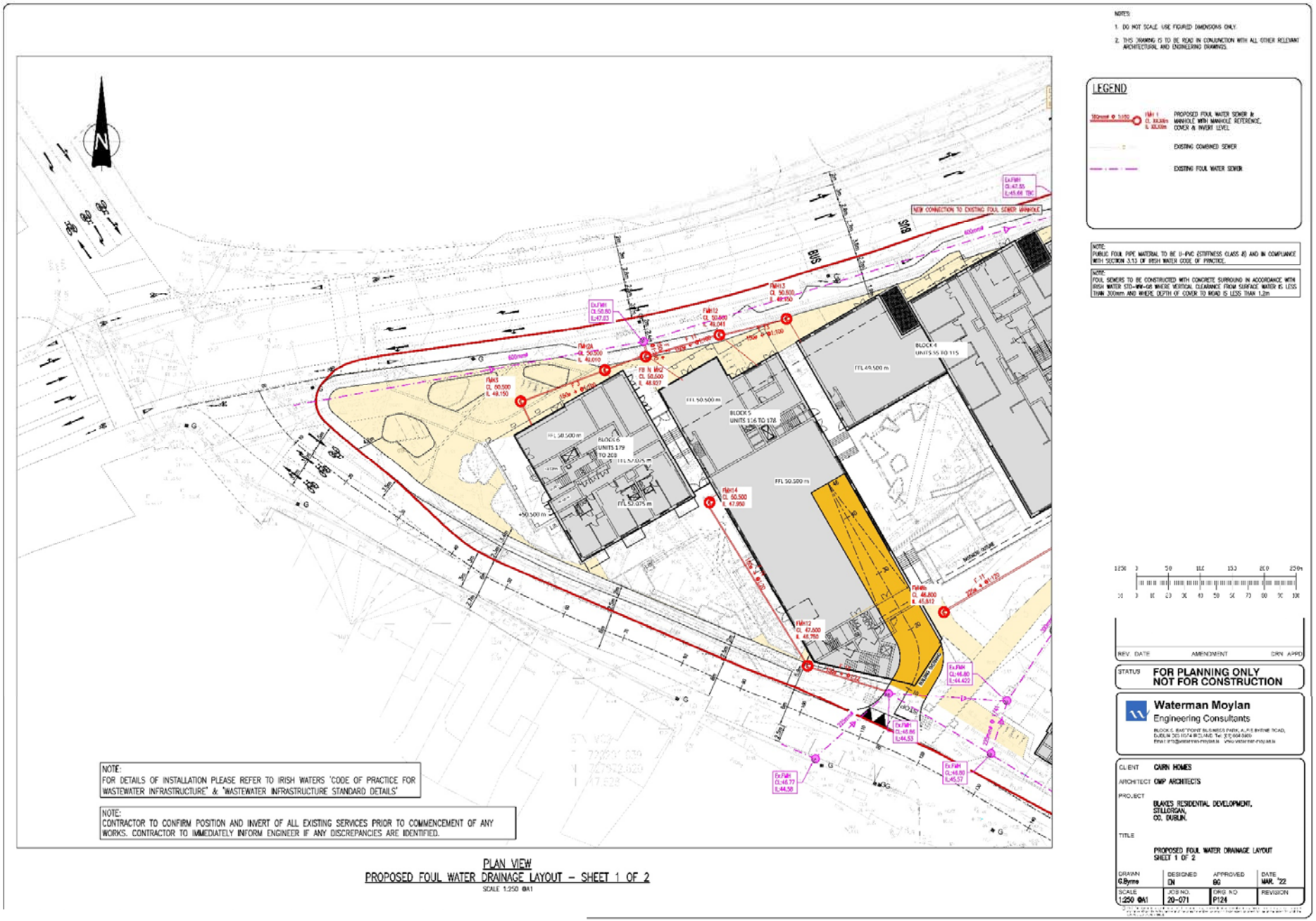

Figure 11. Proposed Foul Water drainage layout (Sheet 1)

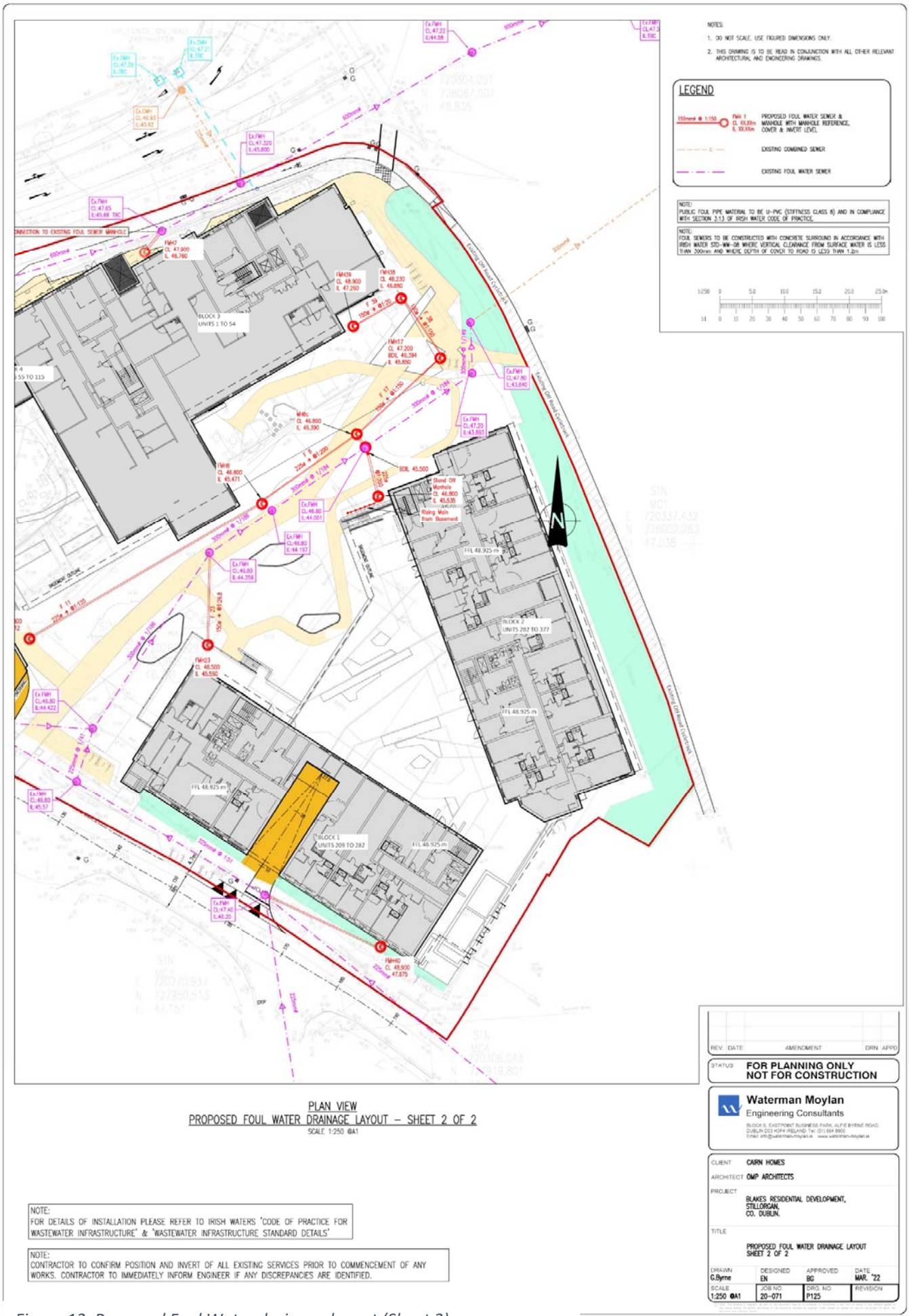

Figure 12. Proposed Foul Water drainage layout (Sheet 2)

Construction Management Plan

A Construction Management Plan (CMP) was prepared by Waterman Moylan Consulting Engineers. As outlined in the CMP mitigation measures are proposed on site and European sites are within the potential ZoI. As outlined in the CMP these mitigation measures include:

"10.3 Site Control Measures

The designated and operational on-site control measures, which will be established and maintained at this site, will include:

- *Designated hard routes through site;*
- *Each departing vehicle to be checked by banksman;*
- *Wheel wash facility at egress point;*
- *Provision and facilities to cover lorry contents as necessary;*
- *Controlled loading of excavated material to minimise risk of spillage of contents;*
- *Spraying/damping down of excavated material on site by dedicated crews;*
- *Use of known routes for lorries to monitor impact on local area; and*
- *Facility to clean local roads if mud or spillage occurs.*

10.4 Control of Dirt and Dust

The main consideration will be to combat dirt and dust at source so as not to let it adversely affect the surrounding areas. The objective will be to contain any dirt or dust within the site, which is large enough for comprehensive control measures. The main problems, which may arise during the early part of construction, will be controlled by the measures described above and by the following measures:

The use of hardcore access route to work front;

- *A regime of 'wet' road sweeping can be set up to ensure the roads around the immediate site are as clean and free from dirt / dust arising from the site, as is reasonably practicable. This cleaning will be carried out by approved mechanical sweepers.*
- *Footpaths immediately around the site can be cleaned by hand regularly, with damping as necessary.*
- *High level walkways and surfaces such as scaffolding can be cleaned regularly using safe 'wet' methods, as opposed to dry methods.*
- *Vehicle waiting areas or hard standings can be regularly inspected and kept clean by brushing or vacuum sweeping and will be regularly sprayed to keep moist, if necessary.*
- *Vehicle and wheel washing facilities can be provided at site exit(s) where practicable. If necessary vehicles can be washed down before exiting the site.*
- *Netting can be provided to enclose scaffolding in order to mitigate escape of air borne dust from the demolition.*
- *Vehicles and equipment shall not emit black smoke from exhaust system, except during ignition at start up.*
- *Engines and exhaust systems should be maintained so that exhaust emissions do not breach stationary emission limits set for the vehicle / equipment type and mode of operation.*
- *Servicing of vehicles and plant should be carried out regularly, rather than just following breakdowns.*
- *Internal combustion plant should not be left running unnecessarily.*
- *Exhaust direction and heights should be such as not to disturb dust on the ground and to ensure adequate local dispersal of emissions.*
- *Where possible fixed plant such as generators should be located away from residential areas.*

- *The number of handling operations for materials will be kept to a minimum in order to ensure that dusty material is not moved or handled unnecessarily.*
- *The transport of dusty materials and aggregates should be carried out using covered / sheeted lorries.*
- *Material handling areas should be clean, tidy and free from dust.*
- *Vehicle loading should be dampened down and drop heights for material to be kept to a minimum.*
- *Drop heights for chutes / skips should be kept to a minimum.*
- *Dust dispersal over the site boundary should be minimised using static sprinklers or other watering methods as necessary.*
- *Stockpiles of materials should be kept to a minimum and if necessary, they should be kept away from sensitive receptors such as residential areas etc.*
- *Stockpiles were necessary, should be sheeted or watered down.*
- *Methods and equipment should be in place for immediate clean-up of spillages of dusty material.*
- *No burning of materials will be permitted on site.*
- *Earthworks excavations should be kept damp where necessary and where reasonably practicable.*
- *Cutting on site should be avoided where possible by using pre-fabrication methods to facilitate any temporary works that may be required to enable the demolition.*
- *Equipment and techniques for cutting / grinding / drilling / sawing etc, which minimise dust emissions and which have the best available dust suppression measures, should be employed.*
- *Prior to commencement, the main contractor should identify the demolition operations which are likely to generate dust and to draw up action plans to minimise emissions, utilising the methods highlighted above. Furthermore, the main contractor should prepare environmental risk assessments for all dust generating processes, which are envisaged.*
- *The main contractor should allocate suitably qualified personnel to be responsible for ensuring the generation of dust is minimised and effectively controlled.*
- *Demolition works to incorporate water spray to reduce dust.*

10.5 Water

The excavations for the basement, drainage pipes, water supply, utilities and foundations are anticipated to impact the ground water in the site.

The contractor shall develop an appropriate dewatering scheme to keep the basement/excavations free from water and ensure the quality of water leaving site is high.

During any discharge of surface water from the basement/excavations, the quality of the water will be improved through the provision of settlement tanks and will be regularly monitored visually for hydrocarbon sheen and suspended solids. Periodic laboratory testing of discharge water samples will be carried out in accordance with the requirements of Dun Laoghaire-Rathdown County Council before discharge to the surrounding drainage network. Appropriate discharge licenses will be acquired from Dun Laoghaire-Rathdown County Council in respect of discharges from dewatering operations."

Identification of Relevant European sites (European sites)

The proposed development is not within a European conservation site. Special Areas of Conservation and Special Protected Areas within 15km of the proposed development are seen in Figures 13 and 14 respectively. European sites (SAC and SPA) are not proximate to the site, with the nearest site at 1.9 km away (South Dublin Bay SAC). Details of international conservation sites within 15km of the proposed site are seen in Table 1.

The Carysfort-Maretimo River (Brewery Stream) flows proximate to the proposed development site. The river is culverted approximately 750 m from the development site. The Priory Stream is also approximately 200 m from the proposed development site (Figures 15 and 16). An enclosed culvert traverses the site which leads to this watercourse. This stream is also the receiving watercourse for all surface water drainage discharging from the site. The Priory Stream ultimately outfalls to the marine environment and the European sites; South Dublin Bay SAC and South Dublin Bay and River Tolka Estuary SPA (Figures 17 and 18) and is the receiving waterbody for existing site drainage.

Screening of European sites with potential for direct or indirect pathways or those within 15km, their conservation objectives, features of interest and potential significance of impacts from the proposed development on the European site and their features of interest are seen in Table 2.

Table 1. Proximity to designated sites of conservation importance

European Site	Code	Distance	Direct Hydrological / Biodiversity Connection
Special Areas of Conservation			
South Dublin Bay SAC	IE0000210	2.0 km	**No**
North Dublin Bay SAC	IE0000206	6.9 km	**No**
Rockabill to Dalkey Island SAC	IE0003000	7.0 km	**No**
Wicklow Mountains SAC	IE0002122	8.2 km	**No**
Knocksink Woods SAC	IE0000725	8.5 km	**No**
Ballyman Glen SAC	IE0000713	9.1 km	**No**
Howth Head SAC	IE0000202	10.9 km	**No**
Glenasmole Valley SAC	IE0001209	11.8 km	**No**
Baldoyle Bay SAC	IE0000199	12.6 km	**No**
Bray Head SAC	IE0000714	12.7 km	**No**
Ireland's Eye SAC	IE0002193	15.2 km	**No**
Special Protection Areas			
South Dublin Bay and River Tolka Estuary SPA	IE0004024	1.9 km	**No**
North Bull Island SPA	IE0004006	6.9 km	**No**
Dalkey Island SPA	IE0004172	6.7 km	**No**
Wicklow Mountains SPA	IE0004040	8.3 km	**No**
Howth Head Coast SPA	IE0004113	12.5 km	**No**
Baldoyle Bay SPA	IE0004016	12.6 km	**No**
Ireland's Eye SPA	IE0004117	14.8 km	**No**

There is no direct or indirect hydrological pathway from the proposed development site to the European sites beyond 15km and no impact is foreseen on these sites. SACs and SPAs within 15 km of the proposed development are demonstrated in Figures 13 and 14, whilst waterbodies within proximity to the proposed development are shown in Figures 15 and 16. There is an indirect pathway to South Dublin Bay SAC and South Dublin Bay and River Tolka Estuary SPA due to the proposed surface water drainage system from the site. The possible significant impacts on the conservation of the features of interest of Ireland's Eye SAC were also considered, given its proximity to Ireland's Eye SPA which is within the 15 km ZoI.

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

European Sites Screened In for Natura Impact Statement

European Site Code	Name	Screened IN/OUT	Details/Reason
Special Areas of Conservation			
IE0000210	South Dublin Bay SAC	**IN**	**Conservation Objectives** To maintain the favourable conservation condition of Mudflats and sandflats not covered by seawater at low tide in South Dublin Bay SAC, which is defined by the following list of targets: • The permanent habitat area is stable or increasing, subject to natural processes. • Maintain the extent of the *Zostera* –dominated community, subject to natural processes. • Conserve the high quality of the Zostera –dominated community, subject to natural processes 7 • Conserve the following community type in a natural condition: Fine sands with *Angulus tenuis* community complex. **Qualifying Interest** 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 2.0 km from the South Dublin Bay SAC (Figure 13). There is an indirect pathway from the development site to the European site via the surface water drainage network. Surface water from the site will be discharged to the Priory Stream which ultimately outfalls to the sea at Blackrock and the South Dublin Bay SAC (Figure 17). There is also an indirect pathway from the development site to this SAC via the foul water network. The foul water from the site will be treated at Ringsend WwTP via the public foul network and the West Pier pumping station. As there is also a risk of flooding in the area (Figure 7) there is potential for pollutants, dust, or silt laden run off from the site to enter the watercourses proximate to the site, flowing downstream and negatively impact the conservation of the features of interest of this site. **Stage 2 AA (Natura Impact Statement) is Required.**
Special Protection Areas			
IE0004024	South Dublin Bay and River Tolka Estuary SPA	**IN**	**Conservation Objectives** To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA. **Qualifying Interests** Light-bellied Brent Goose (*Branta bernicla hrota*) [A046] Oystercatcher (*Haematopus ostralegus*) [A130]

European Site Code	Name	Screened IN/OUT	Details/Reason
			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 1.9 km from the South Dublin Bay and River Tolka Estuary SPA (Figure 14). There is an indirect pathway from the development site to the European site via the surface water drainage. Surface water from the site will be discharged to the Priory Stream via the existing surface water network, which ultimately outfalls to the sea at Blackrock within the South Dublin Bay and River Tolka Estuary SPA (Figure 18). There is potential for silt or pollution to enter the SPA and impact directly on bird species and prey species of the qualifying interests. There is also an indirect pathway from the development site to this SPA via the foul water network. The foul water from the site will be treated at Ringsend WwTP via the public foul network. As there is also a risk of flooding in the area (Figure 7) there is potential for pollutants, dust, or silt laden run off from the site to enter the watercourses proximate to the site, flowing downstream and negatively impact the conservation of the features of interest of this site. **Stage 2 AA (Natura Impact Statement) is Required.**

European Sites Screened Out for Natura Impact Statement

Special Areas of Conservation			
IE0000206	North Dublin Bay 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 Interest** 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 6.9 km from the North Dublin Bay SAC (Figure 13). There is an indirect pathway from the development site to this SAC via the foul water and the surface water drainage network. The surface water will discharge to the Priory Stream and ultimately outfall to the sea at Blackrock. The foul water from the site will be treated at Ringsend WwTP. Given the distance (6.9 km) from the proposed development site to this SAC, any pollutants, dust or silt laden run off from the site will be diluted or dispersed in the marine environment and would be expected to be at negligible levels before reaching the site which is located on the far side of the estuarine element of the River Liffey. **No significant effects are likely.**
IE0003000	Rockabill to Dalkey Island 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** [1170] Reefs [1351] Harbour porpoise *Phocoena phocoena* **Potential Impact** The proposed development site is located 7.0 km from the Rockabill to Dalkey Island SAC (Figure 13). There is no direct or indirect pathway from the development site to this SAC via the

			foul water and the surface water drainage network. The surface water will discharge to the Priory Stream and ultimately outfall to the sea at Blackrock. The foul water from the site will be treated at Ringsend WwTP. Given the distance (7.0 km) from the proposed development site to this SAC, any pollutants, dust or silt laden run off from the site will be diluted or dispersed in the marine environment and would be expected to be at negligible levels before reaching the site. There is no predicted impact on the conservation of the features of interest of this SAC. **No significant effects are likely.**
IE0002122	Wicklow Mountains SAC	**OUT**	**Conservation Objectives** The maintenance of habitats and species within European sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level. **Qualifying Interests** 1355 Otter *Lutra lutra* 3110 Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*) 3130 Oligotrophic to mesotrophic standing waters with vegetation of the *Littorelletea uniflorae* and/or *Isoeto-Nanojuncetea* 3160 Natural dystrophic lakes and ponds 4010 Northern Atlantic wet heaths with *Erica tetralix* 4030 European dry heaths 4060 Alpine and Boreal heaths 6130 Calaminarian grasslands of the *Violetalia calaminariae* 6230 Species-rich *Nardus* grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe) 7130 Blanket bogs (* if active bog) 8110 Siliceous scree of the montane to snow levels (*Androsacetalia alpinae* and *Galeopsietalia ladani*) 8210 Calcareous rocky slopes with chasmophytic vegetation 8220 Siliceous rocky slopes with chasmophytic vegetation 91A0 Old sessile oak woods with *Ilex* and *Blenchnum* in the British Isles **Potential Impact** The proposed development site is 8.2 km from the Wicklow Mountains SAC (Figure 13). There is no direct or indirect pathway from the site to this SAC. There is no potential for significant effects on the conservation interests or the qualifying interests of this SAC. **No significant effects are likely.**
IE0000725	Knocksink Woods SAC	**OUT**	**Conservation Objectives** The maintenance of habitats and species within European sites at favourable conservation condition will contribute to the overall

			maintenance of favourable conservation status of those habitats and species at a national level. **Qualifying Interests** 7220 Petrifying springs with tufa formation (Cratoneurion)* 91A0 Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles 91E0 Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (Alno-Padion, Alnion incanae, Salicion albae)* **Potential Impact** The proposed development site is 8.5 km from the Knocksink Woods SAC (Figure 13). There is no direct or indirect pathway from the site to this SAC. There is no potential for significant effects on the conservation interests or the qualifying interests of this SAC. **No significant effects are likely.**
IE0000713	Ballyman Glen SAC	**OUT**	**Conservation Objectives** The maintenance of habitats and species within European sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level. **Qualifying Interests** 7220 Petrifying springs with tufa formation (Cratoneurion) 7230 Alkaline fens **Potential Impact** The proposed development site is 9.1 km from the Ballyman Glen SAC (Figure 13). There is no direct or indirect pathway from the site to this SAC. There is no potential for significant effects on the conservation interests or the qualifying interests of this SAC. **No significant effects are likely.**
IE0000202	Howth Head SAC	**OUT**	**Conservation Objectives** The maintenance of habitats and species within European sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level. **Qualifying Interests** Mudflats and sandflats not covered by seawater at low tide [1140] Salicornia and other annuals colonising mud and sand [1310] Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) [1330] Mediterranean salt meadows (*Juncetalia maritimi*) [1410] **Potential Impact** The proposed development site is located 10.9 km from the Howth Head SAC (Figure 13). There is no direct or indirect pathway from the development site to this SAC via the foul water and the surface water drainage network. The surface water will

			discharge to the Priory Stream and ultimately outfall to the sea at Blackrock. The foul water from the site will be treated at Ringsend WwTP. Given the distance (10.9 km) from the proposed development site to this SAC, any pollutants, dust, or silt laden run off from the site will be diluted or dispersed in the marine environment and would be expected to be at negligible levels before reaching the site. There is no potential for significant effects on the conservation interests or the qualifying interests of this SAC. **No significant effects are likely.**
IE0001209	Glenasmole Valley SAC	**OUT**	**Conservation Objectives** The maintenance of habitats and species within European sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level. **Qualifying Interests** 6210 Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites) 6410 *Molinia* meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae) 7220 Petrifying springs with tufa formation (Cratoneurion)* **Potential Impact** The proposed development site is 11.8 km from the Glenasmole Valley SAC (Figure 13). There is no direct or indirect pathway from the site to this SAC. There is no potential for significant effects on the conservation interests or the qualifying interests of this SAC.. **No significant effects are likely.**
IE0000199	Baldoyle Bay SAC	**OUT**	**Conservation Objectives** The maintenance of habitats and species within European sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level. **Qualifying Interests** Mudflats and sandflats not covered by seawater at low tide [1140] Salicornia and other annuals colonising mud and sand [1310] Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) [1330] Mediterranean salt meadows (*Juncetalia maritimi*) [1410] **Potential Impact** The proposed development site is located 12.6 km from the Baldoyle Bay SAC (Figure 13). There is no direct or indirect pathway from the development site to this SAC via the foul water and the surface water drainage network. The surface water will discharge to the Priory Stream and ultimately outfall to the sea at

			Blackrock. The foul water from the site will be treated at Ringsend WwTP. Given the distance (12.6 km) from the proposed development site to this SAC, any pollutants, dust or silt laden run off from the site will be diluted or dispersed in the marine environment and would be expected to be at negligible levels before reaching the site. There is no potential for significant effects on the conservation interests or the qualifying interests of this SAC. **No significant effects are likely.**
IE0000714	Bray Head SAC	**OUT**	**Conservation Objectives** The maintenance of habitats and species within European sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level. **Qualifying Interests** 1230 Vegetated sea cliffs of the Atlantic and Baltic coasts 4030 European dry heaths **Potential Impact** The proposed development site is located 12.6 km from the Bray Head SAC (Figure 13). There is no direct or indirect pathway from the development site to this SAC via the foul water and the surface water drainage network. The surface water will discharge to the Priory Stream and ultimately outfall to the sea at Blackrock. The foul water from the site will be treated at Ringsend WwTP. Given the distance (12.6 km) from the proposed development site to this SAC, any pollutants, dust, or silt laden run off from the site will be diluted or dispersed in the marine environment and would be expected to be at negligible levels before reaching the site. There is no potential for significant effects on the conservation interests or the qualifying interests of this SAC. **No significant effects are likely.**
IE0002193	Ireland's Eye SAC	**OUT**	**Conservation Objectives** The maintenance of habitats and species within European sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level. **Qualifying Interests** 1220 Perennial vegetation of stony banks 1230 Vegetated sea cliffs of the Atlantic and Baltic coasts **Potential Impact** The proposed development site is located 15.2 km from Ireland's Eye Sac (Figure 13). There is no direct or indirect pathway from the development site to this SAC via the foul water and the surface water drainage network. The surface water will discharge

			to the Priory Stream and ultimately outfall to the sea at Blackrock. The foul water from the site will be treated at Ringsend WwTP. Given the distance (15.2 km) from the proposed development site to this SAC, any pollutants, dust, or silt laden run off from the site will be diluted or dispersed in the marine environment and would be expected to be at negligible levels before reaching the site. There is no potential for significant effects on the conservation interests or the qualifying interests of this SAC. **No significant effects are likely.**
Special Protection Areas			
IE0004172	Dalkey Island SPA	**OUT**	**Conservation Objectives** To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA. **Qualifying Interests** A192 Roseate Tern *Sterna dougallii* A193 Common Tern *Sterna hirundo* A194 Arctic Tern *Sterna paradisaea* **Potential Impact** The proposed development site is located 6.7 km from the Dalkey Island SPA (Figure 14). There is an indirect pathway from the development site to this SPA via the foul water and the surface water drainage network. The surface water will discharge to the Priory Stream and ultimately outfall to the sea at Blackrock. The foul water from the site will be treated at Ringsend WwTP. Given the distance (6.7 km) from the proposed development site to this SPA, any pollutants, dust or silt laden run off from the site will be diluted or dispersed in the marine environment and would be expected to be at negligible levels before reaching the site. The small site consists primarily of built land and recolonising bare ground which is a poor foraging resource for the qualifying interests. There is no potential for significant effects on the conservation interests or the qualifying interests of this SPA **No significant effects are likely.**
IE0004006	North Bull Island SPA	**OUT**	**Conservation Objectives** The maintenance of habitats and species within European sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level. **Qualifying Interests** 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 6.9 km from the North Bull Island SPA (Figure 14). There is an indirect pathway from the development site to this SPA via the foul water and the surface water drainage network. The surface water will discharge to the Priory Stream and ultimately outfall to the sea at Blackrock. The foul water from the site will be treated at Ringsend WwTP. Given the distance (6.9 km) from the proposed development site to this SPA, any pollutants, dust or silt laden run off from the site will be diluted or dispersed in the marine environment and would be expected to be at negligible levels before reaching the site. The small site consists primarily of built land and recolonising bare ground which is a poor foraging resource for the qualifying interests. There is no potential for significant effects on the conservation interests or the qualifying interests of this SPA. **No significant effects are likely.**
IE0004040	Wicklow Mountains SPA	**OUT**	**Conservation Objectives** To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA. **Qualifying Interests** A098 Merlin *Falco columbarius* A103 Peregrine *Falco peregrinus* **Potential Impact** The proposed development site is 8.3 km from the Wicklow Mountains SPA (Figure 14). There is no direct or indirect pathway from the site to this SPA. The small site consists primarily of built land and recolonising bare ground which is a poor foraging resource for the qualifying interests. There is no potential for significant effects on the conservation interests or the qualifying interests of this SPA **No significant effects are likely.**
IE0004113	Howth Head Coast SPA	**OUT**	**Conservation Objectives** To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA.

			Qualifying Interests A188 Kittiwake (*Rissa tridactyla*) **Potential Impact** The proposed development site is 12.5 km from the Howth Head Coast SPA (Figure 14). There is no direct or indirect pathway from the site to this SPA. The small site consists primarily of built land and recolonising bare ground which is a poor foraging resource for the qualifying interests. There is no potential for significant effects on the conservation interests or the qualifying interests of this SPA **No significant effects are likely.**
IE0004016	Baldoyle Bay SPA	**OUT**	**Conservation Objectives** The maintenance of habitats and species within European sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level. **Qualifying Interests** Light-bellied Brent Goose (*Branta bernicla hrota*) [A046] Shelduck (*Tadorna tadorna*) [A048] Ringed Plover (*Charadrius hiaticula*) [A137] Golden Plover (*Pluvialis apricaria*) [A140] Grey Plover (*Pluvialis squatarola*) [A141] Bar-tailed Godwit (*Limosa lapponica*) [A157] Wetland and Waterbirds [A999] **Potential Impact** The proposed development site is located 12.6 km from the Baldoyle Bay SPA (Figure 14). There is an indirect pathway from the development site to this SPA via the foul water and the surface water drainage network. The surface water will discharge to the Priory Stream and ultimately outfall to the sea at Blackrock. The foul water from the site will be treated at Ringsend WwTP. Given the distance (12.6 km) from the proposed development site to this SPA, any pollutants, dust or silt laden run off from the site will be diluted or dispersed in the marine environment and would be expected to be at negligible levels before reaching the site. The small site consists primarily of built land and recolonising bare ground which is a poor foraging resource for the qualifying interests. There is no potential for significant effects on the conservation interests or the qualifying interests of this SPA **No significant effects are likely.**
IE0004117	Ireland's Eye SPA	**OUT**	**Conservation Objectives** To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA:

			Qualifying Interests A017 Cormorant (*Phalacrocorax carbo*) A184 Herring Gull (*Larus argentatus*) A188 Kittiwake (*Rissa tridactyla*) A199 Guillemot (*Uria aalge*) A200 Razorbill (*Alca torda*) **Potential Impact** The proposed development site is located 14.8 km from Ireland's Eye SPA (Figure 14). There is an indirect pathway from the development site to this SPA via the foul water and the surface water drainage network. The surface water will discharge to the Priory Stream and ultimately outfall to the sea at Blackrock. The foul water from the site will be treated at Ringsend WwTP. Given the distance (14.8 km) from the proposed development site to this SPA, any pollutants, dust or silt laden run off from the site will be diluted or dispersed in the marine environment and would be expected to be at negligible levels before reaching the site. The small site consists primarily of built land and recolonising bare ground which is a poor foraging resource for the qualifying interests. There is no potential for significant effects on the conservation interests or the qualifying interests of this SPA **No significant effects are likely**

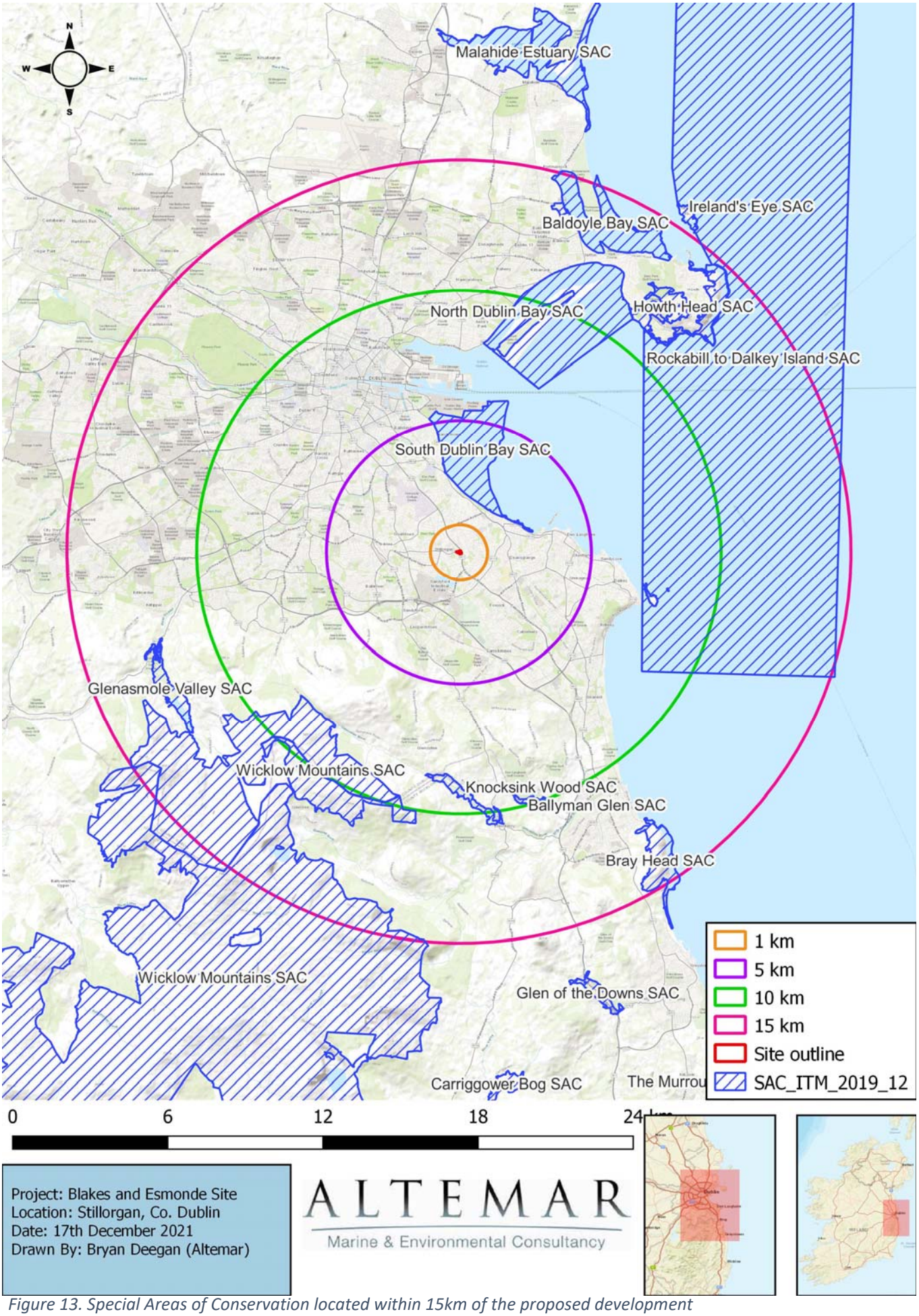

Figure 13. Special Areas of Conservation located within 15km of the proposed development

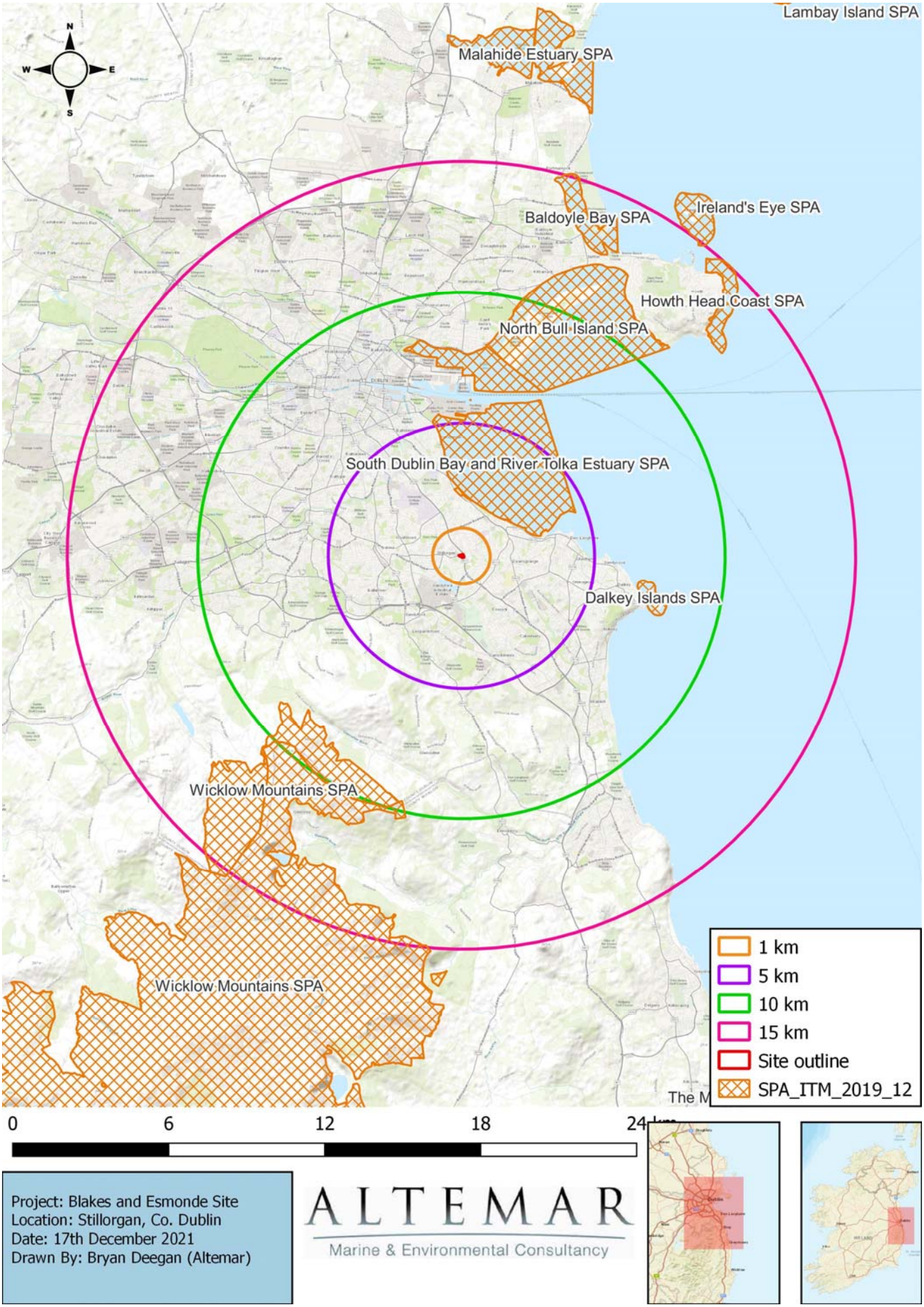

Figure 14. Special Protection Areas within 15km of the proposed development

Figure 15. Waterbodies within 5km of the proposed development (EPA-WFD data)

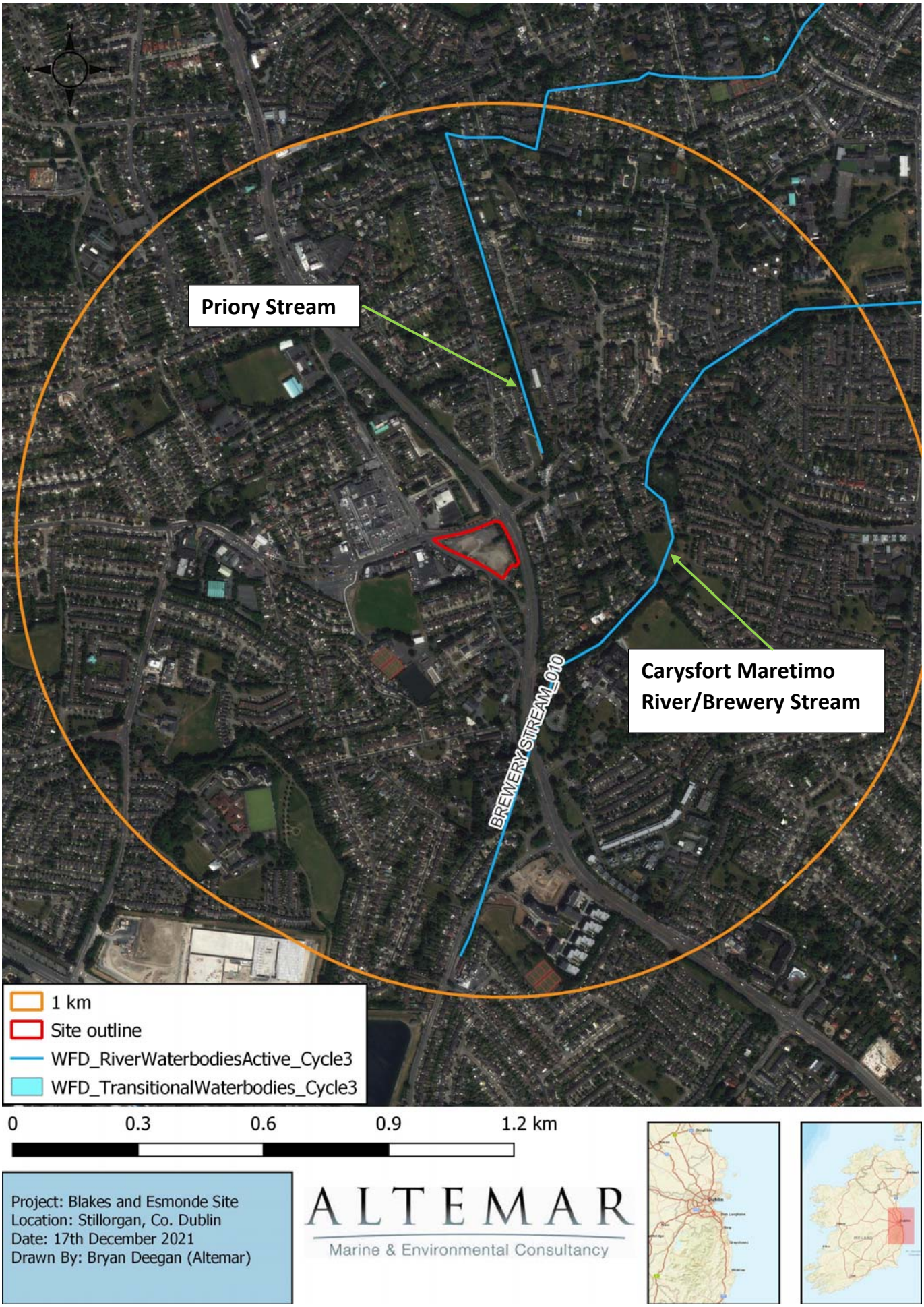

Figure 16. Waterbodies within 1km of the proposed development (EPA-WFD data)

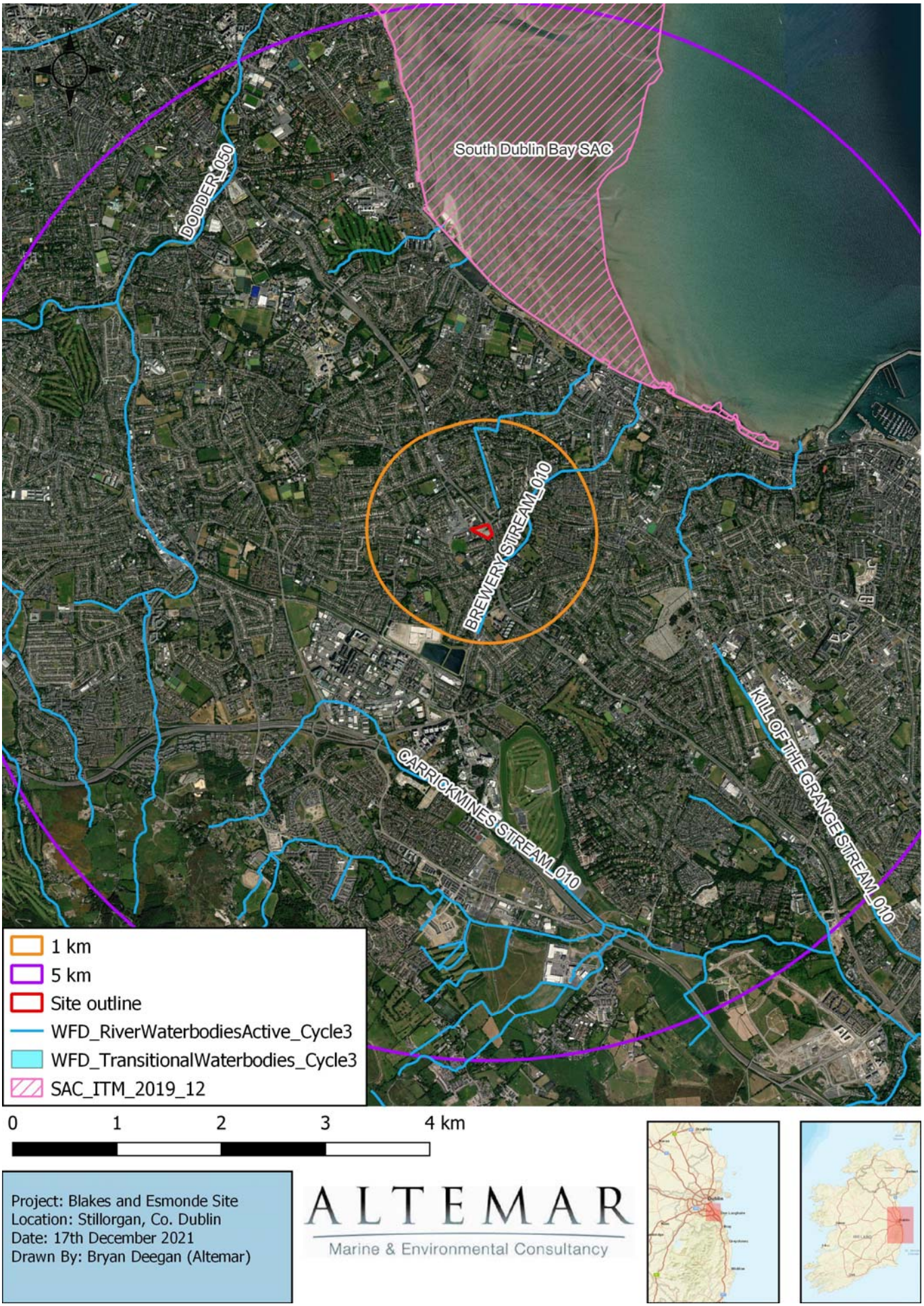

Figure 17. Waterbodies and SAC's within 5 km to the proposed site.

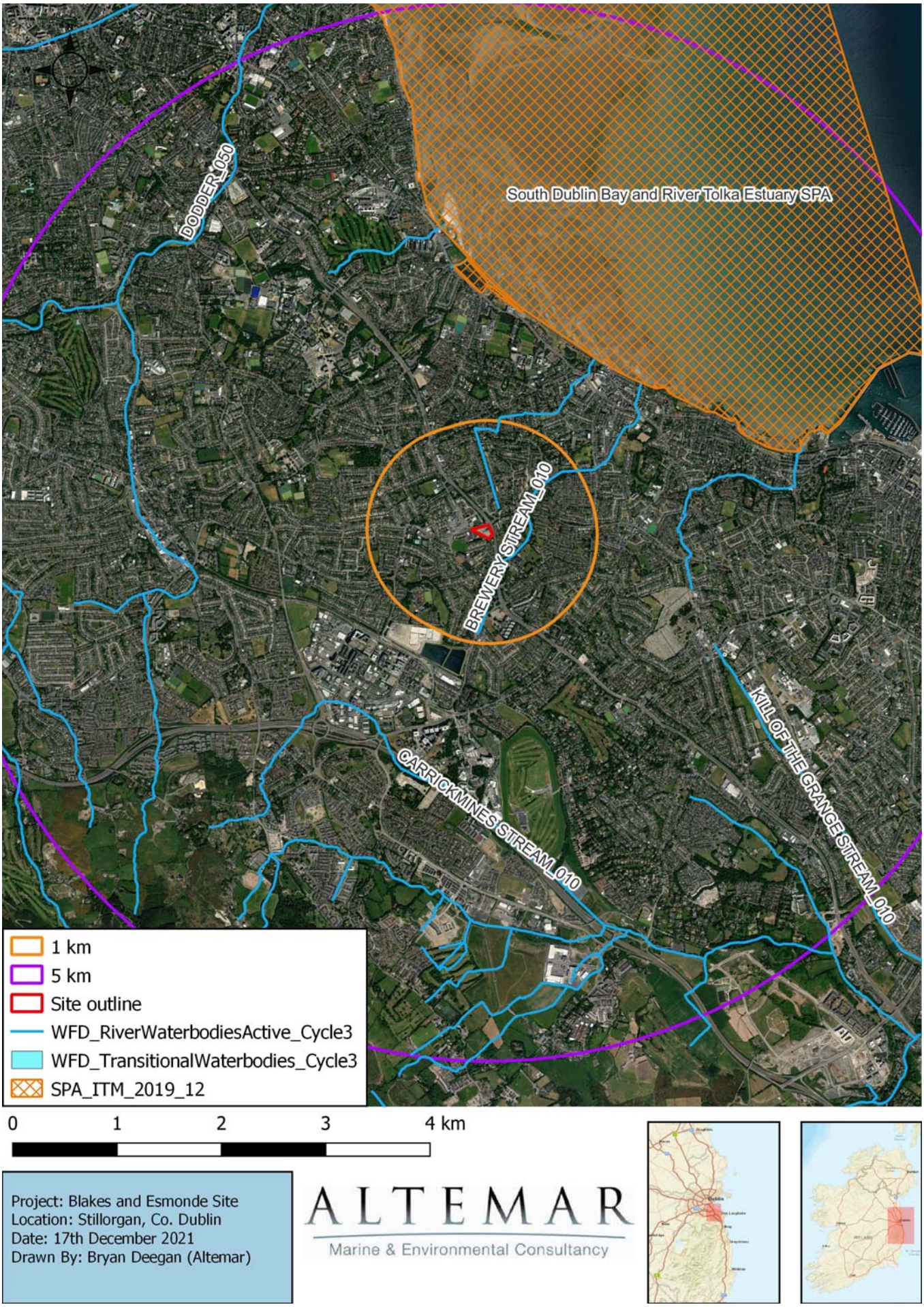

Figure 18. Waterbodies and SPAs within 5 km to the proposed site.

In-Combination Effects

There are multiple 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:

Planning Ref.	Address	Proposal
ABP30517619	Stillorgan Leisureplex, Old Dublin Road, Stillorgan, Co. Dublin, A94 NY56	Permission for a 'Build-To-Rent' strategic housing development. consisting of: Demolition of existing buildings on site consisting of the Stillorgan Leisureplex and associated structures; Construction of a mixed-use development generally ranging in height from 4 no. storeys to 8 no. storeys from street level, stepping down to 2 no. storeys in part to the Lower Kilmacud Road. Two basement levels are proposed; The development will have a total of 232 no. Build-To-Rent apartment units, (109 no. 2 bedroom units, 113 no. 1 bedroom units and 10 no. studio units) with associated balconies and terraces; The development will provide for 2 no. retail (shop) units (c. 1049 sq.m.) and 4 no. restaurant/ café units (c. 806 sq.m.); Provision of a public plaza (827 sq.m.) onto the corner of the Lower Kilmacud Road and the Old Dublin Road; Public Realm improvements including footpaths, parking, loading bays and landscaping works to the Lower Kilmacud Road, Old Dublin Road and St. Laurence's Park; The proposed development will also include the provision of communal and private open space including courtyard areas, terraces and balconies and roof terraces and the provision of tenant amenity space (c. 1021 sq.m) including resident lounge area, communal kitchen and dining, co-working space, cinema, gym and concierge service; Parking at basement levels for 162 cars, 458 bicycles and 10 motorcycles; 60 no. bicycle parking spaces will be provided at ground level; Vehicular access to the basements is from the Lower Kilmacud Road and St. Laurence's Park; All hard and soft landscaping, boundary treatments and all associated site development works and services and plant.
Dun Laoghaire Rathdown Part VIII Development (PC/H/01/20)	St. Laurence's Park, Stillorgan, Co. Dublin	The Part 8 proposal (4-9 storeys) related to the construction a new Public Library and Housing, consisting of: *2 storey library building with gross area of 1,010 square metres; 88 apartments (76 no. 1 bed, 11 no. 2 bed, including 4 no. duplex and 1 no.3 bed units), comprising of 7,619 square meters of internal accommodation ranging from 4 to 9 storeys. Landscaping works to provide a communal garden space and allow for 40 car parking spaces, 2 motorcycle parking spaces and 157 bicycle parking spaces. The proposed works include the demolition of 16 no. Maisonettes, 2 no. semi-detached houses and removal of prefabricated Library building.*
D16A/0271	2.79 hectare site at Stillorgan Village Centre (also known as Stillorgan Shopping Centre), Lower Kilmacud Road and Old Dublin Road, Stillorgan, Co Dublin and associated overflow car park (Green Car	Permission for amendments to the permitted development under Reg. Ref. D15A/0392 for the upgrade and refurbishment of Stillorgan Village Centre. The proposed amendments comprise of the following: (i) Repair and replacement where necessary of existing mall paving surface; (ii) Provide door openings/fire escape stairs for fire escape purposes to the rear of a number of units at ground and first floor level and associated internal amendments; (iii) Omission of permitted first floor roof terrace and star core for access to roof terrace at Unit 46; (iv) Replacement of permitted glass canopy with solid canopy to Old Dublin road and part of Lower Kilmacud Road elevations; (v) Omission of permitted

Planning Ref.	Address	Proposal
	Park) located on Lower Kilmacud Road	café/restaurant of 415 sqm above Units 47,48 & 49; (vi) Provision of minor extension of 55 sqm gross to Unit 60-62 and provision of new shop front. This will result in the loss of 2 no. existing car parking spaces; (vii) Provision of minor extension of 16 sqm to Unit 50 and provision of new shop front; (viii) Provision of new single storey sprinkler tank and pump house to the rear (north-east) of the Village Centre; (ix) Minor alteration of alignment to first floor walls to internal mall to accommodate permitted canopy to internal mall; (x) Amendments to external facades, including amended cladding pattern, amendments to proportion of glazing to solid, provision of new metal reveals to mall entrance and amendments to levels of roof and parapet; (xi) Minor amendments to permitted lighting strategy for the Village Centre arising from the above proposed amendments. (xii) All associated and ancillary works. The permitted development provided an overall additional gross floor space of 443 sqm. The proposed amendments will result in a net reduction of 344 sqm and the development will therefore provide an overall additional gross floor space of 99 sqm.
D16A/0058	Stillorgan Plaza, Lower Kilmacud Road, Stillorgan, Co Dublin	Permission for construction of new 1 no. signage totem (7000 x 2209 mm), 1 no. signage above existing car park entrance (7375 x 630 mm) and 2 nos. signage on the North elevation (each 1100 x 1100 mm), relocation of 3 nos. bicycle racks and all related site development works.
D19A/0675	located within the curtilage of Granada House (formerly known as Riversdale) at St John of God Hospital, Stillorgan Rd, Blackrock, Co. Dublin	Permission is sought for the installation of 4 no. automated car park security barriers and associated site works at the car parks and road entrances entirely situated within the site boundaries which is a Protected Structure.
D16A/0855	Stillorgan Reservoir, Mulchanstown, Co.Dublin	Permission for the development of a covered treated drinking water reservoir with an area of 3.1066 ha and a green roof, associated pipelines, a control building (accommodation valve controls, secondary disinfection and welfare facilities) with an area of 2904m$5, a new vehicular access from St. Raphaelas Road, internal access roads, landscaping, a drainage attenuation pond and all associated site development and site excavation works above and below ground. The covered reservoir and control building will be located in the existing Gray Reservoir and will replace the existing three open reservoirs. The existing open storage reservoirs, Gray Reservoir, Upper Reservoir and Lower Reservoir will be drained decommissioned and landscaped. Works are proposed in the curtilage of protected structure, RPS No. 1524, Vartry House, Vartry Waterworks Complex including the Overflow Screen Chamber, Bridge, Gateway and Granite Walls.
D17A/0226	On site at the Talbot Hotel, Stillorgan, Stillorgan Road, Co Dublin A94 V6K	Permission for the erection of an extension (3555 m2 in total floor area) consisting of a proposed 4 storeys over a semi-basement extension to the rear of the existing Hotel, comprised of 61 no. bedrooms with en-suite bathrooms and 3 no. store rooms over the proposed ground floor, first floor, second floor and part set-back third floor with bin storage area and car parking to the proposed

Planning Ref.	Address	Proposal
		semi-basement level. The development includes internal alterations at the rear of the existing building, alterations to the layout of the existing car park, hard and soft landscaping together with all ancillary services and associated site works.

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 European sites will be seen because of the proposed development alone or combination with other projects.

Appropriate Assessment Screening Conclusions

An initial screening of the proposed works, using the precautionary principle (without the use of any standard construction phase controls or mitigation measures) and the Source/Pathway/Receptor links between the proposed works and European sites with the potential to result in significant effects on the conservation objectives and features of interest of the European sites was carried out in Table 2. Based on best scientific knowledge and objective information and assessment, the possibility of significant effects caused by the proposed project was excluded for the following European sites within 15km in addition to sites beyond 15km with a direct/indirect pathway:

Special Areas of Conservation

- IE0000206 North Dublin Bay SAC
- IE0003000 Rockabill to Dalkey Island SAC
- IE0002122 Wicklow Mountains SAC
- IE0000725 Knocksink Woods SAC
- IE0000713 Ballyman Glen SAC
- IE0000202 Howth Head SAC
- IE0001209 Glenasmole Valley SAC
- IE0000199 Baldoyle Bay SAC
- IE0000714 Bray Head SAC
- IE0002193 Ireland's Eye SAC

Special Protection Areas

- IE0004006 North Bull Island SPA
- IE0004172 Dalkey Island SPA
- IE0004040 Wicklow Mountains SPA
- IE0004113 Howth Head Coast SPA
- IE0004016 Baldoyle Bay SPA
- IE0004117 Ireland's Eye SPA

The project is limited in scale and extent and the potential zone of influence is restricted to the immediate vicinity of the proposed development with potential for downstream effects on European Sites in the absence of mitigation measures. In the absence of mitigation measures there is potential for silt laden material to enter the watercourse via the surface water drainage system which discharges to the Priory Stream. There is also potential for pollution to enter the watercourses via potential flooding and impact on local biodiversity and European sites (South Dublin Bay SAC and South Dublin Bay and River Tolka Estuary SPA) immediately downstream from the works.

An NIS or Stage 2 Appropriate Assessment is not required for the effects of the project on all other listed Natura sites above because it can be excluded on the basis of the best objective scientific

information following screening that the plan or project, individually and/or in combination with other plans or projects, will have a significant effect on the European Site/s.

Acting on a strictly precautionary basis, an NIS is required in respect of the effects of the project on the South Dublin Bay SAC and South Dublin Bay and River Tolka Estuary SPA because it cannot be excluded on the basis of best objective scientific information following screening, in the absence of control or mitigation measures that the plan or project, individually and/or in combination with other plans or projects, will have a significant effect on the named European Site/s.

A Natura Impact Statement is required for the proposed development.

Stage 2: Natura Impact Statement

A Natura Impact Statement (NIS) is Stage 2 of the Appropriate Assessment process. In the case of the proposed development at Blake's and Esmonde Site, Stillorgan, Co. Dublin, acting on a strictly precautionary basis, an NIS is required in respect of the effects of the project on the South Dublin Bay SAC and South Dublin Bay and River Tolka Estuary SPA (due to the discharge of surface water from the site in to the Priory Stream and potential pollution impacts from flooding) because it cannot be excluded on the basis of best objective scientific information, in the absence of control or mitigation measures, following screening that the plan or project, individually and/or in combination with other plans or projects, will have a significant effect on the named European Site/s.

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

The NIS evaluates the potential for direct, indirect effects, alone or in combination with other plans and projects having taken into account the use of mitigation measures. A further review of the Conservation Objectives and features of interest is necessary to determine if significant effects are likely to impact the South Dublin Bay SAC and South Dublin Bay and River Tolka Estuary SPA.

South Dublin Bay SAC (Site code: 000210)

South Dublin Bay SAC is located 2 km from the planning boundary. The proposed development is directly hydrologically connected to the South Dublin Bay SAC via the Priory Stream which will be the receiving watercourse for all surface water drained from the site. This can be seen in Figure 17.

Site-specific data

As outlined in the South Dublin Bay SAC Site Synopsis (NPWS, Version date 10.12.2015):

'This site lies south of the River Liffey in Co. Dublin, and extends from the South Wall to the west pier at Dun Laoghaire. It is an intertidal site with extensive areas of sand and mudflats. The sediments are predominantly sands but grade to sandy muds near the shore at Merrion Gates. The main channel which drains the area is Cockle Lake.

The site is a Special Area of Conservation (SAC) selected for the following habitats and/or species listed on Annex I / II of the E.U. Habitats Directive (= priority; numbers in brackets are Natura 2000 codes): [1140] Tidal Mudflats and Sandflats [1210] Annual vegetation of drift lines [1310] Salicornia and other annuals colonising mud and sand [2110] Embryonic shifting dunes*

The bed of Dward Eelgrass (Zostera noltii) found below Merrion Gates is the largest stand on the east coast. Green algae (Enteromorpha spp. and Ulva lactuca) are distributed throughout the area at a low density. Fucoid algae occur on the rocky shore in the Maretimo to Dún Laoghaire area. Species include Fucus spiralis, F. vesiculosus, F. serratus, Ascophyllum nodosum and Pelvetia canaliculate.

Several small, sandy beaches with incipient dune formation occur in the northern and western sectors of the site, notably at Poolbeg, Irishtown and Merrion/ Booterstown. The formation at Booterstown is very recent. Drift line vegetation occurs in association with the embryonic and incipient fore dunes. Typically drift lines occur in a band approximately 5 m wide, though at Booterstown this zone is wider in places. The habitat occurs just above the High Water Mark and below the area of embryonic dune. Species present are Sea Rocket (Cakile maritima), Frosted Orache (Atriplex laciniata), Spear-leaved Orache (A. prostrata), Prickly Saltwort (Salsola kali) and Fat Hen (Chenopodium album). Also occurring is Sea Sandwort (Honkenya peploides), Sea Beet (Beta vulgaris subsp. maritima) and Annual Sea-blite (Suaeda maritima). A small area of pioneer saltmarsh now occurs in the lee of an embryonic sand dune just north of Booterstown Station. This early stage of saltmarsh development is here characterised by the presence of pioneer stands of glassworts (Salicornia spp.) occurring below an area of drift line

vegetation. As this is of very recent origin, it covers a small area but ample areas of substrate and shelter are available for the further development of this habitat.

Lugworm (Arenicola marina), Cockles (Cerastoderma edule) and annelids and other bivalves are frequent throughout the site. The small gastropod Hydrobia ulvae occurs on the muddy sands off Merrion Gates.

South Dublin Bay is an important site for waterfowl. Although birds regularly commute between the south bay and the north bay, recent studies have shown that certain populations which occur in the south bay spend most of their time there. The principal species are Oystercatcher (1215), Ringed Plover (120), Sanderling (344), Dunlin (2628) and Redshank (356) (average winter peaks 1996/97 and 1997/98). Up to 100 Turnstones are usual in the south bay during winter. Brent Goose regularly occur in numbers of international importance (average peak 299). Bar-tailed Godwit (565), a species listed on Annex I of the E.U. Birds Directive, also occur.

Large numbers of gulls roost in South Dublin Bay, e.g. 4,500 Black-headed Gulls in February 1990; 500 Common Gulls in February 1991. It is also an important tern roost in the autumn, regularly holding 2000-3000 terns including Roseate Terns, a species listed on Annex I of the E.U. Birds Directive. South Dublin Bay is largely protected as a Special Protection Area.

At low tide the inner parts of the south bay are used for amenity purposes. Baitdigging is a regular activity on the sandy flats. At high tide some areas have windsurfing and jet-skiing.

This site is a fine example of a coastal system, with extensive sand and mudflats, and incipient dune formations. South Dublin Bay is also an internationally important bird site.'

The Qualifying Interests (QI) (Features of Interest) and the National conservation status of the QI for South Dublin Bay SAC are seen in Table 5.

***Table 5**. Qualifying Interests, Conservation Status, Management Objectives, Conditions underpinning site integrity for South Dublin Bay SAC.*

Qualifying Interests, Conservation Status, Management Objectives, Conditions underpinning site integrity for relevant European sites		
European Site Name & Code	**Qualifying Interests**	**Current Conservation Status & Trend**
South Dublin Bay SAC IE0000210	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]	**Inadequate** **Inadequate** **Favourable** **Inadequate**

The Conservation Objectives and overall status of species and habitats in South Dublin Bay SAC are as follows[2] [3]:

'*Objective: To maintain the favourable conservation condition of Mudflats and sandflats not covered by seawater at low tide in South Dublin Bay SAC, which is defined by the following list of attributes and targets.*

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

[2] NPWS (2013). Conservation Objectives: South Dublin Bay SAC 0000210. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
[3]NPWS (2013) South Dublin Bay SAC (site code: 0210) Conservation objectives supporting document -Marine Habitats

- *This target refers to activities or operations that propose to permanently remove habitat from a site, thereby reducing the permanent amount of habitat area. It does not refer to long or short term disturbance of the biology of a site.*
- *Early consultation or scoping with the Department in advance of formal application is advisable for such proposals.*

Target 2. Maintain the extent of the Zostera-dominated community, subject to natural processes.

- *A Zostera-dominated community is considered to be a keystone community that is of considerable importance to the overall ecology and biodiversity of a habitat by virtue of its physical complexity, e.g. it serves as important nursery grounds for commercial and non-commercial species.*
- *Any significant anthropogenic disturbance to the extent of these communities should be avoided.*
- *An interpolation of the likely distribution of these communities is provided in figure 2. the area given below is based on spatial interpolation and therefore should be considered indicative:*
    - *Zostera-dominated community – 4ha*

Target 3. Conserve the high quality of the Zostera-dominated community, subject to natural processes.

- *It is important to ensure the quality as well as the extent of Zostera-dominated communities is conserved. For example, shoot density can provide an indication of the habitat quality as well as giving information on the habitat complexity and refuge capability; all important components in maintaining the structural and functional integrity of the habitat.*

Target 4. Conserve the following community type in a natural condition: Fine sands with Angulus tenuis community complex.

- *A semi-quantitative description of these community types has been provided in Section 1.*
- *An interpolation of their likely distribution is provided in figure 2.*
- *The estimated areas of these community types within the Mudflats and sandflats not covered by seawater at low tide habitat given below are based on spatial interpolation and therefore should be considered indicative: - Fine sands with Angulus tenuis community complex – 716ha*
- *Significant continuous or ongoing disturbance of communities should not exceed an approximate area of 15% of the interpolated area of each community type, at which point an inter-Departmental management review is recommended prior to further licensing of such activities.*
- *Proposed activities or operations that cause significant disturbance to communities but may not necessarily represent a continuous or ongoing source of disturbance over time and space may be assessed in a context-specific manner giving due consideration to the proposed nature and scale of activities during the reporting cycle and the particular resilience of the receiving habitat in combination with other activities within the designated site.'*

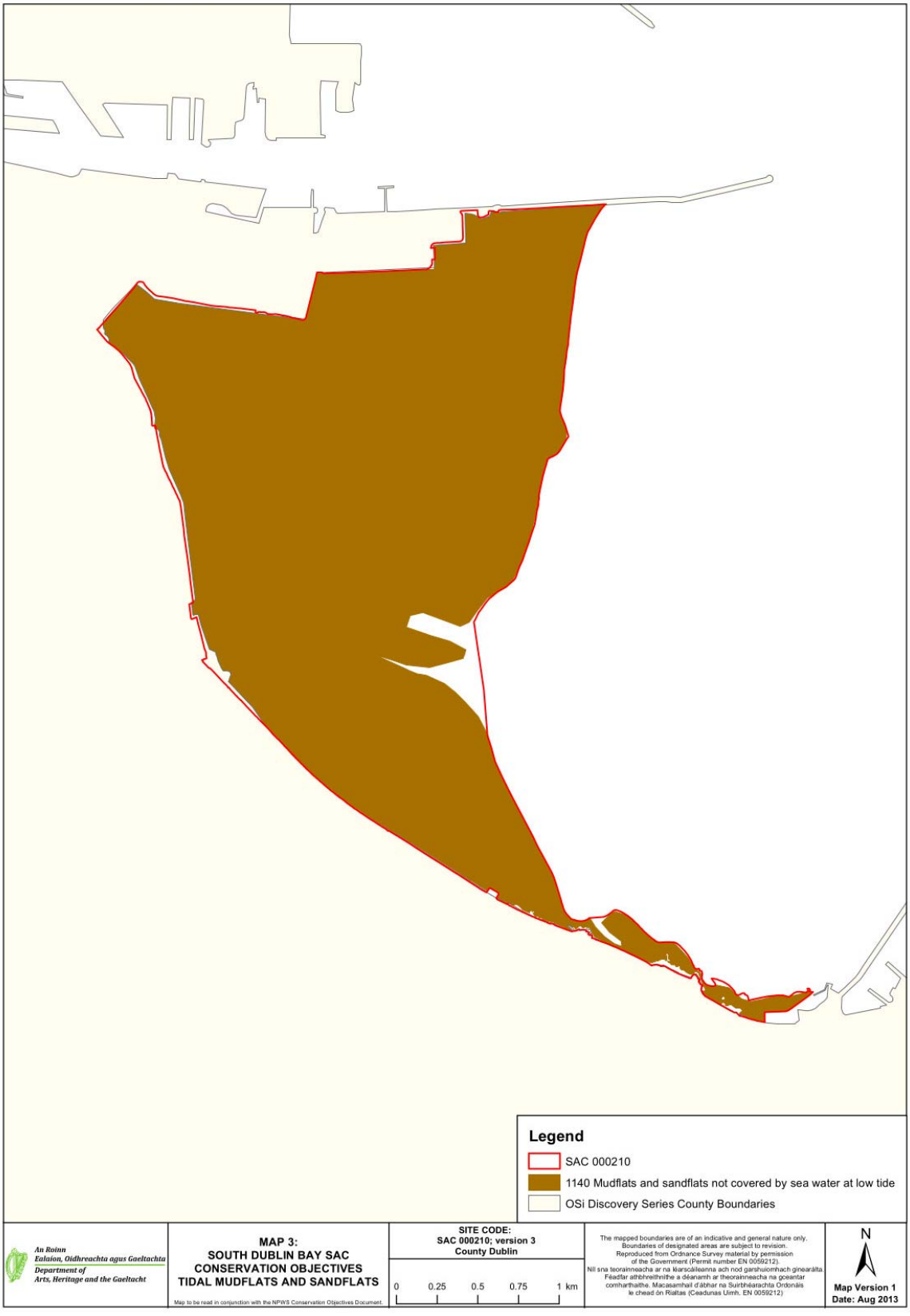

Figure 19. Distribution of Mudflats and Sandflats not covered by seawater at low tide in South Dublin Bay SAC

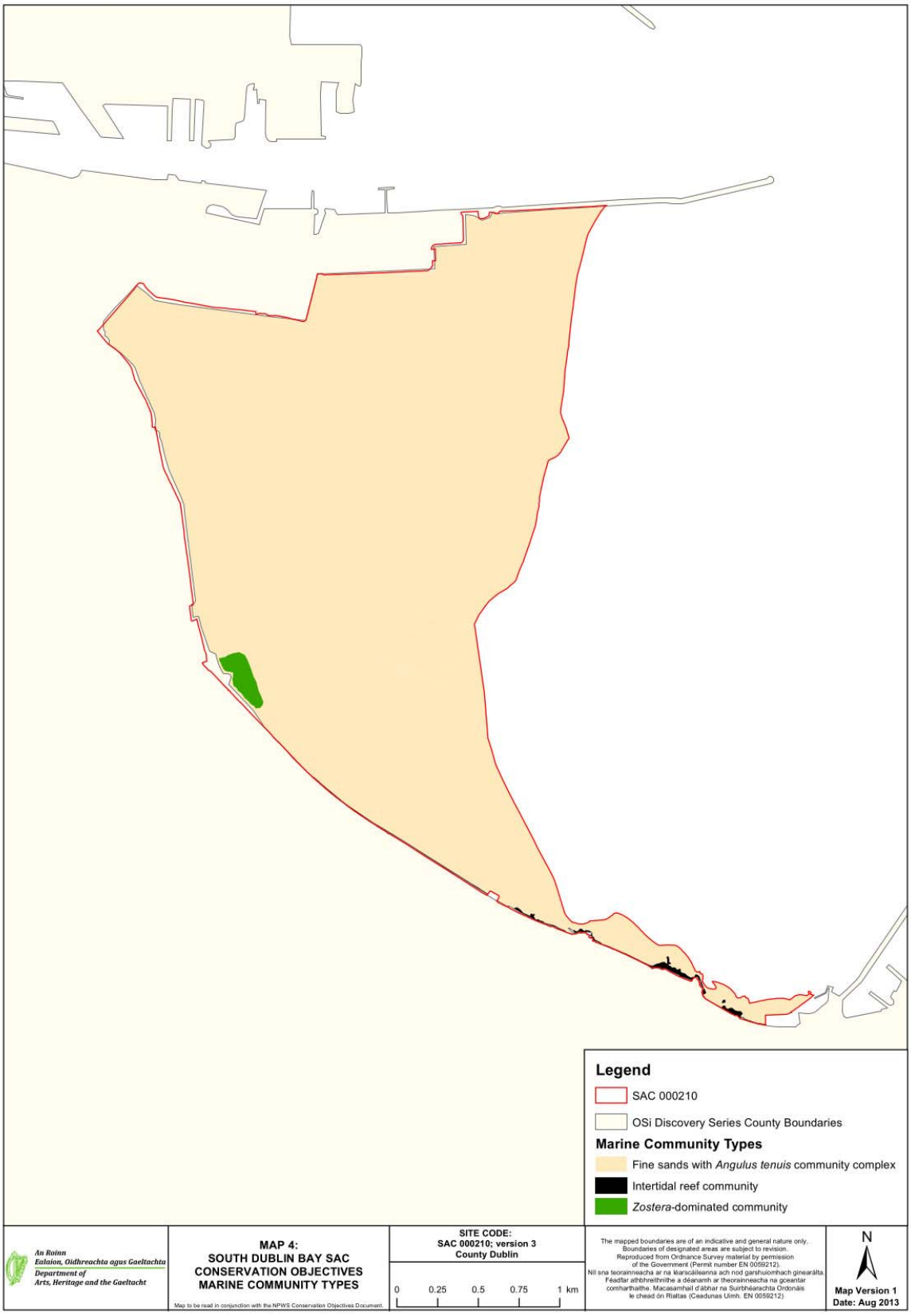

Figure 20. Distribution of marine community types in South Dublin Bay SAC

As outlined in the Conservation objectives supporting document – Marine Habitat (NPWS, 2013):

'*South Dublin Bay SAC is designated for the marine Annex I qualifying interest of Mudflats and sandflats not covered by seawater at low tide.*

Within South Dublin Bay SAC and the overlapping SPA, five community types are recorded. Their occurrence within the Annex I habitat and the SPA is presented in table 1; a description of each community type is given below.

'FINE SANDS WITH ANGULUS TENUIS COMMUNITY COMPLEX

This community occurs throughout the site from the intertidal to a depth of approximately 6m. The sediment of this community complex is predominantly fine sands (52.7% to 99.4% very fine and fine sand) with negligible amounts of silt-clay (<0.2%). Quantities of coarse material are generally low (coarse sand <1.1%, gravel <0.22%), occasional increases in the coarser fractions are attributed to localised deposits of shell debris.

The distinguishing species of this community are the bivalve Angulus tenuis and the polychaetes Scoloplos (Scoloplos) armiger, Pygospio elegans and Nephtys cirrosa (Table 2). These species are not uniformly distributed across the site and are generally recorded in low abundances.

The gastropod Peringia ulvae, the polychaetes Sigalion mathildae, Capitella sp. and Paraspio decorata and the bivalves Cerastoderma edule and Angulus fabula are also recorded within this community complex. Ulva sp. is also recorded as occasional to abundant on the mid and low shores at Sandymount and to the north of Blackrock.

The polychaete Lanice conchilega and the bivalve Ensis ensis are commonly recorded to the north of Blackrock, in this area and also at Sandymount L. conchilega and Arenicola marina also commonly occur.

ZOSTERA-DOMINATED COMMUNITY

This intertidal community occurs on the upper shore at the Merrion Gates. The sediment of this community is muddy sand. The distinguishing species of this community are the sea grass Zostera noltii, the polychaete Arenicola marina and the bivalve Cerastoderma edule. Z. noltii is not uniformly distributed but is generally recorded as frequent to abundant (<10 individual m^{-2}). A. marina occurs in moderate to high abundances (<8m^{-2}). C. edule occurs in moderate to low abundances (<5m^{-2}). The crab Carcinus maenas is also recorded here.

The green alga Ulva sp. occurs within this community. Coverage is not uniform and is localised to where fronds become entangled in Z. noltii blades.

INTERTIDAL REEF COMMUNITY

An intertidal reef community occurs in the south of the site along the shore from Booterstown to Monkstown. The community occurs on a hard substrate which is predominantly flood defences with some areas of bedrock, cobble and boulders.

The species associated with this community are the brown algae Fucus vesiculosus, F. serratus, F. spiralis, Ascophyllum nodosum and Pelvetia canaliculata, unidentified red algae, the gastropods Patella vulgata and Littorina littorea, the barnacle Semibalanus balanoides, and the bivalve Mytilus edulis.

The red algae Rhodothamniella floridula and Porphyra purpurea and the green alga Ulva sp. are also recorded from this community.

FINE SAND TO SANDY MUD WITH PYGOSPIO ELEGANS AND CRANGON CRANGON COMMUNITY COMPLEX

This intertidal community complex is recorded on the north shore of Dublin Bay on the shore from Clontarf to Marino.

The sediment of this community complex is largely that of fine sand. On the upper shore there is a surface covering of cobble, pebbles and stones with intermittent boulders and larger stones. From the North Bull Wall to the disused saltwater swimming pool at Clontarf this veneer is ubiquitous while to the west of this point it gradually decreases in cover.

The fauna of this community complex is distinguished by the polychaete Pygospio elegans and the crustacean Crangon crangon. These species are not uniformly distributed within the complex; where they do occur P. elegans is recorded in moderate to low abundances while C. crangon is recorded in low abundances. The polychaetes Scoloplos armiger, Tharyx sp. and Capitella sp., the bivalve Cerastoderma edule and the amphipod Corophium volutator are also occur here and again are not uniformly distributed. With the exception of C. volutator, which occurs in low abundances, the remaining species are recorded in moderate to low abundances. At the sea wall at the western extreme of the site the polychaete Arenicola marina occurs in moderate abundances (<10m^{-2}).

Larger rocks and boulders where they occur host the algae Fucus vesiculosus, the limpet Patella sp. and the barnacle Semibalanus balanoides. Patches of Ulva sp. occur but are not uniformly distributed.

FINE SAND WITH SPIO MARTINENSIS COMMUNITY COMPLEX

This community complex is recorded in the subtidal south of the Bull Wall; it extends from the intertidal into the shallow subtidal (<5m).

The sediment of this community complex is largely that of fine sand with negligible amounts of coarse material recorded here (0.7%).

In general the fauna of this community complex occur in low abundances, of these the polychaete Spio martinensis is the most dominant species. The polychaete Nephtys cirrosa, the crustaceans Bathyporeia guilliamsoniana, Corophium volutator and Praunus flexuosus and the bivalves Cerastoderma edule and Tellina tenuis are all recorded here. The oligochaete Tubificoides benedii and the gastropod Peringia ulvae also occur here.'

The attribute, measure and target of the site-specific Conservation Objectives for South Dublin Bay SAC are seen in Table 6.

Table 6. Attribute, measure and target of the site conservation objectives for South Dublin Bay SAC.

Attribute	Measure	Target
Mudflats and sandflats not covered by seawater at low tide [1140] (Restore the favourable conservation condition)		
Habitat area	Hectares	The permanent habitat area is stable or increasing, subject to natural processes
Community extent	Hectares	Maintain the extent of the Zostera-dominated community, subject to natural processes.
Community structure: *Zostera* density	Shoots/m²	Conserve the high quality of the Zostera-dominated community, subject to natural processes
Community distribution	Hectares	Conserve the following community type in a natural condition: Fine sands with Angulus tenuis community complex.

South Dublin Bay and River Tolka Estuary SPA (Site code: 004024)

South Dublin Bay and River Tolka Estuary SPA is located 1.9 km from the planning boundary. There is potential for the proposed development to be directly hydrologically connected to South Dublin Bay and River Tolka Estuary SPA via the Priory Stream, which is the receiving watercourse for the surface water discharging from the proposed development site. The stream outfalls into the marine environment, directly to South Dublin Bay and River Tolka Estuary SPA. This can be seen in Figure 18. The pollution from silt during the construction phase could have negative impacts on the conservation status of both the wetland area and the qualifying birds of interest for this SPA.

Site-specific data

As outlined in the South Dublin Bay and River Tolka Estuary SPA Site Synopsis (NPWS, Version date 30.05.2015):

'*The South Dublin Bay and River Tolka Estuary SPA comprises a substantial part of Dublin Bay. It includes the intertidal area between the River Liffey and Dun Laoghaire, and the estuary of the River Tolka to the north of the River Liffey, as well as Booterstown Marsh. A portion of the shallow marine waters of the bay is also included.*

In the south bay, the intertidal flats extend for almost 3 km at their widest. The sediments are predominantly well-aerated sands. Several permanent channels exist, the largest being Cockle Lake. A small sandy beach occurs at Merrion Gates, while some bedrock shore occurs near Dun Laoghaire. The landward boundary is now almost entirely artificially embanked. There is a bed of Dwarf Eelgrass (Zostera noltii) below Merrion Gates which is the largest stand on the east coast. Green algae (Ulva spp.) are distributed throughout the area at a low density. The macroinvertebrate fauna is well-developed, and is characterised by annelids such as Lugworm (Arenicola marina), Nephthys spp. and Sand Mason (Lanice conchilega), and bivalves, especially Cockle (Cerastoderma edule) and Baltic Tellin (Macoma balthica). The small gastropod Spire Shell (Hydrobia ulvae) occurs on the muddy sands off Merrion Gates, along with the crustacean Corophium volutator. Sediments in the Tolka Estuary vary from soft thixotrophic muds with a high organic content in the inner estuary to exposed, well-aerated sands off the Bull Wall. The site includes Booterstown Marsh, an enclosed area of saltmarsh and muds that is cut off from the sea by the Dublin/Wexford railway line, being linked only by a channel to the east, the Nutley stream. Sea water incursions into the marsh occur along this stream at high tide. An area of grassland at Poolbeg, north of Irishtown Nature Park, is also included in the site.

The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: Light-bellied Brent Goose, Oystercatcher, Ringed Plover, Grey Plover, Knot, Sanderling, Dunlin, Bar-tailed Godwit, Redshank, Black-headed Gull, Roseate Tern, Common Tern and Arctic Tern. The E.U. Birds Directive pays particular attention to wetlands, and as these form part of the SPA, the site and its associated waterbirds are of special conservation interest for Wetland & Waterbirds.

The site is an important site for wintering waterfowl, being an integral part of the internationally important Dublin Bay complex – all counts for wintering waterbirds are five year mean peaks for the period 1995/96 to 1999/2000. Although birds regularly commute between the south bay and the north bay, recent studies have shown that certain populations which occur in the south bay spend most of their time there. An internationally important population of Light-bellied Brent Goose (368) occurs regularly and newly arrived birds in the autumn feed on the Eelgrass bed at Merrion. At the time of designation the site supported nationally important numbers of a further nine species: Oystercatcher (1,145), Ringed Plover (161), Grey Plover (45), Knot (548), Sanderling (321), Dunlin (1,923), Bar-tailed Godwit (766), Redshank (260) and Black-headed Gull (3,040). Other species occurring in smaller numbers include Great Crested Grebe (21), Curlew (127) and Turnstone (52). Little Egret, a species which has recently colonised Ireland, also occurs at this site.

South Dublin Bay is a significant site for wintering gulls, with a nationally important population of Black-headed Gull, but also Common Gull (330) and Herring Gull (348). Mediterranean Gull is also recorded from here, occurring through much of the year, but especially in late winter/spring and again in late summer into winter.

Both Common Tern and Arctic Tern breed in Dublin Docks, on a man-made mooring structure known as the E.S.B. dolphin – this is included within the site. Small numbers of Common Tern and Arctic Tern were recorded nesting on this dolphin in the 1980s. A survey in 1995 recorded nationally important numbers of Common Tern nesting here (52 pairs). The breeding population of Common Tern at this site has increased, with 216 pairs recorded in 2000. This increase was largely due to the ongoing management of the site for breeding terns. More recent data highlights this site as one of the most important Common Tern sites in the country with over 400 pairs recorded here in 2007.

South Dublin Bay is an important staging/passage site for a number of tern species in the autumn (mostly late July to September). The origin of many of the birds is likely to be the Dublin breeding sites (Rockabill and the Dublin Docks) though numbers suggest that the site is also used by birds from other sites, perhaps outside the state. This site is selected for designation for its autumn tern populations: Roseate Tern (2,000 in 1999), Common Tern (5,000 in 1999) and Arctic Tern (20,000 in 1996).

The South Dublin Bay and River Tolka Estuary SPA is of ornithological importance as it supports an internationally important population of Light-bellied Brent Goose and nationally important populations of a further nine wintering species. Furthermore, the site supports a nationally important colony of breeding Common Tern and is an internationally important passage/staging site for three tern species. It is of note that four of the species that regularly occur at this site are listed on Annex I of the E.U. Birds Directive, i.e. Bar-tailed Godwit, Common Tern, Arctic Tern and Roseate Tern. Sandymount Strand/Tolka Estuary is also a Ramsar Convention site.'

The Special Conservation Interests (SCIs) for the South Dublin Bay and River Tolka Estuary SPA and the National conservation status of the QI are seen in Table 7.

***Table 7**. Special Conservation Interests (SCIs) for South Dublin Bay and River Tolka Estuary SPA and National status*

Qualifying Interests, Conservation Status, Management Objectives, Conditions underpinning site integrity for relevant European sites		
European Site Name & Code	**Qualifying Interests**	**Current Conservation Status & Trend**
South Dublin Bay and River Tolka Estuary SPA IE0004024	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]	**Amber** **Amber** **Red** **Amber** **Amber** **Green** **Red** **Amber** **Red** **Red** **Amber** **Amber** **Amber**

The status of qualifying interest species listed for South Dublin Bay and River Tolka Estuary SPA are as follows[4]:

- *'During winter the site regularly supports 1% or more of the biogeographic population of Light-bellied Brent Geese (Branta bernicla hrota). The mean peak number of this species within the SPA during the baseline period (1995/96 – 1999/00) was 525 individuals.*

- *During winter the site regularly supports 1% or more of the all-Ireland population of Oystercatcher (Haematopus ostralegus). The mean peak number of this species within the SPA during the baseline period (1995/96 – 1999/00) was 1,263 individuals.*

- *During winter the site regularly supports 1% or more of the all-Ireland population of Ringed Plover (Charadrius hiaticula). The mean peak number of this species within the SPA during the baseline period (1995/96 – 1999/00) was 161 individuals.*

- *During winter the site regularly supports 1% or more of the all-Ireland population of Knot (Calidris canutus). The mean peak number of this species within the SPA during the baseline period (1995/96 – 1999/00) was 1,151 individuals.*

- *During winter the site regularly supports 1% or more of the all-Ireland population of Sanderling (Calidris alba). The mean peak number of this species within the SPA during the baseline period (1995/96 – 1999/00) was 349 individuals.*

- *During winter the site regularly supports 1% or more of the all-Ireland population of Dunlin (Calidris alpina). The mean peak number of this species within the SPA during the baseline period (1995/96 – 1999/00) was 2,753 individuals.*

- *During winter the site regularly supports 1% or more of the all-Ireland population of Bar-tailed Godwit (Limosa lapponica). The mean peak number of this Annex I species within the SPA during the baseline period (1995/96 – 1999/00) was 866 individuals.*

- *During winter the site regularly supports 1% or more of the all-Ireland population of Redshank (Tringa totanus). The mean peak number of this species within the SPA during the baseline period (1995/96 – 1999/00) was 713 individuals.*

- *The winter mean peak number of Black-headed Gull (Chroicocephalus ridibundus) within the site during the baseline period (1995/96 – 1999/00) was 3,040 individuals. This number exceeds the selection threshold set for this species.*

- *During the breeding season this site supports a colony of Common Tern (Sterna hirundo) (52 pairs in 1995). This exceeds the All-Ireland 1% threshold for this Annex I species.*

- *This site is selected as an important passage area for three migratory waterbird species based on significant concentrations recorded, as follows:*

  Common Tern (Sterna hirundo): 5,000 recorded in 1999.
  Arctic Tern (Sterna parasidea): 20,000 recorded in 1996.
  Roseate Tern (Sterna dougalii): 2,000 individuals recorded in 1999.'

[4] NPWS (201ϱ) 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.

- *The wetland habitats contained within South Dublin Bay and River Tolka Estuary are identified of conservation importance for non-breeding (wintering) migratory waterbirds. Therefore the wetland habitats are considered to be an additional Special Conservation Interest.'*

The current population data for waterbirds of Special Conservation Interest in South Dublin Bay and River Tolka Estuary SPA is outlined in the NPWS[7].

'*The sites designated as North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA are inextricably interlinked because several of the listed waterbird species use habitats within both of the designated sites and make regular movements between them. Nonbreeding waterbirds have been counted regularly across the wider site known as 'Dublin Bay' as part of the Irish Wetland Bird Survey (I-WeBS) since the survey commenced in 1994/95. Two large count areas are used: (1) North Bull Island and (2) South Wall-West Pier Dún Laoghaire; these are further subdivided into count subsites. These subsites fit within the two SPA areas and their boundaries correspond closely, but not exactly, to the SPA boundaries. Count data for these subsites were used to inform the SPA designation process.*

I-WeBS counts take place across the core survey months of September to March inclusive; this period covers the main wintering period when many species occur in their largest concentrations, but also the autumn and spring passage periods when total waterbird numbers may be enhanced by staging/stopover birds12. When examining waterbird data, it is standard practice to use the mean of peak counts generated for each species because it reflects more accurately the importance of a site for a particular species helping to account for inconsistencies in data gathering (i.e. differing coverage) or extraordinary fluctuations in numbers. However it is important to note that waterbird counts represent a 'snapshot' of bird numbers during a count session, so in general and taking into account all potential sources of error, resulting data are regarded to be underestimates of population size (Underhill & Prŷs-Jone*s, 1994).*

Gulls are widely distributed during winter and are not monitored routinely during I-WeBS so standard methods of population estimation and threshold setting cannot be applied. Gull species are therefore not assigned 1% thresholds but rather a 'threshold of significance' is applied that relates to the known most important sites for the species in question (Crowe, 2005).'

Bird counts for species of conservation importance are seen in Table 8.

Table 8. Bird counts of species of conservation importance in South Dublin Bay and River Tolka Estuary SPA

Site Special Conservation Interests (SCIs)	1995/96 -1999/00	2006/07 – 2010/11
Light-bellied Brent Goose	525 (i)	854 (i)
Oystercatcher	1263 (n)	1965 (n)
Ringed Plover	161 (n)	345 (n)
Knot	1151 (n)	1934 (n)
Sanderling	349 (n)	466 (n)
Dunlin	2753 (n)	3383 (n)
Bar-tailed Godwit	866 (n)	446 (n)
Redshank	713 (n)	633 (n)
Black-headed Gull	3040 (n)	2023 (n)

(i) denotes numbers of international importance; (n) denotes numbers of all-Ireland importance.

The Conservation Objectives of the South Dublin Bay and River Tolka Estuary (North Bull Island SPA included) are as follows[5]:

'*Objective 1 is 'To maintain the favourable conservation condition of the non-breeding waterbird Special Conservation Interest species listed for North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA. This objective is defined by the following attributes and targets:-*

- *To be favourable, the long term population trend for each waterbird Special Conservation Interest species should be stable or increasing. 7 Waterbird populations are deemed to be unfavourable when they have declined by 25% or more, as assessed by the most recent population trend analysis.*
- *To be favourable, there should be no significant decrease in the range, timing or intensity of use of areas by the waterbird species of Special Conservation Interest, other than that occurring from natural patterns of variation.*

The factors that can adversely affect the achievement of Objective 1 include:

- ***Habitat modification:** Activities that modify discreet areas or the overall habitat(s) within the SPA in terms of how one or more of the listed species use the site (e.g. as a feeding resource) could result in the displacement of these species from areas within the SPA and/or a reduction in their numbers.*
- ***Disturbance:** Anthropogenic disturbance that occurs in or near the site and is either singular or cumulative in nature could result in the displacement of one or more of the listed waterbird species from areas within the SPA, and /or a reduction in their numbers.*
- ***Ex-situ factors:** Several of the listed waterbird species may at times use habitats situated within the immediate hinterland of the SPA or in areas outside of the SPA but ecologically connected to it. The reliance on these habitats will vary from species to species and from site to site. Significant habitat changes or increased levels of disturbance within these areas could result in the displacement of one or more of the listed waterbird species from areas within the SPA, and/or a reduction in their numbers.*

Objective 2 is 'To maintain the favourable conservation condition of the wetland habitat at North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA as a resource for the regularly-occurring migratory waterbirds that utilise these areas. This objective is defined by the following attributes and targets:-

- *To be favourable, the permanent area occupied by the wetland habitat should be stable and not significantly less than the area of 3,904 ha, other than that occurring from natural patterns of variation*

The attribute, measure and target of the site-specific conservation Objectives for South Dublin Bay and River Tolka Estuary SPA are seen in Table 9.

Table 9. Attribute, measure and target of the site conservation objectives for South Dublin Bay and River Tolka Estuary SPA.

Attribute	Measure	Target
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		

[5] NPWS (2013) Conservation Objectives Supporting Document: South Dublin Bay and River Tolka Estuary SPA:004024 . Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht

(*Chroicocephalus ridibundus*) [A179] Roseate Tern (*Sterna dougallii*) [A192] Common Tern (*Sterna hirundo*) [A193] Arctic Tern (*Sterna paradisaea*) [A194] Wetland and Waterbirds [A999]		
Population trend	Percentage change	Long term population trend stable or increasing
Distribution	Range, timing and intensity of use of areas	No significant decrease in the range, timing and intensity of use of areas by all of the above-named species, other than that occurring from natural patterns of variation
Wetlands [A999] (Maintain the favourable conservation condition)		
Habitat area	Hectares	The permanent area occupied by the wetland habitat should be stable and not significantly less than the area of 263ha, other than that occurring from natural patterns of variation

Analysis of the Potential Impacts on the South Dublin Bay SAC and South Dublin Bay and River Tolka Estuary SPA.

The proposed development involves the construction of a mixed-used development on a 1.41 ha site at the Former Blakes and Esmonde Motors Site, Stillorgan, Co. Dublin. The proposal is a mixed-use scheme of 'Built to Rent' BTR apartments, retail/commercial, childcare and residents' facilities laid out in 6 no. blocks ranging in height from 3-9 storeys (over basement) compromising 377 no. apartment units. In the absence of mitigation measures impacts would be foreseen on European sites and are outlined in Table 10.

Construction Impacts

The construction of the proposed development would potentially impact on the existing ecology of the site and the surrounding area. These potential construction impacts would include impacts that may arise during the re-profiling of the site and the building phases of the proposed development. The potential impacts are outlined in Table 10.

Construction phase mitigation measures are required on site particularly as surface water drainage from the site will discharge to the Priory Stream, which outfalls to South Dublin Bay SAC and the South Dublin Bay and River Tolka Estuary SPA. The area is also susceptible to flooding according to the Flood Risk Assessment Report. There is therefore, also potential for silt laden runoff or contamination to enter surface water network and with potential for downstream impacts.

Operational Impacts

Once constructed all onsite drainage will be connected to separate foul and surface water systems. Surface water runoff will comply with SUDS and will discharge into the Priory Stream before it outfalls to the sea at Blackrock. Mitigation measures will be required to ensure that water quality is maintained prior to discharging to the Priory Stream.

Mitigation Measures and Monitoring

Construction and operational mitigation will be incorporated into the proposed development project to minimise the potential negative impacts within the Zone of Influence (ZoI) including the Priory Stream and downstream European sites (Table 11).

Table 10. Potential for adverse effects on the qualifying interests and conservation objectives of European sites		
European Site & Site Code	Qualifying Interests	Potential for Adverse Effects during Construction.
South Dublin Bay SAC IE0000210	Mudflats and sandflats not covered by seawater at low tide [1140] Salicornia and other annuals colonising mud and sand [1310] Embryonic shifting dunes [2110] Annual vegetation of drift lines [1210]	Works on site, dust and surface water runoff on site during construction may lead to silt or contaminated materials from site entering the Priory Stream, which is the receiving watercourse for surface water drainage. Concrete, silt or pollution could enter the watercourse during enabling works including, site clearance, reprofiling and dewatering of foundations, if required during construction, as the culverted stream is approximately 750 m from the proposed development site. Contaminated soil is to be removed off site and during the site clearance and removal, contamination of watercourse could be possible. There is also potential for flooding proximate to the proposed development site, giving rise to the potential for pollutants to enter the Priory Stream. The use of plant and machinery, oils, fuels and chemicals, could lead to pollution on site or in adjacent watercourses. The storage of topsoil or works onsite could lead to dust, soil or silt laden runoff entering adjacent watercourses. The use of haul roads could lead to silt laden runoff or dust with downstream effects on the SAC. Given the nature of the works, all of these effects would be expected to be localised in nature restricted to the immediate vicinity of the site and would have little effect on European sites. However, without the presence of mitigation measures there is a potential for downstream effects if significant quantities of pollution or silt entered the surface water, which leads to the Priory Stream and ultimately outfalls to South Dublin Bay SAC. Given the nature of the potential effects outlined above, the proposed project could impact on the: 1. Habitat area, Community distribution of Mudflats and sandflats not covered by seawater at low tide [1140] and in particular areas of intertidal *Zostera noltii*. Given the nature of the potential effects outlined above no significant effects would be foreseen on the following habitats: 1. Salicornia and other annuals colonising mud and sand [1310] 2. Embryonic shifting dunes [2110] 3. Annual vegetation of drift lines [1210]

Table 10. Potential for adverse effects on the qualifying interests and conservation objectives of European sites		
European Site & Site Code	Qualifying Interests	Potential for Adverse Effects during Construction.
South Dublin Bay and River Tolka Estuary SPA IE0004024	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]	Works on site, dust and surface water runoff on site during construction may lead to silt or contaminated materials from site entering the Priory Stream via the surface water network. Concrete, silt or pollution could enter the watercourse during enabling works including, site clearance, reprofiling and dewatering of foundations, if required during construction, as the culverted stream is approximately 750 m from the proposed development site. Contaminated soil is to be removed off site and during the site clearance and removal, contamination of watercourse could be possible. There is also potential for flooding proximate to the proposed development site, giving rise to the potential for pollutants to enter the Priory Stream. The use of plant and machinery, as well as the associated temporary storage of construction materials, oils, fuels and chemicals could lead to pollution on site, in the stream or in adjacent watercourses. The storage of topsoil or works onsite could lead to dust, soil or silt laden runoff entering adjacent watercourses. The use of haul roads could lead to silt laden runoff or dust with downstream effects on the SPA. Given the nature of the works, all of these effects would be expected to be localised in nature restricted to the immediate vicinity of the site and would have little effect on European sites. However, without the presence of mitigation measures there is a potential for downstream effects if significant quantities of pollution or silt entered the surface water system which discharges to the Priory Stream leading to the South Dublin Bay and River Tolka Estuary SPA. Significant quantities of silt could impact on the infauna and diet of birds within the SPA and the A999 Wetlands. Given the nature of the potential effects outlined above, the proposed project could affect the bird species directly of the prey items on which they forage. As a result there is potential for impact on the: 1. Distribution and Range, timing and intensity of use of areas of the SPA for 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], 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], The area of Wetlands [A999] Mitigation measures are required to limit the effect of the project on the qualifying interests of the proposed development site.

Table 11. Mitigation Measures

Sensitive Receptors	Potential Impacts on SPA & SAC	Mitigation Measures to Prevent Impacts on the Priory Stream and the South Dublin Bay SAC and South Dublin Bay and River Tolka Estuary SPA
South Dublin Bay SAC South Dublin Bay and River Tolka Estuary SPA	• Habitat degradation • Dust deposition • Pollution • Silt ingress from site runoff • Downstream impacts • Negative impacts on aquatic and bird fauna.	*Mitigation Measures to Prevent Impacts on the Priory Stream and the South Dublin Bay SAC and South Dublin Bay and River Tolka Estuary SPA* *Construction* *A project ecologist will be appointed to oversee works and in particular oversee drainage from the site.* *As outlined in the CMP these mitigation measures include:* *"10.3 Site Control Measures* *The designated and operational on-site control measures, which will be established and maintained at this site, will include:* *• Designated hard routes through site;* *• Each departing vehicle to be checked by banksman;* *• Wheel wash facility at egress point;* *• Provision and facilities to cover lorry contents as necessary;* *• Controlled loading of excavated material to minimise risk of spillage of contents;* *• Spraying/damping down of excavated material on site by dedicated crews;* *• Use of known routes for lorries to monitor impact on local area; and* *• Facility to clean local roads if mud or spillage occurs.* *10.4 Control of Dirt and Dust* *The main consideration will be to combat dirt and dust at source so as not to let it adversely affect the surrounding areas. The objective will be to contain any dirt or dust within the site, which is large enough for comprehensive control measures.* *The main problems, which may arise during the early part of construction, will be controlled by the measures described above and by the following measures:* • *The use of hardcore access route to work front;* • *A regime of 'wet' road sweeping can be set up to ensure the roads around the immediate site are as clean and free from dirt / dust arising from the site, as is reasonably practicable. This cleaningwill be carried out by approved mechanical sweepers.* • *Footpaths immediately around the site can be cleaned by hand regularly, with damping as necessary.* • *High level walkways and surfaces such as scaffolding can be cleaned regularly using safe 'wet' methods, as opposed to dry methods.*

		• *Vehicle waiting areas or hard standings can be regularly inspected and kept clean by brushing or vacuum sweeping and will be regularly sprayed to keep moist, if necessary.* • *Vehicle and wheel washing facilities can be provided at site exit(s) where practicable. If necessary vehicles can be washed down before exiting the site.* • *Netting can be provided to enclose scaffolding in order to mitigate escape of air borne dust from the demolition.* *Vehicles and equipment shall not emit black smoke from exhaust system, except during ignition at start up.* • *Engines and exhaust systems should be maintained so that exhaust emissions do not breach stationary emission limits set for the vehicle / equipment type and mode of operation.* • *Servicing of vehicles and plant should be carried out regularly, rather than just following breakdowns.* • *Internal combustion plant should not be left running unnecessarily.* • *Exhaust direction and heights should be such as not to disturb dust on the ground and to ensure adequate local dispersal of emissions.* • *Where possible fixed plant such as generators should be located away from residential areas.* • *The number of handling operations for materials will be kept to a minimum in order to ensure that* • *dusty material is not moved or handled unnecessarily.* • *The transport of dusty materials and aggregates should be carried out using covered / sheeted lorries.* • *Material handling areas should be clean, tidy and free from dust.* • *Vehicle loading should be dampened down and drop heights for material to be kept to a minimum.* • *Drop heights for chutes / skips should be kept to a minimum.* • *Dust dispersal over the site boundary should be minimised using static sprinklers or other watering methods as necessary.* • *Stockpiles of materials should be kept to a minimum and if necessary, they should be kept away from sensitive receptors such as residential areas etc.* • *Stockpiles were necessary, should be sheeted or watered down.* • *Methods and equipment should be in place for immediate clean-up of spillages of dusty material.* • *No burning of materials will be permitted on site.* • *Earthworks excavations should be kept damp where necessary and where reasonably practicable.* • *Cutting on site should be avoided where possible by using pre-fabrication methods to facilitate any temporary works that may be required to enable the demolition.* • *Equipment and techniques for cutting / grinding / drilling / sawing etc, which minimise dust emissions and which have the best available dust suppression measures, should be employed.* • *Prior to commencement, the main contractor should identify the demolition operations which are likely to generate dust and to draw up action plans to minimise emissions, utilising the methods highlighted above. Furthermore, the main contractor should prepare environmental risk assessments for all dust generating processes, which are envisaged.* • *The main contractor should allocate suitably qualified personnel to be responsible for ensuring* • *the generation of dust is minimised and effectively controlled.* *Demolition works to incorporate water spray to reduce dust.* *10.5 Water* *The excavations for the basement, drainage pipes, water supply, utilities and foundations are anticipated to impact the ground water in the site.*

		The contractor shall develop an appropriate dewatering scheme to keep the basement/excavations free from water and ensure the quality of water leaving site is high. During any discharge of surface water from the basement/excavations, the quality of the water will be *improved through the provision of settlement tanks and will be regularly monitored visually for hydrocarbon sheen and suspended solids. Periodic laboratory testing of discharge water samples will be carried out in accordance with the requirements of Dun Laoghaire-Rathdown County Council before discharge to the surrounding drainage network.Appropriate discharge licenses will be acquired from Dun Laoghaire-Rathdown County Council in respect of discharges from dewatering operations.* ***Operational Mitigation*** *Mitigation measures will be in place to ensure discharges from the site during standard operation and within potential flooding events to ensure that discharges from the site will comply with Water Pollution Acts.*

Adverse Effects on the conservation objectives of European sites likely to occur from the project (post mitigation)

A robust series of mitigation measures will be carried out. These have been developed by a multidisciplinary project team. These would ensure that no significant pollution enters the Priory Stream during construction, that the water entering surface water system is clean and uncontaminated and that dust emissions are controlled on site. Early implementation of ecological supervision on site at initial mobilisation and enabling works is seen as an important element to the project, particularly in relation to the implementation of surface water runoff mitigation.

With the successful implementation of the outlined mitigation measures, no significant effects are foreseen from the construction or operation of the proposed project. Residual impacts of the proposed project will be localised to the immediate vicinity of the proposed works. The construction mitigation proposed for the development satisfactorily addresses the potential impacts on designated conservation sites through the application of the construction and operational phase controls as outlined above. In particular, mitigation measures to ensure compliance with Water Pollution Acts and prevent silt, dust and pollution entering the Priory Stream will satisfactorily address the potential impacts on downstream biodiversity and European sites. The project, alone, or in combination with other plans and projects, in the view of best scientific knowledge and in view of the sites' conservation objectives, will not adversely affect the integrity of the European sites.

Conclusion

In a strict application of the precautionary principle, it has been concluded that mitigation measures were required during construction to prevent impacts on South Dublin Bay SAC and South Dublin Bay and River Tolka Estuary SPA. Effects on two European sites are likely from the proposed works in the absence of mitigation measures, as a result of the indirect hydrological connection from the site, via the surface water drainage network, which discharges to the Priory Stream. As a result, there is potential for downstream effects on the South Dublin Bay SAC and South Dublin Bay and River Tolka Estuary SPA from the project during site clearance, enabling, construction, landscaping and drainage works in the absence of mitigation and mitigation measures are outlined in the CMP.

For this reason, a NIS was carried out to assess whether the proposed project, either alone or in combination with other plans or projects, in view of best scientific knowledge and in view of the sites' conservation objectives, will adversely affect the integrity of the European Sites. All other European sites were screened out at initial screening.

Construction on this site will create localised light and noise disturbance. This would not impact European sites. Mitigation measures will be in place to ensure there are no significant impacts on the Priory Stream that leads to conservation sites. A project ecologist will be appointed to oversee works in relation to the enabling works and the implementation of mitigation measures as outlined on site. The implementation of mitigation measures outlined, which will be followed, will be sufficient to prevent adverse effects on the integrity of European sites.

Following the implementation of the mitigation measures outlined, the construction and presence of this development would not be deemed to have a significant impact on the integrity of European sites.

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

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

Data used for the AA Screening/NIS Assessment

NPWS site synopses and Conservation objectives of sites within 15km were examined. European sites beyond 15km have no direction connection to the proposed development site. The most recent SAC and SPA boundary shapefiles were downloaded and satellite imagery. Several site visits were carried out to determine if the site contained possible threats to a European site or any European species or habitats.

References

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

1. Department of Environment Heritage and Local Government Circular NPW 1/10 and PSSP 2/10 on Appropriate Assessment under Article 6 of the Habitats Directive – Guidance for Planning Authorities March 2010.
2. Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities, Department of the Environment, Heritage and Local Government 2009; www.npws.ie/publications/archive/NPWS_2009_AA_Guidance.pdf
3. Managing EUROPEAN Sites: the provisions of Article 6 of the Habitats Directive 92/43/EEC, European Commission 2000; ec.europa.eu/environment/nature/Natura2000/management/docs/art6/provision_of_art6_en.pdf
4. Assessment of Plans and Projects Significantly Affecting EUROPEAN Sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC; ec.europa.eu/environment/nature/Natura2000management/docs/art6/Natura_2000_assess_en.pdf
5. Guidance document on Article 6(4) of the 'Habitats Directive' 92/43/EEC – Clarification of the concepts of: alternative solutions, imperative reasons of overriding public interest, compensatory measures, overall coherence, opinion of the commission; ec.europa.eu/environment/nature/Natura2000/management/docs/art6/guidance_art6_4_en.pdf
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; ec.europa.eu/environment/nature/Natura2000/management/docs/guidance_doc.pdf
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9. NPWS (2013) Conservation Objectives: North Dublin Bay SAC 000206. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
10. NPWS (2013) Conservation Objectives: Rockabill to Dalkey Island SAC 003000. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
11. NPWS (2012) Conservation Objectives: Baldoyle Bay SAC 000199. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
12. NPWS (2016) Conservation Objectives: Howth Head SAC 000202. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.
13. NPWS (2017) Conservation Objectives: Ireland's Eye SAC 002193. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.
14. NPWS (2013) Conservation Objectives: Malahide Estuary SAC 000205. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

15. NPWS (2013) Conservation Objectives: Lambay Island SAC 000204. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
16. NPWS (2013) Conservation Objectives: Rogerstown Estuary SAC 000208. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
17. NPWS (2013) Conservation Objectives: Baldoyle Bay SPA 004016. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
18. NPWS (2013) Conservation Objectives: Malahide Estuary SPA 004025. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
19. NPWS (2015) Conservation Objectives: South Dublin Bay and River Tolka Estuary SPA 004024. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
20. NPWS (2017) Conservation Objectives: Wicklow Mountains SAC 002122. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.
21. NPWS (2021) Conservation Objectives: Knocksink Wood SAC 000725. Version 1. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage.
22. NPWS (2019) Conservation Objectives: Ballyman Glen SAC 000713. Version 1. National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht.
23. NPWS (2016) Conservation Objectives: Howth Head SAC 000202. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.
24. NPWS (2021) Conservation Objectives: Glenasmole Valley SAC 001209. Version 1. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage.
25. NPWS (2012) Conservation Objectives: Baldoyle Bay SAC 000199. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
26. NPWS (2017) Conservation Objectives: Bray Head SAC 000714. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.
27. NPWS (2017) Conservation Objectives: Ireland's Eye SAC 002193. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.
28. 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.
29. NPWS (2015) Conservation Objectives: North Bull Island SPA 004006. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht
30. NPWS (2022) Conservation objectives for Dalkey Islands SPA [004172]. Generic Version 9.0. Department of Housing, Local Government and Heritage..
31. NPWS (2022) Conservation objectives for Wicklow Mountains SPA [004040]. Generic Version 9.0. Department of Housing, Local Government and Heritage.
32. NPWS (2022) Conservation objectives for Howth Head Coast SPA [004113]. Generic Version 9.0. Department of Housing, Local Government and Heritage.
33. NPWS (2013) Conservation Objectives: Baldoyle Bay SPA 004016. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
34. NPWS (2022) Conservation objectives for Ireland's Eye SPA [004117]. Generic Version 9.0. Department of Housing, Local Government and Heritage.