FEHILY TIMONEY

CONSULTANTS IN ENGINEERING, ENVIRONMENTAL SCIENCE & PLANNING

JOHN STREET GRAIN STORE

Appropriate Assessment Screening Report

Prepared for:

Wexford County Council

Comhairle Contae Loch Garman
Wexford County Council

Date: **January 2024**

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1. INTRODUCTION

Fehily Timoney and Company (FT) was commissioned by Wexford County Council to prepare an Appropriate Assessment Screening Report for the proposed John Street Grain Store development, New Ross, Co. Wexford.

This report presents an examination of whether the proposed development is likely to have a significant effect on a European site (either alone or in combination with other plans or projects) and is based on best available scientific knowledge. This report has been prepared to inform the competent authority in completing their statutory obligations in relation to Appropriate Assessment, as required by Article 6(3) under Council Directive 92/43/EEC (Habitats Directive).

1.1 Legislative Context

Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora (Habitats Directive) provides legal protection for habitats and species of European importance. The Directive requires that where a plan or project is likely to have a significant effect on a European Site, while not directly connected with or necessary to the nature conservation management of the site, it will be subject to 'Appropriate Assessment' to identify any implications for the European site in view of the site's Conservation Objectives. Specifically, Article 6(3) of the Habitats Directive states:

> *"6(3) Any plan or project not directly connected with or necessary to the management of the site (Natura 2000 sites) but likely to have 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."*

The competent authority must carry out a screening for appropriate assessment to assess, in view of best scientific knowledge, if the development, individually or in combination with another plan or project is likely to have a significant effect on the European site. If it cannot be excluded, on the basis of objective information, that the proposed development, individually or in combination with other plans or projects, will have a significant effect on a European site, an appropriate assessment of its implications for the European Site(s) in view of the Site's conservation objectives is required to be carried out.

The provisions of Article 6(3) do not apply where the proposed plan or project is 'connected with or necessary to the management of the site'. In this case, the proposed project is not directly connected with or necessary to the management of any European site(s).

1.2 Methodology

1.2.1 Guidance

The assessment was conducted in accordance with the following guidance:

- 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, 2002).
- Assessment of plans and projects in relation to Natura 2000 sites - Methodological guidance on Article 6(3) and (4) of the Habitats Directive 92/43/EEC. Commission Notice (2021) Brussels, 28.9.2021 C(2021) 6913 final (European Commission, 2021).
- Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities. National Parks and Wildlife Service, Department of the Environment, Heritage and Local Government, Dublin (2009, updated 2010) (Environment Heritage and Local Government, 2009).
- Managing Natura 2000 sites. The provisions of Article 6 of the Habitats Directive 92/43/EEC. European Commission (2019). Brussels, (2019/C 33/01). OJ C 33, 25.1.2019.
- Interpretation Manual of European Union Habitats. Version EUR 28. (European Commission, 2013)
- OPR Practice Note PN01 Appropriate Assessment Screening for Development Management, (Office of the Planning Regulator, 2021).

1.2.2 Process

The process of determining the likelihood of significant effects from a proposed project on European sites is an iterative process centred around a Source-Pathway-Receptor model. In order for an effect to be established, all three elements of this mechanism must be in place. The absence or removal of one of the elements of the mechanism is sufficient to conclude that a potential effect is not of any relevance or significance.

- Source(s) – e.g., pollutant run-off, noise, removal of vegetation, etc.;
- Pathway(s) – functional link, or ecological pathway e.g., groundwater connecting to nearby qualifying wetland habitats; and,
- Receptor(s) –the qualifying habitats and species of European sites and ecological resources supporting those habitats/species.

In the context of this report, a source is any identifiable element of the proposed project that is known to interact with the receiving environment. A receptor is the Qualifying Interests (QI)[1] for an SAC or Special Conservation Interests (SCI)[2] for an SPA or an ecological feature that is known to be utilised by the QI/SCI. In practice, the term Qualifying Interests also applies to SCIs (and is used in this document for simplicity). A pathway is any connection or link between the source and the receptor.

The assessment commences with a description of the project, along with a description of the receiving environment and the associated sources for impacts to the receiving environment. All elements of the project are presented including the project location and existing baseline environment. The type of impacts that are likely due to the project (Source) are identified having regard to the spatial and temporal scale of the project, resource requirements and likely emissions. These sources are then used to define the zone of influence (ZoI) of the project as detailed in Section 2.3.

[1] SACs are areas designated under the Habitats Directive to conserve habitats listed in Annex I of the Directive and plant and animal species listed in Annex II. Collectively these are referred to as the 'Qualifying Interests' or 'QIs' of the SAC.
[2] SPAs are sites classified under the Birds Directive to protect rare or vulnerable bird species listed in Annex I to the Directive as well as regularly occurring migratory species and wetlands. Wetland habitats that support internationally important populations of migratory birds may be coastal or inland. Collectively, these species and habitats are referred to as the 'Special Conservation Interests' of the SPA.

The European Commission Notice (2021) on the 'Assessment of plans and projects in relation to Natura 2000 sites – Methodological guidance on Article 6(3) and (4) of the Habitats Directive 92/43/EEC, states that in identifying European sites (Natural 2000 sites), which may be affected by the project, the following should be identified:

- Any European sites geographically overlapping with any of the actions or aspects of the plan or project in any of its phases, or adjacent to them;
- Any European sites within the likely zone of influence of the plan or project. European sites located in the surroundings of the plan or project (or at some distance) that could still be indirectly affected by aspects of the project, including as regards the use of natural resources (e.g., water) and various types of waste, discharge or emissions of substances or energy;
- European sites whose connectivity or ecological continuity can be affected by the plan or project.

The zone of influence of a proposed development is the geographical area over which it could affect the receiving environment in a way that could have potential effects on the Qualifying Interests of a European site. The OPR (2021) practice note states that the Zone of Influence must be established on a case-by-case basis using the Source-Pathway-Receptor (S-P-R) framework and not by arbitrary distances (such as 15 km). Section 3.2 sets out the detailed rationale for the identification of relevant European sites within the ZoI based on the sources of impacts arising from the proposed project. Subsequently, an assessment is undertaken with respect to potential connectivity (Pathways) to European Sites and their qualifying interests/special conservation interests are identified.

The potential for in-combination effects with other plans and projects is examined in Section 3.3, having regard to the identified impacts of the project along the ecological pathways identified to European sites.

Having regard to the European Commission Communication on the Precautionary Principle (European Commission, 2021) the:

> *"absence of scientific evidence on the significant negative effect of an action cannot be used as justification for approval of this action. When applied to Article 6(3) procedure, the precautionary principle implies that the absence of a negative effect on Natura 2000 sites has to be demonstrated before a plan or project can be authorised. In other words, if there is a lack of certainty as to whether there will be any negative effects, then the plan or project cannot be approved."*

Where significant effects are determined to be likely, or where there is uncertainty regarding the likelihood of significant effects, the project will be required under law to be subjected to Appropriate Assessment.

This AA screening is based on best scientific knowledge and has utilised ecological expertise. In addition, a detailed online review of published scientific literature was conducted. This included a detailed review of the National Parks and Wildlife Website including mapping and available reports for relevant sites and in particular sensitive qualifying interests/special conservation interests described and their conservation objectives.

2. DESCRIPTION OF THE PROJECT

2.1 Existing Environment

2.1.1 Project location and the receiving environment

The proposed development is located at the site of the John Street Grain Store, New Ross, Co. Wexford. The site is bordered by John Street to the east and the River Barrow to the West. A car park is present to the North, with buildings and Bridge Street to the South. O'Hanrahan Bridge is located c. 120 m south of the proposed development.

2.1.2 Description of existing ecological baseline

2.1.2.1 Habitats

An ecological site walkover of the proposed development was assessed by an FT ecologist on 01/06/2023. The focus of the site walkover was the following: assess habitats on site, identify invasive species, identify potential links to European sites and the suitability of the habitats and resources within the site for mobile species of Qualifying Interest for European sites is the surrounding area.

The habitats (Fossitt, 2000) within the proposed development are buildings and artificial surfaces (BL3) and stone walls and other stonework (BL1). Tidal river (CW2) is present to the east to the proposed development, in the form of the River Barrow Estuary.

No invasive species were recorded during the site walkover.

2.1.2.2 Otter Survey

Due to proximity of the site to an SAC listing otter as a qualifying interest (River Barrow and River Nore SAC), a survey was conducted to assess for otters. Full methodology and results are presented in Appendix 1. Otter spraint was recorded in the vicinity of the site, however no sites are regularly used. A couch was recorded, but this was on the opposite riverbank and a distance of more than 150 m.

2.1.2.3 Drainage

A manhole cover is present on the south western corner of the hardstanding area at the rear of the property.

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community
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Path: R:\Map Production\2023\P23-131\Workspaces\P23-131_GIS_Fig2-1_Site_Location_A3.mxd

Legend

● Site Location

TITLE:	Site Location
PROJECT:	John Street Grain Store
FIGURE NO:	2-1
CLIENT:	Wexford County Council
SCALE: 1:20000	**REVISION:** 0
DATE: 19/01/2024	**PAGE SIZE:** A3

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2.2 Project Description

2.2.1 Purpose of Project

The core aim of the project is the renovation of the historic grain store building to bring it back into everyday use. It has been vacant for some time and with each passing year, the property slides further into decay.

The building is a Protected Structure, thus the core architectural elements from a historical context, namely the external walls are being retained with minimal interventions to ensure the historic integrity of the existing building is retained.

Along with the renovation of the existing building a new single storey (double height) extension is proposed to the rear of the structure with a new lift shaft tower which connects to each floor to provide wheelchair accessibility to all parts of the building.

Along with the renovation and extension, a new pedestrian link is being created from John Street to Bridge Street to ensure that there is a visual and physical connectivity between these areas.

The proposal offers much needed urban regeneration in this part of the town and will act as a Catalyst for the improvement of the surrounding areas which will benefit New Ross as a whole.

2.2.2 Description of the Development

2.2.2.1 Alterations

General

- All redundant above ground and below ground services
- Upgrading services, fixtures, fittings etc. as required
- Demolition of Ground finishes (Part tarmac, part concrete) to the plaza area to facilitate new Extension and Plaza landscaping

Level -2 (Plaza) Floor

- Removal of existing entrance arched door to the rear (west) and replacing with a new door & frame
- Removal of existing large main entrance door to the rear (west) and replacing with fire doors to the new café / restaurant
- Removal of existing concrete sub-floor to facilitate new concrete ground floor
- Removal of existing steel columns
- Removal of existing brick infilled windows to the rear (west) and to be replaced with new windows
- Corbel stones to retaining basement walls to the front (East) to be retained
- Partial demolition of Existing External stone wall to north side of return in Room -2/02, to facilitate the entrance to the Lift Shaft
- Partial demolition of Existing External stone wall to south side of return in Room -2/02, to facilitate a new fire escape door
- Partial demolition of Existing External stone wall to the rear (west) in Room -2/02, to facilitate a new window to the staff office

- Partial demolition of Existing External stone wall to the rear (west) in Room -2/02, to facilitate a new door to the staff canteen
- Partial demolition of Existing internal stone wall to facilitate a new threshold between the 2 buildings to allow for access from the proposed circulation to the proposed multi-purpose community room
- Existing exposed stone walls internally and externally to be cleaned and treated, re-pointed with a lime-based mortar and left unrendered, therefore left exposed in the proposed building
- Retaining basement walls to be lined internally with an internal water management protection system
- All existing window treatment to be removed and replaced with new windows
- Existing areas to provide circulation area, new community room, disabled WC, staff facilities such as a staff office, staff canteen and staff toilets

Level -1 (Basement) Floor

- Removal of existing brick infilled windows to the rear (west) and to be replaced with new windows
- Removal of existing timber floor, including timber joists and structural beams, to facilitate new concrete intermediate floor
- Removal of existing timber columns and posts
- Corbel stones to retaining basement walls to the front (East) to be retained
- Partial demolition of Existing External stone wall to north side of return in Room -1/02, to facilitate the entrance to the Lift Shaft
- Existing exposed stone walls internally and externally to be cleaned and treated, re-pointed with a lime-based mortar and left unrendered, therefore left exposed in the proposed building
- Retaining basement walls to be lined internally with an internal water management protection system
- All existing window treatment to be removed and replaced with new windows
- Existing areas to provide a fire protected stair well, circulation areas and unisex public toilets

Level 0 (John Street) Floor

- Removal of existing main entrance arched door & frame to the front (east) and into the new Entrance Hall. Replacing with a new door & frame. To include partial demolition of the external wall under the existing door ope to facilitate a level access into the building
- Removal of existing entrance door & frame to the front (east) to new Exhibition space and replacing with a new door & frame
- Removal of existing timber floor, including timber joists and structural beams, to facilitate new concrete intermediate floor
- Removal of existing timber columns and posts
- Partial demolition of Existing External stone wall to north side of return in Room 0/02, to facilitate the entrance to the Lift Shaft and access onto the External roof terrace of the new extension
- Partial demolition of Existing External stone wall in Room 0/02 to facilitate a new fire escape door from the protected stairwell

- Partial demolition of Existing internal stone wall to facilitate a new threshold between the 2 buildings to allow for access from the proposed Entrance Hall to the proposed Exhibition space
- Existing exposed stone walls internally and externally to be cleaned and treated, re-pointed with a lime-based mortar and left unrendered, therefore left exposed in the proposed building
- All existing window treatment to be removed and replaced with new windows
- Existing areas to provide a fire protected stair well, circulation areas, Entrance Hall & reception, coffee dock and Exhibition space

Level +1 (First) Floor

- Removal of existing timber floor, including timber joists and structural beams, to facilitate new concrete intermediate floor
- Removal of existing timber columns and posts
- Partial demolition of Existing External stone wall to north side of return in Room +1/02, to facilitate the entrance to the Lift Shaft
- 2no. Partial demolition of Existing internal stone wall to facilitate new thresholds between the 2 buildings to allow for access from the proposed circulation to the proposed 12no. offices space and meeting areas
- Existing exposed stone walls internally and externally to be cleaned and treated, re-pointed with a lime-based mortar and left unrendered, therefore left exposed in the proposed building
- All existing window treatment to be removed and replaced with new windows
- Existing areas to provide a fire protected stair well, circulation areas, 12no. desk office space, meeting pods

Level +2 (Second) Floor

- Removal of existing timber floor, including timber joists and structural beams, to facilitate new concrete intermediate floor
- Removal of existing timber columns and posts
- Partial demolition of Existing External stone wall to north side of return in Room +2/02, to facilitate the entrance to the Lift Shaft
- 1no. Partial demolition of Existing internal stone wall to facilitate new thresholds between the 2 buildings to allow for access from the proposed circulation to the proposed 12no. offices space and meeting areas
- Existing exposed stone walls internally and externally to be cleaned and treated, re-pointed with a lime-based mortar and left unrendered, therefore left exposed in the proposed building
- All existing window treatment to be removed and replaced with new windows
- Removal of existing Timber Hoist in Room +2/01, and refurbishment and reinstatement of Timber Hoist in Room +2/02
- Existing areas to provide fire protected stair well, circulation areas, 12no. desk office space, formal meeting room, meeting booths, Disabled WC and Unisex toilets.

Roof

- Removal of existing slate roof finish, to facilitate works to the roof structure
- Removal of existing timber roof structure and 2no. rooflights, to allow for a new roof structure to include a new AOV rooflight to the protected stairwell
- Removal and replacement of existing rainwater goods

*2.2.2.2 **Extensions***

Construction of a 179 sq.m. new part single storey / part single (double height) storey extension to the rear (west) to comprise of the following;

Level -2 (Plaza) Floor

- New entrance link between the existing building and extension
- New café / restaurant with service counter and coffee dock (externally accessible)
- New kitchen to include cold store, dry store and wet areas
- New or upgraded services to extended and altered areas

Level 0 (Street) Floor

- New external roof terrace above café/ restaurant, accessed from floor level 0 (Street)

New vertical passenger lift and link to existing building at each floor level

2.2.2.3 External Works

- New hard landscaped external area to provide external seating area and enhancement to existing pedestrian connection to Bridge Street
- New soft planted areas
- Associated landscaping works
- Signage
- External lighting
- All associated site works and services

2.2.3 Scope, size and height

The floor areas are broken down as follows;

	Existing Building	Extension	Total
Level -2 (Plaza)	197 sq.m.	189 sq.m.	386.sq.m.
Level -1 (Basement)	199 sq.m.	9 sq.m.	208.sq.m.
Level 0 (John Street)	202 sq.m.	9 sq.m.	211.sq.m.
Level 1 (First)	199 sq.m.	9 sq.m.	208.sq.m.
Level 2 (Second)	201 sq.m.	9 sq.m.	210.sq.m.
Total	998 sq.m.	225 sq.m.	1,223.sq.m.

The ridge height of the existing building is 10.31m high above John Street and 15.99m high above plaza level (the difference is due to the substantial difference in ground level between John street and the Plaza level).

The height of the extension to the rear is 6.02m above Plaza Level

The lift shaft, which is the highest part of the proposed development 11.21m high above John Street and 16.89m high above plaza level.

2.2.4 Waste and Emissions

Liquid Effluent:	None envisaged
Foul Sewer Waste:	Connection to existing foul water network - Amount - 6.635m^3 daily
Other Solid Wastes:	Interceptor trap to catch any grease from café/restaurant kitchen
Surface Water Disposal:	Connection to existing surface water outlets. Volume – Depends on rainfall but rainwater will be attenuated and discharged at a rate of max 2 litres per second.
Smoke:	None envisaged
Odours:	None envisaged
Dust:	Low level of dust expected during demolition works

2.2.5 Working Hours and Workforce

All construction work will typically be conducted Monday to Friday 08:00 to 18:00. At the peak of the construction phase for the proposed development approximately 15-20 people would be working within the site. The construction phase will last for a period of 18-21 months. During the operational phase of the building a total of approximately 8 staff will access the site for maintenance approximately once a year.

2.2.6 Services

Along with the forementioned surface water and foul water disposal the building will require a new connection to the water supply network and a new electricity connection

2.2.7 Fuel and Oil

There will no refuelling or oil station required.

2.3 Potential Interactions of the Proposed Project on the receiving environment

Having regard to the European Commission (2021) guidance document and the OPR (2021) practice note, the potential impacts of the project on the receiving environment at source are set (in Table 2.1) out relative to the following criteria:

- Habitat destruction/fragmentation/deterioration;
- Surface water run-off carrying suspended silt and contaminants, into local watercourses;
- Changes to groundwater quality, yield and/or flow paths associated with the proposed project;
- Project related activities (noise, vibration, lighting, human presence, structures, etc) leading to disturbance / displacement of species;
- Project related activities leading to a reduction in species populations / density;
- Air pollution due to dust and other airborne emissions; and
- Disturbance and potential spread of invasive species during the proposed works

These impacts are further examined in defining the Zone of Influence (ZoI) of the project to identify likely significant effects through the Source-Pathway-Receptor assessment (Section 3.2).

Table 2-1: **Identification of sources for impacts arising from the proposed project that have potential for interactions with the receiving environment**

Criteria	Potential sources of impact	Conclusion
Habitat destruction / fragmentation / deterioration	*Construction Phase* The proposed development footprint includes an existing building to be restored and a concrete courtyard to the rear (the footprint of the extension). The habitats (Fossitt, 2000) consist of the buildings and artificial surfaces (BL3) and stone walls and other stonework (BL1). *Operational Phase* No potential sources of impact.	No Annex I habitats will be removed during construction. Removal of vegetation can also include foraging habitat for ex-situ SCI/QI species. However, given the urban nature of the study area and the habitats within the footprint of the proposed works, no habitats of value for ex-situ SCI/QI species were identified. The potential habitat destruction / fragmentation / deterioration due to runoff is considered separately below.
Surface water run-off carrying suspended silt and contaminants, into local watercourses.	*Construction Phase* The rear of the property consists of an existing concrete courtyard enclosed by concrete walls. The concrete wall divides the courtyard from the river. An existing manhole is present in the southwestern corner of the courtyard approximately 20m from the proposed extension, with no other drainage in the enclosed area. The proposed hardscape area shall consist of precast paving stones set on a permeable sand base with no requirement for concrete and minimal excavation works required. This paved area extends around the proposed extension footprint and is set back from the river by 14m (at its closest point). The proposed extension is located 20m from the river within the enclosed hardstand area. The initial step in the construction of the proposed extension will	Main works (including concrete works) located 20m from the SAC boundary, within the enclosed hardstand area reducing the potential for surface water run-off carrying suspended silt and contaminants, into local watercourses.

Criteria	Potential sources of impact	Conclusion
	involve the destruction of the existing courtyard within the footprint of the new buildings to accommodate foundations. Construction works including concrete works shall be confined to this area. The construction methodology provided by Wexford County Council states that: Structures will be constructed off foundations which are formed at depths lower than the surrounding ground. Contractors will clear the foundation works area effectively forming a catchment for rainwater, which discharges to ground. Normal concrete construction works associated with the project referenced above will include the following elements: 1. Drainage manholes – These are by their nature constructed in excavations which do not generate a pathway to a receptor. Any runoff will soak to ground in the contained excavation. The manholes will be constructed with precast 'perfect' bases and precast walls and have no cast insitu concrete works. 2. Structural foundations – For foundations to be effective they must be founded on competent ground and/or at frost safe depths which is typically 900mm below finished ground level or deeper depending on the ground strata characteristics. The foundations are cast insitu and in excavations which effectively contain any run-off water. This	

Criteria	Potential sources of impact	Conclusion
	run-off water will soak to ground in the contained excavation. 3. Superstructure frame – the run-off from any concrete superstructure is similarly contained within the excavated works area which does not get infilled until the end of works with hardstandings as per point 5 below. 4. Landscaped wall foundations – foundations will be poured in contained excavations, effectively cutting off any pathway for run-off to a receptor. 5. External hardstandings – the project specific hardstandings do not contain cast in-situ cementitious materials Once all hardscaping and building work have been the completed the final stage of the proposed development involves the connection of the new rainwater drainage to the existing manhole to the southwest of the site. Once connected the trench shall be backfilled with a finish of precast paving stones set on a permeable sand base with no requirement for concrete and minimal excavation works required. *Operational Phase* Foul water shall be connection to the existing foul water network (Amount - 6.635m^3 daily). The foul water network is treated at New Ross Waste Water Treatment Plant (WWTP). New Ross WWTP has a Plant Capacity PE of 16000,	

Criteria	Potential sources of impact	Conclusion
	and the treatment type is 3N (Tertiary N removal). The 2022 AER notes[3] that the WWTP is compliant with the Emission Limit Values set in the Wastewater Discharge Licence. The annual mean hydraulic loading is less than the peak Treatment Plant Capacity. The design of the WWTP allows for peak values and therefore the peak loads have not impacted on compliance with Emission Limit Values. Therefore, no impacts are envisaged during the operational phase of the development with sufficient carry capacity available at the existing WWTP.	
Changes to groundwater quality, yield and/or flow paths associated with the proposed project.	*Construction Phase* There will be no source of groundwater contamination during the construction phase. *Operational Phase* There will be no source of groundwater contamination during the operational phase.	No potential sources of impacts.
Project related activities (noise, vibration, lighting, human presence, structures, etc) leading to disturbance / displacement of species.	*Construction Phase* The construction phase, with generate increased human presence and noise, including the use of machinery. Lighting during the construction phase is another potential source of impact locally. While an otter spraint was recorded in the vicinity of the site, the results of the otter survey found that no sites are regularly used. A couch was recorded, but this was on the	Potential impact considered to be minimal

[3] D0036-01_2022_AER.pdf (water.ie) accessed January 2024

Criteria	Potential sources of impact	Conclusion
	opposite riverbank and a distance of more than 150 m. The urban nature of the existing site located in the center of New Ross and the lack of evidence of regular otter activity including holts, couches adjacent would greatly reduce the potential disturbance / displacement of the species. *Operational Phase* The urban nature of the existing site located in the center of New Ross and the lack of evidence of regular otter activity including holts, couches adjacent would greatly reduce the potential disturbance / displacement of the species.	
Project related activities leading to a reduction in species populations / density.	*Construction Phase* No elements of the construction phase will result in mortality leading to a reduction in species population or density. *Operational Phase* No elements of the operational phase will result in mortality leading to a reduction in species population or density.	Main works (including concrete works) located 20m from the SAC boundary, within the enclosed hardstand area reducing the potential for surface water run-off carrying suspended silt and contaminants, into local watercourses.
Air pollution due to dust and other airborne emissions.	*Construction Phase* The principal sources of potential air emissions during the construction works will be dust. This dust will arise from demolition, and excavation works. *Operational Phase*	The Institute of Air Quality Management 'Guidance on the Assessment of dust from demolition and construction' (Holman et al., 2014) states that "Dust can have two types of effect on vegetation: physical and chemical. Direct physical effects include reduced photosynthesis, respiration, and transpiration through smothering. Chemical changes to soils or watercourses may lead to the loss of plants or animals, for example via changes in acidity. Indirect effects can include increased susceptibility to

Criteria	Potential sources of impact	Conclusion
	There will be no additional dust emissions during the operational phase.	stresses such as pathogens and air pollution. These changes are likely to occur only because of long-term demolition and construction works adjacent to a sensitive habitat. Often impacts will be reversible once the works are completed, and dust emissions cease." The guidance prescribes potential dust emission risk classes to ecological receptors. The guidance specifies that, for sensitive ecological receptors (i.e. European sites) sensitivity to dust is 'High' up to 20 m from the source and reduces to 'Medium' over 50 m from the source.
Disturbance and potential spread of invasive species during the proposed works.	*Construction Phase* No invasive species were recorded during the site walkover. Therefore no are impacts envisaged. *Operational Phase* No impacts envisaged.	No impacts envisaged.

3. SCREENING FOR APPROPRIATE ASSESSMENT

3.1 Introduction

This section of the report examines if the proposed John Street Grain Store development is likely to have a significant effect upon European sites, either alone or in combination with other plans or projects.

3.2 Identification of European Sites within the Zone of Influence of the Proposed Project

The OPR (2021) AA Screening practice note states that the Zone of Influence must be established on a case-by-case basis using the Source-Pathway-Receptor model. The S-P-R model has been used to identify the ZoI to ensure that relevant European sites are identified. The S-P-R model minimises the risk of overlooking distant or obscure effect pathways, while also avoiding an over reliance on buffer zones (e.g. 15 km), within which all European sites should be considered. This approach follows the DoEHLG (2009 rev 2010) guidance on AA which states that:

> *"For projects, the distance could be much less than 15 km, and in some cases less than 100m, but this must be evaluated on a case-by-case basis with reference to the nature, size and location of the project, and the sensitivities of the ecological receptors, and the potential for in combination effects".*

As detailed in section 1.2.2, in order for an effect to occur, all three elements of this mechanism must be in place. The absence of one of the elements of the mechanism means there is no likelihood for the effect to occur. The potential impacts of the proposed development are set out in Section 2.3 of this report. The impact is essentially the 'source' in the S-P-R model.

These impacts may be very localised and confined to the proposed development site with no potential connectivity to a European site and therefore no potential for effects. Alternatively, where an ecological or functional pathway exists they may give rise to a potential effect to a Qualifying Interest of a European site. This section of the report identifies the potential pathways to European sites emanating from these potential sources of impact.

The dominant ecological pathways to consider are:

- Direct physical interactions or changes to the local environment;
- Air dispersal (noise, dust, odour emissions etc.);
- Hydrological interactions; and
- Dispersal patterns of mobile species.

The potential impacts of the proposed development on the receiving environment (identified in Table 2.1) are as follows:

- Release of pollutants and sedimentation to watercourses with hydrological connectivity to European sites;

There impacts are assessed under the following criteria below:

- Release of pollutants and sedimentation to watercourses with hydrological connectivity to European sites;
- Potential effects to mobile SCI from surrounding SPAs;
- Potential effect to mobile QI species;
- European sites geographically overlapping or adjacent to any of the actions or aspects of the proposed project (noise, lighting and dust).

3.2.1 Release of pollutants and sedimentation to watercourses with hydrological connectivity to European sites;

As a precautionary approach in defining the ecological receptors that may be affected, all European sites hydrologically connected to the were examined using Geographic Information System (GIS) mapping. The QI's/SCIs of these European sites were assessed to identify potential physical or ecological connectivity to the proposed development.

3.2.2 Potential effect to mobile SCI's from surrounding SPAs

The habitats within the subject lands and the surrounding area could offer potential resources for mobile SCI bird species from SPA's. As Identified in Table 2.1 there is potential for direct and indirect impacts to these local habitats. Therefore, the assessment has considered the potential pathways for effects these bird species. Generally, the core foraging range for SCI birds species is less than 15km. However, SNH (2016)[4] core foraging range for some geese species can be larger. Namely:

- Greylag goose Core range of 15-20km* Greylag Geese feed mostly on cereal stubble and grassland in their wintering areas.
- Barnacle goose Core range of 15km, with maximum recorded distance of up to 25km.

Therefore, as a precautionary approach in defining the ecological receptors that may be affected, all SPA's within 15 km and SPA's within 25km designed for Greylag and Barnacle Geese were examined using Geographic Information System (GIS) mapping. The conservation objectives of these European sites were assessed to identify potential physical or ecological connectivity to the proposed development.

3.2.3 Potential effect to mobile QI species

County Wexford is located outside the current range for lesser horseshoe bats. The potential effects to aquatic *QI species (e.g. Otter, Lamprey sp. Atlantic Salmon, etc) is considered in Section 3.2.1 above.*

3.2.4 European sites geographically overlapping or adjacent to any of the actions or aspects of the proposed project (noise, lighting and dust)

There are no European sites geographically overlapping the proposed project, and one immediately adjacent to the proposed project. The closest European sites is the River Barrow and River Nore SAC [002162], located 2.5m away (direct distance). However, there could be effects beyond the boundary of the site due to sources such as noise, light, dust, etc.

The Institute of Air Quality Management 'Guidance on the Assessment of dust from demolition and construction' (Holman et al, 2014) states that for sensitive ecological receptors, sensitivity to dust is 'High' up to 20m from the source and reduces to 'Medium' over 50m from the source. Holman et al, 2014 also stipulates that trackout[5] may occur from roads up to 500 m from large sites, 200 m from medium sites and 50 m from small sites. Dust from soiling (excavation works) can occur up to 25 m, 50 m and 100 m, at minor, moderate, and major construction sites respectively (NRA, 2011).

Disturbance due to noise impact varies between species and is dependent on the nature of the noise source and sensitivity of the species in question e.g., the potential effects of anthropogenic sound on fish can range from direct mortality to no obvious behavioural responses and are dependent on the class of sound i.e., either continuous or impulsive (Popper and Hawkins, 2019). Similarly, the disturbance response of birds (e.g., becoming alert or a flight response) can vary depending on season, species sensitivity, and weather. Goodship and Furness (2022) provides estimates of species-specific buffer zones to protect birds from human disturbance during breeding and non-breeding seasons. Therefore, a precautionary Zone of Influence of 1 km was identified. This 1 km buffer also accounts for noise disturbance to otters and other aquatic species.

Other emissions source identified in Table 2.1 (e.g. Lighting) are likely to be more localised than the distances stated for noise impacts.

Considering the actions or aspects of the proposed project, a precautionary ZoI of 2 km has been adopted.

3.2.5 Summary of the Zone of Influence of the proposed project

The ZoI of the proposed project have been identified as:

- Any European sites hydrologically connected to the proposed project
- All SPAs within 15 km SPAs designed for Greylag and Barnacle Geese within 25km of the Proposed Project;
- Any European sites within 2 km of the Proposed Project, with potential impacts from habitat loss, noise, lighting, and dust.

The findings of the ZoI assessment are presented in Table 3.1.

The were no European sites identified within the ZoI for the following criteria:

- No SPAs for greylag or barnacle geese within 25 km of the proposed project

[5] The movement of dust and dirt from a construction/demolition site onto the public road network.

Table 3-1: Identification of European Sites within the Zone of Influence of the proposed development

European Site (Code)	List of Qualifying Interests	Distance from the proposed development (km)	Criteria	Pathway for potential effects	Considered further in screening (Y/N)
River Barrow and River Nore SAC [002162] https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO002162.pdf Accessed 23/01/2024	Estuaries [1130] Mudflats and sandflats not covered by seawater at low tide [1140] Reefs [1170] Salicornia and other annuals colonising mud and sand [1310] Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) [1330] Mediterranean salt meadows (*Juncetalia maritimi*) [1410] Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation [3260] European dry heaths [4030] Hydrophilous tall herb fringe communities of plains and of the	Minor excavation works c. 2.5 m west. Paving within 14m of the SAC Extension within 20m of the SAC	Hydrologically connected European Sites Proximity	There will be no development occurring within the SAC, therefore there is no pathway for effects relating to direct habitat loss/destruction.	N

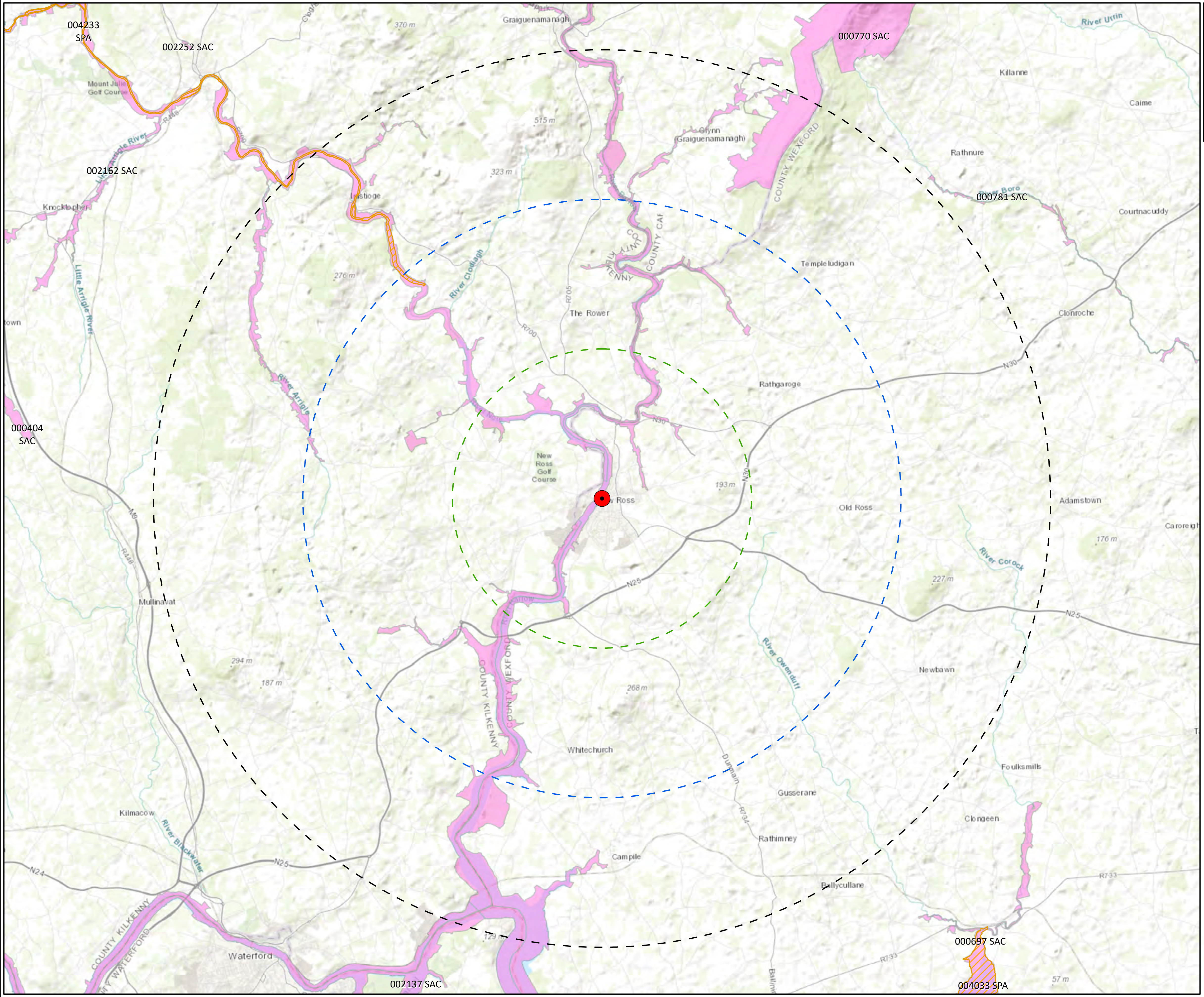
European Site (Code)	List of Qualifying Interests	Distance from the proposed development (km)	Criteria	Pathway for potential effects	Considered further in screening (Y/N)
	montane to alpine levels [6430] Petrifying springs with tufa formation (Cratoneurion) [7220] Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles [91A0] Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (Alno-Padion, Alnion incanae, Salicion albae) [91E0] *Vertigo moulinsiana* (Desmoulin's Whorl Snail) [1016] *Margaritifera margaritifera* (Freshwater Pearl Mussel) [1029] *Austropotamobius pallipes* (White-clawed Crayfish) [1092] *Petromyzon marinus* (Sea Lamprey) [1095] *Lampetra planeri* (Brook Lamprey) [1096]				

European Site (Code)	List of Qualifying Interests	Distance from the proposed development (km)	Criteria	Pathway for potential effects	Considered further in screening (Y/N)
	Lampetra fluviatilis (River Lamprey) [1099] *Alosa fallax fallax* (Twaite Shad) [1103] *Salmo salar* (Salmon) [1106] *Lutra lutra* (Otter) [1355] *Trichomanes speciosum* (Killarney Fern) [1421] *Margaritifera durrovensis* (Nore Pearl Mussel) [1990]				
River Nore SPA https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004233.pdf Accessed 23/01/2024	Kingfisher (*Alcedo atthis*) [A229]	9.2 km northwest (Direct Distance) 13.8 km (Instream)	Within 15 km Hydrological connectivity (upstream)	Kingfisher territory is typically less than 9 km (Morgan and Glue, 1977). However the instream distance to the proposed development is greater to this so there is no potential for effects due to disturbance. As the SPA is upstream, there is also no potential for effects due to water quality.	N

European Site (Code)	List of Qualifying Interests	Distance from the proposed development (km)	Criteria	Pathway for potential effects	Considered further in screening (Y/N)
Lower River Suir SAC https://www.npws.ie/protected-sites/sac/002137 Accessed 23/01/2024	*Taxus baccata* woods of the British Isles [91J0], Twaite shad (*Alosa fallax*) [1103], Mediterranean salt meadows (*Juncetalia maritimi*) [1410], Brook lamprey (*Lampetra planeri*) [1096], Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation [3260], White-clawed crayfish (*Austropotamobius pallipes*) [1092], Otter (*Lutra lutra*) [1355], Alluvial forests with *Alnus glutinosa* and Fraxinus excelsior (*Alno-Padion, Alnion incanae, Salicion albae*) [91E0], Atlantic salt meadows (*Glauco-Puccinellietalia*	14.15 km southwest (Direct Distance)	Hydrological connectivity	No direct hydrological connectivity. Located on a different sub catchment. The boundary of the SAC determinates check point where it flows into the 16.85 km (Instream)	N

European Site (Code)	List of Qualifying Interests	Distance from the proposed development (km)	Criteria	Pathway for potential effects	Considered further in screening (Y/N)
	maritimae) [1330], Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels [6430], Atlantic salmon (*Salmo salar*) [1106], Sea lamprey (*Petromyzon marinus*) [1095], Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles [91A0], River lamprey (*Lampetra fluviatilis*) [1099], Freshwater pearl mussel (*Margaritifera margaritifera*) [1029]				

Path: R:\Map Production\2023\P23-131\Workspaces\P23-131_GIS_Fig3-1_European_Sites__A3.mxd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002252 SAC
002162 SAC
000770 SAC
000781 SAC
000404 SAC
002137 SAC
000697 SAC
004033 SPA
Graiguenamanagh
Glynn (Graiguenamanagh)
Killanne
Caime
Rathnure
Courtnacuddy
Templeludigan
Clonroche
Inistioge
Knocktopher
The Rower
Rathgarogue
New Ross Golf Course
New Ross
Old Ross
Adamstown
Mullinavat
Newbawn
Whitechurch
Gusserane
Foulksmills
Clongeen
Kilmacow
Rathimney
Campile
Ballycullane
Waterford
Mount Juliet Golf Course
River Urrin
River Boro
River Corock
River Owenduff
River Arrigle
Little Arrigle River
River Blackwater
River Barrow
River Clodiagh
County Wexford
County Kilkenny
County Carlow
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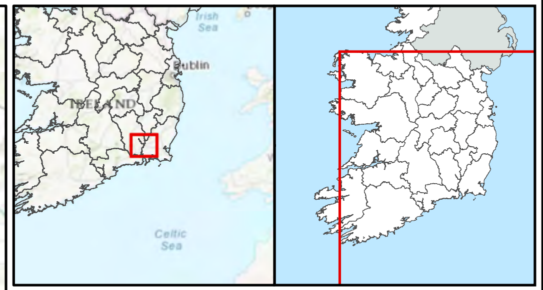
N25
N24
N9
R700
R705
R448
R733
R734



Legend

- Site Location
- 5km Buffer
- 10km Buffer
- 15km Buffer
- Special Protection Area (SPA)
- Special Area of Conservation (SAC)

TITLE: European Sites Figure	
PROJECT: John Street Grain Store	
FIGURE NO: 3-1	
CLIENT: Wexford County Council	
SCALE: 1:125000	**REVISION:** 0
DATE: 19/01/2024	**PAGE SIZE:** A3

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3.3 Consideration of in-combination Effects with other plans or projects

Article 6(3) of the Habitats Directive requires that:

> *"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".*

It is therefore required that the likely significant effects of the proposed development are considered in-combination with any other plans or projects within the zone of influence.

The consideration of in-combination effects with other plans or projects, focused on the sources of impacts identified for the proposed project in Section 2.3 and ecological pathways identified in section 3.2.

The following sources were referred:

- Wexford Planning Enquiry System https://dms.wexfordcoco.ie/index.php
- Geohive datasets – Planning Application Sites (Planning Registers of participating Irish Local Authorities and includes Planning Applications received since January 2024) https://www.geohive.ie/datasets/d78667c678d543b3b82c424c11ac24cc_1/about
- An Bord Pleanála (Strategic infrastructure development (SID) applications and Strategic Housing Development (SHD) applications) (https://www.pleanala.ie/en-ie/home);
- Department of Department of Housing, Local Government and Heritage's EIA Portal (https://www.gov.ie/en/publication/9f9e7-eia-portal/).

3.3.1 Projects

To identify other committed development in the area, a planning search was carried out using the online planning enquiry system. The planning search focused on the sources of impacts identified for the proposed project in section 2.3 and ecological pathways identified in section 3.2. To identify projects for consideration for the in-combination effects section, the Dept of Housing, Local Government and Heritage planning database was used[6]. A review of all planning applications within the identified zone (500m radius) was conducted focusing on all application within the past 5 years[7] (Table 3-2).

There are a number of small-scale projects related to housing and hospitality in the area. Most are alterations and extensions to existing buildings which were excluded due to their lack of potential for in-combination effects. The more significant projects within the search area were considered further in Table 3-2. No in-combination effects identified.

[6] https://data-housinggovie.opendata.arcgis.com/datasets/planning-application-sites-2010-onwards; 23rd January 2024
[7] planning application have a standard lifespan of 5 years as per Section 40 (3)(b) of the Planning & Development Act 2000, as amended; therefore, these are viewed the 'live' applications, all other projects are considered as part of the site context.

Table 3-2: Local planning applications within the receiving environment of the proposed project as per the Dept of Housing, Local Government and Heritage planning database from the past 5 years

Planning Refernece	Status	Overview	Environmental Assessments (AASR, NIS, EIAR, EcIA) Competent Authority Determinations (Screening for AA, AA, Planning decision)	Characteristics of the potential interactions between the identified project and the proposed project (consider sources and pathways)	Potential for in-combination effects (Y/N)
20191273	Granted (Conditional)	Permission for development at Lidl, the quay, New Ross consisting of the construction of a new discount store supermarket with ancillary off licence sales on an extended site.	AA Screening: no significant effects, no AA required	This project was screened out and so is not likely to have any interaction with the proposed project.	N
20191332	Granted (Conditional)	Permission for the construction of seven ground floor mixed use commercial units	AA Screening: no significant effects, no AA required	This project was screened out and so is not likely to have any interaction with the proposed project.	N
20191427	Granted (Conditional)	Permission for the construction of a 14m x 5m steel, single storey training facility, including associated site works	AA required	The building proposed while inside the River Barrow and River Nore SAC was outside the floodplain. Therefore it was determined that there was no potential for adverse effects on water quality and the consequent disturbance to qualifying interests and no link to other European sites	N
20181348	Granted (Conditional)	Planning permission for the proposed erection of no. 9 fully serviced town houses together with all associated works	AA Screening: no significant effects, no AA required	This project was screened out and so is not likely to have any interaction with the proposed project.	N

Planning Refernece	Status	Overview	Environmental Assessments (AASR, NIS, EIAR, EcIA) Competent Authority Determinations (Screening for AA, AA, Planning decision)	Characteristics of the potential interactions between the identified project and the proposed project (consider sources and pathways)	Potential for in-combination effects (Y/N)
20190568	Granted (Conditional)	Permission for the demolition and reconstruction of existing building to accommodate 4 full serviced apartment and associated site works	AA Screening: no significant effects, no AA required	This project was screened out and so is not likely to have any interaction with the proposed project.	N
20413	Conditional	The erection of 6 no. 2 storey semi-detached dwellings as an extension to existing partially completed housing development, all associated site development works including storm attenuation tank and alterations to the existing site entrance from that.	AA Screening: no significant effects, no AA required	This project was screened out and so is not likely to have any interaction with the proposed project.	N

3.3.2 Plans

3.3.2.1 Ireland's 4th National Biodiversity Action Plan (2023- 2027)- Draft for Public Consultation

Ireland's 4th National Biodiversity Action Plan is currently in development and undergoing a public consultation process. This plan will outline the agenda for national biodiversity for 2023 to 2017.

The draft plan is underpinned by 10 key thematic areas, with 6 objectives containing a series of targetable Actions. These objectives are:

- Adopt a Whole of Government, Whole of Society Approach to Biodiversity
- Meet Urgent Conservation and Restoration Needs
- Secure Nature's Contribution to People
- Embed Biodiversity at the Heart of Climate Action
- Enhance the Evidence Base for Action on Biodiversity
- Strengthen Ireland's Contribution to International Biodiversity Initiatives

3.3.2.2 Wexford County Development Plan 2022-2028

The Wexford County Development plan dedicated a chapter to Green and Blue Infrastructure, Open Space and Biodiversity. This includes a series of Natural Heritage Objectives, which include:

- NH01: To ensure the protection of all designated ecological sites (as detailed in Section 13.2.1 to 13.2.11) in relevant Local Area Plans and in the assessment of planning applications and promote the restoration of sites where required.
- NH02: To protect and enhance the rich qualities of our natural heritage in a manner that is appropriate to its significance.
- NH03: To promote biodiversity protection, restoration and habitat connectivity both within protected areas and in the landscape through promoting the integration of green infrastructure and ecosystem services, including landscape, heritage and biodiversity and management of invasive and alien species in the plan making and development management processes.
- NH04: To protect the integrity of sites designated for their habitat and species importance and prohibit development which would damage or threaten the integrity of these sites. Such sites include Special Areas of Conservation (SACs) and candidate SACs, Special Protection Areas (SPAs), Natural Heritage Areas(NHAs) and proposed NHAs, Nature Reserves, Refuges for Fauna and RAMSAR sites. To protect protected species wherever they occur.
- NH05: In assessing planning applications located in and/or in proximity to Natura 2000 sites, whether hydraulically linked or otherwise linked or dependent (such as feeding, roosting or nesting grounds) to a designated site, regard shall be had to the detailed conservation management plans and data reports prepared by NPWS, where available, to the identified features of interest of the site, the identified conservation objectives to ensure the maintenance or restoration of the features of interests to favourable conservation status, the NPWS Article 17 current conservation status reports, the underlying site specific conditions, and the known threats to achieving the conservation objectives of the site.

- NH08: To ensure that any plan/project and any associated works, individually or in combination with other plans or projects, are subject to Screening for Appropriate Assessment to ensure there are no likely significant effects on any Natura 2000 site(s) and that the requirements of Article 6(3) and 6(4) of the EU Habitats Directive are fully satisfied. Where a plan/project is likely to have a significant effect on a Natura 2000 site or there is uncertainty with regard to effects, it shall be subject to Appropriate Assessment. The plan/project will proceed only after it has been ascertained that it will not adversely affect the integrity of the site or where, in the absence of alternative solutions, the plan/project is deemed by the competent authority imperative for reasons of overriding public interest.

3.4 Screening Conclusion

The results of the s-p-r modelling process identified that - given the scale and nature of the potential sources identified in Table 2.1 - there are no likely significant effects identified to any European sites. The AA screening process has considered potential effects which may arise during all phases of the proposed project. Through an assessment of the pathways for effects and an evaluation of the sources for impacts, taking account of the processes involved and the distance of separation from European sites, it has been evaluated that there are no likely significant effects on the qualifying interests, special conservation interest or the conservation objectives of any designated European site.

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FEHILY TIMONEY

CONSULTANTS IN ENGINEERING,
ENVIRONMENTAL SCIENCE
& PLANNING

APPENDIX 1

Otter Survey report

New Ross otter survey, River Barrow, Co. Wexford

Prepared by Triturus Environmental Ltd. for Fehily Timoney & Company

August 2023

Please cite as:

Triturus (2023). New Ross Otter Survey, River Barrow, Co. Wexford. Report prepared by Triturus Environmental Ltd. for Fehily Timoney & Company.

Note: This report may not be made publicly available without redaction given the content of highly sensitive data pertaining to the breeding and resting places of a protected species.

Table of contents

1. Introduction

1.1 Project background

Triturus Environmental Ltd. were commissioned by Fehily Timoney & Company to undertake an otter (*Lutra lutra*) survey at New Ross, Co. Wexford. The survey area focused on both the east and west banks of the River Barrow north of O' Hanrahan Bridge (**Figure 2.1**). The survey considered the identification of legally protected breeding and resting areas of otter within a 150m radius of the proposed development area. The survey also extended to the west bank of the River Barrow (opposite the proposed development) given higher suitability for holt and couch areas. This was considered consequential of lower human disturbance levels (i.e. poor access and high riparian tree cover) (**Figure 2.1**).

Given that otter [1355] are a qualifying interest species on the River Barrow and River Nore SAC (site code 002162), the baseline survey was required to inform the Appropriate Assessment for proposed development. The survey would determine otter sign distribution in addition to observations on the quality of the supporting habitat for the species. The distribution of otter signs acted as an indicator regarding the regularity of areas of habitat used by otters, inclusive of potential breeding and resting areas (i.e. holts and couches). Those areas more heavily (frequently) marked by spraint for example would act as a proxy for more regular visitation by otter and would therefore infer preferential use over areas not marked. The results would inform potential impacts to the species based on the number of available breeding and resting areas and the extent of good quality habitat available relative to the development location.

1.2 Legislative protection & conservation status

The Eurasian otter is a species of conservation concern and high priority having suffered major declines in its range and population throughout Europe since the 1950s. It is classified as 'near threatened' by the IUCN Red List with a decreasing population trend and, as such, is listed in Appendix I of CITES, Appendix II of the Bern Convention and Annexes II and IV of the EC Habitats Directive (92/43/EEC).

Otters, along with their breeding and resting places, are also protected under provisions of the Irish Wildlife Acts 1976-2021. Otters have additional protection because of their inclusion in Annex II and Annex IV of the Habitats Directive 92/43/EEC, which is transposed into Irish law by the European Union (Birds and Natural Habitats) Regulations 2011-2021.

The protection of otters is outlined in Article 51(1) and (2):

Protection of fauna referred to in the First Schedule;

51.(1) *The Minister shall take the requisite measures to establish a system of strict protection for the fauna consisting of the species referred to in Part 1 of the First Schedule.*

51.(2) *Notwithstanding any consent, statutory or otherwise, given to a person by a public authority or held by a person, except in accordance with a license granted by the Minister under Regulation 54, a*

person who in respect of the species referred to in Part 1 of the First Schedule (listed below). Items (b) and (d) may be considered most relevant to developments.

(a) *deliberately captures or kills any specimen of these species in the wild,*

(b) *deliberately disturbs these species particularly during the period of breeding, rearing, hibernation and migration,*

(c) *deliberately takes or destroys eggs of those species from the wild,*

(d) *damages or destroys a breeding site or resting place of such an animal, or*

(e) *keeps, transports, sells, exchanges, offers for sale or offers for exchange any specimen of these species taken in the wild, other than those taken legally as referred to in Article 12(2) of the Habitats Directive, shall be guilty of an offence.*

According to the NPWS (2021), '*it should also be noted that in the case of Regulation 51(d) any action resulting in damage to, or destruction of, a breeding or resting place of an animal may constitute an offence unless a derogation licence has been granted and this action does not need to be deliberate*'. Furthermore, '*breeding and resting places are protected even when the animals are not using them, once there is a high probability that they will return*' (CJEU Case C-477/19) (NPWS, 2021). Regulation 51(d) therefore places a strict responsibility of due diligence on anyone proposing to carry out an 'action or project' that can 'damage or destroy' the breeding place of Annex IV species.

In an Irish context, according to the most recent Article 17 reporting (NPWS, 2019), otter conservation status has improved, with the species now evaluated as being of 'Favourable' conservation status. Otters were previously 'Near Threatened' (Marnell, 2009) based on a 20-25% decline between 1980 and 2005 (Bailey & Rochford, 2006). However, the current conservation status is now of 'Least Concern' (Marnell et al., 2019).

2. Methodology

2.1 Desktop review of otter records

A desktop review of published and unpublished data for the tidal River Barrow at New Ross and connecting habitats was undertaken in respect of otter. Data pertaining to otters held by the National Biodiversity Data Centre (NBDC) was reviewed in addition to grey literature associated with developments in the area. Site specific data was incorporated into the results where such data was available.

2.2 Otter sign surveys

Walkover and kayak-based otter surveys of the tidal River Barrow and adjoining habitats were undertaken on the 27th July 2023. The survey area comprised a minimum 150m radius of the study area but also extended to the west bank (**Figure 2.1**).

The survey was completed during dry, mild, bright and settled conditions, which ensured that a good representation of habitat marked by otter could be recorded in the field, including territorial marking or marking of feeding and potential breeding areas. The absence of recent heavy rainfall and cold temperatures helped preserve spraint providing for optimal otter survey conditions. Each otter sign was logged by type, location (handheld GPS), condition and approximate age for later interpretation to distinguish differences in habitat use and activity. Spraints were subjectively assessed as either fresh (recent), mixed-age (recent and older spraints, typically indicative of a regular sprainting site) or old (spraint not recently deposited and degrading). Furthermore, indicative counts of spraint (i.e. number of individual spraints) and the number of sprainting sites (often separate clusters in one area) were noted. This helped indicate the frequency of otter marking, which can clarify levels of activity in particular areas, inclusive of breeding (holt) and resting (couch) areas (**Appendix A**).

Plate 2.1 East bank of the tidal River Barrow, New Ross showing old quay walls along the development boundary

2.3 Total corridor otter survey (TCOS) methodology

The survey broadly followed the best practice survey methodology for otter as recommended by Lenton et al. (1980), Chanin (2003) and Bailey & Rochford (2006). However, methodology differed in that the entire waterline was surveyed rather than the standard 500-600m sections from accessible points (e.g. bridges). The novel survey technique, known as a total corridor otter survey (TCOS) (Macklin et al., 2019), encompassed the entire riparian zone and in-channel (kayak-based) surveys within the survey area.

Total corridor survey methodology typically involves the use of two (or more) surveyors working independently (in tandem) along each respective bank of an individual watercourse (where practical). This also facilitates one to work from a more elevated position (e.g. bank top) with one surveying (with appropriate PPE such as a dry suit) from within the channel/watercraft, thus greatly increasing the likelihood of otter sign detection. This is especially true of more cryptic signs such as holts that are often located in poorly accessible areas often out of the view of traditional bank-based surveys. Surveyors can alternate between the channel, banksides and watercraft to best view the preferential areas of habitat likely to be used by otter based on many years of experience.

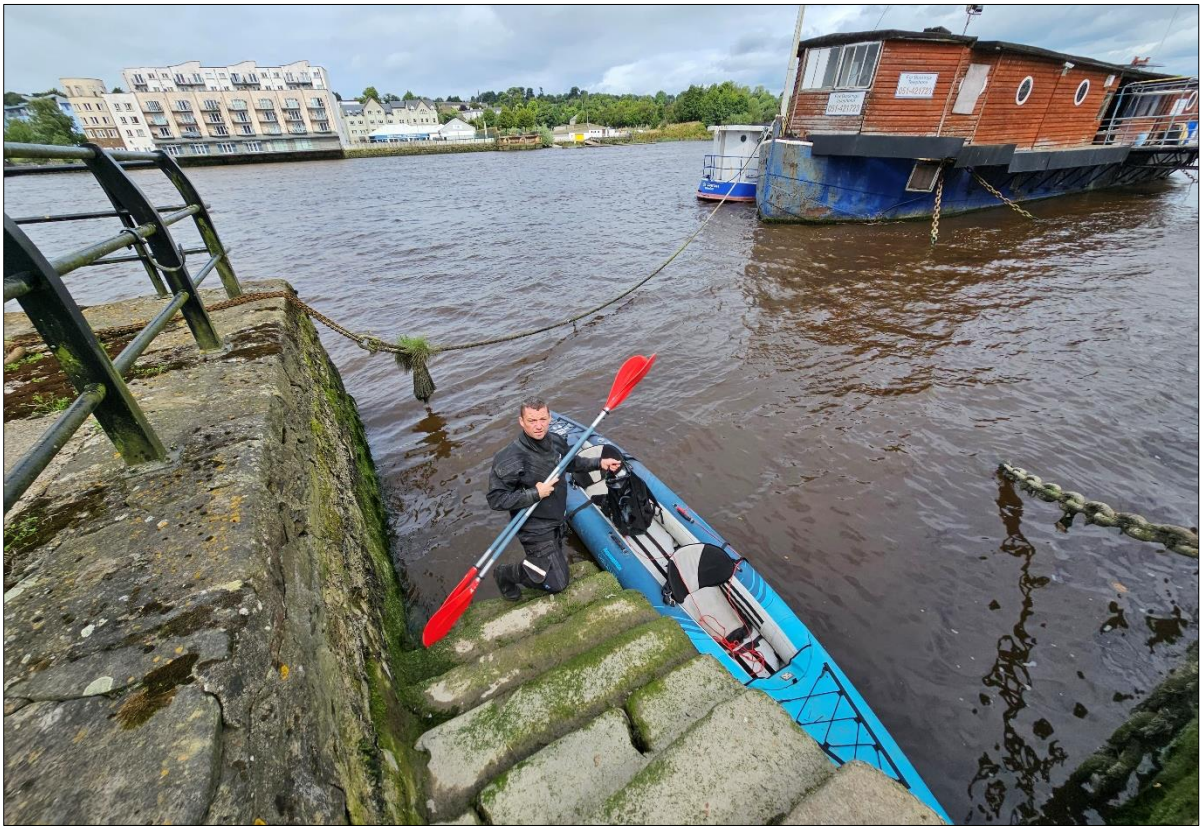

Plate 2.2 Kayak and dry suit equipment used in the current survey to gain access to the intertidal areas

2.4 Biosecurity

A strict biosecurity protocol following IFI (2010) and the Check-Clean-Dry approach was adhered to during surveys for all equipment and PPE used. Disinfection of all equipment and PPE before and after use with Virkon™ was conducted to prevent the transfer of pathogens or invasive propagules. Any aquatic invasive species or pathogens recorded within or adjoining the survey areas were geo-referenced. All Triturus staff are certified in 'Good fieldwork practice: slowing the spread of invasive non-native species' by the University of Leeds.

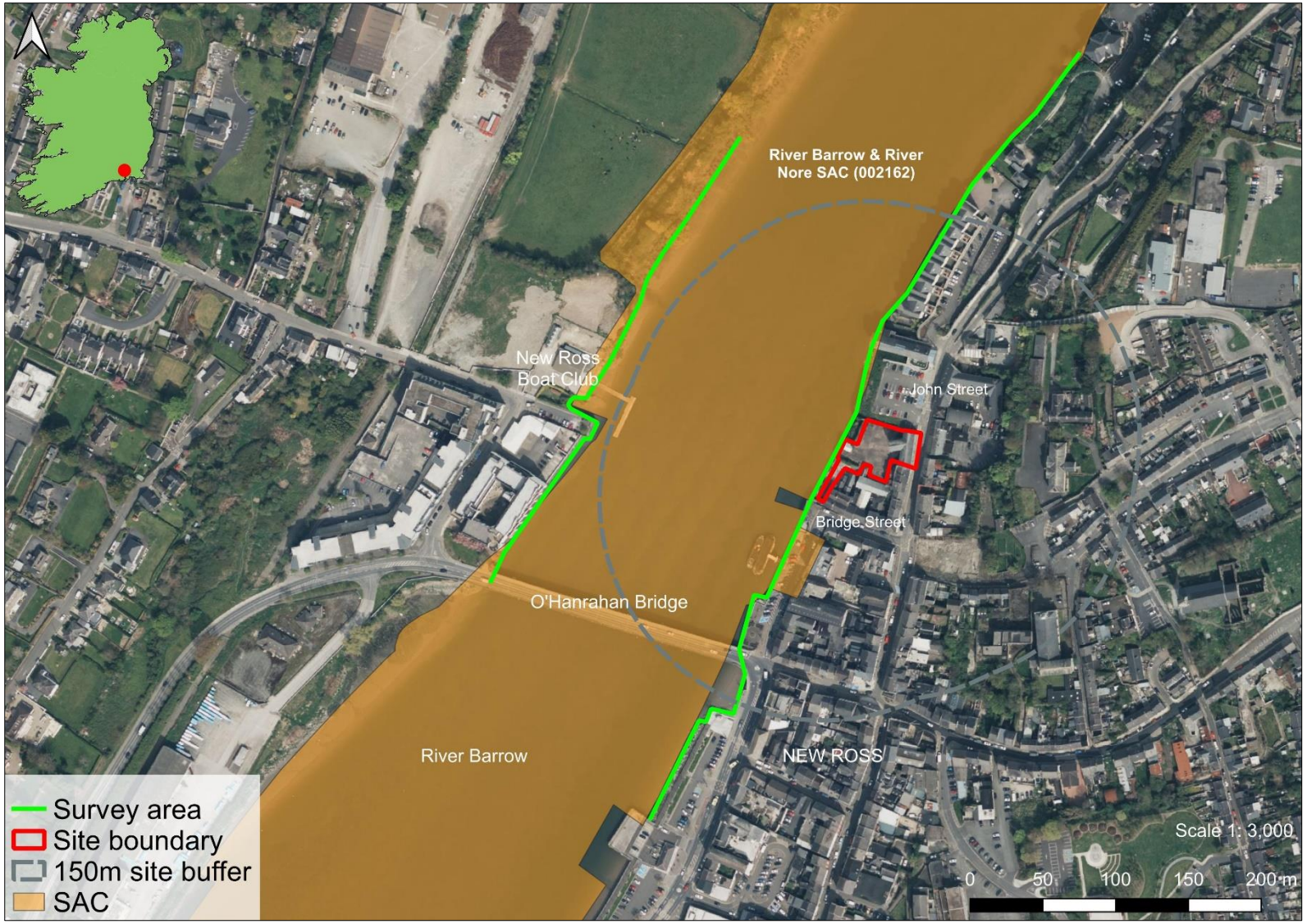

Figure 2.1 Overview of the survey area on the River Barrow in the vicinity of New Ross, 27th July 2023

3. Results

3.1 Desktop review of otter records

A desktop review revealed a low number of otter records within and in the vicinity of the survey area, based on a review of the national biodiversity data centre database (accessed 27th July 2023). The site specific (i.e. within 1km grid square) records were of live otter sightings in both 2017 and 2018 by Edward W Delaney north of O' Hanrahan Bridge along the east bank of the River Barrow adjoining the survey area. This supports the sign based evidence of otter as summarised in the current report.

3.2 Otter records

A total of *n*=5 otter signs were recorded within the survey area during the current July 2023 survey (**Table 3.1; Appendix A**). Signs were evenly distributed on the east bank and were concentrated to a single area on the west bank (**Figure 3.1; Appendix A**).

Spraint sites (*n*=4) accounted for the majority of signs recorded, with no very regularly used sites recorded. The spraints recorded had a low number of spraint depositions and the majority were old. A single couch (resting area) was recorded on the west bank of the River Barrow. This had very recent (fresh spraint) and jelly. It was considered the most important area used by otter in the wider vicinity of the study area but was greater than 150m from the proposed development boundary and on the opposite bank (**Figure 3.1**).

The July 2023 otter sign database is provided in **Appendix A**, with miscellaneous site images presented in **Plates 3.1-3.4** below.

Table 3.1 Summary of the otter signs recorded at New Ross, 27th July 2023

Otter sign	Total no.
Spraint site	4
Couch	1
Total	**5**

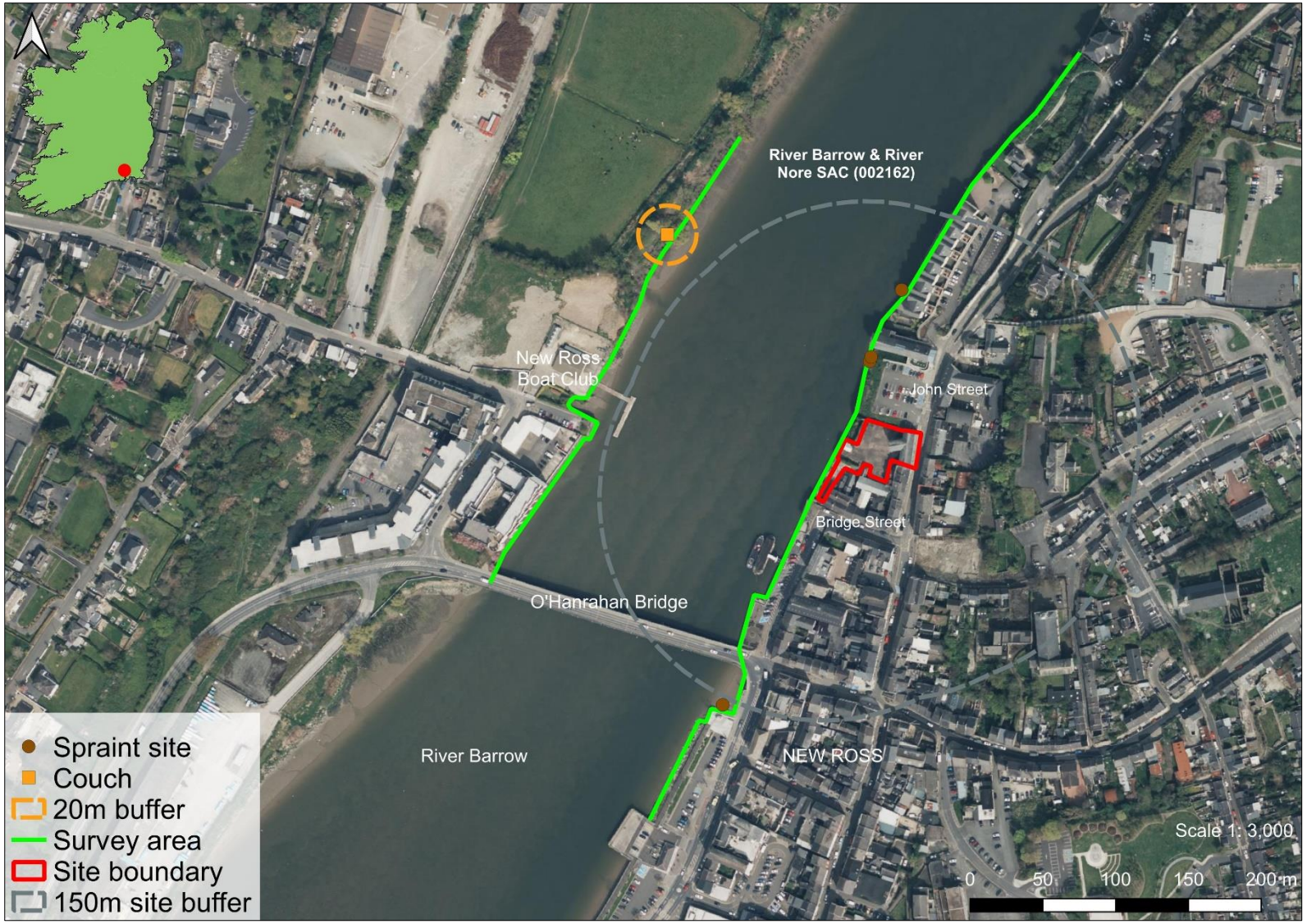

Figure 3.1 Overview of the otter signs recorded on the tidal River Barrow, New Ross, 27th July 2023

Plate 3.1 Fresh spraint site on quayside steps south of O' Hanrahan Bridge (east bank)

Plate 3.2 Example of old spraint and characteristic burn marks on mosses from deposition (east bank)

Plate 3.3 Regularly used couch (resting) site on large crack willow limb on the west bank of the River Barrow

Plate 3.4 Close up of otter 'jelly' and spraint at couch site on the west bank

4. Discussion

Our comprehensive approach, utilising kayak-based total corridor otter survey (TCOS) methodology, has facilitated the identification of the most important areas for otters within the study area at New Ross. The tidal River Barrow and adjoining pockets of accessible built land on the east bank and the mature riparian willow habitat of the west bank north of O' Hanrahan Bridge are of value for foraging and commuting otter. The majority of the otter signs recorded were spraint sites during the current study. From our extensive experience conducting catchment wide otter surveys inclusive of repeat surveys, spraint sites with higher marking intensity tend to be used inter-annually. Often sites with mixed age spraint and jelly secretions in abundance indicate more important areas of otter habitat. In this respect the most important marking area and habitat for otter was identified on the west bank of the River Barrow in the muddy paludal area supporting dense mature crack willow, osier and grey willow growth where a couch area was identified (**Plates 3.3 & 3.4** & **Figure 3.1**). The couch area supported fresh jelly and mixed age spraint. Such resting areas are typically situated in areas of low human disturbance and otters are known to deliberately select crack willow for marking (pers. obs.). These willow zones of rivers also support abundant deadwood and encourage the formation of grass topped areas on mud banks that otter favour for marking and resting in addition to large limbs and deadwood above the high tide mark.

On the east bank otter marking was concentrated on accessible man-made structures including quayside steps, boulder revetments and quay walls. Such areas are preferentially marked by otter in urban environments (Brazier & Macklin, 2020; Macklin et al., 2019), where the availability of prominent features suitable as marking outposts (e.g. tree limbs) are typically scarce or otherwise absent. For example no overhanging tress existed on the built up east bank, only scrub locally. The aforementioned manmade structures (e.g. quayside steps and boulder revetments) adjoining busy urban thoroughfares also typically represent the areas of lowest relative disturbance (i.e. limited human accessibility relative to surrounds) with easy retreat to water for otters. It is likely that the absence of very regular spraint deposition and typically older spraint on the east bank relates to the higher levels of disturbance and thus explains more infrequent marking. This contrasts with the heavily marked crack willow couch area on the west bank despite a lower number of total signs. The deposition of spraint, anal jellies and other marking behaviour (e.g. scent marking via urination) is known to serve a variety of territorial and communicative functions in otter populations (Sittenthaler et al., 2020; Remonti et al., 2011; Kean et al., 2011; Kruuk, 1992; Macdonald & Mason 1987). Thus, the preservation of quayside steps, pontoons and areas less accessible to humans are desirable attributes for otter conservation in urban areas (Triturus, 2022b). These regularly marked sites are essential for otter communicative function and inadvertent disturbance to these areas may have unknown consequences for otter ecology.

Whilst otters are sometimes known to utilise artificial structures such as rock armouring/boulder revetment as breeding (holt) and resting (couch) areas (Weinberger et al., 2019), including larger towns and cities (Brazier & Macklin, 2020; Macklin et al., 2019), no such sites were identified along the east bank (e.g. boulder revetments). The rock armouring on the west bank was not found to support breeding or resting areas and this reflected the generally shallow depth of crevices above the high tide mark and openness of these areas. Otter breeding areas (holts) are especially sensitive to direct human disturbance (Mason & Macdonald, 2009), with otter reproductive success known to be higher in less disturbed habitats; hence their preferential fidelity for low-disturbance areas (Scorpio

et al., 2016; Ruiz-Olmo et al., 2011; Loy et at., 2009; Kruuk, 2006). Nevertheless, areas of higher disturbance may still be utilised by foraging and commuting otter, irrespective of marking behaviour (Hong et al., 2022 Macklin et al., 2019; Guter et al., 2008), as corroborated by this survey. Given the absence of breeding and or resting areas on the east bank of the River Barrow in the vicinity of the study area it is unlikely that the proposed development would cause significant effects on the local otter populations.

Plate 4. 1 Examination of crevices in boulder revetments for signs of otter habituation

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6. Appendix A – otter signs database

Table 6.1 Summary of the *n*=5 otter signs recorded in the wider New Ross survey area 27th July 2023. Breeding and resting areas highlighted in bold.

Sign ID	Watercourse	Bank	Sign	Spraint site (no. spraints)	Sign age	Marking feature	Notes	ITM x	ITM y
NR_01	River Barrow	East	Spraint	1(1)	Recent	Quay steps	Single spraint south of O' Hanrahan Bridge on quayside steps	671743	627643
NR_02	River Barrow	East	Spraint	1 (1)	Recent	Boulder revetment	Single old spraint on boulder revetment	671844	627879
NR_03	River Barrow	East	Spraint	1(1)	Old	Quay steps	Single old spraint on quayside steps	671845	627882
NR_04	River Barrow	East	Spraint	1(1)	Old	Quay steps	Single old spraint on 'burnt mosses' on old quayside wall	671866	627928
NR_05	River Barrow	West	**Couch & spraint***	1(4)	Mixed age	Crack willow tree	Couch site on grassed over crack willow mainstem with mixed age spraint and jelly	671705	627966

***Conservation value:** Otters, along with their breeding and resting places (i.e. holts and couches), are protected under provisions of the Irish Wildlife Act 1976-2021. Otters are also listed under Annex II and IV of the Habitats Directive [92/42/EEC].

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