

# Whitestown Stream Enhancement Project, Tallaght, Co. Dublin

Screening for Appropriate Assessment

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South Dublin County Council

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## Contract

This report describes work commissioned by South Dublin County Council, by an email dated 24/02/2022. William Mulville of JBA Consulting carried out this work.

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## Purpose

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## Abbreviations

AA	Appropriate Assessment
CIEEM	Chartered Institute of Ecology and Environmental Management
CJEU	Court of Justice of the European Union
DoEHLG	Department of Environment, Heritage and Local Government
EC	European Communities
EPA	Environmental Protection Agency
ERBD	Eastern River Basin District
EU	European Union
GIS	Geographical Information Systems
GSi	Geological Survey Ireland
IROPI	Imperative Reasons of Over-riding Public Interest
NBDC	National Biodiversity Data Centre
NPWS	National Parks and Wildlife Service
OPR	Office of the Planning Regulator
OPW	Office of Public Works
PE	Population Equivalent
PM	Particulate matter
QI	Qualifying Interest
RBMP	River Basin Management Plan
SAC	Special Area of Conservation
SDCC	South Dublin County Council
SPA	Special Protection Area
spp.	Species (multiple)
SuDS	Sustainable Drainage System
WFD	Water Framework Directive
ZoI	Zone of Influence

# 1 Introduction

## 1.1 Background

JBA Consulting Ireland Ltd. has been commissioned by South Dublin County Council to undertake a Screening for Appropriate Assessment in relation to a proposed Whitestown Stream Enhancement project, Tallaght, Co. Dublin.

Screening for appropriate assessment is intended to be an initial examination which must be carried out by the planning authority or An Bord Pleanála as the competent authority. However, this screening is completed on behalf of the project proposer to show that likely significant effects have been considered in the project development and design, and where necessary progress with further assessment.

## 1.2 Legislative Context

Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Fauna and Flora, known as the 'Habitats Directive' - provides legal protection for habitats and species of European importance. Article 2 of the Directive requires the maintenance or restoration of habitats and species of European Community interest, at a favourable conservation status. Articles 3 - 9 provide the legislative means to protect habitats and species of Community interest through the establishment and conservation of an EU-wide network of sites known as Natura 2000 sites. Natura 2000 sites are Special Areas of Conservation (SACs) designated under the Habitats Directive and Special Protection Areas (SPAs) designated under the Conservation of Wild Birds Directive (79 / 409 / EEC).

Articles 6(3) and 6(4) of the Habitats Directive set out the decision-making tests for plans or projects affecting Natura 2000 sites. Article 6(3) establishes the requirement for Appropriate Assessment:

*“Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent 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.”*

Article 6(4) deals with the steps that should be taken when it is determined, as a result of Appropriate Assessment, that a plan/project will adversely affect a European site. Issues dealing with alternative solutions, imperative reasons of overriding public interest and compensatory measures need to be addressed in this case.

Article 6(4) states:

*“If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, the Member States shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted.*

*Where the site concerned hosts a priority natural habitat type and / or a priority species, the only considerations which may be raised are those relating to human health or public safety, to beneficial consequences of primary importance for the environment or, further to an opinion from the Commission, to other imperative reasons of overriding public interest.”*

The requirements of Articles 6(3) and 6(4) of the Habitats Directive have been transposed into Irish legislation by means of the Habitats Regulations, 1997 (S.I. No. 94 of 1997) and the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477 / 2011).

### 1.3 Appropriate Assessment Process

Guidance on the Appropriate Assessment (AA) process was produced by the European Commission in 2002, which was subsequently developed into guidance specifically for Ireland by the Department of Environment, Heritage and Local Government (DEHLG) (2009). These guidance documents identify a staged approach to conducting an AA, as shown Figure 1-1.

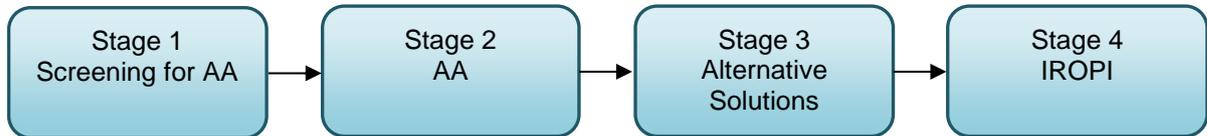


Figure 1-1: The Appropriate Assessment Process (from: Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities, DEHLG, 2009).

#### 1.3.1 Stage 1 - Screening for AA

The initial, screening stage of the Appropriate Assessment is to determine:

- whether the proposed plan or project is directly connected with or necessary for the management of the European designated site for nature conservation
- if it is likely to have a significant adverse effect on the European designated site, either individually or in combination with other plans or projects

For those sites where, potential adverse impacts are identified, either alone or in combination with other plans or projects, further assessment is necessary to determine if the proposals will have an adverse impact on the integrity of a European designated site, in view of the site's conservation objectives (i.e. the process proceeds to Stage 2).

#### 1.3.2 Stage 2 - AA

This stage requires a more in-depth evaluation of the plan or project, and the potential direct and indirect impacts of them on the integrity and interest features of the European designated site(s), alone and in combination with other plans and projects, taking into account the site's structure, function and conservation objectives. Where required, mitigation or avoidance measures will be suggested.

The competent authority can only agree to the plan or project after having ascertained that it will not adversely affect the integrity of the site(s) concerned. If this cannot be determined, and where mitigation cannot be achieved, then alternative solutions will need to be considered (i.e. the process proceeds to Stage 3).

#### 1.3.3 Stage 3 - Alternative Solutions

Where adverse impacts on the integrity of Natura 2000 sites are identified, and mitigation cannot be satisfactorily implemented, alternative ways of achieving the objectives of the plan or project that avoid adverse impacts need to be considered. If none can be found, the process proceeds to Stage 4.

#### 1.3.4 Stage 4 - Imperative Reasons of Overriding Public Interest (IROPI)

Where adverse impacts of a plan or project on the integrity of Natura 2000 sites are identified and no alternative solutions exist, the plan will only be allowed to progress if imperative reasons of overriding public interest can be demonstrated. In this case compensatory measures will be required.

The process only proceeds through each of the four stages for certain plans or projects. For example, for a plan or project, not connected with management of a site, but where no likely significant impacts are identified, the process stops at stage 1. Throughout the process, the precautionary principle must be applied, so that any uncertainties do not result in adverse impacts on a site.

This report is in support of a Stage 1 Screening for Appropriate Assessment.

#### 1.3.5 Recent judgements of the Court of Justice of the European Union (CJEU) and how they are used in this assessment

The CJEU issued a ruling on the consideration of avoidance and reduction measures as a result of the case known as People over Wind, Peter Sweetman v Coillte Teoranta (Case C-323/17). This judgement stated that measures intended to reduce or avoid effects on a European site should only be considered

within the framework of an AA, and it is not permissible to take into account such measures at the screening stage. In practice, this means that any activities that are not integral to the project (i.e. the project could conceivably take place without them) and have the effect of avoiding or reducing an impact on a European site, cannot be considered at the screening stage.

The CJEU ruling in the case of *Grace & Sweetman* [2018] (C-164/17) clarified the difference between avoidance and reduction (mitigation) measures and compensation. Measures intended to compensate for the negative effects of a project cannot be taken into account in the assessment of the implications of a project, and instead are considered under Article 6(4). This means that any project where an effect on the integrity of a European site remains and can only be offset by compensation, would need to proceed under Article 6(4), demonstrating “imperative reasons of overriding public interest”.

The judgements referred to as the Dutch Nitrogen cases [2018] (C-293/17 and C-294/17) have important implications for projects that could potentially impact on sites that are exceeding critical thresholds for input of damaging ammonia (but could also reasonably apply where other nutrients are impacting European sites). The judgements state that the use of thresholds to exclude project impacts is acceptable in principle, and that strategic plans can be used as mitigation but only with consideration of the certainty (or otherwise) of the outcomes of those strategic plans. It clarifies that where the status of a habitat type is already unfavourable the possibility of authorising activities which increase the problem is necessarily limited.

The CJEU ruling in the case of *Holohan v An Bord Pleanála* (C-462/17) also clarified the importance in AA of taking into account habitat types and species outside the boundary of the European site, where implications of the impacts on those habitat and species may impact the conservation objectives of the European site. In this assessment functionally linked and supporting habitat for species outside of European site boundaries are assessed where they could potentially impact the conservation objectives of any screened in European sites.

## 1.4 Methodology

The Screening for Appropriate Assessment has been prepared having regard to the Birds and Habitats Directives, the European Communities (Birds and Natural Habitats) Regulations 2011-15 as amended and relevant jurisprudence of the EU and Irish courts. The following documents have also been used to provide guidance for the assessment:

- Office of the Planning Regulator (2021) OPR Practice Note PN01 - Appropriate Assessment Screening for Development Management DoEHLG (2009 rev 2010) Appropriate Assessment of Plans and Projects in Ireland Guidance for Planning Authorities. Department of the Environment, Heritage and Local Government (DoEHLG 2009).
- European Communities (EC) (2018) Managing Natura 2000 Sites: the provisions of Article 6 of the 'Habitats' Directive 92/43/EEC, Office for Official Publications of the European Communities, Luxembourg. European Commission (European Commission 2000).
- EC (2021) Assessment of Plans and Projects Significantly Affecting Natura 2000 Sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC, Office for Official Publications of the European Communities, Luxembourg. European Commission (European Commission et al. 2002).
- EC (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. European Commission (European Commission 2007).
- CIEEM (2018). Guidelines for Ecological Impact Assessment in the UK and Ireland - Terrestrial, Freshwater and Coastal, Second Ed. (Chartered Institute of Ecology and Environmental Management, 2016)

### 1.4.1 Desktop study

A desktop study was conducted of available published and unpublished information, along with a review of data available on the NPWS and National Biodiversity Data Centre (NBDC) web-based databases, in order to identify key habitats and species (including legally protected and species of conservation concern) that may be present within ecologically relevant distances from the project as explained below. The data sources below (accessed February 2022) were consulted for the desktop study:

- Aerial photography available from [www.osi.ie](http://www.osi.ie) and Esri World Imagery.
- NPWS website ([www.npws.ie](http://www.npws.ie)) where site synopses, Natura 2000 data forms and conservation objectives were obtained along with Annex I habitat distribution data and status reports.
- River Basin Management Plans ([www.wfdireland.ie](http://www.wfdireland.ie))
- NBDC Biodiversity Maps ([maps.biodiversityireland.ie](http://maps.biodiversityireland.ie))
- Catchments ([www.catchments.ie](http://www.catchments.ie))
- Environmental Protection Agency Maps (<https://gis.epa.ie/EPAMaps>)
- Geological Survey Ireland website ([www.gsi.ie](http://www.gsi.ie))
- Geological Survey Ireland - Groundwater data viewer (<https://dcenr.maps.arcgis.com>)

#### 1.4.2 Ecological Site Survey

To inform this AA Screening an ecological walkover survey was carried out on 08/03/2022 by JBA Ecologist William Mulville.

The ecological walkover survey recorded habitats and protected species, following the methods outlined in the documents below:

- Heritage Council (2011). Best Practice Guidance for Habitat Survey and Mapping (Smith et al., 2011).
- Fossitt, J. (2000). A Guide to Habitats in Ireland. The Heritage Council, Kilkenny (Fossitt, 2000).
- Ecological Surveying Techniques for Protected Flora and Fauna during the Planning of National Road Schemes (NRA, 2009b).

Aerial photographs and site maps assisted the survey. Habitats have been named and described following Fossitt (2000). Nomenclature for higher plants principally follows that given in Webb's An Irish Flora (Parnell and Curtis, 2012).

#### 1.4.3 In-combination Assessment

The in-combination assessment followed the process for in-combination set out by the DTA Handbook (Tyldesley and Chapman, 2013). The in-combination impacts are considered only after the assessment of the project alone. If the result of this is that the project will have no effect at all on a European site, then no in-combination assessment would be necessary. However, where there is no adverse effect on site integrity, but some adverse effect locally, an assessment of this adverse effect in-combination with other plans or projects is carried out. Other plans or projects were searched for using the National Planning Application Database, EIA portal and Myplan.ie databases all accessed online. If no other plans or projects are identified, then the assessment is complete. Where other plans or projects are identified then initially a review is made of its AA screening, or AA, and if the Competent Authority for the plan or project has made a final determination of no effect on the integrity of any European site, either alone or in-combination, this determination is used in this assessment. Where there is not a full AA, or the findings are unclear or out of date, the plan or project documentation is checked for credible evidence of real (not hypothetical) risk to a European site. Where these are identified then a detailed assessment is carried out. A summary of the approach is presented in Figure 1-2 overleaf.

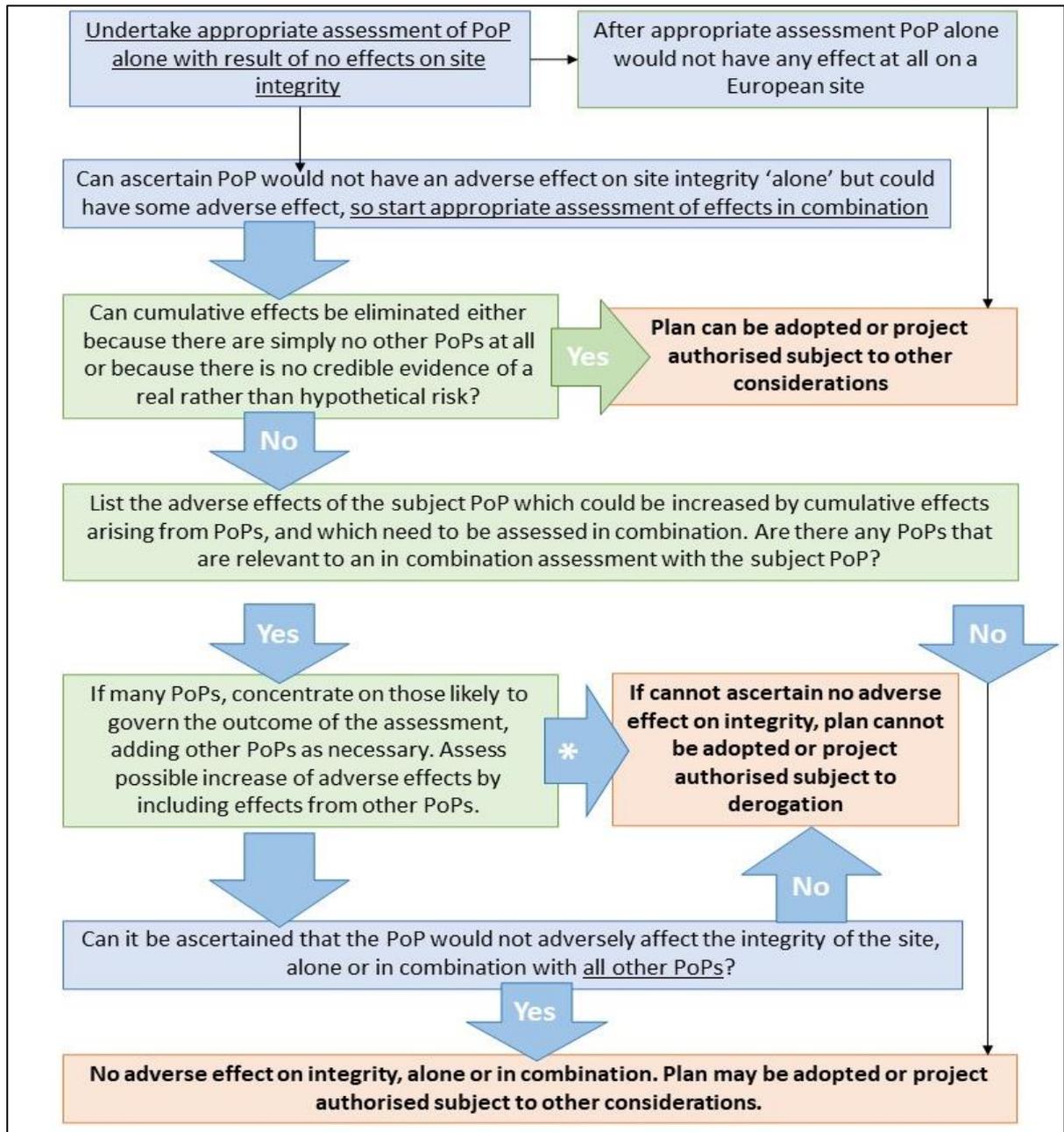


Figure 1-2: Flow diagram of process for in-combination assessment (modified from Chapman & Tyldesley, 2012)

Potential sources of cumulative impacts were identified based on the ecology of valued ecological features only for features where this is a residual or non-significant impact. Potential sources of cumulative impacts were sought within an area where there is the potential for a significant impact on a site or species.

#### 1.4.4 Limitations and Constraints

The screening assessment necessarily relies on some assumptions, and it was inevitably subject to some limitations. These would not affect the conclusion, but the following points are recorded in order to ensure the basis of the assessment is clear:

- Information on the site is based on current knowledge from desk top review and recent site visit at the time of writing.

- Some slight variation in the works methodology may occur, but these will only be minor changes. Where changes to methodology could impact on ecological features, an ecologist will be consulted to determine if the project needs re-screening.
- Adverse weather can cause delays to the schedule and alter the timing of works. This has been accounted for using a worst-case scenario where necessary.
- Floral species data obtained during the ecological walkover was limited given that survey was conducted during the early spring period (March).

## 2 Project Description

### 2.1 The 'Project'

The proposed development is not directly connected with or necessary to the management of any Natura 2000 site and may have potential adverse impacts upon the Natura 2000 sites identified in Section 4. Therefore, the proposed project is subject to the requirements of the AA process.

### 2.2 Site location

The proposed Whitestown Stream enhancement project is located along the stretch of Whitestown Stream between the N81 and Jobstown Road, within the Tallaght area of south-west Co. Dublin (Figure 2-1). The site is bordered by the aforementioned roads; residential housing units and their associate roads; and other green space areas.

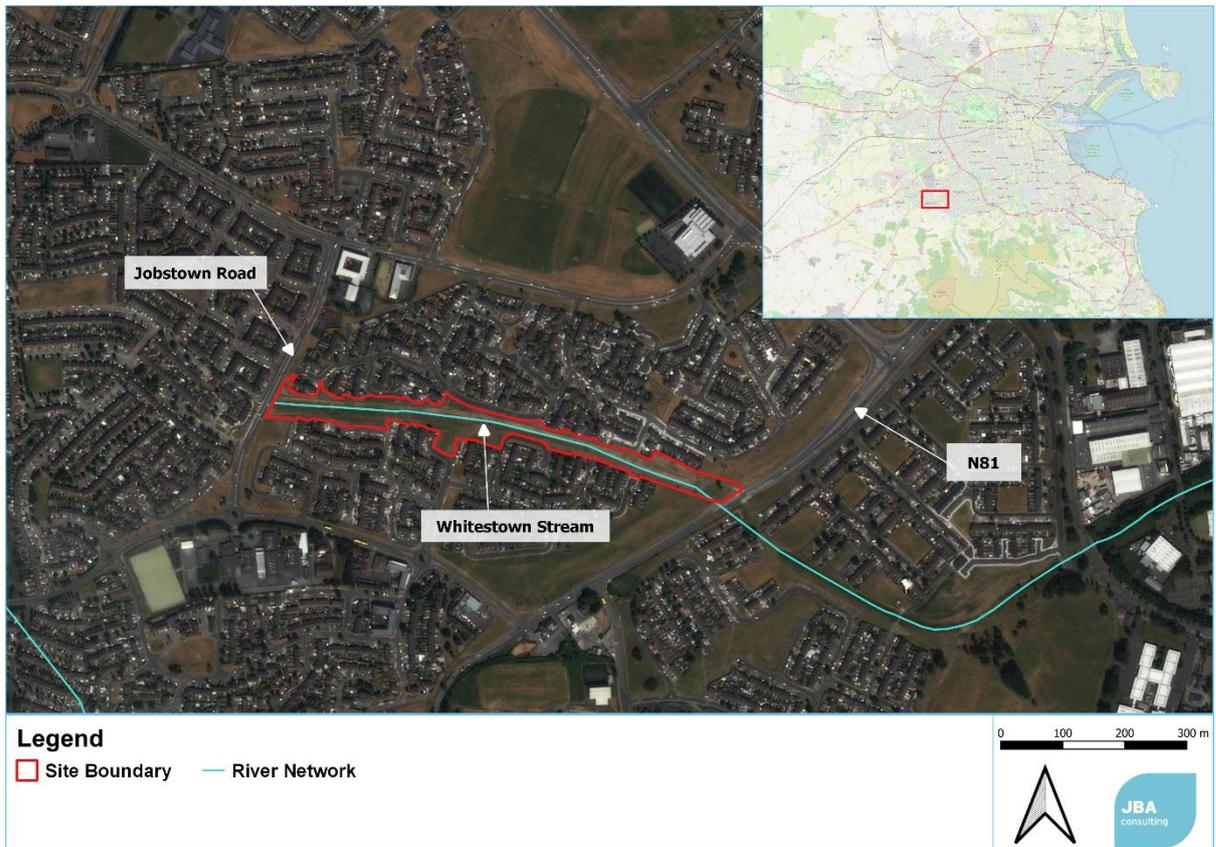


Figure 2-1: Site location (Google Satellite, 2022; OSM, 2022)

### 2.3 Proposed project

SDCC plan to upgrade the Whitestown Stream Neighbourhood Park, it is envisioned that Neighbourhood Park will become a community gathering space for all ages that offers inclusive, and flexible recreation opportunities for all.

The upgraded includes the demolition / removal of the existing pedestrian bridge within the site; the installation of two new pedestrian bridges at new bridging site towards the eastern and western extents of the site; the introduction of new pedestrian pathways; new lampposts; and enhanced landscaping, which includes tree planting. The Site Landscape and Lighting Plan can be view in Appendix A.

### 2.4 Project Area of Influence

The project will primarily affect the site only, but a wider area of influence is used for impacts relating to noise disturbance (1km), air pollution (5km), surface water (5km), with an additional hydrological buffer connecting transitional waters to coastal areas; and any supporting habitat for SAC/SPA species (10km).

## 3 Existing Environment

### 3.1 Baseline conditions

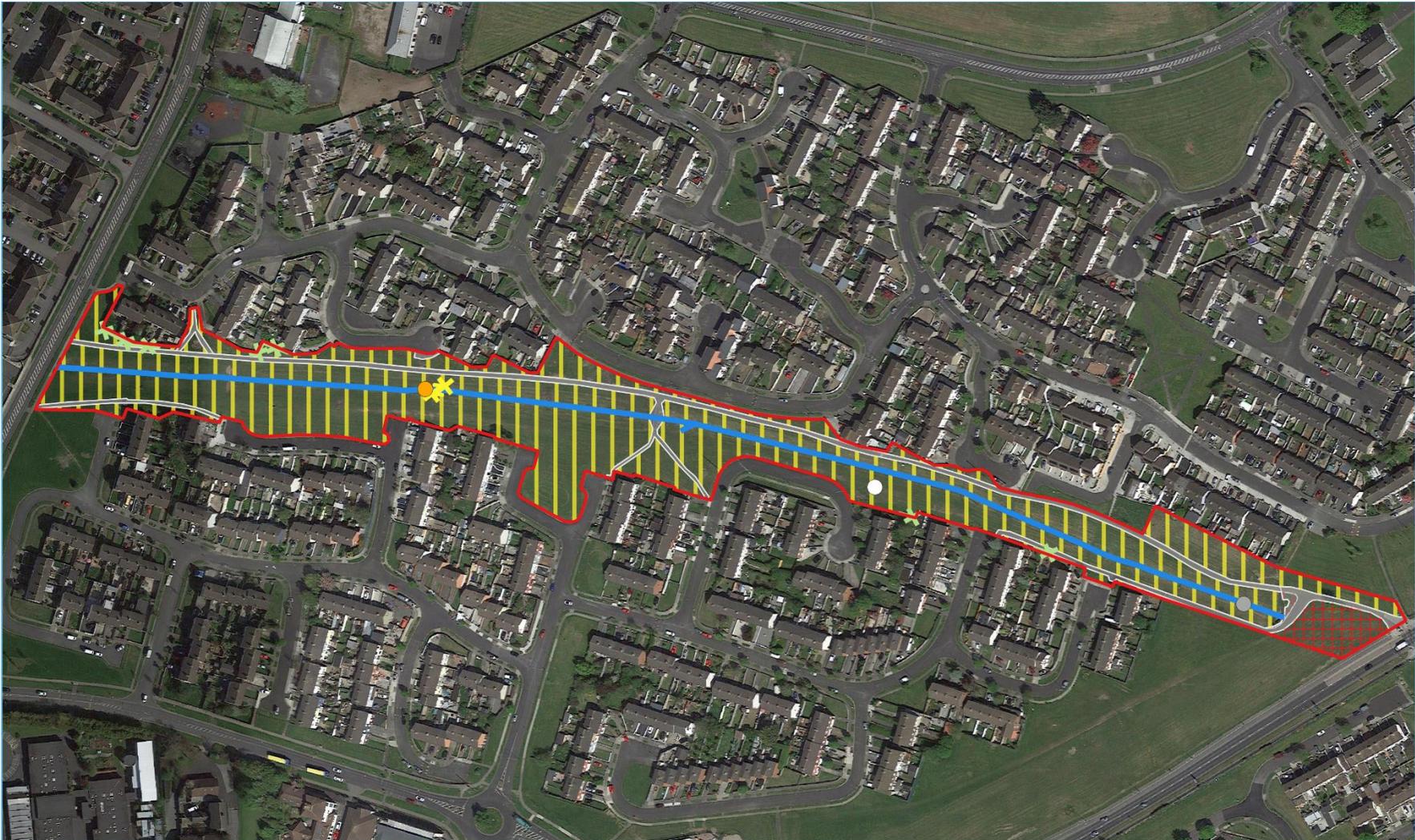
The site is currently being utilised as green public amenity space. Additionally, there are footpaths and a bridge crossing over the Whitestown Stream that serve to connect the local residential areas.

### 3.2 Habitats

The habitats recorded during the site ecological walkover are displayed in Table 3-1 below and Figure 3-1 overleaf.

Table 3-1: List of habitats recorded on site

Habitat	Fossitt Code
Buildings and artificial surfaces	BL3
Recolonising bare ground	ED3
Eroding / upland rivers	FW1
Amenity (improved) grassland	GA1
Dry meadows and grassy verges	GS2
Scrub	WS1



**Legend**

- |               |                       |                |  |
|---------------|-----------------------|----------------|--|
| Site Boundary | <b>Linear Habitat</b> | <b>Habitat</b> | <b>Species of Conservation Concern</b> |
|               | FW1                   | BL3            | Grey Wagtail                           |
|               | GS2                   | ED3            | Mallard                                |
|               | WS1                   | GA2            | Starling                               |

0 25 50 75 100 125 m



Figure 3-1: Habitat Map (Google Satellite, 2022)

### 3.2.1 Buildings and artificial surfaces (BL3)

This habitat refers to the pedestrian footpaths and bridge areas within the proposed enhancement works site.

### 3.2.2 Recolonising bare ground (ED3)

A recently relandscaped area in the east of the site is still in the process of re-establishing the previous grassland habitat. Floral species recorded in this habitat included newly planted Silver Birch *Betula pendula*; Lime *Tilia* spp.; Ribwort Plantain *Plantago lanceolata*; Pineappleweed *Matricaria discoidea*; Perennial Rye-grass *Lolium perenne*; Clover *Trifolium* spp.; Hogweed *Heracleum sphondylium*; Thistle *Cirsium* spp.; and Dock *Rumex* spp. The JBA Ecologist recorded Pied Wagtail *Motacilla alba yarrellii*; Rook *Corvus frugilegus*; and Hooded Crow *Corvus cornix* utilising this habitat.

### 3.2.3 Eroding / upland rivers (FW1)

This habitat refers to the Whitestown Stream which flows from west to east, through the centre of the enhancement works site (Figure 3-2). The concrete streambed measured approximately 1.25m in width and approximate 5-10cm in depth. The lower banks of the stream are also solid concrete. Some stretches of stream contained sediment / gravel deposition along the streambed. Instream growth was limited to a Willow *Salix* spp. sapling; and a small cluster of Willowherb *Epilobium* spp. and Watercress *Nasturtium* spp. at the western end of the stream. Additionally, a small group of Mallard *Anas platyrhynchos* and Grey Wagtail *Motacilla cinerea* were recorded utilising the stream.



Figure 3-2: Whitestown Stream

### 3.2.4 Amenity (improved) grassland

The enhancement site is dominated by low biodiversity amenity grassland (Figure 3-3). The typical floral assemblage of this habitat comprised of Perennial Rye-grass; Ribwort Plantain; Dandelion *Taraxacum* spp.; Creeping Buttercup *Ranunculus repens*; Dock spp.; Clover spp.; Lesser Celandine *Ficaria verna*; and moss species. Species of bird utilising this habitat included Blackbird *Turdus merula* and Starling *Sturnus vulgaris*.



Figure 3-3: Improved amenity grassland dominates the vast majority of the site

### 3.2.5 Dry meadows and grass verges (GS2)

This dry grassy verge habitat was present in small unmaintained strips of grassland running alongside the Whitestown Stream. These grassy verge habitats support Cock's Foot *Dactylis glomerata*; Soft Rush *Juncus effusus*; Willowherb spp.; Thistle spp.; Nettle *Urtica dioica*; Ragwort *Jacobaea vulgaris*; Creeping Buttercup; Ribwort Plantain; Dock spp.; and sporadic Perennial Rye-grass.

### 3.2.6 Scrub (WS1)

Small linear strips of scrub habitat were present along sections of the site boundary. Floral species recorded in this habitat included Chickweed *Stellaria media*; Cleavers *Galium aparine*; Nettle; Ragwort; Willowherb spp.; Creeping Buttercup; Bramble; Ivy *Hedera hibernica*; and immature Sycamore *Acer pseudoplatanus* and Elder *Sambucus nigra*. There were also a number of ornamental garden species mixed into this habitat.

## 3.3 Protected Flora and Fauna

### 3.3.1 Flora

The JBA Ecologist did not record any protected floral species within the site boundary during the ecological walkover. The NBDC shows no record of any protected flora species being present on-site (NBDC, 2022).

### 3.3.2 Fauna

The JBA Ecologist recorded three protected (or of conservation concern) faunal species within the site boundary during the ecological walkover, namely Mallard (Figure 3-4), Grey Wagtail and Starling. As these species are not listed as QI species of the Natura 2000 sites within the Zol, they will not be examined any further within this assessment. Potential impacts and mitigations for these protected species will be detailed in the accompanying Ecological Impact Assessment report (JBA, 2022).



Figure 3-4: A small group of Mallard utilising the most sheltered stretch of the Whitestown Stream

The NBDC shows no record of any other protected faunal species being present within the site boundary (NBDC, 2022).

### 3.4 Invasive Non-native Species

The JBA Ecologist did not record any invasive non-native species within the site boundary during the ecological walkover. The NBDC shows no record of any other invasive non-native species being present on-site (NBDC, 2022).

### 3.5 Waterbodies within the Vicinity of the Proposed Site

The site lies within the Water Framework Directive (WFD) Liffey and Dublin Bay catchment and the sub-catchments Dodder\_SC\_010 (EPA, 2022a). The current WFD status (2013-2018) of this section of the Whitestown Stream (LIFFEY\_170), is 'Poor'; and is considered to be 'At Risk'.

The groundwater body which underlies the proposed site is the Dublin groundwater body (IE\_EA\_G\_008). The WFD status for the groundwater body is currently marked as 'Good'; and is currently under review in regard to its risk status.

## 4 Natura 2000 Sites

The DEHLG (2009) guidance identifies that Screening for Appropriate Assessment of a plan or project should consider the following Natura 2000 sites:

- Any Natura 2000 sites within or adjacent to the plan or project area.
- Any Natura 2000 sites within the likely zone of impact of the plan or project. This is dependent on the nature and scale of the plan, with 15km generally recommended for plans, but potentially much less for projects.
- Any Natura 2000 sites that are more than 15km from the plan or project area, but may potentially be impacted upon, for example, through a hydrological connection.

As the scale of proposed works are considered of 'Project' status, only Natura 2000 sites within a 5km range of the proposed development were examined. Additional river / estuarine areas are added where hydrological connectivity extension is applicable. The Natura 2000 sites within the range are listed in Table 4-1 below and their location are shown in Figure 4-1 overleaf.

Table 4-1: Natura 2000 sites located within the 5km (plus hydrological connectivity extension) Zone of Influence (Zoi) of the proposed development

Natura 2000 site	Site Code	Approx. direct distance from site	Approx. hydrological distance from site
Glenasmole Valley SAC	001209	2.8km	n/a
Wicklow Mountains SAC	002122	4.7km	n/a
North Dublin Bay SAC	000206	16.6km	22.1km
South Dublin Bay SAC	000210	13.1km	23.2km
North Bull Island SPA	004006	16.6km	22.1km
South Dublin Bay and River Tolka Estuary SPA	004024	13.1km	19.4km

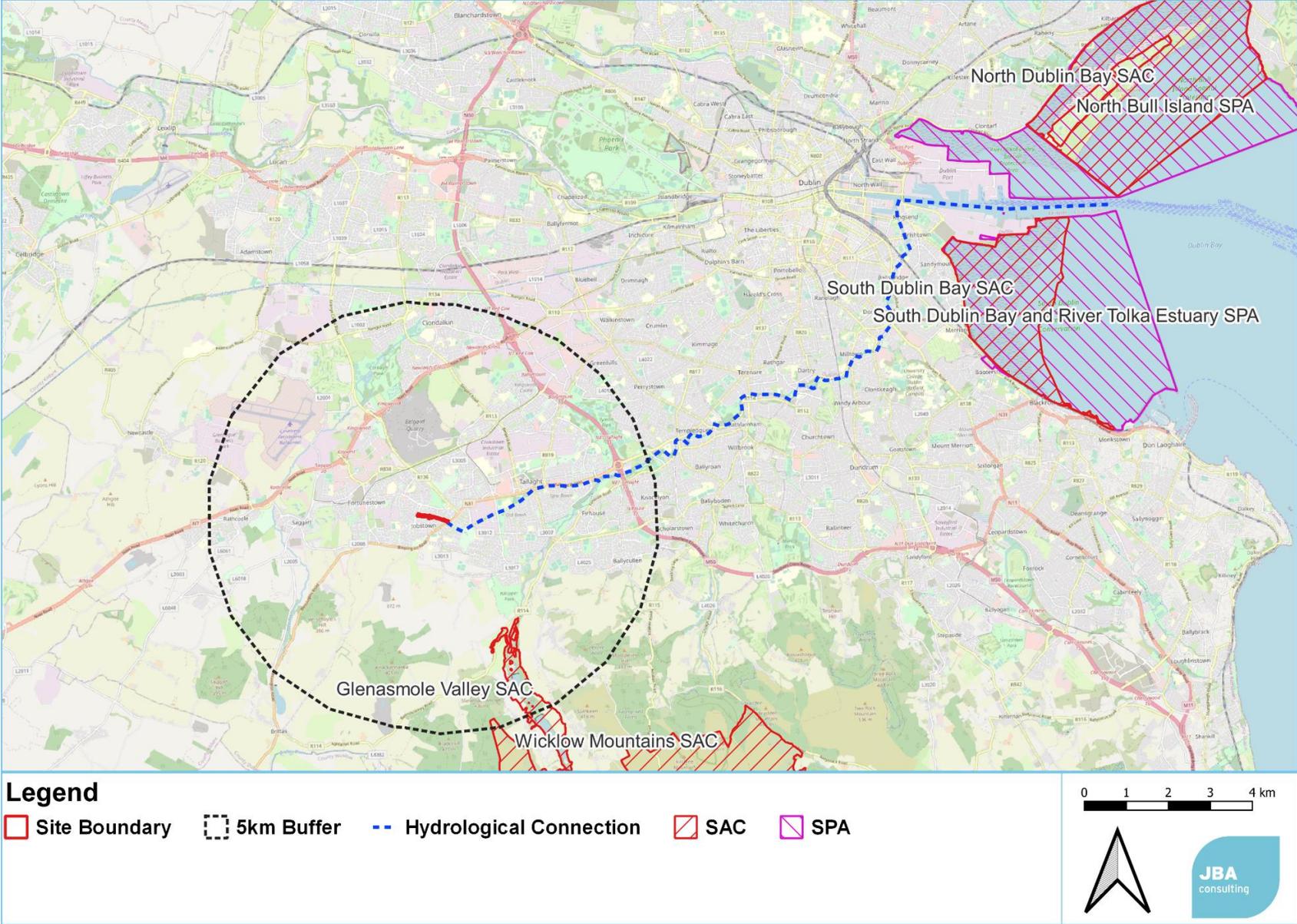


Figure 4-1: Natura 2000 site and site location

Table 4-2: Site briefs; Qualifying Interests; and project-relevant threats /pressures and their impacts and sources in relation to the Natura 2000 sites within the 5km ZoI (plus hydrological connectivity extension).

Site Name	Brief	Qualifying Interests	Project-relevant Threats / Pressures: Impact (Source)
Glenasmole Valley SAC	Glenasmole Valley lies at the northern foothills of the Dublin and Wicklow Mountains. Dry calcareous pasture grassland, improved to varying degrees, is a main habitat of the valley sides and occurs in association with wet grassland and, in places of seepage, fen or marsh type vegetation. The site has important examples of petrifying springs. The physical and chemical properties of the springs have been studied. Good examples of orchid rich calcareous grassland, including <i>Pseudorchis albida</i> (legally protected) and <i>Orchis morio</i> (Red Data Book species) are found here. <i>Molinia</i> meadows are also represented (NPWS, 2017a).	<ul style="list-style-type: none"> <li>- Semi-natural dry grassland and scrubland facies on calcareous substrates (<i>Festuco-Brometalia</i>) (*important orchid sites) [6210]</li> <li>- <i>Molinia</i> meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinion caeruleae</i>) [6410]</li> <li>- Petrifying springs with tufa formation (<i>Cratoneurion</i>)* [7220]</li> </ul> <p>(NPWS, 2018a)</p>	<p>Discontinuous urbanisation: Moderate impact (outside)#</p> <p>(Full list of threats / pressures - NPWS, 2017a)</p>
Wicklow Mountains SAC	An extensive upland site comprising much of the Wicklow Mountains and extending into Co. Dublin. The solid geology is mainly Leinster granites, flanked by Ordovician schists, mudstones and volcanics. The area has been glaciated and features fine examples of high corrie lakes, deep valleys and moraines. The site includes the headwaters of several major rivers, including the Liffey, the Dargle and the Slaney. The substrate over much of the site is peat, with poor mineral soil on the slopes and lower ground. Exposed rock and scree are included in the features found in the SAC. The dominant habitats on the site are blanket bog, heaths and upland grassland. The site comprises the largest complex of upland habitats in eastern Ireland, with important examples of blanket bog, wet heath and dry heath, extensive in area and mostly of good quality. Alpine heath occurs at high levels, along with calcareous and siliceous rocky habitats harbouring an arctic-alpine flora. A fine series of oligotrophic lakes occur, with some recorded to contain Arctic char <i>Salvelinus alpinus</i> . Several oakwoods of moderate quality, typical of the dry acidic woods of eastern Ireland, are found. Eurasian Otter <i>Lutra lutra</i> occurs on several of the riverine systems (NPWS, 2018b).	<ul style="list-style-type: none"> <li>- Otter (<i>Lutra lutra</i>) [1355]</li> <li>- Oligotrophic water containing very few minerals of sandy plains (<i>Littorelletalia uniflorae</i>) [3110]</li> <li>- Oligotrophic to mesotrophic standing waters with vegetation of the <i>Littorelletalia uniflorae</i> and/or Isoeto-Nanojuncetea [3130]</li> <li>- Natural dystrophic lakes and ponds [3160]</li> <li>- Northern Atlantic wet heaths with <i>Erica tetralix</i> [4010]</li> <li>- European dry heaths [4030]</li> <li>- Alpine and Boreal heaths [4060]</li> <li>- Calaminarian grasslands of the <i>Violetalia calaminariae</i> [6130]</li> <li>- Species-rich <i>Nardus</i> grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe) * [6230]</li> <li>- Blanket bogs (* if active bog) [7130]</li> <li>- Siliceous scree of the montane to snow levels (<i>Androsacetalia alpinae</i> and <i>Galeopsietalia ladani</i>) [8110]</li> <li>- Calcareous rocky slopes with chasmophytic vegetation [8210]</li> <li>- Siliceous rocky slopes with chasmophytic vegetation [8220]</li> <li>- Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [91A0]</li> </ul>	<p>Wildlife watching: Low impact (inside)#</p> <p>Trampling, overuse: Moderate impact (both)#</p> <p>Urbanised areas, human habitation: Moderate impact (both)#</p> <p>Collection (fungi, lichen, berries etc): Low impact (inside)#</p> <p>Outdoor sports and leisure activities, recreational activities: Moderate impact (both)#</p> <p>Paths, tracks, cycling tracks: Moderate impact (both)#</p>

Site Name	Brief	Qualifying Interests	Project-relevant Threats / Pressures: Impact (Source)
		(NPWS, 2017b)	(Full list of threats / pressures - NPWS, 2018b)
North Dublin Bay SAC	The North Bull Island sand spit is a relatively recent depositional feature, formed as a result of improvements to Dublin Port during the 18th and 19th centuries. The seaward side of the island has a fine sandy beach. A substantial area of shallow marine water is included in the site. The interior of the island is excluded from the site as it has been converted to golf courses. Nature conservation is a main land use within the site. The North Bull Island dune system is one of the most important systems on the east coast and is one of the few in Ireland that is actively accreting. It possesses extensive and mostly good quality examples of embryonic, shifting marram and fixed dunes, as well as excellent examples of humid dune slacks. Both Atlantic and Mediterranean salt marshes are well represented, and a particularly good marsh zonation is shown. The salt marshes grade into mudflats and sandflats, some of which are dominated by annual <i>Salicornia</i> species. Petalwort <i>Petalophyllum ralfsii</i> occurs at its only known station away from the western seaboard (NPWS, 2020a).	<ul style="list-style-type: none"> <li>- Mudflats and sandflats not covered by seawater at low tide [1140]</li> <li>- Annual vegetation of drift lines [1210]</li> <li>- <i>Salicornia</i> and other annuals colonising mud and sand [1310]</li> <li>- Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>) [1330]</li> <li>- Mediterranean salt meadows <i>Juncetalia maritimi</i> [1410]</li> <li>- Embryonic shifting dunes [2110]</li> <li>- Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) [2120]</li> <li>- Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130]</li> <li>- Humid dune slacks [2190]</li> <li>- Petalwort <i>Petalophyllum ralfsii</i> [1395]</li> </ul> <p>(NPWS, 2013a)</p>	<p>Discharges: High impact (inside)</p> <p>Diffuse pollution to surface waters due to other sources not listed: Medium impact (inside)</p> <p>Urbanised areas, human habitation: High impact (outside)</p> <p>Intensive maintenance of public parks / cleaning of beaches: Low impact (inside)</p> <p>Other point source pollution to surface water: High impact (inside)</p> <p>(NPWS, 2020a)</p>
South Dublin Bay SAC	This intertidal site extends from the South Wall at Dublin Port to the West Pier at Dun Laoghaire, a distance of c. 5 km. 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. A number of small streams and drains flow into the site. The designated site possesses a fine and fairly extensive example of intertidal flats. Sediment type is predominantly sand, with muddy sands in the more sheltered areas. A typical macro-invertebrate faunal assemblage exists within the SAC. The SAC has the largest stand of Dwarf Eelgrass ( <i>Zostera noltii</i> ) on the east coast (NPWS, 2020b).	<ul style="list-style-type: none"> <li>- Mudflats and sandflats not covered by seawater at low tide [1140]</li> <li>- Annual vegetation of drift lines [1210]</li> <li>- <i>Salicornia</i> and other annuals colonising mud and sand [1310]</li> <li>- Embryonic shifting dunes [2110]</li> </ul> <p>(NPWS, 2013b)</p>	<p>Urbanised areas, human habitation: High impact (outside)</p> <p>Discharges: Moderate impact (both)</p> <p>Marine water pollution: Medium impact (both)</p> <p>(NPWS, 2020b)</p>

Site Name	Brief	Qualifying Interests	Project-relevant Threats / Pressures: Impact (Source)
North Bull Island SPA	<p>The North Bull Island sand spit is a relatively recent depositional feature, formed as a result of improvements to Dublin Port. The site is among the top ten sites for wintering waterfowl in the country. It supports internationally important populations of Brent Goose and Bar-tailed Godwit and is the top site in the country for both of these species. A further 14 species have populations of national importance, with particular notable numbers of Shelduck, Pintail, Grey Plover, and Red Knot. The SPA is a regular site for passage waders such as Ruff, Curlew Sandpiper and Spotted Redshank. The site supports Short-eared Owl in winter (NPWS, 2020c).</p>	<ul style="list-style-type: none"> <li>- Light-bellied Brent Goose <i>Branta bernicla hrota</i> [A046]</li> <li>- Common Shelduck <i>Tadorna tadorna</i> [A048]</li> <li>- Eurasian Teal <i>Anas crecca</i> [A052]</li> <li>- Northern Pintail <i>Anas acuta</i> [A054]</li> <li>- Northern Shoveler <i>Anas clypeata</i> [A056]</li> <li>- Eurasian Oystercatcher <i>Haematopus ostralegus</i> [A130]</li> <li>- European Golden Plover <i>Pluvialis apricaria</i> [A140]</li> <li>- Grey Plover <i>Pluvialis squatarola</i> [A141]</li> <li>- Red Knot <i>Calidris canutus</i> [A143]</li> <li>- Sanderling <i>Calidris alba</i> [A144]</li> <li>- Dunlin <i>Calidris alpina</i> [A149]</li> <li>- Black-tailed Godwit <i>Limosa limosa</i> [A156]</li> <li>- Bar-tailed Godwit <i>Limosa lapponica</i> [A157]</li> <li>- Eurasian Curlew <i>Numenius arquata</i> [A160]</li> <li>- Common Redshank <i>Tringa totanus</i> [A162]</li> <li>- Ruddy Turnstone <i>Arenaria interpres</i> [A169]</li> <li>- Black-headed Gull <i>Chroicocephalus ridibundus</i> [A179]</li> <li>- Wetland and Waterbirds [A999]</li> </ul> <p>(NPWS, 2015a)</p>	<p>Continuous urbanisation: Medium impact (outside)</p> <p>Discharges: Medium impact (both)</p> <p>(NPWS, 2020c)</p>
South Dublin Bay and River Tolka Estuary SPA	<p>This designated site comprises a substantial part of Dublin Bay. It includes virtually all of the intertidal area in the south bay, as well as much of the Tolka Estuary to the north of the River Liffey. A portion of the shallow bay waters is also included. The sediments are predominantly well-aerated sands. The sands support the largest stand of Dwarf Eelgrass on the east coast of Ireland. Sediments in the Tolka Estuary vary from soft thixotropic muds with a high organic content in the inner estuary to exposed, well aerated sands off the Bull Wall. The site possesses extensive intertidal flats which support wintering waterfowl which are part of the overall Dublin Bay population. It regularly has an internationally important population of Brent Geese, which feeds on Dwarf Eelgrass in the autumn. It has nationally important numbers of a further 6 species including: Oystercatcher, Ringed Plover, Red Knot, Sanderling, Dunlin and Bar-tailed Godwit. It is an</p>	<ul style="list-style-type: none"> <li>- Light-bellied Brent Goose <i>Branta bernicla hrota</i> [A046]</li> <li>- Eurasian Oystercatcher <i>Haematopus ostralegus</i> [A130]</li> <li>- Ringed Plover <i>Charadrius hiaticula</i> [A137]</li> <li>- Grey Plover <i>Pluvialis squatarola</i> [A141]</li> <li>- Red Knot <i>Calidris canutus</i> [A143]</li> <li>- Sanderling <i>Calidris alba</i> [A144]</li> <li>- Dunlin <i>Calidris alpina</i> [A149]</li> <li>- Bar-tailed Godwit <i>Limosa lapponica</i> [A157]</li> <li>- Common Redshank <i>Tringa totanus</i> [A162]</li> <li>- Black-headed Gull <i>Chroicocephalus ridibundus</i> [A179]</li> <li>- Roseate Tern <i>Sterna dougallii</i> [A192]</li> <li>- Common Tern <i>Sterna hirundo</i> [A193]</li> <li>- Arctic Tern <i>Sterna paradisaea</i> [A194]</li> <li>- Wetland and Waterbirds [A999]</li> </ul>	<p>Urbanised areas, human habitation: High impact (outside)</p> <p>Discharges: High impact (inside)</p> <p>(NPWS, 2020d)</p>

Site Name	Brief	Qualifying Interests	Project-relevant Threats / Pressures: Impact (Source)
	important site for wintering gulls, especially Black-headed Gull and Common Gull <i>Larus canus</i> . South Dublin Bay is the premier site in Ireland for Mediterranean Gull <i>Larus melanocephalus</i> , with up to 20 birds present at times. Is a regular autumn roosting ground for significant numbers of terns, including Roseate Terns, Common Tern and Artic Tern (NPWS, 2020d).	(NPWS, 2015b)	

**# = indirect impact via increased human populace within the Zol**

## 5 Potential Cumulative Impacts

As part of the Screening for an Appropriate Assessment, in addition to the proposed works, other relevant projects and plans in the region that may induce cumulative impacts must also be considered at this stage.

The following projects or plans were identified as potential sources of cumulative impacts:

- South Dublin County Council Development Plan 2016 - 2022
- River Basin Management Plan for Ireland 2018-2021
- Planning Applications (2019 - February 2022)

### 5.1 Plans

#### 5.1.1 South Dublin County Council Development Plan 2016 - 2022

The South Dublin County Council (SDCC) Development Plan sets out an overall strategy for the proper planning and sustainable development of the County. The objectives include a target of increased population and continuing the consolidation of established urban areas, to support and facilitate economic activity and to promote the ease of movement by sustainable modes (walking, cycling and public transport). The Plan also aims to protect and enhance surface water quality, to support, improve and protect Natura 2000 sites, and to develop an integrated Green Infrastructure network to enhance biodiversity, provide accessible parks, open spaces and recreational facilities (SDCC, 2016a). The plan also states that work will be in conjunction with Irish Water to protect existing water and drainage infrastructure, to promote investments aiming to support environmental protection and facilitate the sustainable growth of the county (SDCC, 2016a).

A Screening for Appropriate Assessment was carried out on the plan. This concluded that there are no likely significant direct, indirect or secondary impacts of the project on any Natura 2000 sites (SDCC, 2016b), **therefore the South Dublin County Council (SDCC) Development Plan is not anticipated to contribute to cumulative or in-combination effects.**

#### 5.1.2 Greater Dublin Drainage Strategy

The Greater Dublin Drainage Strategy sets out the strategic planning for the development of waste water treatment in the Greater Dublin area in relation to the Ringsend WWTP Upgrade, Greater Dublin Drainage Project and associated wastewater network drainage projects (Irish Water, 2018b). The Ringsend WWTP Upgrade includes plans to expand the WWTP to its ultimate capacity, together with associated network upgrades required. The Greater Dublin Drainage Project is planned to relieve both the Ringsend WWTP and network loading by construction of a new WWTP at Clonshaugh, an orbital sewer and provision of an outfall pipe discharging 1km north east of Ireland's Eye.

The Ringsend WWTP upgrade is in progress and carried out in stages, with an increased capacity of 400,000 PE by Q1 2021 and the ultimate capacity of 2.4 million PE to be in operation by 2024 (Irish Water, 2018b).

The Greater Dublin Drainage Project is strategically important to the Dublin Region in that it will provide capacity for residential and commercial growth (Irish Water, 2018b).

**The Greater Dublin Drainage Strategy is not anticipated to contribute to cumulative or in-combination effects.**

#### 5.1.3 River Basin Management Plan for Ireland 2018-2021

The 2nd cycle River Basin Management Plan (RBMP) for Ireland 2018-2021 sets out the actions that Ireland will take to improve water quality and achieve 'good' ecological status in water bodies (rivers, lakes, estuaries and coastal waters) by 2021 (DoHPLG, 2018a). Changes from previous River Basin Management Plans is that all River Basin Districts are merged as one national River Basin District. The Plan provides a more coordinated framework for improving the quality of our waters — to protect public health, the environment, water amenities and to sustain water-intensive industries, including agri-food and tourism, particularly in rural Ireland.

The first cycle of River Basin Management Plans included the Eastern River Basin District - River Basin Management Plan 2009 – 2015 (WFD, 2010).). The plans summarised the waterbodies that may not

meet the environmental objectives of the WFD by 2015 and identified which pressures are contributing to the environmental objectives not being achieved. The plans described the classification results and identified measures that can be introduced in order to safeguard waters and meet the environmental objectives of the WFD;

- Prevent deterioration of water body status.
- Restore good status to water bodies.
- Achieve protected areas objectives.
- Reduce chemical pollution of water bodies

The River Basin Management Plan for Ireland (2018-2021) outlines the new approach that Ireland will take to protect our waters over the period to 2021. It builds on lessons learned from the first planning cycle in a number of areas:

- stronger and more effective delivery structures have been put in place to build the foundations and momentum for long-term improvements to water quality
- a new governance structure, which brings the policy, technical and implementation actors together with public and representative organisations. This will ensure the effective and coordinated delivery of measures.

Ireland's third River Basin Management Plan 2022-2027 is due to be published in 2022. The 3rd cycle draft Catchment Reports were published in August 2021. The draft Catchment Reports provides a summary of the water quality assessment outcomes for respective catchment, including status and risk categories, significant threats and pressures, details on protected areas and a comparison between cycle 2 and cycle 3.

The draft Catchment Report for Liffey and Dublin Bay Catchment identifies an overall improvement of 5 waterbodies across the catchment since the cycle 2 assessment (Catchment Science & Management Unit, 2021). The significant pressures of the River Liffey in the downstream section are urban runoff and urban wastewater, where the impacts are a combination of nutrient and organic pollution and Ringsend agglomeration. The transitional and coastal waterbodies meet the requirements for the habitats and species of the SACs, including the Dublin Bays SACs. Specific water supporting conditions have not been identified for the dependent bird species in the SPAs and so waterbodies associated with SPAs are not included in the assessment, though for Dublin Bay they overlap with the SACs.

**The River Basin Management Plan for Ireland 2018-2021 is not anticipated to contribute to cumulative or on-combination effects.**

## 5.2 Other Projects

Since 2019, the projects listed (Table 5-1 overleaf), which are not retention applications, home extensions and/or internal alterations, have been granted planning permission in the locality of the proposed site.

Table 5-1: Projects granted planning permission since 2019 in locality of the proposed site

Planning Reference	Address	Application Status	Decision date	Summary of development
SD21A/0207	St. Thomas' Junior National School, Jobstown, Tallaght, Co. Dublin	Permission granted	14/09/2021	Demolition of the existing single-storey c. 2,605sq.m. Junior School building; demolition of the existing single-storey c. 211sq.m. Junior School ancillary structures; construction of a new part three/part two-storey c. 4,998sq.m - Junior School building, located to the west of the existing Senior School building. The new school will accommodate 27 classrooms, a 3-class base Special Education Needs facility and all ancillary accommodation (the Senior School does not form part of planning application); 2 single-storey temporary accommodation units, c. 400sq.m, located to the south of the site, to facilitate the construction of the new school building; renewable energy design measures, PV Panels and/or heat pumps located at roof level; new school signage comprising wall-mounted lettering on the front elevation of the new building; external hard play area and 2 Multi-Use Games Areas; all located to the south of the site; redevelopment of the existing staff car parking and set-down facilities within the school site comprising: provision of 40 Junior school staff car parking spaces and 6 car set-down spaces, resurfacing of 22 existing Senior school car parking spaces, 106 bicycle parking spaces, new access road, new footpaths, landscaping and all ancillary site works; boundary treatment comprising of repair works to the existing low-level blockwork wall and new metal railings to an overall height of 2.4m along Fortunestown Road; replacement of the existing palisade fencing with new 2.4m high railings along Kiltalown Park Rd to the south; replacement of the existing pedestrian and vehicular entrance gates; works in the public road outside the school site: including 5 set-down spaces along Fortunestown Road, and services connection required to facilitate the development.
SD19A/0173	Scoil Cnoic Mhuire Junior School, Knockmore Avenue, Killinarden, Dublin 24	Permission granted	25/07/2019	Construction of a single storey link corridor in the south west corner of the existing school building; installation of new windows to the perimeter of the building to facilitate a proposed new internal layout and other ancillary works.
SD218/0004	Whitestown and Killinarden, Tallaght, Dublin 24	Application Under Part 8	N/A	Killinarden Park upgrade, total site area approx. 20ha and Greenway with landscaped pedestrian/cycle route within Killinarden Park and between Killinarden Park and Sean Walsh Park, total site area approx. 4.50ha. The works will comprise: • Strategic walk/cycleway with bat sensitive lighting along Whitestown Stream; new and enhanced entrances, including new road crossings at Killinarden Heights , Whitestown Drive, Whitestown Way and Killinarden Way/Killinarden Estate (with a revised carriageway arrangement); feature areas at primary and secondary accesses; a Primary Oval footpath and walking/exercise circuit 1km in length; existing secondary footpath network retained and resurfaced where required; and a new footbridge crossing the Whitestown Stream within the park. • Replacement and new park perimeter walls/railings where required and retention of existing private walls/railings. • Linear play trails; seating; two natural play areas; outdoor fitness and calisthenics equipment; a Multi-use Games and Skate Area; upgrade of existing grass sports pitches to include re-levelling where required. • Biodiversity and landscape improvements including a community orchard;

Planning Reference	Address	Application Status	Decision date	Summary of development
				wildflower meadows; surface water swale; willow; native woodland; informal tree groups; Signature Trees; and retention of existing tree groups and scrub where shown. • Installation of CCTV Cameras for monitoring by An Garda Siochána and South Dublin County Council. • All ancillary works. The proposal has undergone Appropriate Assessment Screening under the Habitats Directive (92/43/EEC) and screening for Environmental Impact Assessment (EIA) under the EIA Directive 2014/52/EU. The Planning Authority has made a preliminary examination of the nature, size and location of the proposed development. The authority has concluded that there is no real likelihood of significant effects on the environment arising from the proposed development and a determination has been made that an EIA is not required. Any person may, within 4-weeks from the date of publication of this notice, apply to An Bord Pleanála for a screening determination as to whether the development would be likely to have significant effects on the environment. The plans and particulars of the proposed development are available for inspection online on the Council's Public Consultation Portal website ( <a href="http://consult.sdublincoco.ie">http://consult.sdublincoco.ie</a> ) during the period from 6th May 2021 to 17th June 2021. Due to Covid-19 restrictions, persons wishing to inspect printed plans and particulars of the proposed development must make an appointment by emailing <a href="mailto:planningdept@sdublincoco.ie">planningdept@sdublincoco.ie</a> or by phoning (01) 4149000. After making an appointment, printed plans and particulars will be available for inspection or purchase at a fee not exceeding the reasonable cost of making a copy at County Hall, Tallaght, Dublin 24 during office hours from 6th May 2021 to 3rd June 2021. Submissions or observations with respect to the proposed development dealing with the proper planning and sustainable development of the area in which the proposed development will be situated may be made in writing up to 5pm on 17th June 2021 and may be submitted either via: Online Submissions: <a href="http://consult.sdublincoco.ie">http://consult.sdublincoco.ie</a> or Post to: A/Senior Executive Officer, Project Delivery Unit, Corporate Performance and Change Management, South Dublin County Council, County Hall, Tallaght, Dublin 24 YNN5. NOTE: Please make submission by one medium only. All submissions should include name and a contact address. It should be noted that the Freedom of Information Act, 1997-2006 (as amended) applies to all records held by South Dublin County Council. South Dublin County Council's Personal Data Privacy Statements can be viewed at <a href="http://www.sdcc.ie">www.sdcc.ie</a> and all personal data will be retained in line with statutory requirements.

### 5.3 Summary

Developments SD21A/0207 and SD19A/0173 are lacking direct pathways to the Whitestown Stream, and thus are not deemed to capable of acting in combination with the proposed project to impact the Natura 2000 sites within the Zol. SD218/0004, which has completed AA Screening report, is currently under Part 8 and is yet to be confirmed in full by SDCC. Given the nature of the SD218/0004 enhancement project, it is not anticipated that it will act in combination with Whitestown Stream enhancement works to cause adverse impacts on the Natura 2000 sites within the Zol. The County Development Plan, RBMP and projects within the locality of the proposed project are considered in combination with the currently proposed enhancement project in the Screening Assessment section below.

## 6 Screening Assessment

### 6.1 Introduction

This screening exercise will focus on assessing the likely adverse effects of the project on the Natura 2000 sites identified in Section 4, and listed below;

- Glenasmole Valley SAC (001209)
- Wicklow Mountains SAC (002122)
- North Dublin Bay SAC (000206)
- South Dublin Bay SAC (000210)
- North Bull Island SPA (004006)
- South Dublin Bay and River Tolka Estuary SPA (004024)

This section identifies the potential impacts which may arise as result of the proposed project. It then goes on to identify how these impacts could potentially impact on the Natura 2000 sites listed. The significance of potential impacts is also assessed, with any potential in-combination effects also identified.

### 6.2 Assessment Criteria

#### 6.2.1 Description of the individual elements of the project (either alone or in combination with other plans or projects) likely to give rise to impacts on the Natura 2000 sites

Potential adverse impacts that could cause a significant effect on the qualifying interests of the Natura 2000 sites, during the construction and operational phases of the project, will impact on the sites via surface water pathways, groundwater pathways and land and air pathways. Surface water pathways can impact on surface water quality and surface water dependent habitats and species. Groundwater pathways can impact on groundwater quality and quality of groundwater dependent habitats and species. Land and air pathways can impact by direct physical disturbance and dust or other air-based emissions.

The proposed project is not anticipated to impact on the qualifying interests of the identified SACs and SPAs due to the distance between the potential source of impact and the receiving environment (Natura 2000 sites), as well as the dilution factor in regard to surface water pollution. The rationale for including/excluding impacts via the main pathways is given in more detail in the following sections.

#### 6.2.2 Surface Water Pathways

The Dublin Bay based Natura 2000 sites are hydrologically connected to the proposed enhancement site (Figure 6-1 overleaf). However, in the event that surface water runoff enters the Whitestown Stream, it would undergo a high level of dilution by larger freshwater systems (River Dodder and River Liffey) along a 16.7km hydrological section before entering the estuarine section of the River Liffey, where it would be further diluted for another 2.7km hydrological stretch before entering the estuarine/coastal waters containing the Dublin Bay Natura 2000 sites. Given the small scale and nature of the works proposed, any on-site pollution events, whether sediment or hydrocarbon-based, will be diluted to the point where they bare a less than negligible threat to the Dublin Natura 2000 sites, and their respective QIs.

Furthermore, as the remainder of the Natura 2000 sites are not located downstream of the site or within the same surface water sub-catchment as the proposed site, Dodder\_SC\_010, it is not anticipated that these sites will experience any adverse impacts. Therefore, the proposed project is not anticipated to have any impact on the qualifying interests of the SACs and SPAs via surface water pathways.

Operational impacts are not anticipated given that the function of the site will remain as it is at present, i.e., amenity parkland.

Therefore, adverse impacts via surface water pollution events during the construction and operational phases are not anticipated for the Dublin Bay Natura 2000 sites; and their respective QIs.

In summary, the proposed development's construction and operational phases are not anticipated to have any potential impacts on the QIs of the Natura 2000 sites within the Zol via the surface water pathway.

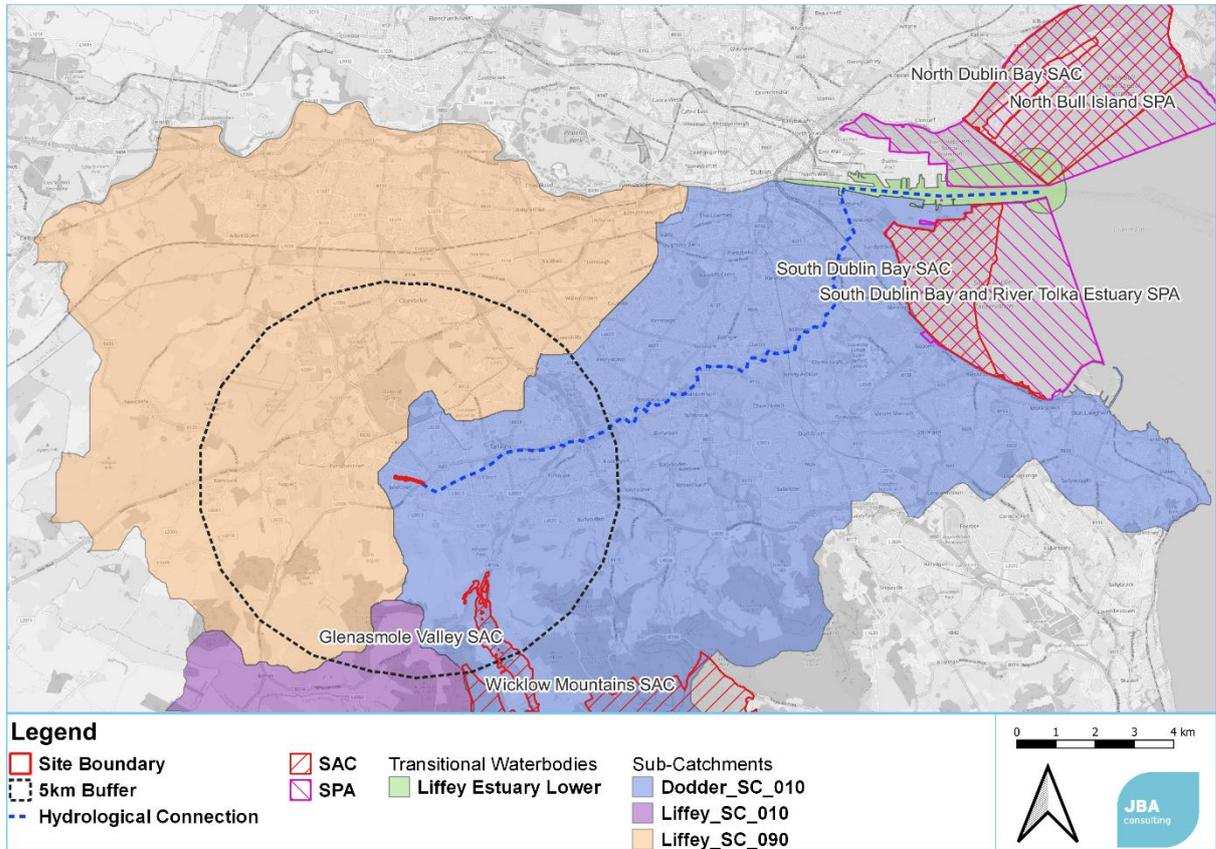


Figure 6-1: Site location and Natura 2000 sites, with surface water sub-catchment

### 6.2.3 Groundwater

The site is located within the Dublin - IE\_EA\_G\_008 groundwater body, which underlies most of the greater Dublin area. The site shares this groundwater body with four of the Natura 2000 sites, namely the South Dublin Bay SAC; South Dublin Bay and River Tolka Estuary SPA; North Dublin Bay SAC; and North Bull Island SPA. The remaining Natura 2000 sites exist outside this groundwater body.

The bedrock underlying the proposed site is comprised of dark-grey to black, fine-grained, occasionally cherty, micritic limestones that weather paler, usually to pale grey. There are also rare dark coarser grained calcarenitic limestones, sometimes graded, and interbedded dark-grey calcar. This bedrock is overlain with limestone till sediments, with moderate subsoil permeability characteristics. As result of the above characteristics the site's aquifer vulnerability status is rated as 'Low' (Figure 6-2). The aquifer within the underlying bedrock is considered to be locally important, with moderate productivity, though only in local zones. Therefore, the aquifer has a limited and relatively poorly connected network of fractures, fissures and joints, giving a low fissure permeability which tends to decrease further with depth. Generally, the lack of connection between the limited fissures results in relatively poor aquifer storage and flow paths that may only extend a few hundred metres (GSI, 2022). Therefore, impacts via a groundwater pathway are not anticipated given the distance to the Natura 2000 sites within the Dublin groundwater body.

Regarding the groundwater-to-surface water impact pathway, the characteristics of the underlying aquifer means it is likely to rapidly discharge to the nearby watercourses, i.e., the Whitestown Stream, within the short flow paths present in the local bedrock (GSI, 2022). However, given the Whitestown Stream's artificial streambed and lower banks, the hydrological connection between the local groundwater and stream is practically non-existent.

**Therefore, adverse impacts via the groundwater and groundwater-to-surface water pathways are not anticipated during the construction and operational phases given the distance to the**

**Natura 200 sites with groundwater body, as well as lack of connection between the Whitestown Stream and the local groundwater system.**

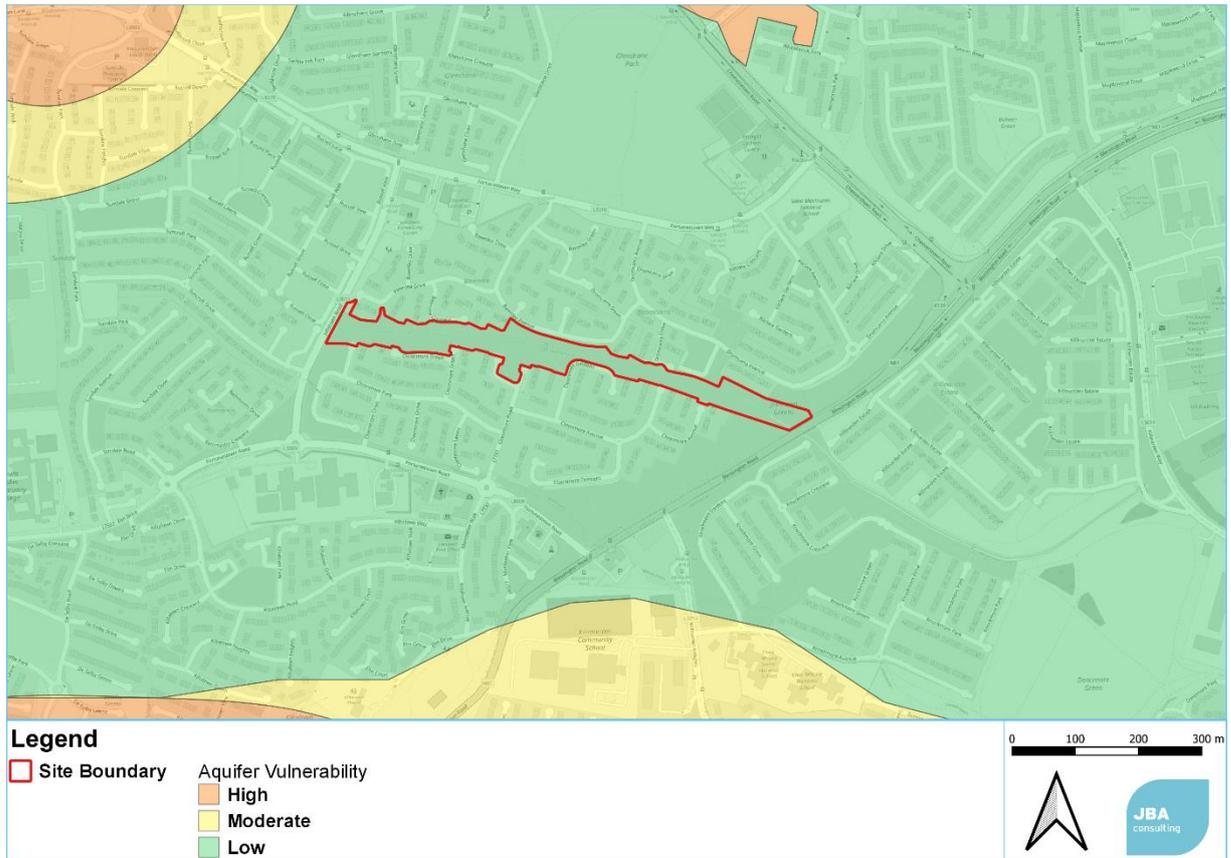


Figure 6-2: Aquifer vulnerability of proposed site

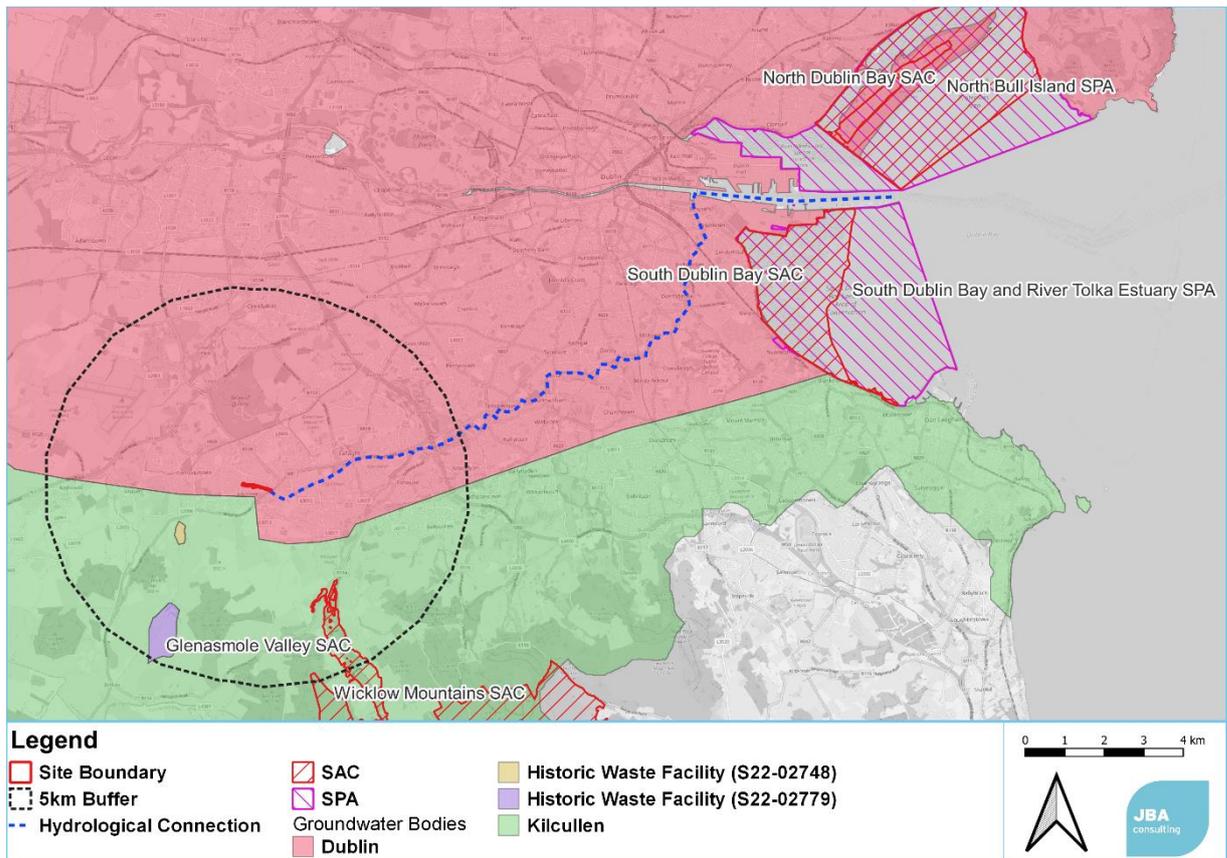


Figure 6-3: Site location and Natura 2000 sites, with groundwater body connectivity

#### 6.2.4 Land and Air

The loss or degradation of supporting habitats outside the identified Natura 2000 sites via land- and air-based impacts could have potential adverse impacts on a number of the QIs associated with these Natura 2000 sites.

##### Land (physical, visual and noise disturbance)

Direct physical impacts and indirect impacts, such as visual and noise impacts, have the potential to physically disturb habitats as well as the floral and faunal species within them.

This development will not result in any physical land-take or disturbance from the Natura 2000 sites within the Zol, nor will it result in any visual or noise disturbance to the QIs due to the distances between the site and the Natura 2000 sites.

**Therefore, adverse impacts via the land (physical, visual and noise disturbance) pathway during the construction and operational phases are not anticipated for the Natura 2000 sites and their respective QIs.**

##### Air Pollution

Dust release and vehicle emissions can sometimes travel up to 10km and could potentially impact the QIs of the Natura 2000 sites within the Zol. Typically dust emissions are divided into settleable dust, respirable dust and Particulate Matter (PM) i.e., PM10's and PM2.5 (10 um and 2.5 um respectively). Settleable dust will, depending on its size and weather conditions, settle out close to the source. The respirable fraction can travel a little further but typically settles out close to production. The distance and direction of travel is dependent upon wind speed and direction.

The proposed site has a south-west prevailing wind year-round (Windfinder- Casement Aerodrome, 2022), therefore, any dust generated on-site will most likely be transported away from the Natura 2000 sites within the general 5km Zol.

**Therefore, adverse impacts via the air pathways are not anticipated during the construction and operational phases for the Natura 2000 sites and their respective QIs.**

### 6.2.5 Cumulative Impact

As local developments SD21A/0207 and SD19A/0173 are lacking in direct pathways to the Whitestown Stream, and thus are not deemed to capable of acting in combination with the proposed project to impact the Natura 2000 sites within the Zol. SD218/0004 is currently under Part 8 and is yet to be confirmed in full by SDCC. Given the light construction and enhancing nature of the SD218/0004 enhancement project, it is not anticipated that it will act in combination with Whitestown Stream enhancement works to cause adverse impacts on the Natura 2000 sites within the Zol. Additionally, the AA Screening completed for this project screened out any significant impacts on local Natura 2000 sites. With this in consideration and the fact that that the proposed development will not potentially impact the QIs or conservation objectives of any Natura 2000 site, it can be stated that there is no potential for in combination or cumulative impacts to occur.

### 6.2.6 Summary

Due to the site location and scale of the proposed project, potential adverse impacts via surface water; groundwater; groundwater-to-surface water; and land (disturbance) and air pathways to the Natura 2000 sites are not anticipated, either alone or in combination with other projects.

### 6.2.7 Description of likely direct, indirect or secondary impacts of the project (either alone or in combination with other plans or projects) on the Natura 2000 sites

Project Elements	Comment
Size and scale	<p>SDCC plan to upgrade the Whitestown Stream Neighbourhood Park, it is envisioned that Neighbourhood Park will become a community gathering space for all ages that offers inclusive, and flexible recreation opportunities for all.</p> <p>The upgraded includes the demolition / removal of the existing pedestrian bridge within the site; the installation of two new pedestrian bridges at new bridging site towards the eastern and western extents of the site; the introduction of new pedestrian pathways; new lampposts; and enhanced landscaping, which includes tree planting.</p>
Land-take	There will be no direct land take from any of Natura 2000 sites.
Distance from Natura 2000 site or key features of the site	<p>The Natura 2000 sites and their proximity to the proposed site:</p> <ul style="list-style-type: none"> <li>- Glenasmole Valley SAC = 2.8km</li> <li>- Wicklow Mountains SAC = 4.7km</li> <li>- South Dublin Bay SAC = 13.1</li> <li>- South Dublin Bay and River Tolka Estuary SPA = 13.1km</li> <li>- North Dublin Bay SAC = 16.6km</li> <li>- North Bull Island SPA = 16.6km</li> </ul>
Resource requirements (water abstraction etc.)	There will be no groundwater abstraction on-site as the development will be connected to existing water mains.
Emissions (disposal to land, water or air)	<p><b>Water</b></p> <p>Given the small scale and nature of the works proposed, any on-site pollution events, whether sediment or hydrocarbon-based, will be diluted to the point where they bare a less than negligible threat to the Dublin Natura 2000 sites, and their respective QIs.</p> <p>Furthermore, as that the remainder of the Natura 2000 sites are not located downstream of the site or within the same surface water sub-catchment as the proposed site, Dodder_SC_010, it is not anticipated that these sites will experience any adverse impacts. Therefore, the proposed project is not anticipated to have any impact on the qualifying interests of the SACs and SPAs via surface water pathways.</p> <p>Operational impacts are not anticipated given that the function of the site will remain as it is at present, i.e., amenity parkland.</p>

Project Elements	Comment
	<p><b>Air</b></p> <p>Given the directional the prevailing wind direction and extent of the dust settlement, general air emission and dust-based impacts are not anticipated for the Natura 2000 sites within the Zol.</p> <p>Operational impacts are not anticipated given that the function of the site will remain as it is at present.</p>
Excavation requirements	Excavations on-site will consist of the minor excavation for new lampposts and those required to remove the existing bridge and install the new bridges crossing Whitestown Stream.
Transportation requirements	Levels of traffic to the site during the enhancement works will marginally increase traffic to the Whitestown area due to construction-based vehicles. Given the distance to the Natura 2000 sites and the size and scale of the proposed project, transportation requirements are not anticipated to negatively impact the QIs.
Duration of construction, operation, decommissioning etc.	The enhancement works will last approximately 6 months.
Other	None

#### 6.2.8 Description of likely changes to the Natura 2000 sites

Potential Impact	Comments
Reduction of habitat area	There will be no temporary or permanent reduction in habitat area for any of the Natura 2000 sites.
Disturbance to key species	There will be no potential temporary disturbance to key species within any of the Natura 2000 sites.
Habitat or species fragmentation	There will be no temporary or permanent habitat or species fragmentation within any of the Natura 2000 sites.
Reduction in species density	There will be no potential temporary or permanent reduction in species density within any of the Natura 2000 sites.
Changes in key indicators of conservation value (water quality etc.)	There will be no potential temporary changes in key indicators of conservation value (surface water, groundwater and air quality).
Climate change	N/A

#### 6.2.9 Description of likely impacts on the Natura 2000 sites as a whole

Potential Impact	Comments
Interference with the key relationships that define the structure of the site	Interference with the key relationships that define the structure of the sites are not anticipated.
Interference with key relationships that define the function of the site	Interference with key relationships that define the function of the sites are not anticipated.

Provide indicators of significance as a result of the identification of effects set out above in terms of:

Potential Impact	Indicators
Loss (Estimated percentage)	No Natura 2000 sites will experience a direct loss in habitat area.

Potential Impact	Indicators
of lost area of habitat)	
Fragmentation	Fragmentation of habitat and/or species is not anticipated.
Disruption & disturbance	Disruption and/ or disturbance is not anticipated.
Change to key elements of the site (e.g. water quality)	Potential temporary changes to key elements (i.e., water quality) of the site are not anticipated.

**6.2.10 Describe from the above those elements of the project or plan, or combination of elements, where the above impacts are likely to be significant or where the scale or magnitude of impacts is unknown**

Based upon best scientific judgement, significant impacts are not expected from the elements mentioned above; and there are no elements where the scale or magnitude of impacts is unknown.

**6.3 Concluding Statement**

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

**On the basis of the screening exercise carried out above, it can be concluded that the possibility of any significant adverse impacts on the Natura 2000 sites within the ZoI, whether arising from the project itself or in combination with other plans and projects, can be excluded beyond a reasonable scientific doubt on the basis of the best scientific knowledge available.**

# Appendices

## A Site Landscape and Lighting Plan

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