

NATURA IMPACT STATEMENT FOR A PROPOSED RESIDENTIAL DEVELOPMENT AT LACKENROE, GLOUNTHAUNE, CO. CORK.



In support of the Appropriate Assessment Process

Prepared for:

HW Planning

On behalf of Bluescape Ltd



Prepared by:

Kelleher Ecology Services Ltd.

Croft Ecology



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Executive Summary

This report presents the results of a Natura Impact Statement (NIS), which is Stage 2 of the appropriate assessment process, in relation to a proposed Strategic Housing Development at Lackenroe, Glounthaune, Co. Cork.

It is objectively concluded that with the application of mitigation measures where relevant, no significant adverse effects arising from the proposed development are likely to occur in relation to the Natura 2000 sites; Cork Harbour SPA and Great Island Channel SAC.

1 Introduction

Kelleher Ecology Services Ltd. and Croft Ecology were commissioned by HW Planning, on behalf of Bluescape Ltd., to undertake a Natura Impact Statement (NIS) in support of the Appropriate Assessment process in relation to a proposed Strategic Housing Development (SHD) at Lackenroe, Glounthaune, Co. Cork. This assessment was undertaken as part of a SHD planning application for a proposed residential development.

1.1 Statement of Competence

1.1.1 Dr Daphne Roycroft

Daphne has over 10 years of experience in the field of Ecological Consultancy and holds a BSc and PhD in Ecology from the National University of Ireland, Cork. She is a self-employed Ecological consultant, trading as Croft Ecology. Daphne is experienced in the preparation of Ecological Impact Assessment Reports and Appropriate Assessment screening appraisals as well as Natura Impact Statements for a variety of projects including wind farms, solar farms, roads, pipelines, residential developments, ports and landfill sites. She has published research papers in several peer-reviewed scientific journals and has lectured on several degree and certificate courses in The National University of Ireland, Cork.

1.1.2 Dr Katherine Kelleher

Katherine Kelleher is a graduate of University College Cork with a BSc in Zoology and PhD in Ecology, and established Kelleher Ecology Services in 2011. She has over 15 years of experience in ecological consultancy, acting as project manager on a range of ecological assessments & projects including solar/wind farm, road, gas pipeline, landfill, grid connection, industrial development, retail and housing. Katherine has significant experience of research, evaluative and analytical work in relation to planning applications, EIAR, appropriate assessment, planning compliance, commitments, licensing, baseline assessments, scoping studies *etc.*

1.2 Background: Appropriate Assessment

An Appropriate Assessment is undertaken to establish if any proposed plan or project is likely to have a significant effect or impact on any site that has been designated under: the E.U. Habitats Directive (92/43/EEC) *i.e.* SAC; or the E.U. Birds Directive (79/409/EEC as amended 2009/147/EC) *i.e.* SPA. Collectively, SAC's and SPA's are known as Natura 2000 sites. The E.U. Habitats Directive has been transposed into Irish law under Part X AB of the Planning and Development Act 2000-2021 and the European Communities (Birds and Natural Habitats) Regulations 2011-2015. Appropriate Assessment has been a legal requirement in Ireland since the 26th of February 1997 when the European Communities (Natural Habitats) Regulations 1997 (S.I. No. 94/1997) were signed into law by the then Minister for Arts, Culture and the Gaeltacht, Michael D. Higgins.

A NIS is part of an appropriate assessment process that consists of up to four stages, where each stage follows on from the preceding one. The need to undertake one or more stages of this process has arisen from Articles 6(3) and 6(4) of the aforementioned Habitats Directive; where the former Article is primarily concerned with the protection of sites from likely significant effects and the latter allows derogation from such protection in very specific circumstances involving imperative reasons of overriding public interest.

In Stage 1, a screening process is undertaken to identify whether significant¹ impacts on a Natura 2000 site are likely to arise from the project or plan in question. If significant impacts are likely to occur or if it is unclear whether significant impacts are likely to occur, then the process moves on to Stage 2 where an AA considers potential mitigation measures for adverse impacts. If it is considered that mitigation measures will not be able to satisfactorily reduce potential adverse impact on a Natura 2000 site then an assessment of alternative solutions is considered in Stage 3. This is then followed by Stage 4 in the event that adverse impacts remain and the proposed activity or development is deemed to be of Imperative Reasons of Overriding Public Interest (IROPI), allowing an assessment of compensatory measures to be considered. The outcome of a Stage 2 and higher assessment is presented in a report known as a Natura Impact Statement (NIS).

Given the presence of hydrological links between the study site and two Natura 2000 sites (Cork Harbour SPA and Great Island Channel SAC), a Stage 2 NIS in support of the Appropriate Assessment process is deemed appropriate here.

While an AA NIS is provided by the advocate of the plan or project in question, the AA NIS itself is undertaken by the competent authority (*i.e.* the planning authority, An Bord Pleanála). In this case, An Bord Pleanála is the competent authority in relation to AA regarding the project described herein; although informed by this NIS and any other necessary information.

1.3 Methodology

The conservation objectives of Natura 2000 sites have been compiled by the National Parks & Wildlife Service (NPWS) in relation to the habitats and species (*i.e.* qualifying interests) for which the sites are selected. These conservation objectives are referred to when carrying out appropriate assessments for plans and projects that might impact on these sites.

Documents associated with the proposed project and relevant ecology databases were consulted as part of this assessment (as referenced in this report), with field assessments also undertaken at various dates in 2019 and 2021 to inform an ecological impact assessment as part of an Environmental Impact Assessment Report (EIAR; see Bluescape Ltd. 2021) as well as this NIS. Cognisance was also taken of guidelines (OPR 2021, European Commission 2018, EPA 2013, DoEHLG 2009, European Commission 2021), as well as case law.

¹A European Court of Justice ruling in 2013 (Case C-258/11) has stated the following regarding significant effect: “Where a plan or project not directly connected with or necessary to the management of a site is likely to undermine the site’s conservation objectives, it must be considered likely to have a significant effect on that site. The assessment of that risk must be made in the light of, in particular, the characteristics and specific environmental conditions of the site concerned by such a plan or project (see, to this effect, Waddenvereniging and Vogelbeschermingsvereniging, paragraph 49)”

2 Brief Description of the Site & Project

2.1 Study Site: Location

The c. 12.7ha study site is located just east of Glounthaune Village and north of Lough Mahon/Harper's Island transitional waterbody - on lands to the north and south of the L-2970 public road, known locally as 'the Terrace' (Figure 2.1). The study site is greenfield in nature, largely comprising of former agricultural fields (unmanaged/fallow comprising mostly recolonising bare ground) to the north and woodland to the south where the site slopes from c. 110m north to c. 5m south above sea level.

The study site is located within the Lee, Cork Harbour and Youghal Bay Catchment (Tibbotstown sub-catchment), Hydrometric Area 19 and in the Southwestern River Basin District². There are no watercourses or other over-ground water-features (such as drains) at the study site. Lough Mahon (Harper's Island) transitional waterbody is located c. 40m to the south of the study site where two overlapping Natura 2000 designations are also present; Cork Harbour SPA and Great Island Channel SAC (Figure 2.1). Lough Mahon (Harper's Island) transitional waterbody is of moderate status and at risk of deteriorating or being at less than good status in the future under the Water Framework Directive².

Further information on the study site and proposed development are provided below in Sections 2.2 and 2.3 respectively.

2.2 Study Site: Walkovers

Walkovers were undertaken at the study site at various dates in 2019 and 2021 as part of EIAR field assessments (see Bluescape Ltd. 2021). The walkovers gained an overview of the study site as well as noting ecological points of interest such as the presence of invasive plant species and species that are part of the qualifying interests of the Natura 2000 sites relevant here.

The study site comprises of former agricultural fields to the north that appear to have been abandoned or left fallow such that recolonising bare ground with a mixed assemblage of largely ruderal plant species now dominates, mixed broadleaved woodland associated with an unmanaged former garden and unoccupied house at the middle area of the study site, and modified mixed broadleaved woodland comprised predominately of self-seeding Sycamore to the south (see Plate 1). Other habitat features present include hedgerow, treelines, stone walls and scrub.

No qualifying interest species/habitats of the relevant Natura 2000 sites under consideration here were confirmed at the study site during the field surveys, where the study site does not currently support habitats of ex-situ ecological value for relevant qualifying interests of the Natura 2000 sites in question.

² See <http://gis.epa.ie/Envision>



Plate 1. Overview of recolonising bare ground habitat at the former farmland part of the study site (top) and mixed broadleaved woodland associated with a former garden (bottom left) and self-seeding dominant Sycamore (bottom right).

A number of non-native invasive plant species listed on the Third Schedule of the 2011 European Communities (Birds and Natural Habitats) Regulations (*i.e.* species of which it is an offense to disperse, spread or otherwise cause to grow in any place) are present at the study site as follows; Bohemian Knotweed *Fallopia Bohemica*, Himalayan Knotweed *Persicaria wallichii*, Three-cornered Garlic *Allium triquetrum*, Spanish Bluebell *Hyacinthoides hispanica*, Rhododendron *Rhododendron ponticum* and American Skunk Cabbage *Lysichiton americanus* (see IPS 2021). A dedicated Invasive Plants Survey and Management Plan has been developed in relation to these Third Schedule species (IPS 2021). Other non-native plant species are also present at the study site (that are not listed on the Third Schedule) that will also be managed in accordance with best practice (*e.g.* NRA 2010); Buddleia *Buddleia davidii*, Winter Heliotrope *Petasites fragrans*, Snowberry *Symphoricarpos albus*, Cotoneaster *Cotoneaster sp.*, Fuchsia *Fuchsia magellanica*, Lawson Cypress *Chamaecyparis lawsoniana* and Cypress Leyland *Cupressus x leylandii* species.

2.3 Project Details

2.3.1 Proposed Development

The proposed development will involve the construction of a mixed-use residential development of 289 no. residential units consisting of 201 no. dwelling houses and 88 no. apartment/duplex units, a two storey creche, 4 no. ESB substations and all ancillary site development works at Lackenroe and Johnstown townlands (see Appendix A). The proposed development will be constructed on lands to the north and south of the public road, L-2970, known locally as 'the Terrace'. A portion of the site to the south of 'the Terrace' was formerly within Ashbourne Garden and is considered to be within the curtilage and attendant grounds of Ashbourne House, which is a Protected Structure (Ref 00498). Vehicular access to 2 no. dwellings in the lands to the north of 'the Terrace' will be provided via an upgraded entrance from 'the Terrace' with vehicular access to the remainder of dwellings in the lands to the north of 'the Terrace' via the signalised junction from the L-2968 and internal road network permitted by Cork County Council reference 17/5699 and An Bord Pleanála reference 300128-17. A separate secondary emergency access is also proposed from the L-2969 to the north. Vehicular access to the 5 no. dwellings to the south of the 'the Terrace' will be via a new entrance from 'the Terrace' and the proposed apartment building will be accessed from Johnstown Close. The proposed development also makes provision for a pedestrian link from the proposed development north of 'the Terrace' to Johnstown Close via 'the Terrace' which will include a signalised pedestrian crossing and associated traffic calming measures on 'the Terrace'. Ancillary site works include the demolition of 1 no. existing derelict dwelling house and associated outbuildings, landscaping and servicing proposals including the realignment of the existing pedestrian/cycle route on Johnstown Close, the undergrounding of existing overhead lines, upgrade of the storm and foul sewer network to the south and east of the study site along 'the Terrace' and Johnstown Close (L-3004) existing public roads.

The proposed lighting scheme will focus lighting on areas where it is needed (roads, streets, footpaths) and minimise spillage onto relevant sensitive areas comprising of retained/new woody features (hedgerow, woodland/woodland edge, tree lines/groups) at the study site or the adjoining area in general including the nearby estuary (see AECOM 2021e and Glounthaune Development Public Lighting drawing by Lighting Reality accompanying the planning application). The proposed development will be constructed on a phased basis, starting at the northern area of the study site. It is anticipated that the duration of the construction phase of the proposed development will be 48 months.

A site specific flood risk assessment has been completed for the proposed development that concludes that the study site does not have a known history of flooding, is within a low probability flooding area (*i.e.* flood zone C, less than 0.1% or 1 in 1,000 year event for river and coastal flooding) and has a low risk in relation to pluvial and groundwater flooding (see AECOM 2021a). The flood risk assessment also highlights that the proposed development will not increase flood risk elsewhere (see AECOM 2021a).

2.3.2 Environmental Inputs

The proposed site development works will be carried out in accordance with best practice regarding standard environmental protection (*e.g.* CIRIA 2015 and 2001). Environmental inputs associated with the proposed development will include surface-water run-off, waste-water and other wastes; however, these inputs will be controlled/managed as follows.

2.3.2.1 Surface-Water Run-Off: Construction Phase

There are no watercourses or other overground water-features at the study site that could convey silt-laden or contaminated run-off into the surrounding area, where surface-water currently percolates to ground. A proposed new surface-water drainage network will be installed at the study site, part of which may become active as construction works progress. The proposed surface-water drainage network will connect into the existing public storm-sewer network that ultimately discharges into Lough Mahon (Harper's Island) transitional waterbody, where Cork Harbour SPA and Great Island Channel SAC are also present, via an existing outfall to the south-west of the study site (see Figure 2.1).

While surface-water run-off will generally percolate to ground during the construction phase, standard environmental controls will nonetheless be implemented as part of the project to ensure the appropriate management and control of construction stage surface-water run-off potentially arising from development activities at the site (e.g. CIRIA 2015 and 2001). Such construction related controls will be specific to the site, proposed works and Lough Mahon (Harper's Island) transitional waterbody with associated Cork Harbour SPA and Great Island Channel SAC as follows (see AECOM 2021b):

Spill Control Measures

It is not proposed to store any oils/fuels for the purpose of refuelling on the site.

Onsite plant will be refuelled by an external contractor who will call to site as required. Road vehicles are not be refuelled at the site. Minor spills and leaks may occur from road vehicles and the onsite excavator. Any oils or fuels onsite will be removed by an experienced and authorised contractor.

- The following steps provide the procedure to be followed in the event of any significant spill or leak.
- Stop the source of the spill and raise the alarm to alert people working in the vicinity of any potential dangers.
- Eliminate any sources of ignition in the immediate vicinity of the incident
- Contain the spill using the spill control materials, track mats or other suitable material. Do not spread or flush away the spill.
- Cover or bund off any vulnerable areas where appropriate such as drains or watercourses.
- Clean up as much as possible using the spill control materials.
- Contain any used spill control material and dispose of used materials appropriately using a fully licensed waste contractor with the appropriate permits so that further contamination is limited.
- Notify the Contractor immediately giving information on the location, type, and extent of the spill so that they can take appropriate action and further investigate the incident to ensure it has been contained adequately.
- The Employers Representative will inspect the site and ensure the necessary measures are in place to contain and clean up the spill and prevent further spillage from occurring.

Run-off Control Measures

- Dewatering measures will only be employed where there are no other alternatives.
- For groundwater encountered during construction phase, mitigation measures will include;
 - Dewatering by pumping to a soakaway.

- Excluding contaminating materials such as fuels and hydrocarbons from sensitive parts of the site i.e. highly vulnerable groundwater areas.
- If concrete mixing is carried out on site, the mixing plant will be sited in a designated area with an impervious surface.
- Existing surface drainage channels within the site that serve adjacent lands will be retained where possible to prevent causing increased flooding impacts.
- Any surface water sewer connections will be made under the supervision of the Local Authority/Irish Water and checked prior to commissioning.
- New onsite surface water drains will be tested and surveyed prior to commissioning to prevent any possibility of ingress of ground water.
- All surface water manholes and drains will be inspected and sealed to ensure that uncontrolled ground water inflow does not occur.
- Filters and silt traps will be used to prevent rain washing silts and other materials into the surface water network and creating blockages.
- Areas surrounding the site are to be protected as necessary from sedimentation and erosion due to direct surface water runoff generated onsite during construction phase. To prevent this from occurring surface water discharge from the site will be managed and controlled for the duration of the construction works, as noted in the points above, until the permanent surface water drainage system of the proposed site is complete.
- Regular inspections of de-watering settlement tanks, if used, are to be carried out and additional treatment used if settlement is not adequate.
- Bunded areas will be created for the storage or use of any fuels, oils, greases, cement, etc.
- Emergency spill kits will be kept close to the works.

2.3.2.2 Surface-Water Run-Off: Operational Phase

As mentioned above, the proposed new surface-water drainage network will connect with the public storm-sewer network that discharges to Lough Mahon (Harper's Island) transitional waterbody via an existing outfall to the south-west of the study site where Cork Harbour SPA and Great Island Channel SAC are also present (see Figure 2.1). The proposed Sustainable Drainage Systems (SuDS) surface-water drainage design includes green roofing and permeable paving as well as hydrocarbon interceptors and attenuation tanks to ensure discharge to greenfield rates (see AECOM 2021c). Furthermore, the surface-water drainage network will be maintained on a regular basis in accordance with established guidelines (see AECOM 2021c). Operational related controls will be specific to the site, activities and Lough Mahon (Harper's Island) transitional waterbody with associated Cork Harbour SPA and Great Island Channel SAC.

2.3.2.3 Waste-Water/Foul Effluent

Prior to the residential site being connected into the public foul sewer network, **construction stage** waste-water/foul effluent will be managed and controlled at the temporary site compound through the use of portaloos and welfare units with storage tanks, where sanitary waste will be removed from site via a licenced waste disposal operator.

When the residential site is connected to the public foul sewer network, **construction (where relevant) and operational** waste-water/foul effluent arising from the proposed development will be collected by a new foul sewer network at site that will be directed into the public foul sewer network for treatment at

Cork City Wastewater Treatment Plant (WWTP). Treated waste-water from the WWTP is discharged into Lough Mahon, where sections of Cork Harbour SPA are several kilometres downstream of the WWTP discharge point (see Figure 2.1).

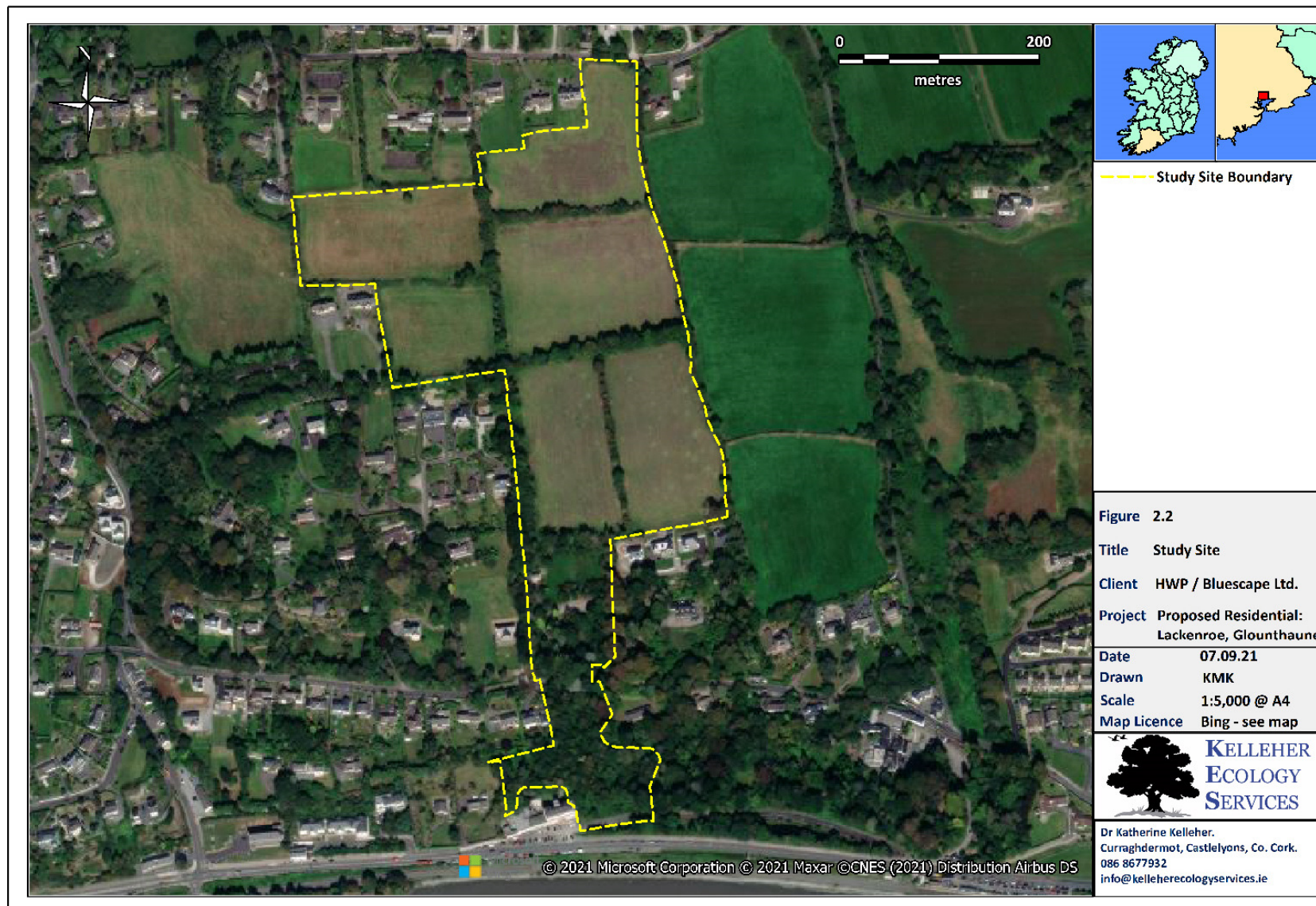
2.3.2.4 Other Wastes

Other wastes associated with the development will be collected and removed from site by licensed operators during the construction (see AECOM 2021d) and operational stages of the project. This will allow for the appropriate control and management of other wastes at site, with no uncontrolled releases of same into the environment including any Natura 2000 site.

Figure 2.1: Study Site Location & Natura 2000 Sites



Figure 2.2: Study Site



3 Brief Description of the Natura 2000 Sites

Natura 2000 sites were identified through a desktop mapping review (using MapInfo Pro, a geographic information system software programme), where focus was given to sites where a potential impact-receptor pathway or zone of influence with the study site may be relevant. In other words, Natura 2000 sites that may potentially have a link to the study site were focused on as part of this assessment (e.g. through hydrological link, overlapping, proximity, ex-situ usage).

In this case, the study site is not part of or adjacent to any Natura 2000 designated sites nor does it require any resources from them, thereby ruling out any direct habitat loss at such conservation sites. The closest Natura 2000 sites are located from c. 42m south of the study site boundary, both overlapping Lough Mahon (Harper's Island) transitional waterbody; Great Island Channel SAC and Cork Harbour SPA (Figure 2.1 and Table 3.1 below). There are no other Natura 2000 sites in the wider area with an impact-receptor pathway relevant to the study site. While one other Natura 2000 site (Blackwater River (Cork/Waterford) SAC) is located within 15km of the study site, it is located within a different catchment area such that no potential indirect hydrological impact-receptor link is therefore possible.

3.1 Potential Impact-receptor Pathways: Overview

3.1.1 Surface-Water Run-Off

There is a potential impact-receptor link between the study site and Cork Harbour SPA and Great Island Channel SAC via surface-water run-off into Lough Mahon (Harper's Island) transitional waterbody. Construction stage surface-water run-off could potentially reach Lough Mahon (Harper's Island) transitional waterbody given the proposed connection into the public storm-sewer network that currently outfalls into this transitional waterbody and/or proximity of the development site to this waterbody (*i.e.* c. 40m; see Table 3.1). Operational surface-water run-off associated with the site will also be discharged into Lough Mahon (Harper's Island) transitional waterbody via the same public storm-sewer network (see Table 3.1). Both Cork Harbour SPA and Great Island Channel SAC overlap at the section of Lough Mahon (Harper's Island) transitional waterbody relevant to here including at the public outfall discharge point (see Figure 2.1). Therefore, the potential for an impact-receptor pathway between the study site and both Cork Harbour SPA and Great Island Channel SAC via surface-water discharge is given further consideration in Section 4.1 of this report.

3.1.2 Waste-Water/Foul Effluent

Prior to the site being connected into the public foul sewer, construction stage waste-water/foul effluent will initially be managed and controlled at the temporary site compound through the use of portaloos and welfare units with storage tanks, where sanitary waste will be removed from site via a licenced waste disposal operator. In this instance, there is no impact-receptor pathway between construction stage waste-water and any Natura 2000 site.

When the site is connected to the public foul sewer network, construction (where relevant) and operational stage waste-water/foul effluent arising from the proposed development will be discharged into the public foul effluent network for treatment at Cork City WWTP that ultimately

discharges into Cork Harbour at Lough Mahon, where sections of Cork Harbour SPA are >4km downstream of the WWTP discharge point (see Table 3.1 & Figure 2.1). Therefore, the potential for indirect hydrological impacts on Cork Harbour SPA via waste-water arising from the study site are further considered in Section 4.1 of this report.

While Great Island Channel SAC is not downstream of the WWTP discharge point (see Figure 2.1), tidal/wind movements could be of some relevance in relation to the SAC, where its boundary is c. 550m north-east of the WWTP's discharge point. However, an assessment on the conservation status of the SAC does not highlight potential impacts arising from tidal/wind movements from Cork City WWTP's discharge point as a significant point of concern but instead highlights water quality management in relation to two other WWTPs (Midleton & Carrigtwohill WWTPs) to maintain/restore the favourable conservation status of the SAC's qualifying interest 'Mudflats and Sandflats' (O'Neill *et al.* 2014). Taking the above into consideration, no significant adverse effects are considered likely in relation to waste-water/foul effluent arising from the proposed development and Great Island Channel SAC.

3.1.3 Disturbance/Displacement

Consideration needs to be given to the potential for disturbance/displacement impacts of fauna that are listed as qualifying interests of a designated site through noise and/or visual cues arising from the proposed development. This also includes ex-situ disturbance/displacement impacts on highly mobile species that are qualifying interests of the relevant designated site; ex-situ impacts occur when highly mobile species occur outside of the boundaries of their designated sites (*e.g.* to forage or commute).

The study site is located approximately 46m from the nearest section of Cork Harbour SPA as associated with Lough Mahon (Harper's Island) transitional waterbody. Cork Harbour SPA is designated for the protection of a range of qualifying interest waterbird species (see Table 3.1) that typically forage and roost along intertidal mudflats and coastal wetlands or fields. The potential for disturbance/displacement of SPA waterbird qualifying interest species as a result of the development are further considered in Section 4.1 of this report.

As the conservation objectives of Great Island Channel SAC relate to habitats and not fauna, there is no impact-receptor pathway in relation to disturbance/displacement for this SAC.

3.1.4 Invasive Plants

Activities associated with development works can inadvertently result in the spread of invasive plants, where an over-ground water-feature can subsequently act as a potential impact-receptor pathway regarding indirect habitat loss/damage to downstream locations in the wider area including any Natura 2000 sites that are present.

A number of non-native invasive plant species are present at the study site, where a dedicated Invasive Plants Survey and Management Plan has been developed in relation to the Third Schedule species (IPS 2021) and other non-native plant species that are not listed on the Third Schedule will also require management in accordance with best practice. While several non-native invasive plant species are present, there are no over-ground water-features at the study site that could act as a conduit for the spread of these species into the nearby transitional waterbody and associated Natura 2000 sites.

Taking the above into consideration, there is no impact-receptor pathway in relation to potential habitat loss/damage effects arising from the spread of invasive plants on either Cork Harbour SPA or Great Island Channel SAC.

3.1.5 Flooding/Floodplain

A site specific flood risk assessment has been completed for the proposed development that concludes that the study site does not have a known history of flooding, is within a low probability flooding area (*i.e.* flood zone C, less than 0.1% or 1 in 1,000 year event for river and coastal flooding) and has a low risk in relation to pluvial and groundwater flooding (see AECOM 2021a). The flood risk assessment also highlights that the proposed development will not increase flood risk elsewhere (see AECOM 2021a). Taking the above into consideration, no significant adverse effects regarding flooding/floodplain impacts on Cork Harbour SPA and Great Island Channel SAC considered likely here.

Table 3.1 Natura 2000 Site Summary

Natura 2000 Site & Code	Conservation Objectives	Minimum Distances
Great Island Channel SAC 001058	<p>The Great Island Channel stretches from Little Island to Midleton, with its southern boundary being formed by Great Island. The main habitats of conservation interest in Great Island Channel SAC are the sheltered tidal sand and mudflats and the Atlantic salt meadows. This SAC overlaps with part of the Cork Harbour SPA, with its estuarine habitats providing foraging and roosting resources for wintering waders and wildfowl for which the SPA is designated. Its conservation objectives relate to maintaining the favourable conservation condition of the following qualifying interests (after NPWS 2014b);</p> <p>Annex I Habitats: Tidal Mudflats and Sandflats (1140), Atlantic Salt Meadows (1330).</p>	<p><u>Site Boundary:</u> Over-land: 0.042km</p> <p><u>Discharge Points:</u> Surface-water: 0.0km Waste-water: n/a</p>
Cork Harbour SPA 004030	<p>Cork Harbour is of major ornithological significance, being of international importance both for the total numbers of wintering birds (<i>i.e.</i>>20,000). Several of the species which occur regularly are listed on Annex I of the E.U. Birds Directive. The site provides both feeding and roosting sites for the various bird species that use it. Its conservation objectives relate to maintaining the favourable conservation condition of the following qualifying interests (after NPWS 2014a);</p> <p>Wintering bird species: Little Grebe <i>Tachybaptus ruficollis</i>, Grey Plover <i>Pluvialis squatarola</i>, Great Crested Grebe <i>Podiceps cristatus</i>, Lapwing <i>Vanellus vanellus</i>, Cormorant <i>Phalacrocorax carbo</i>, Dunlin <i>Calidris alpina alpina</i>, Grey Heron <i>Ardeacinerea</i>, Black-tailed Godwit <i>Limosa limosa</i>, Shelduck <i>Tadorna tadorna</i>, Bar-tailed Godwit <i>Limosa lapponica</i>, Wigeon <i>Anas penelope</i>, Curlew <i>Numenius arquata</i>, Teal <i>Anas crecca</i>, Redshank <i>Tringa tetanus</i>, Pintail <i>Anas acuta</i>, Black-headed Gull <i>Chroicocephalus ridibundus</i>, Shoveler <i>Anas clypeata</i>, Common Gull <i>Larus canus</i>, Red-breasted Merganser <i>Mergus serrator</i>, Lesser Black-backed</p>	<p><u>Site Boundary:</u> Over-land: 0.046km</p> <p><u>Discharge Points:</u> Surface-water: c.0.0km Waste-water: > 4.0km</p>

Natura 2000 Site & Code	Conservation Objectives	Minimum Distances
	Gull <i>Larus fuscus</i> , Oystercatcher <i>Haematopus ostralegus</i> , Golden Plover <i>Pluvialis apricaria</i> . Breeding bird species: Common Tern <i>Sterna hirundo</i> . Habitat: Wetlands.	

3.2 Potential Impact-Receptor Pathways: Summary

In summary, Section 4.1 of this NIS further considers; (i) potential construction/operational surface-water run-off impacts in relation to Cork Harbour SPA and Great Island Channel SAC (ii) potential construction (where relevant) and operational waste-water discharge impacts in relation to Cork Harbour SPA and (iii) potential disturbance/displacement impacts on qualifying waterbird interest species of Cork Harbour SPA.

4 Assessment: Natura Impact Statement

Elements of the proposed development that may potentially impact on the qualifying interests of the conservation objectives of Cork Harbour SPA and Great Island Channel SAC are further considered in Section 4.1 below.

4.1 Elements of the Project that may Potentially Impact on Qualifying Interests of the Natura 2000 Site

4.1.1 Indirect Habitat Loss or Deterioration

Indirect habitat loss or deterioration of Natura 2000 sites within the surrounding area can occur from the effects of run-off or discharge into the aquatic environment through impacts such as increased siltation, nutrient release and/or contamination. This requires connectivity between the site and the Natura 2000 site in question through watercourses and/or drainage. In this case, there is a potential impact-receptor pathway between (i) the study site and Cork Harbour SPA and Great Island Channel SAC in relation to surface-water run-off and (ii) the study site and Cork Harbour SPA through waste-water discharge as follows.

4.1.1.1 Surface-Water Run-Off: Construction Phase

The construction phase of the proposed development will involve various activities such as site clearance, vegetation removal, building demolition, excavation/earthworks, the import of building materials, use of heavy machinery and refuelling. Such activities have the potential to release silt or other contamination into Lough Mahon (Harper's Island) transitional waterbody given the proposed connection into the public storm-sewer network (where part of the proposed on-site drainage system may become active as construction works progress) that currently outfalls into this transitional waterbody and/or proximity of the development site to this waterbody (*i.e.* c. 40m). Both Cork Harbour SPA and Great Island Channel SAC overlap at the section of Lough Mahon (Harper's Island) transitional waterbody relevant to here including at the public outfall discharge point (see Figure 2.1).

Standard environmental controls will be implemented as part of the project to ensure the appropriate management and control of construction stage surface-water run-off potentially arising from development activities at the site (as outlined in Section 2.3.2.1). Such construction related controls will be specific to the site, works and Lough Mahon (Harper's Island) transitional waterbody with associated Cork Harbour SPA and Great Island Channel SAC. Construction phase surface-water environmental controls are thereby listed as part of mitigation measures under Section 4.2.1 of this report.

4.1.1.2 Surface-Water Run-Off: Operational Phase

Operational surface-water run-off associated with the site will also be discharged into Lough Mahon (Harper's Island) transitional waterbody via the same public storm-sewer network outlined above for the construction phase, where Cork Harbour SPA and Great Island Channel SAC are present at the outfall discharge point (see Figure 2.1).

Operational phase surface-water run-off will be managed and controlled prior to discharge into the environment, where the proposed SuDS drainage design will incorporate various features such as green roofing and permeable paving as well as hydrocarbon interceptors and attenuation tanks that will be maintained on a regular basis in accordance with established guidelines (as outlined in Section 2.3.2.2). Such operational related run-off controls will be specific to the site, activities and Lough Mahon (Harper's Island) transitional waterbody with associated Cork Harbour SPA and Great Island Channel SAC. Operational surface-water management proposals are thereby listed as part of mitigation measures under Section 4.2.2 of this report.

4.1.1.3 Waste-Water/Foul Effluent

When the site is connected to the public foul sewer network, there is a potential impact-receptor pathway via construction (where relevant) and operational waste-water/foul effluent links between the study site and Cork Harbour SPA via Cork City WWTP that ultimately discharges into Cork Harbour at Lough Mahon, where sections of Cork Harbour SPA are >4km downstream of the WWTP discharge point.

Even though Cork City WWTP is currently non-compliant in relation to Total Nitrogen and Phosphorus, ambient monitoring of transitional and coastal receiving waters indicates that discharge from the WWTP does not have an observable negative impact on water quality or the WFD status of the receiving waters (Irish Water 2021). Furthermore, the WWTP has sufficient capacity to accept the additional organic loading of 1,168 PE from the operational development, where remaining organic capacity is >100k PE (see Irish Water 2021); this has also been confirmed by Irish Water's pre-connection enquiry response that the proposed foul connection can be facilitated (see Appendix B).

Taking the above into consideration, no significant adverse effects regarding indirect habitat loss or deterioration of Cork Harbour SPA arising from waste-water via WWTP discharge are deemed likely in this case. Therefore, no mitigation measures are required in relation to potential waste-water related impacts.

4.1.2 Disturbance/Displacement

Activities associated with the construction phase of the proposed development could disturb and/or displace waterbird species associated with the nearby Cork Harbour SPA through noise and/or visual cues such as artificial lighting and the movement of construction machinery/personnel, where the nearest area of suitable waterbird habitat (mudflats) associated with this Natura 2000 site is located from c. 40m of the study site. Disturbance/displacement also includes ex-situ related impacts on highly mobile species that are qualifying interests of the relevant designated site; ex-situ impacts occur when highly mobile species occur outside of the boundaries of their designated sites (*e.g.* to forage or commute).

The busy Cork to Midleton / Cork to Cobh railway lines as well as a local road are located between the study site and these mudflats however, while the study site is also screened from the estuary/mudflats by a mature treeline/woodland strip along the inner side of the local road. The very busy N25 dual carriageway is also present c. 500m south of the study site on the opposite side of the mudflats. The existing and on-going background noise levels associated with vehicular/train movement on the public road and railway adjacent to the estuary/mudflats as well as the other existing urban infrastructure

associated with the wider Glounthaune/Little Island area will effectively outweigh the noise from the proposed construction works, particularly for waterbird qualifying interests located on mudflats adjacent to the public road/railway such that significant adverse effects regarding direct disturbance/displacement impacts on qualifying interest waterbirds occurring within Cork Harbour SPA are not considered likely here.

It is also considered that the project will not result in artificial light spillage into the SPA area as follows. During the construction phase, external based construction works will largely occur during daylight hours only, such that artificial lighting of external areas during the hours of darkness will be largely irrelevant with only limited occasions where construction works may occur during darkness. During the operational phase, no artificial lighting will be installed that will result in any light spillage into the SPA area during the hours of darkness (see AECOM (2021e) and Glounthaune Development Public Lighting drawing by Lighting Reality accompanying the planning application). Furthermore, the apartment block will not be fitted with aviation warning lights or other bright lights that might attract or disorientate waterbirds. Also, the study site is screened from the SPA by a mature treeline/woodland strip and the southern part of the site will retain a portion of the existing woodland as well as introduce relatively extensive new tree planting (see Landscape Master Plan Drawing No. 21543-2-101 by Cunnane Stratton Reynolds accompanying the planning application) that will minimise the visibility of the overall site from the nearby estuary. It should also be noted that railway infrastructure (*i.e.* Glounthaune platform), which is located between the study site and the estuary, is already subject to artificial lighting such that the local waterbird population are already habituated to these lighting levels.

In relation to ex-situ disturbance/displacement, the study site does not support habitats of ex-situ ecological value for qualifying interest species of the SPA in question where it is largely dominated by recolonising bare ground and woodland with associated hedgerows and treelines that obscure the view of the estuary from the study site. Furthermore, no qualifying interest species of Cork Harbour SPA were noted during the field surveys at the study site where the study site is not of known importance for waterbirds (see Crowe 2005 and IWeBS online mapping³).

Taking the above into consideration, no significant adverse effects regarding disturbance/displacement on qualifying interest waterbird species of Cork Harbour SPA are considered likely as a result of the construction or operation of the proposed development. Therefore, no mitigation measures are required in relation to potential disturbance/displacement (including ex situ) related impacts.

4.1.3 Cumulative or In-combination Effects

Potential cumulative effects include construction/operational related surface-water and construction (where relevant)/operational related foul effluent inputs, where qualifying interests associated with Cork Harbour SPA and Great Island Channel SAC could be subject to cumulative impact through hydrological or water quality impacts such as increased siltation, nutrient release and contaminated run-off arising from other developments.

³ <https://bwi.maps.arcgis.com/apps/View/index.html?appid=1043ba01fcb74c78bc75e306eda48d3a>

The proposed project represents the second phase of residential development in accordance with a Masterplan developed by Deady Gahan Architects in 2017, where construction has recently commenced on the first phase that is west of the northern land parcel of the study site (under planning references 17/5699, 300128-17, 18/6312 and 20/5864). A proposed extension to the first phase, comprising of the demolition of two agricultural buildings and the construction of 21 units to the south of the Phase 1 site has also been submitted (Planning Reference 21/6851). Other proposed and permitted developments are present in the wider area, including; (i) a permitted Pedestrian and Cycle Route from Bury's Bridge, Kilcoolishal to Carrigtwohill via Glounthaune (Cork County Council Part 8 Application), (ii) proposed construction of 94 no. residential units (Barlow Properties Ltd., planning number 21/5072), (iii) proposed construction of 12 no. residential units (Glounthaune Homes Trust, 21/4622) and (iv) permitted SHD of 174 residential units under construction (O'Mahony Developments Ltd., ABP-301197-18).

The current Cork County Development Plan outlines a county-based objective in relation to the management of surface-water by new developments through the incorporation of SuDS and provision of adequate stormwater infrastructure (Section 11.5 & Objective WS 5-1; CCC 2014) that is reiterated in the current Cobh Municipal District Local Area Plan that includes Glounthaune (Objective LAS-01; CCC 2017). The current Cobh Municipal District Local Area Plan also includes an objective for Glounthaune regarding protection of the SPA and SAC in relation to new development in the area (Objective U-02; CCC 2017). The SuDS surface-water management strategy associated with the proposed development here compliments the Cork County Development Plan objective through the inclusion of various aspects such as green roofing and permeable paving along with hydrocarbon interceptors and attenuation tanks (as outlined in Section 2.3.2 above).

While Cork City WWTP is currently non-compliant in relation to Total Nitrogen and Phosphorus, ambient monitoring of transitional and coastal receiving waters indicates that discharge from the WWTP does not have an observable negative impact on water quality or the WFD status of the receiving waters (Irish Water 2021). Furthermore, there is significant remaining capacity currently available at Cork City WWTP to cater for the additional proposed foul effluent here.

Assuming that all other Cork County related developments closely adhere to standard environmental practice regarding soil and water management during construction and operational phases, as per the development under consideration here (as outlined in Sections 2.3.2 above & 4.2.1 below), then significant adverse cumulative effects are considered unlikely in relation to water-features and associated designated nature conservation sites.

Taking the above into consideration, along with the proposed environmental management and controls integrated into the project design here (see Section 4.2.1 below), significant adverse effects related to cumulative and in-combination impacts are considered unlikely in this case.

4.2 Mitigation Measures Relevant to the Protection of the Natura 2000 Site

The following mitigation measures will be integrated as part of the proposed development regarding environmental protection specific to the site, works/operations and Lough Mahon (Harper's Island) transitional waterbody with associated Cork Harbour SPA and Great Island Channel SAC in relation to potential construction/operational phase surface-water run-off drainage effects.

4.2.1 Surface-Water Run-Off: Construction Phase

The following construction related run-off controls are proposed as part of the development in question (after AECOM 2021b);

Spill Control Measures

It is not proposed to store any oils/fuels for the purpose of refuelling on the site.

Onsite plant will be refuelled by an external contractor who will call to site as required. Road vehicles are not be refuelled at the site. Minor spills and leaks may occur from road vehicles and the onsite excavator. Any oils or fuels onsite will be removed by an experienced and authorised contractor.

- The following steps provide the procedure to be followed in the event of any significant spill or leak.
- Stop the source of the spill and raise the alarm to alert people working in the vicinity of any potential dangers.
- Eliminate any sources of ignition in the immediate vicinity of the incident
- Contain the spill using the spill control materials, track mats or other suitable material. Do not spread or flush away the spill.
- Cover or bund off any vulnerable areas where appropriate such as drains or watercourses.
- Clean up as much as possible using the spill control materials.
- Contain any used spill control material and dispose of used materials appropriately using a fully licensed waste contractor with the appropriate permits so that further contamination is limited.
- Notify the Contractor immediately giving information on the location, type, and extent of the spill so that they can take appropriate action and further investigate the incident to ensure it has been contained adequately.
- The Employers Representative will inspect the site and ensure the necessary measures are in place to contain and clean up the spill and prevent further spillage from occurring.

Run-off Control Measures

- Dewatering measures will only be employed where there are no other alternatives.
- For groundwater encountered during construction phase, mitigation measures will include;
 - Dewatering by pumping to a soakaway.
 - Excluding contaminating materials such as fuels and hydrocarbons from sensitive parts of the site i.e. highly vulnerable groundwater areas.
- If concrete mixing is carried out on site, the mixing plant will be sited in a designated area with an impervious surface.
- Existing surface drainage channels within the site that serve adjacent lands will be retained where possible to prevent causing increased flooding impacts.
- Any surface water sewer connections will be made under the supervision of the Local Authority/Irish Water and checked prior to commissioning.
- New onsite surface water drains will be tested and surveyed prior to commissioning to prevent any possibility of ingress of ground water.
- All surface water manholes and drains will be inspected and sealed to ensure that uncontrolled ground water inflow does not occur.

- Filters and silt traps will be used to prevent rain washing silts and other materials into the surface water network and creating blockages.
- Areas surrounding the site are to be protected as necessary from sedimentation and erosion due to direct surface water runoff generated onsite during construction phase. To prevent this from occurring surface water discharge from the site will be managed and controlled for the duration of the construction works, as noted in the points above, until the permanent surface water drainage system of the proposed site is complete.
- Regular inspections of de-watering settlement tanks, if used, are to be carried out and additional treatment used if settlement is not adequate.
- Bunded areas will be created for the storage or use of any fuels, oils, greases, cement, etc.
- Emergency spill kits will be kept close to the works.

4.2.2 Surface-Water Run-Off: Operational Phase

Operational stage run-off proposals will be integrated into the development under consideration here that are summarised as follows (see AECOM 2021c);

- The proposed SuDS surface-water drainage design includes green roofing and permeable paving along with hydrocarbon interceptors and attenuation tanks.
- Maintenance of the drainage system will be carried out on an on-going basis to ensure the system is operating correctly. Maintenance will consist of inspection and assessment, with remedial measures undertaken where required.

4.3 Likely Success of the Mitigation Measures

The mitigation measures have been developed in accordance with current policy, regulations and guidelines as follows;

- Construction and Demolition Waste Management – a Handbook for Contractors and Site Managers published by FAS and the Construction Industry Federation 2002
- Best Practice Guidelines on the Preparation of Waste Management Plans for Construction and Demolition Projects’ Department of the Environment, Heritage and Local Government, 2006 (SPGWMP)
- Waste Classification. List of Waste & Determining if Waste is Hazardous or Non-hazardous. Environmental Protection Agency, 2018
- Pollution Prevention Guidelines: Working at Construction and Demolition Sites, PPG6, UK Environmental Alliance (PPG6)
- Environmental Good Practice on Site Guide, C741, CIRIA 2015 (Fourth Edition)
- Control of Water Pollution from Construction Sites: Guidance for Consultants and Contractors, C532, CIRIA 2001
- The SuDS Manual CIRIA C753

4.4 Timescale for the Implementation of Mitigation Measures

- Construction related mitigation measures will be implemented prior to and/or in-tandem with the relevant works being carried out.

- Operational related mitigation measures will be implemented and maintained on an ongoing basis and will be integrated into the Health & Safety Plan for the site.

4.5 Contingency Plan for Mitigation Failure

- An Emergency Response Plan for the site will be compiled prior to the commencement of construction/enabling works.
- In the event of failure of the mitigation measure, the source of contamination will be removed as a matter of urgency by a suitably qualified contractor and the site closed until the relevant issue is addressed.
- In extreme cases, the Health & Safety Authority and the Fire Department and the Council will be notified.

4.6 Appropriate Assessment Report

Assessment of the Effects of the Project or Plan on the Integrity of the Natura 2000 Site	
Describe the elements of the project or plan (alone or in combination with other projects or plans) that are likely to give rise to significant effects on the site (from screening assessment)	<p>Elements of the proposed development that may result in potential impacts on Cork Harbour SPA and Great Island Channel SAC in the absence of potentially relevant environmental protection measures include (i) potential construction/operational surface-water run-off impacts in relation to Cork Harbour SPA and Great Island Channel SAC.</p> <p>No significant adverse effects regarding indirect habitat loss or deterioration of Cork Harbour SPA arising from waste-water via WWTP discharge are deemed likely in this case such that no mitigation measures are required as outlined in Section 4.1.1.3. Also, no significant adverse effects regarding disturbance/displacement on qualifying interest waterbird species of Cork Harbour SPA are considered likely as a result of the construction or operation of the proposed development such that no mitigation measures are required as outlined in Section 4.1.2.</p>
Set out the Conservation objectives of the site	The conservation objectives and qualifying interests of the relevant Natura 2000 sites are outlined in Table 3.1 above.
Describe how the project or plan will affect key species and key habitats. Acknowledge uncertainties and any gaps in information.	With the implementation of the mitigation measures specified in Section 4.2, no significant adverse effects related to indirect habitat loss or deterioration of the Natura 2000 sites arising from silt-laden or contaminated surface-water run-off associated with the construction or operational phases of the proposed development are deemed likely in this case.
Describe how the integrity of the site (determined by structure and function and conservation objectives) are likely to be affected by the project and plan (e.g. loss of habitat, disturbance, disruption, chemical changes, hydrological changes and geological changes etc.). Acknowledge uncertainties and any gaps in information.	With the implementation of the mitigation measures specified in Section 4.2, no significant adverse effects on the integrity of the site related to indirect habitat loss or deterioration of the Natura 2000 sites arising from silt-laden or contaminated surface-water run-off associated with the construction or operational phases of the proposed development are deemed likely in this case.
Describe what mitigation measures are to be introduced to avoid, reduce or remedy the adverse effects on the integrity of the site. Acknowledge uncertainties and any gaps in information.	Mitigation measures will be integrated as part of the proposed development regarding environmental protection specific to the site, works/operations and Lough Mahon (Harper's Island) transitional waterbody with associated Cork Harbour SPA and Great Island Channel SAC in relation to potential construction/operational phase surface-water run-off drainage effects. Construction/operational surface-water proposals are thereby listed as part of mitigation measures in Section 4.2 above.
Results of Consultation	
Name of agency or body consulted	Summary of response
Inland Fisheries Ireland (IFI), response received from Mr M. McPartland by email on 11 th August 2021; see Appendix C)	IFI would ask that Irish Water signifies there is sufficient capacity in existence in the WWTP so that it does not overload either hydraulically or organically existing treatment facilities or result in polluting

<p>National Parks & Wildlife Service / Development Application Unit; The Heritage Council; An Taisce</p>	<p>matter entering waters. IFI would ask that there be no interference with, bridging, draining, or culverting of any watercourse its banks or bankside vegetation to facilitate this development without the prior approval of IFI.</p> <p>No response from any received to date.</p>
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5 References

AECOM 2021a. Site Specific Flood Risk Assessment. Glounthaune SHD. Report accompanying the planning application.

AECOM. 2021b. Outline Construction & Environmental Management Plan. Glounthaune SHD. Report accompanying the planning application.

AECOM. 2021c. Glounthaune SHD Infrastructure Report. Report accompanying the planning application.

AECOM. 2021d. Outline Construction and Demolition Waste Management Plan. Proposed Residential Development at Glounthaune, Co. Cork. Report accompanying the planning application.

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O'Neill, F.H., Brophy, J.T., Devaney, F.M., Nash, R. & Barron, S.J. 2014. Assessment of the Conservation Status of the Great Island Channel SAC (001058). Report for Cork County Council.

OPR (Office of the Planning Regulator). 2021. Appropriate Assessment Screening for Development Management. Practice Note PN01.

APPENDIX A: Proposed Development⁴

⁴ from DGA drawing number 20151/P/003 accompanying the planning application

NO PART OF THIS DRAWING IS TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF THE ARCHITECT.

DEADY BAHARI
DB
ARCHITECTS

808, 0218, BELAKA, LITIAN, KELANG, SEREMAN
112, 0218, BELAKA, LITIAN, KELANG, SEREMAN

PROJECT
RENOVATION AND REDEVELOPMENT OF EXISTING INDUSTRIAL ZONE AT BANGSAR INDUSTRIAL ZONE

DATE: 15/01/2024
DRAWN BY: [Name]
CHECKED BY: [Name]
DATE: 15/01/2024
PROJECT NO: [Number]
JOB NO: [Number]
SCALE: 1:1250 @ A0
DRAWN BY: [Name]
CHECKED BY: [Name]



KEY:
— SITE BOUNDARY
— DEVELOPMENTAL AREA
— ACCESSIBLE AREA TO
— OPEN SPACE
— LANDSCAPE



SCHEDULE OF ACCOMMODATION

NO.	DESCRIPTION	UNIT TYPE	NO. OF UNITS	TOTAL AREA (SQM)	EST. COST (RM)
A	APARTMENT (1-BED)	1-BED	100	1000	1000000
B	APARTMENT (2-BED)	2-BED	200	4000	4000000
C	APARTMENT (3-BED)	3-BED	100	3000	3000000
D	APARTMENT (4-BED)	4-BED	50	2000	2000000
E	APARTMENT (5-BED)	5-BED	20	1000	1000000
F	APARTMENT (6-BED)	6-BED	10	500	500000
G	APARTMENT (7-BED)	7-BED	5	250	250000
H	APARTMENT (8-BED)	8-BED	2	100	100000
I	APARTMENT (9-BED)	9-BED	1	50	50000
J	APARTMENT (10-BED)	10-BED	1	50	50000
K	APARTMENT (11-BED)	11-BED	1	50	50000
L	APARTMENT (12-BED)	12-BED	1	50	50000
M	APARTMENT (13-BED)	13-BED	1	50	50000
N	APARTMENT (14-BED)	14-BED	1	50	50000
O	APARTMENT (15-BED)	15-BED	1	50	50000
P	APARTMENT (16-BED)	16-BED	1	50	50000
Q	APARTMENT (17-BED)	17-BED	1	50	50000
R	APARTMENT (18-BED)	18-BED	1	50	50000
S	APARTMENT (19-BED)	19-BED	1	50	50000
T	APARTMENT (20-BED)	20-BED	1	50	50000

NOTE:
 • Please refer to landscape proposal for public realm, open space & external boundaries information.
 • Please refer to boundary treatment drawing (Dwg. 201519P007) for all internal boundary treatments.

Character Area 1
 (interior + off-white render)
 Character Area 2
 (interior + beige render)
 Character Area 3
 (interior + white render)
 Character Area 4
 (interior + beige brick + off-white beige render)

PROPOSED SITE PLAN
SCALE 1:1250 @ A0

Part A - For more detail please refer to drawing 201519P003A

Part B - For more detail please refer to drawing 201519P003B

Part C - For more detail please refer to drawing 201519P003C

APPENDIX B:
Irish Water Pre-Connection Enquiry Response



Aileen Prendergast
1st Floor Montrose House
Carrigaline Road, Douglas
Cork

21 October 2021

Uisce Éireann
Bosca OP 448
Dlígh Sheachta na
Cathrach Theas
Cathair Chorcaí

Irish Water
PO Box 448,
South City
Delivery Office,
Cork City.

www.water.ie

**Re: Design Submission for Glounthaune, Cork, Co.Cork (the "Development")
(the "Design Submission") / Connection Reference No: 0850513420**

Dear Aileen Prendergast,

Many thanks for your recent Design Submission.

We have reviewed your proposal for the connection(s) at the Development. Based on the information provided, which included the documents outlined in Appendix A to this letter, Irish Water has no objection to your proposals.

This letter does not constitute an offer, in whole or in part, to provide a connection to any Irish Water infrastructure. Before you can connect to our network you must sign a connection agreement with Irish Water. This can be applied for by completing the connection application form at www.water.ie/connections. Irish Water's current charges for water and wastewater connections are set out in the Water Charges Plan as approved by the Commission for Regulation of Utilities (CRU) (https://www.cru.ie/document_group/irish-waters-water-charges-plan-2018/).

You the Customer (including any designers/contractors or other related parties appointed by you) is entirely responsible for the design and construction of all water and/or wastewater infrastructure within the Development which is necessary to facilitate connection(s) from the boundary of the Development to Irish Water's network(s) (the "Self-Lay Works"), as reflected in your Design Submission. Acceptance of the Design Submission by Irish Water does not, in any way, render Irish Water liable for any elements of the design and/or construction of the Self-Lay Works.

If you have any further questions, please contact your Irish Water representative:

Name: Dario Alvarez
Email: dalvarez@water.ie

Yours sincerely,

Maria O'Dwyer
Connections and Developer Services

APPENDIX C:
Inland Fisheries Ireland Response

From: [Michael McPartland](#)
To: [John O'Brien | HW Planning](#)
Subject: Proposed Strategic Housing Development at Lackenroe, Glounthaune, Co. Cork.
Date: 11 August 2021 10:37:26

John

Thank you for your recent notification of the above-mentioned proposal.

It appears it is proposed to dispose of septic effluent from the development to the public sewer. IFI would ask that Irish Water signifies there is sufficient capacity in existence so that it does not overload either hydraulically or organically existing treatment facilities or result in polluting matter entering waters. Should this not be the case then please forward proposals for alternative treatment and disposal options.

IFI would ask that there be no interference with, bridging, draining, or culverting of any watercourse its banks or bankside vegetation to facilitate this development without the prior approval of IFI.

Michael Mc Partland
Senior Fisheries Environmental Officer.

Iascach Intíre Éireann
Inland Fisheries Ireland

Tel + 353 (0)26 412 21/2
Fax + 353 (0)26 412 23
Email michael.mcpartland@fisheriesireland.ie
Web www.fisheriesireland.ie

Sunnyside House, Macroom, Co. Cork, Ireland. P12 X602

Help Protect Ireland's Inland Fisheries

From: John O'Brien | HW Planning <jobrien@hwplanning.ie>
Sent: Thursday 5 August 2021 17:27
To: Macroom Info <Macroom@fisheriesireland.ie>
Cc: Info <info@hwplanning.ie>
Subject: Proposed Strategic Housing Development at Lackenroe, Glounthaune, Co. Cork.

Dear Sir/Madam

Please see attached regarding a proposed Strategic Housing Development at Lackenroe, Glounthaune, Co. Cork. The attached have also been sent to you via hard copy.

Kind Regards

John O'Brien
Planning Consultant

HW Planning
5 Joyce House
Barrack Square,
Ballincollig, Co. Cork

hwplanning.ie
[+353 \(0\)21 4873250](tel:+35301214873250)

[LinkedIn](#)

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