Louth County Council

Natura Impact Statement

Westgate 2040 Regeneration, Drogheda

603903 01 (06)

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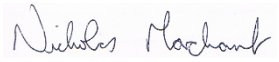
Signature		Signature	
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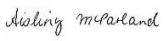
Signature		Signature	
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EXECUTIVE SUMMARY

This Natura Impact Statement has been prepared by NM Ecology Ltd, as part of a planning application for public realm and urban regeneration works on lands within the Westgate Vision Area of Drogheda, Co Louth. The aim of this report is to identify and evaluate any potential effects on Special Protection Areas (SPAs), and Special Areas of Conservation (SACs), referred to jointly as European sites. It covers Stages 1 and 2 of the Appropriate Assessment process.

The southern boundary of the proposed development site adjoins the *River Boyne and River Blackwater* SAC, and a small section of the application site is located within the SAC. However, none of the qualifying interests of this SAC are within the overlapping section with the subject site, so there will be no direct effects on the SAC.

With the adoption of a precautionary approach, it is possible that pollutants (suspended sediments, concrete / cement and hydrocarbons) generated during the construction of the proposed development could have a potential indirect effect on the qualifying interests of the *River Boyne and River Blackwater* SAC or other downstream European sites. In response, a range of pollution-control measures will be implemented during the construction phase of the project to avoid or minimise the risk that any pollutants could reach the River Boyne.

Potential indirect effects from surface water runoff and disturbance / displacement of fauna during the operation of the proposed development were ruled out.

The recommended measures during construction will prevent the pollution of the River Boyne, thus avoiding a significant negative effect on the conservation status of the qualifying interests (aquatic fauna and habitats) of the *River Boyne and River Blackwater SAC*, or any other European sites. As a result, we conclude that the proposed development will not cause significant negative effects upon the integrity of any European sites.

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1 INTRODUCTION

1.1 Background

This document is a Natura Impact Statement, which provides supporting information to assist competent authorities with an Appropriate Assessment of the project, as per Articles 6(3) and 6(4) of the Habitats Directive[1]. The competent authority includes those entitled to authorise or give consideration to a project, e.g. a planning authority or An Bord Pleanála.

Approximately 14% of the land area of Ireland is included in the European Network of Natura 2000 sites, (hereafter referred to as European sites), which includes Special Protection Areas (SPAs) to protect important areas for birds, and Special Areas of Conservation (SACs) to protect habitats and non-avian fauna. Legislative protection for these sites is provided by the *European Council Birds Directive* (79/409/EEC) and *E.C. Habitats Directive* (92/43/EEC, as amended), which are transposed into Irish law by the *European Communities (Birds and Natural Habitats) Regulations* 2011 (SI 477/2011).

A competent authority cannot give consent, permission or other authorisation for a project which is likely to have a significant effect on a European Site. Likely significant effects are any effects that may reasonably be predicted as a consequence of a plan or project, and that may affect the conservation objectives of the features for which the site was designated.

This report includes the following sections: a description of the project, a review of its environmental setting, details of relevant European sites, an appraisal of potential direct, indirect and in-combination effects on European Site(s), a mitigation strategy and a conclusion.

1.2 Statement of Authority

This report was written by Nick Marchant, the principal ecologist of NM Ecology Ltd. He has an MSc in Ecosystem Conservation and Landscape Management from NUI Galway and a BSc in Environmental Science from Queens University Belfast. He is a member of the Chartered Institute of Ecology and Environmental Management (CIEEM) and operates in accordance with their code of professional conduct.

He has sixteen years of professional experience, including thirteen years as an ecological consultant, one year as a local authority biodiversity officer, and two years managing an NGO overseas. He provides ecological assessments for developments throughout Ireland and Northern Ireland, including wind farms, infrastructural projects (roads, water pipelines, greenways, etc.), and a range of residential and commercial developments.

[1] Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora, as amended by Council Directive 97/62/EC

1.3 Methods

This report has been prepared with reference to the following guidelines:

- *Appropriate Assessment of Plans and Projects in Ireland* (Department of the Housing, Local Government and Heritage, 2009)
- *OPR Practice Note PN01: Appropriate Assessment Screening for Development Management* (Office of the Planning Regulator 2021)
- *Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Article 6(3) and (4)*, E.C., 2002.
- *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater and Coastal* (CIEEM 2018)

Supporting data was collected from the following sources:

- Plans and specifications for the proposed development
- Supporting information on European sites from www.npws.ie
- Ireland Wetland Bird Survey (IWeBS) data from Birdwatch Ireland
- Bedrock, soil, subsoil, surface water and ground water maps from the Geological Survey of Ireland webmapping service, the National Biodiversity Data Centre, and the Environmental Protection Agency web viewer
- The *Louth County Development Plan* 2021 - 2027, and details of permitted or proposed developments from the local authority's online planning records

The study area for this assessment consisted of all land within the red-line planning boundary. All desktop and field survey data was collected between April 2021 and October 2023. Surveys included mapping of habitats and flora, searches for otter field signs, and inspections of the river bank. Bird surveys were not considered necessary because the site does not contain any habitats suitable for bird species associated with nearby SPAs. Fish surveys were not considered necessary because the status of fish within the SAC is well established, and because the project will not involve any in-stream works.

2 DEVELOPMENT PROPOSALS

2.1 Characteristics of the proposed development

The proposed development (hereafter referred to as 'the Project') comprises public realm regeneration works on lands within the Westgate Vision Area of Drogheda, Co. Louth (hereafter referred to as 'the Site'). The overall objective of the 'Westgate 2040' project' is to act as a catalyst to support positive urban regeneration and public realm improvements in the Westgate Vision Area of Drogheda Town Centre.

The proposed development consists of the following:

(1) Public realm improvement works comprising: new hard landscaping including resurfacing, soft landscaping including new tree planting, a water feature channel with stepped concrete elements and integrated landscaping, a Corten steel ground insert delineating the location of the former medieval town wall, a wayfinding Corten steel ground insert, Corten steel signs, Corten steel walkways, street furniture, new pedestrian connections, a SUDS rainwater retention pond, cycle lanes, pedestrian footpaths, external steps, tactile paving, road signs, cycle parking stands and provision of new railings;

(2) Public realm improvement works will also include the creation of a new urban plaza gateway/arrival area at Georges Square and a new enhanced public amenity area adjacent the River Boyne riverfront including a new pedestrian wooden deck promenade/boardwalk;

(3) Demolition of the existing public toilet block at George's Square (between the junctions of George's Street/Fair Street and George's Street/West Street), a section of boundary wall located between Old Abbey Lane and Father Connolly Way and a section of wall located between Dominick Street and Dominick Street car park;

(4) A new raised, free-standing, curved walkway located between the R132 and the existing Medieval Wall to provide a universally accessible connection from West Street to the River Boyne riverfront;

(5) A new freestanding Corten steel pavilion located adjacent the River Boyne riverfront to create a new mixed use/public space;

(6) A new freestanding Corten steel canopy located within, and offset from, the remains of the Old Abbey (being a Protected Structure – ID No. DB-187 and a recorded monument - RMP No. LH024-041011) to create a new flexible community and cultural space;

(7) Two freestanding Corten steel structures located at the junction of West Street and the R132/George's Street to mark the location of the former medieval West Gate;

(8) Repair and restoration of the old Medieval Wall located adjacent the R132/George's Street (being a Protected Structure – ID No. DB-188 and a recorded monument - RMP No. LH024-041014);

(9) Repair and restoration of the Old Abbey (being a Protected Structure – ID No. DB-187 and a recorded monument - RMP No. LH024-041011) including the west gable of its north aisle located within Old Abbey Lane;

(10) Reprioritisation of traffic and movement patterns for the streets/roads/lanes/footpaths within the application site to accommodate the proposed public realm improvement works and integrate with the Council's emerging Active Travel projects to the north and south of George's Street/R132;

(11) Road improvement works to include alteration of road alignment, resurfacing, shared surface treatments, revised access arrangements, cycle lanes, pedestrian crossing points, parking bays, loading bays, accessible parking bays, bus stops and new public lighting; and

(12) All associated site works including: drainage, undergrounding of services and all associated ancillary development works.

In summary, the proposed development will involve a series of relatively small-scale works (changes to surfacing, construction of light structures, hard / soft landscaping) within an urban context. The construction methods will involve the use of relatively light machinery and will not generate significant noise or vibration.

The Site is an existing urban area that is subject to anthropogenic disturbance. It is envisaged that human activity in the area will increase slightly as a result of the Project. However, it is not anticipated that this increase would give rise to a likely significant effect on the surrounding environment or its ecological features.

There is existing streetlighting throughout the area. The project will involve some modification of the lighting for aesthetic reasons, but there will be no change to the extent or intensity of lighting in the area.

2.2 Other nearby developments (potential in-combination effects)

To understand potential in-combination effects a desk-based analysis was undertaken of other plans and projects in the surrounding area.

The Site is located in the centre of Drogheda town. It consists almost entirely of roads and pavements, with small pockets of urban grassland or ornamental planting. Further details are provided in Section 3.

Planning applications in the vicinity of the site were reviewed using the online planning records of Louth County Council. The majority of applications were for changes-of-use in existing buildings, or small-scale works such as extensions to commercial premises. However, three developments of moderate scale were noted, as follows:

- Planning reference 181056. Permission granted in 2020 for the demolition of existing derelict structures and the construction of 41 no. apartments. The application was accompanied by a Natura Impact Statement, which concluded that the development

posed no risk of impacts on European sites. A variation was granted in 2021 (planning reference 20763) to increase the height of the buildings and the number of residential units. Construction work has commenced and remains in progress at the time of writing in October 2023. It is likely to be complete by the time the Project commences.

- An Bord Pleanála reference 308224-20. Permission granted for extensive refurbishment of St Dominick's Bridge, which adjoins the south-eastern corner of the Masterplan Area. The application was accompanied by a Natura Impact Statement. At the time of writing in October 2023 all works are complete and the bridge has been reopened to the public.
- An Bord Pleanála reference 308226-20. Permission granted for extensive refurbishment of Obelisk Bridge, which is located approx. 4.1 km west of the Masterplan Area. The application was accompanied by a Natura Impact Statement. At the time of writing in October 2023 this project has recently commenced construction.

Two of the three developments are already complete, or likely to be complete by the time the proposed development is constructed. The third approved development, i.e. the refurbishment of the Obelisk Bridge, is located over 4 km from the Site. Therefore, it is considered highly unlikely that any of these developments would lead to in-combination effects. Nonetheless, this is considered further in Section 5.2.4.

3 ENVIRONMENTAL SETTING

3.1 Site location and surroundings

The Site is located to the west of Drogheda town centre. The application site comprises the following streets, roads and lanes and their adjoining footpath/public realm/junction areas:

- R132/Bridge of Peace/George's Street (including the underpass on the northern side of the River Boyne);
- George's Square; Father Connolly Way (including part of an existing car park area); Dominick Street;
- Patrickswell Lane;
- Old Abbey Lane (including an area to the rear of 56/57 West Street);
- Scholes Lane;
- R900/West Street/Narrow West Street;
- Fair Street;
- and Wellington Quay.

The River Boyne (the *River Boyne and River Blackwater* SAC) adjoins the southern boundary of the Site.

The application site covers an area of approx. 1.89 hectares which includes the following lanes/streets/roads/areas and their adjoining footpath/public realm/junction areas:

3.2 Geology and soils

The underlying bedrock is limestone, classified as 'pale-grey, thickly-bedded, highly micritised grainstones, packstones and wackestones', which is a regionally-important karstified aquifer (Geological Survey of Ireland). Sub-soils and soils are made ground, mainly sealed by buildings and impermeable artificial surfaces.

3.3 Hydrology

The closest major waterbody is the River Boyne, which adjoins the southern boundary of the Site. It is estuarine in the vicinity of the Site, i.e. it is tidal and has a brackish influence. The division between river (freshwater) and estuary (brackish water) occurs near the Battle of the Boyne visitor centre approx. 5 km upstream (west) of the Site. The estuary meets the coast approx. 9 km downstream (east) of the Site.

Under the Water Framework Directive status assessments 2016 – 2021, the transitional waters of the River Boyne are of Moderate status, as are the coastal waters at the mouth of the river.

3.4 Habitats

Habitats within the Site were classified using *A Guide to Habitats in Ireland* (Fossitt 2000). Four habitat types were found within the Site boundary, and a fifth (the estuary) is located just outside the site boundary. Descriptions are provided below.

3.4.1 Buildings and artificial surfaces (BL3)

The majority of the Site consists of buildings, roads, car parks, and other paved surfaces. Some buildings / surfaces support butterfly bush *Buddleja davidii* or common ruderal plants, but none have substantial cover of native vegetation.

3.4.2 Dry meadows and grassy verges (GS2)

A patch of unmanaged grassland was found on the embankment on the eastern side of the 'Bridge of Peace' (George's Street). It is dominated by false oat-grass *Arrhenatherum elatius* and cock's-foot *Dactylis glomerata*, with frequent common bent *Agrostis capillaris*, white clover *Trifolium repens* and ribwort plantain *Plantago lanceolata*.

3.4.3 Scrub (WS1) / Treeline (WL2)

This habitat occurs around the margins of Murdock's Yard in the west of the Site. It consists of a discontinuous line of trees connected by linear scrub habitat. Beech *Fagus sylvatica* is the dominant tree, with some ash *Fraxinus excelsior* and sycamore *Acer pseudoplatanus*. Shrubs include butterfly bush, roses *Rosa* spp, exotic shrubs and dense brambles *Rubus fruticosus*.

3.4.4 Ornamental / non-native shrubs (WS3)

There is a line of non-native shrubs (of unknown species) between Father Connolly Way and the River Boyne. They are cropped to a height of approx. 1 m.

3.4.5 River Boyne Estuary (MW4)

The River Boyne, part of the *River Boyne and River Blackwater* SAC, adjoins the southern boundary of the Site. It is approx. 50m wide and is several metres deep at high tide. The edges of the river are formed by rock gabions of approx. 4 m height. Some brown algae (e.g. *Fucus* spp) was visible along the edges of the river at low tide, but no other vegetation was observed.

3.5 Invasive non-native plant species

No Japanese Knotweed *Fallopia japonica* or any other species listed on Schedule 3 of the *European Communities (Birds and Natural Habitats) Regulations* 2011 (as amended) was recorded in the vicinity of the Site.

Butterfly-bush *Buddleja davidii* was recorded at a number of locations throughout the Site. It is a wind-dispersed species that colonises buildings and other built surfaces, occasionally causing structural damage. However, it is widespread in urban environments, it is not legally-restricted,

and it does not have a negative ecological effect, so it is not considered a high-impact invasive species in Ireland.

3.6 Fauna

Surveys were carried out for range of fauna within the Site; they are described in full in **Chapter 8: Biodiversity** of the Environmental Impact Assessment Report. However, the scope of an Appropriate Assessment is determined by the qualifying interests of relevant European sites, so most species discussed in the Biodiversity chapter are not relevant here. Some information on otters and fish is reproduced below, as they are relevant to the adjacent *River Boyne and River Blackwater* SAC.

3.6.1 Otters

Otters are a qualifying interest of the adjacent *River Boyne and River Blackwater* SAC. The Site was searched for otter holts and other field signs by NM Ecology Ltd on a number of occasions between April 2021 and October 2023. No field signs were found, so there is no possibility that otters breed or rest within the Site. The vertical rock gabions along the adjacent bank of the estuary would prevent Otters from leaving the river at this location and would be unsuitable for an otter holt due to tidal activity.

Otters are likely to forage along the estuary in the vicinity of the Site. They have large territories, and it is expected that the section of river bank adjoining the Site forms only a small part of a much-larger territory (otter territories are thought to range from 2km – 20 km of river).

3.6.2 Fish

Atlantic salmon and river lamprey are qualifying interests of the *River Boyne and River Blackwater* SAC. Both species migrate between freshwater and marine habitats, so they are expected to pass through the Boyne Estuary in the vicinity of the Site. However, they spawn in freshwater habitats, so the estuary would be unsuitable for this purpose.

As the project does not involve any in-stream works it was not considered necessary to carry out fish surveys. Furthermore, as the presence of salmon and river lamprey is well established within the catchment of the *River Boyne and River Blackwater* SAC (hence the SAC designation) it was not considered necessary to undertake fish surveys.

4 APPROPRIATE ASSESSMENT SCREENING

4.1 European sites in the surrounding area

In this section we identify European sites that could potentially be affected by the Project. Maps of European sites in the surrounding area are provided in Figures 1 and 2, and details of relevant sites are provided in Table 1. For the avoidance of doubt, we have not used a 'zone of influence' based on arbitrary distances (e.g. 15 km), as this approach is no longer recommended under the OPR (2021) guidance.

Table 1: European sites of relevance to the Site

Site name	Distance	Qualifying interests
River Boyne and River Blackwater SAC (site code 2299)	Partial overlap	**Annex I habitats:** alkaline fens, alluvial forests **Annex II species:** river lamprey, salmon, otter
Boyne Estuary SPA (4080)	2.2 km east	**Key habitats:** coastal wetlands **Special Conservation Interests:** shelduck, oystercatcher, golden plover, grey plover, lapwing, knot, sanderling, black-tailed godwit, redshank, turnstone, little tern
River Boyne and River Blackwater SPA (4232)	2.6 km west	**Special Conservation Interests:** kingfisher
Boyne Coast and Estuary SAC (1957)	3.4 km east	**Annex I habitats:** estuaries, mudflats / sandflats, Salicornia and other annuals colonising mud and sand, Atlantic salt meadows, embryonic shifting dunes, shifting dunes, fixed coastal dunes with herbaceous vegetation **Annex II species:** none
North-West Irish Sea cSPA* (4236)	7.4 km east	**Key habitats:** off-shore waters **Special conservation interests:** Common Scoter, Red-throated Diver, Great Northern Diver, Fulmar, Manx Shearwater, Shag, Cormorant, Little Gull, Kittiwake, Black-headed Gull, Common Gull, Lesser Black-backed Gull, Herring Gull, Great Black-backed Gull, Little Tern, Roseate Tern, Common Tern, Arctic Tern, Puffin, Razorbill and Guillemot

Figure 1	European sites (broad scale)
Location	Westgate Regeneration Scheme
Applicant	Louth County Council
Date	10 August 2023

NM Ecology Ltd - Ecological Consultants
Website: www.nmecology.com
Email: info@nmecology.com
Tel: 087-6839771

Site location
- Centrepoint of Site
- Roads
- Watercourses

European sites
- Special Areas of Conservation
- Special Protection Areas

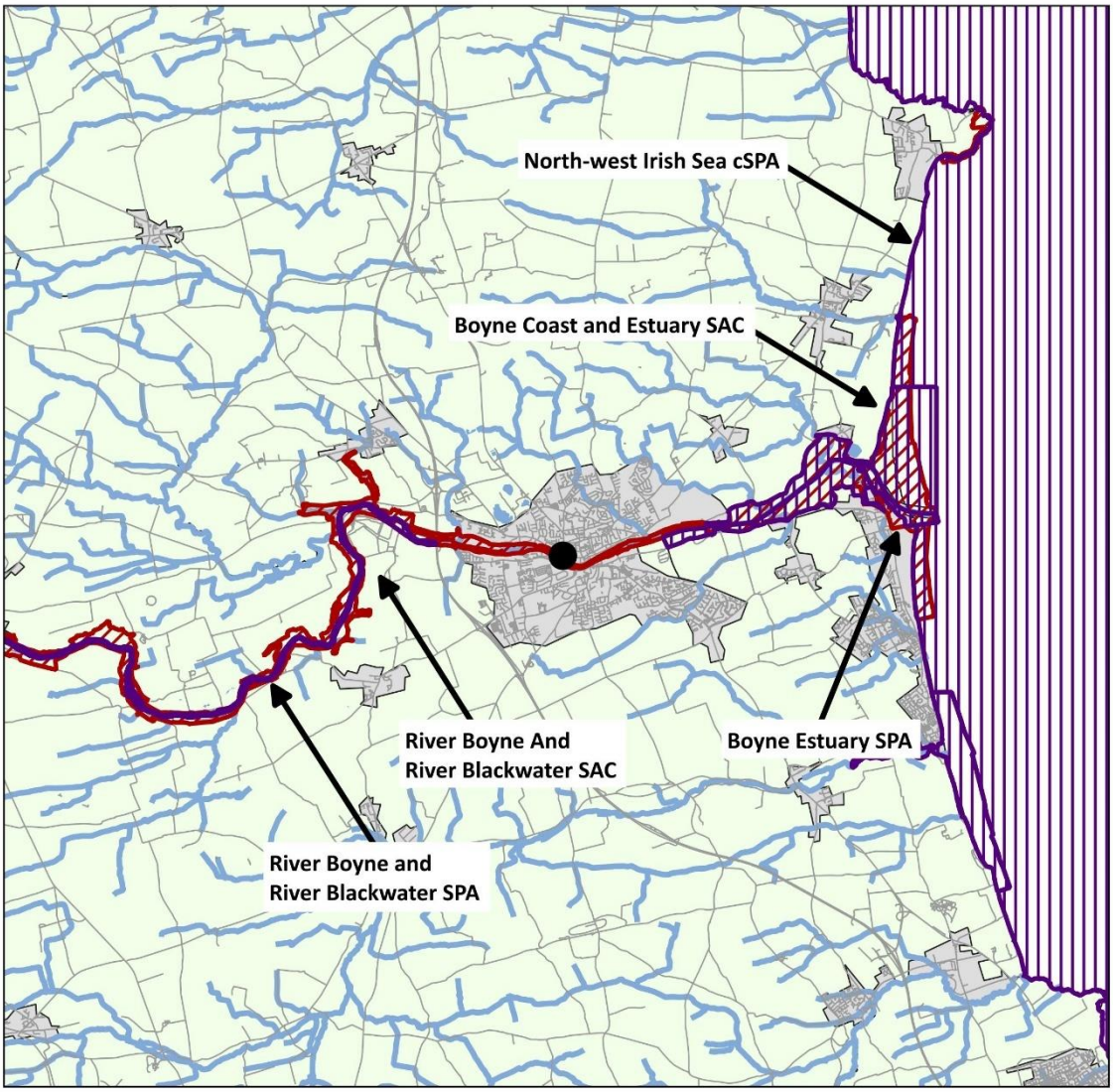

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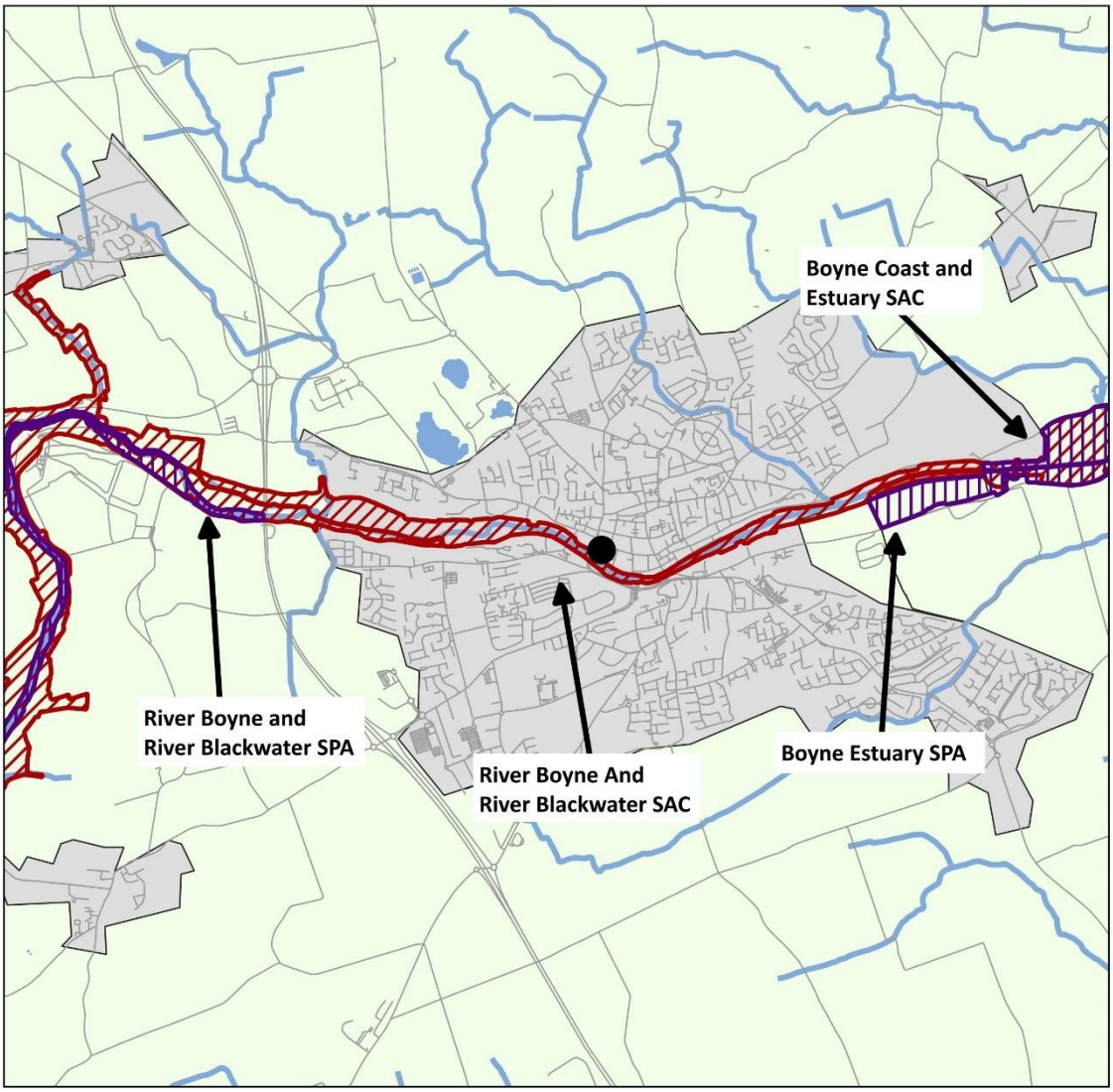
Figure 2	European sites (Drogheda)
Location	Westgate Regeneration Scheme
Applicant	Louth County Council
Date	10 August 2023

NM Ecology Ltd - Ecological Consultants
Website: www.nmecology.com
Email: info@nmecology.com
Tel: 087-6839771

Site location
- Centrepoint of Site
- Roads
- Watercourses

European sites
- Special Areas of Conservation
- Special Protection Areas



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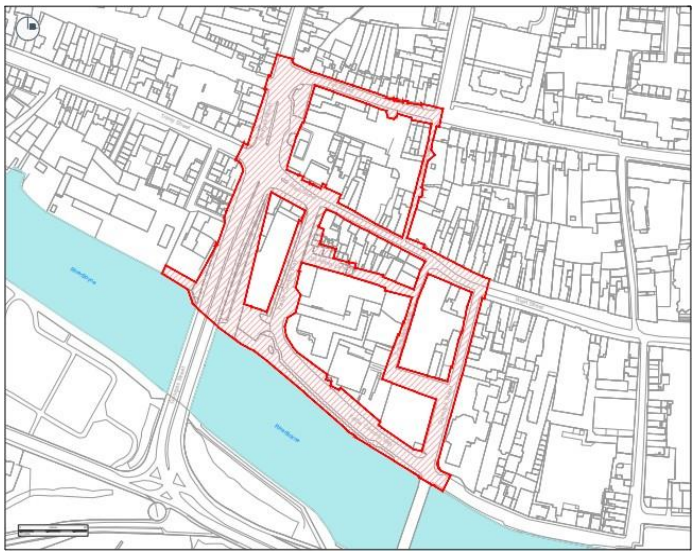
0 0.5 1 1.5 2 km

4.2 Proposed work within European sites (potential direct effects)

The southern boundary of the Site adjoins the *River Boyne and River Blackwater* SAC, and a small section of the Site is within the SAC. Map 1 shows the site location and its boundary.



Map 1 – Extract of Site Location Plan

The SAC boundary is irregular and does not appear to follow either the river bank or the edge of the road. It includes sections of road, footpath and ornamental planting along the top of the river bank that are unsuitable for any of the qualifying interests of the SAC. The photograph (Figure 3) below shows the overlap of the SAC with the boundary of the site.

Figure 3: Location of the SAC boundary relative to the Site. The SAC boundary is irregular, covering sections of road, footpath and ornamental planting outside the river corridor.

The Project will involve some changes to the footpath and ornamental planting along the top of the river bank, which will be within the SAC boundary. In the following subsection we consider whether any of the qualifying interests of the SAC are present in this overlapping area, and thus whether the qualifying interests may be at risk of direct effects.

4.3 Distribution of qualifying interests within the *River Boyne and River Blackwater* SAC

The *River Boyne and River Blackwater* SAC is very large, covering approx. 180 km of the Rivers Boyne, Blackwater and associated tributaries. The section of the Site that adjoins the river covers approx. 200 m of river bank, which is less than 0.1 % of the entire SAC.

The SAC was designated to protect two habitats (alkaline fens, alluvial forests) and three species (salmon, river lamprey, otter). In this section we review desktop and field data on the distribution of these habitats and species within the SAC, to determine whether they may be at risk of direct effects from the Project. Much of this information is provided in the Conservation Objectives and Site Synopsis for the SAC, which are available on the NPWS website.

When considering the distribution of these qualifying interests within the SAC, it is important to note that some are restricted to the freshwater section of the River Boyne, either permanently or for key stages of their life cycle (e.g. spawning). The Boyne is estuarine in the vicinity of the Site and for at least 5 km upstream, so it is unsuitable for any freshwater habitats / species.

The distribution of alkaline fen within the SAC is reported as follows in the Site Synopsis: "*The main areas of alkaline fen in this site are concentrated in the vicinity of Lough Shesk, Freehan Lough and Newtown Lough*". These are three small lakes located near Kells, approx. 45 km west of the Site. No alkaline fen is found in the vicinity of the Site.

The Conservation Objectives document shows a large area of alluvial forest around the 'Boyne River Islands' to the south of Tullyallen, just upstream of the M1 motorway crossing (Figure 4). This location is approx. 2.5 km west of the Site. Narrow strips of woodland occur elsewhere in the SAC. However, there is no alluvial forest in the vicinity of the Site.

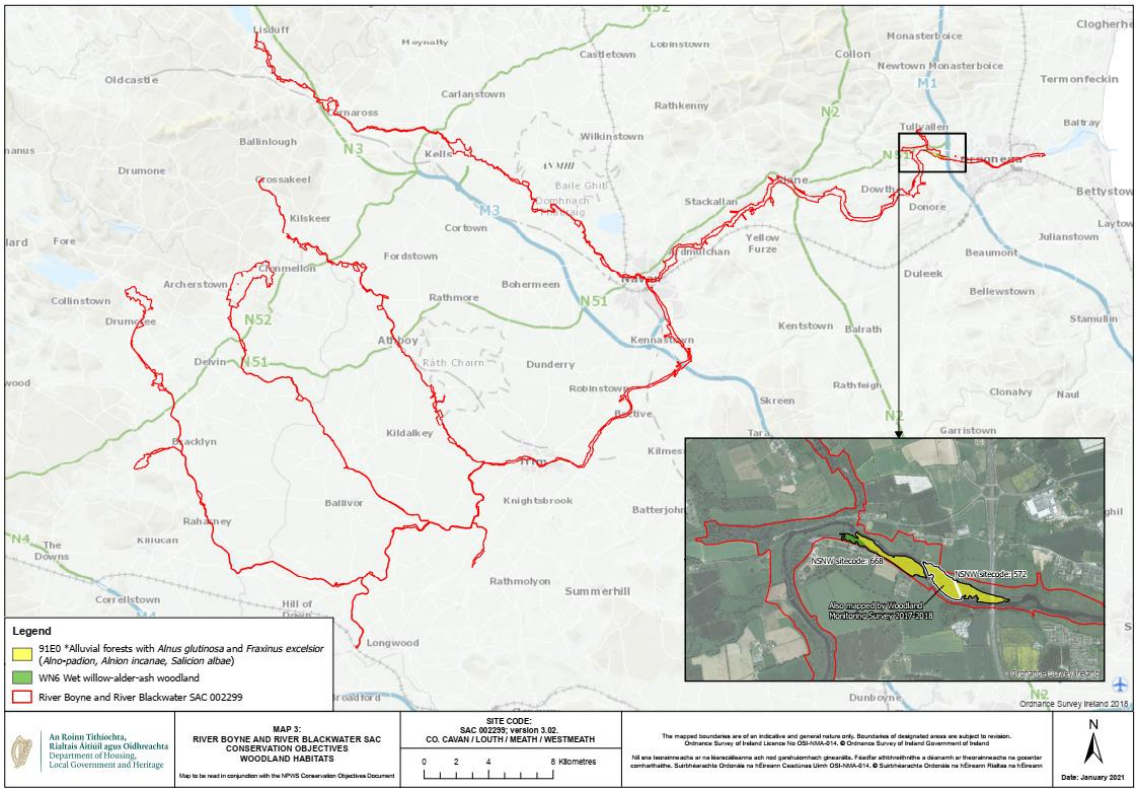


Figure 4: Map showing the distribution of alluvial forest habitat (yellow shading) within the *River Boyne and River Blackwater* SAC. The map is taken from the Conservation Objectives document for the SAC (NPWS, 2021)

Salmon are widespread in the SAC. They spawn in freshwater habitats, and it is noted in the Site Synopsis that salmon "use the tributaries and headwaters as spawning grounds"; these are likely to be at least 10 km upstream of the Site. The estuarine waters in the vicinity of the Site are unsuitable for spawning. However, salmon migrate from rivers to oceans (and vice versa) at stages of their life cycle, so they would occasionally pass by the Site during these migration events.

River lamprey are reported in the Site Synopsis to be "*present in the lower reaches of the Boyne River*", but no other information is provided. In Irish Wildlife Manual No. 5 (Kurz & Costello 1999), it is reported that they "*build nests (redds) and spawn in large and small rivers, usually at the downstream end of pools where there is a swift current*" and that "*river lamprey prefer a sandy or gravelly sediment*". The estuarine section of the Boyne is brackish, tidal and consists of fine silt, so it is not suitable for spawning. However, adult river lamprey also migrate from rivers to oceans, so they would occasionally pass by the Site during these migration events.

Otter are reported to be widespread throughout the SAC, both in freshwater and estuarine sections of the Boyne (refer to Section 3.6.1). They have large foraging territories, which include holts (underground burrows) that are used as breeding and resting places. The Site was searched for holts and other otter field signs by NM Ecology Ltd on a number of occasions between April 2021 and October 2023, but none were found, so there is no possibility that otters breed or rest

within the Site. However, they are likely to forage along the estuary in the vicinity of the Site, as part of a much larger territory.

In summary, the section of the Site that overlaps with the SAC is of no importance for any of the SAC's qualifying interests. Neither alkaline fens nor alluvial forests are present in the vicinity of the Site. Salmon, river lamprey and otter would only be present within the Boyne Estuary, which is outside the Site boundary.

For these reasons, we conclude that the qualifying interests of the SAC are not present within the section of SAC that overlaps with the Site, and thus these features are not at risk of direct effects from the Project. However, it is possible that the qualifying interests of this and other European sites could be affected by indirect effects arising from the Project; this will be considered in the following section.

4.4 Identification of potential pathways for indirect effects

Indirect effects can occur if there is a viable pathway between the source (the Site) and the receptor (habitats and species within a designated site). The most common pathway for effects is surface water, e.g. if a pollutant reaches a river and is carried downstream into a designated site. Other potential pathways are groundwater, air (e.g. airborne dust or sound waves), or land (e.g. flow of liquids, vibration). The zone of effect for hydrological effects can be several kilometres, but for air and land it is rarely more than one hundred metres. An appraisal of potential pathways for negative effects on designated sites is provided below.

The *River Boyne and River Blackwater SAC* adjoins the southern boundary of the Site, and a small section of the Site is within the SAC boundary (Figure 3 above). The distribution of the SAC's qualifying interests within the SAC are outlined in Section 4.3. Considering the proximity of the Site to the Boyne Estuary, and that it is at a higher elevation, there are a number of potential pathways for indirect effects: surface water (either overland or via roadside storm drains), groundwater, land and air.

The *Boyne Estuary SPA* is located approx. 2.2 km east of the Site. It has been designated for the protection of a range of over-wintering coastal / estuarine bird species, and one breeding bird species (little tern). The River Boyne could potentially provide a surface water pathway to the SPA, but all other pathways (via groundwater, land or air) can be ruled out due to distance.

The *River Boyne and River Blackwater SPA* is located approx. 2.6 km west of the Site. It has been designated to protect kingfishers, a riparian bird species. The SPA covers the freshwater section of the River Boyne upstream of the Site, so surface water pathways can be ruled out. All other pathways (via groundwater, land or air) can be ruled out due to distance.

The *Boyne Coast and Estuary SAC* is located approx. 3.4 km east of the proposed development site. It has been designated for the protection of a range of intertidal and coastal habitats, notably mudflats, saltmarsh and dunes. The River Boyne could potentially provide a potential

surface water pathway to the SAC, but all other pathways (via groundwater, land or air) can be ruled out due to distance.

The *North-west Irish Sea* cSPA (candidate Special Protection Area) is located approx. 7.4 km east of the Site. It is a very large site that covers pelagic waters along the coasts of Dublin, Meath and Louth between the Liffey Estuary and Dundalk Bay; these waters are used by foraging and roosting birds associated with other SPAs in the region. Although there is superficially a surface water pathway between the Site and the cSPA, any pollutants would be diluted by the Boyne Estuary and the coastal waters of the Irish Sea before they could affect the qualifying interests of the cSPA, so this is not considered to be a feasible pathway. All other pathways (via groundwater, land or air) can be ruled out due to distance.

In summary, there are a number of potential pathways linking the Site and the *River Boyne and River Blackwater* SAC. Surface water pathways were also identified to two other European sites: the *Boyne Estuary* SPA and *Boyne Coast and Estuary SAC*.

4.5 Conclusion of Stage 1: Screening Statement

Section 3 of the OPR guidance (OPR 2021), states that the first stage of the AA process can have two possible conclusions:

- **No likelihood of significant effects.** Appropriate assessment is not required, and the planning application can proceed as normal. Documentation of the screening process including conclusions reached and the basis on which decisions were made must be kept on the planning file.
- **Significant effects cannot be excluded.** Appropriate assessment is required before permission can be granted. A Natura Impact Statement (NIS) will be required in order for the project to proceed.

The Site adjoins the *River Boyne and River Blackwater* SAC and a small section of the Site is within the SAC boundary (Section 4.2). However, none of the qualifying interests of the SAC are present within this overlapping section (Section 4.3), so the risk of direct effects can be ruled out.

There are a number of potential pathways between the Site and the *River Boyne and River Blackwater* SAC. Distant surface water pathways were also identified to two other sites: the *Boyne Estuary* SPA and the *Boyne Coast and Estuary* SAC. In the absence of mitigation measures, it is possible that pollutants generated during the construction of the proposed development could reach one or more of these European sites. Depending on the quantities of pollutants that reach the SAC, the possibility of significant effects cannot be excluded.

Therefore, we conclude that this application meets the second of the above conclusions, because significant effects on the *River Boyne and River Blackwater* SAC (and other downstream sites) from a potential pollution event during construction works cannot be ruled out. This is mainly because best-practice construction-phase pollution-prevention cannot be considered at

Stage 1: Screening. The assessment must proceed to Stage 2: Appropriate Assessment so that mitigation measures can be proposed.

5 ASSESSMENT OF LIKELY SIGNIFICANT EFFECTS

5.1 Direct Effects

The southern boundary of the Site adjoins the *River Boyne and River Blackwater* SAC and a small section of the Site is within the SAC boundary (refer to Section 4.2 and Figure 3). As described in Section 4.3, none of the qualifying interests of the SAC are present within the Site. Therefore, there is no risk of any direct effects (e.g. habitat loss, fragmentation) on the qualifying interests of the *River Boyne and River Blackwater* SAC.

5.2 Indirect Effects

5.2.1 Potential changes in water quality (construction phase)

The construction of the proposed development will involve a range of activities, including the demolition / removal of existing toilet block, walls and built surfaces, groundworks, the construction of new light structures, and works to roads / footpaths / public realm areas. These activities have potential to generate pollutants, including:

- Concrete and cement, which are composed of highly alkaline, corrosive fine sediments that are very harmful for aquatic fauna.
- Suspended silt or other sediments, which can reduce water quality, harm aquatic fauna, and/or alter the flow of watercourses.
- Hydrocarbons (oil, petrol, diesel, etc), solvents and other chemicals, which can be toxic to aquatic fauna.

Considering the proximity of the Site to the SAC, there is a risk that some of these pollutants could reach the *River Boyne and River Blackwater* SAC. A hypothetical assessment of potential pollution incidents is difficult, because any potential negative effects would vary depending on number of variables that cannot be predicted (e.g. the quantity of pollutant released, the time of year). Most small-scale pollution events within the Site would be contained at source and would never reach the river. Only a large-scale or persistent pollution event could reach the SAC.

Even if some pollutants could reach the estuary, it is considered highly unlikely that they would cause *likely significant effects* on the qualifying interests of the SAC, for the following reasons:

- The proposed works will be relatively minor (resurfacing, etc)
- The majority of works will be over 50 metres from the river
- The adjoining section of the estuary is of relatively low importance for the SAC's qualifying interests (refer to Section 6)
- Estuaries generally have a substrate of fine sand or silt, so they are not affected by additional inputs of suspended sediment.

However, in accordance with the precautionary principle we consider it possible that a large-scale pollution incident could potentially have significant effects on the SAC. Mitigation measures will be necessary in order to avoid or reduce the potential negative effects of pollution incidents.

5.2.2 Potential changes in water quality (operational phase)

At present, surface water runoff from roofs and paved surfaces is collected in surface water drains and discharged to the Boyne Estuary. This will continue to be the case for the proposed development. Rainwater is free of pollutants and poses no risk of negative effects on the qualifying interests of the SAC.

A rainwater retention pond is proposed at the Medieval Wall Character Area, which will collect surface water runoff from hard surfaces to the north. During normal operation it will soak to ground in situ, but during periods of heavy rainfall it will overflow into a pipe that is connected to a nearby storm drain. As a result, the pond poses no risk of indirect effects on the SAC.

The proposed development will not generate any foul water.

5.2.3 Disturbance or displacement of fauna (operational phase)

The Site is frequented by pedestrians, dog walkers and motor vehicles. This will continue to be the case when the Project is complete, although there may be a slight increase in human activity. In this section we consider whether it could disturb or displace the qualifying interests of any European sites.

The *River Boyne and River Blackwater* SAC was designated to protect three species: salmon, river lamprey and otter. Salmon and river lamprey are aquatic species that migrate through the Boyne Estuary. As the Project will not involve any in-stream works, it will not disturb or displace either species.

Otters are crepuscular / nocturnal, which means that they are most active from sunset to sunrise, and typically rest during the day. Most activity at the Site will be during daylight hours when otters are not present. Some events will take place at night, but otters are habituated to existing human activity at the Site, so these events would not disturb or displace them.

There are two SPAs in the surrounding area: the *Boyne Estuary* SPA is 2.2 km east, and the *River Boyne and River Blackwater* SPA is 2.6 km west. At both SPAs are located over 2 km from the Site, there is no risk that any birds within the SPA boundaries would be disturbed or displaced.

Some birds also use secondary habitats outside SPA boundaries (sometimes referred to as 'ex-situ' habitats), particularly playing fields and intensive agricultural land. The majority of the Site consists of artificial surfaces, which are unsuitable for any of these species. There is a narrow strip of grassland at the 'Medieval Wall Character Area', but it is too small, overgrown and subject to existing human disturbance to be used by any SPA species. Therefore, it can be concluded that the Site is unsuitable for any of the species associated with nearby SPAs.

5.2.4 Potential in-combination effects

Planning applications of relevance to this assessment were reviewed in Section 3.2, and three developments were noted.

- Planning reference 181056 granted permission for the construction of 41 apartments. At the time of writing it is under construction, and likely to be complete before the Project commences. As the developments will not be constructed concurrently, there is no risk that they could lead to in-combination effects.
- ABP planning reference 308224-20 granted permission for the refurbishment of St Dominick's Bridge. The project is now complete, so it poses no risk of in-combination effects.
- ABP planning reference 308226-20 granted permission for the for the refurbishment of Obelisk Bridge. At the time of writing in October 2023 it has recently commenced construction. As the bridge is located 4.1 km upstream of the Site, and it was accompanied by a Natura Impact Statement that included pollution-prevention measures, there is not considered to be any risk of in-combination effects.

In summary, no other plans or projects were identified that could potentially give rise to in-combination effects.

6 MITIGATION MEASURES

6.1.1 Engagement of an Ecological Clerk of Works

Some of the following mitigation measures will require specialist ecological expertise. Therefore, the construction contractor will employ an Ecological Clerk of Works (ECoW) to oversee the implementation of the mitigation measures outlined below. The ECoW will be required to provide reports and written correspondence to the Employers' Representative as requested, in order to demonstrate compliance with the measures outlined in this report.

All works must be carried out in accordance with the mitigation measures outlined in the pCEMP, the Environmental Impact Assessment Report (EIAR) and this Natura Impact Statement (NIS) and necessary planning conditions.

6.1.2 Pollution Prevention Measures (Construction phase)

The following mitigation measures have been designed to avoid or minimise any negative effects on water quality in the River Boyne and associated European sites by preventing fine sediments, concrete / cement, hydrocarbons or any other pollutants from reaching nearby drainage ditches or groundwater. All are standard pollution control measures that are regularly used on construction sites in Ireland, and confidence in their success is high. They have been developed with reference to the following guidelines:

- *Guidelines on protection of fisheries during construction works in and adjacent to waters* (Inland Fisheries Ireland, 2016)
- *Pollution prevention guidelines: PPG5 - works and maintenance in or near water* (UK Environment Alliance, 2007)

The implementation and monitoring of all mitigation measures will be the responsibility of the site foreman. Some tasks may be assigned to a qualified member of the construction team (e.g. an environmental manager), although it will be the responsibility of the foreman to ensure that the relevant personnel are sufficiently trained, competent and informed to carry out the tasks outlined here. Liability for any pollution incidents will be assigned to the foreman and their construction company.

The construction compound with set up as part of the initial preparation works in each work area. The site compound will not be located adjacent to or beside the *River Boyne and River Blackwater* SAC. It is proposed that the site compound will be positioned outside of a 50 metre buffer zone from the edge of the river bank. If necessary, this requirement can be secured by the implementation of a planning condition.

The proposal includes for the demolition of the toilet block at Georges Square, a section of wall between Father Connelly Way and Old Abbey Lane and a section of wall along the eastern boundary of Dominick Street car park, as demonstrated in the accompanying planning drawings LOUX3001-P-000-107-A, LOUX3001-P-000-108-A and LOUX3001-P-000-109-A]. All demolition will be undertaken

by a competent demolition contractor in accordance with the current code for demolition and the consultant engineer's specification down to below foundation level. All works will be undertaken in accordance with current best practice[2].

6.1.3 Concrete and cement

These products are highly toxic to fauna, particularly fish and other aquatic / marine species. On-site pouring and/or mixing of concrete or cement will be required during construction works, so the following measures will be implemented in order to retain all cement-based materials within the boundaries of the Site:

- Concrete pouring / mixing will only take place in dry weather conditions. It will be suspended if high-intensity local rainfall events are forecast (e.g. >10 mm/hr, >25 mm in a 24 hour period or high winds)
- If any on-site mixing of concrete is required, it will be carried out at least 50m from the Boyne Estuary. If any cement-based products will be stored on-site, they will be kept in a sheltered area at least 50m from the Boyne Estuary, and will be covered (e.g. with a thick plastic membrane) to prevent spread by wind
- Ready-mix lorries and larger plant will not be cleaned on-site; they will be taken to an appropriate off-site facility with capacity to capture and treat contaminated wash waters
- If any on-site cleaning of tools or concrete-batching plant is required, it will take place at least 50m from the Boyne Estuary. Wash waters will be discharged to a soakaway.

6.1.4 Suspended sediments

The term 'suspended sediments' refers to any silt, mud or other fine sediment that becomes dissolved in water. Water can be contaminated by suspended sediments (SS) from open earthworks and excavations (either from rainfall or groundwater seepage), from rainfall on soil/sediment stockpiles, or from the tyres / tracks of construction vehicles. In order to retain all contaminated waters within the boundary of the Site, the following measures will be implemented:

- Excavation works will be suspended if high intensity local rainfall events are forecast (e.g. >10 mm/hr, >25 mm in a 24 hour period, or high winds).
- If any excavations need to be dewatered, the SS-contaminated water will be retained and treated within the boundary of the Site. It will be collected and pumped into a settlement tank / pond (or similar feature), left undisturbed until sediments have settled, and then discharged via a buffered outflow to a soakaway that is at least 50m from the Boyne Estuary

[2] Best Practice Guidelines for the Preparation of Resource & Waste Management Plans for Construction & Demolition Projects.

- Stockpiles of mud, sand or other fine sediments will be stored at least 50m from the Boyne Estuary. Stockpiles will be levelled and compacted, and will be covered with thick plastic membranes in order to limit wind/rainwater erosion
- Dust suppression and road cleaning measures will be implemented, as outlined in Section 8 of the IFI guidelines.

6.1.5 Hydrocarbons and chemicals

Hydrocarbons (oil, petrol, diesel, etc) and solvents are toxic to fauna. These chemicals can enter surface water or groundwater if they are accidentally spilled (e.g. during re-fuelling of machinery), or from leaking containers. In order to retain such materials within the boundaries of the Site, the following measures will be applied throughout the construction works:

- Any fuel, oil or chemical containers will be kept at least 50m from the Boyne Estuary. These pollutants are hazardous and must be stored in a designated bunded area that has sufficient capacity to retain any spills
- All machinery should be protected from vandalism and unauthorised interference, and will be turned off and securely locked overnight
- If any on-site re-fuelling is required, it will take place at least 50m from the Boyne Estuary. Immobile plant will be refuelled over drip-trays
- While in operation, diesel pumps, generators or other similar equipment will be placed on drip trays to catch any leaks
- A spill kit will be kept on-site. If any spills occur, appropriate measures will be taken to intercept hydrocarbons or chemicals on-site before they can leave the Site.

7 CONCLUSION

In Stage 1 of the AA process, significant effects on the *River Boyne and River Blackwater* SAC from a potential pollution event during construction works could not be excluded. In response, a series of mitigation measures have been proposed for the construction phase of the project, to prevent pollutants reaching the Boyne Estuary in sufficient quantities to cause significant effects on the qualifying interests of this or any other European sites. During construction a site foreman will be appointed and will be responsible and liable for the implementation and monitoring of the proposed mitigation measures.

Subject to the implementation of these measures, it has been objectively concluded by NM Ecology Ltd that the proposed development will not adversely affect the integrity of any European site, either alone or in combination with other plans or projects, and there is no reasonable scientific doubt in relation to this conclusion.

This concludes Stage 2 of the AA process. Regulation 42(16) of the EC (Birds and Natural Habitats) Regulations 2011 (as amended) states that "*a public authority shall give consent for a plan or project, or undertake or adopt a plan or project, only after having determined that the plan or project shall not adversely affect the integrity of a European site*". The information presented in this NIS is sufficient for An Bórd Pleanála to reach this conclusion.

For ease of reference, information in this document has been summarised below in the 'Template Screening Form' from the OPR (2021) guidance. Full details are provided in the main body of this document.

STEP 1. Description of the project/proposal and local site characteristics:	
(a) File Reference No:	N.A.
(b) Brief description of the project or plan:	Public realm regeneration works on lands within the Westgate Vision Area of Drogheda
(c) Brief description of site characteristics:	Town centre adjoining Boyne Estuary
(d) Relevant prescribed bodies consulted: e.g. DHLGH (NPWS), EPA, OPW	N.A.
(e) Response to consultation:	N.A.

STEP 2. Identification of relevant Natura 2000 sites using Source-Pathway-Receptor model and compilation of information on Qualifying Interests and conservation objectives.				
European Site (code)	**List of Qualifying Interest/Special Conservation Interest[1]**	**Distance from proposed development[2] (km)**	**Connections (Source-Pathway-Receptor)**	**Considered further in screening Y/N**
River Boyne and River Blackwater SAC (site code 2299)	**Annex I habitats:** alkaline fens, alluvial forests **Annex II species:** river lamprey, salmon, otter	Partial overlap	Surface water, groundwater, land, air	Yes
Boyne Estuary SPA (4080)	**Key habitats:** coastal wetlands **Special Conservation Interests:** shelduck, oystercatcher, golden plover, grey plover, lapwing, knot, sanderling, black-tailed godwit, redshank, turnstone, little tern	2.2 km east	Surface water	Yes
River Boyne and River Blackwater SPA (4232)	**Special Conservation Interests:** kingfisher	2.6 km west	None	No

Boyne Coast and Estuary SAC (1957)	**Annex I habitats:** estuaries, mudflats / sandflats, Salicornia and other annuals colonising mud and sand, Atlantic salt meadows, embryonic shifting dunes, shifting dunes, fixed coastal dunes with herbaceous vegetation **Annex II species:** none	3.4 km east	Surface water	Yes
North-West Irish Sea cSPA* (4236)	**Key habitats:** off-shore waters **Special conservation interests:** Common Scoter, Red-throated Diver, Great Northern Diver, Fulmar, Manx Shearwater, Shag, Cormorant, Little Gull, Kittiwake, Black-headed Gull, Common Gull, Lesser Black-backed Gull, Herring Gull, Great Black-backed Gull, Little Tern, Roseate Tern, Common Tern, Arctic Tern, Puffin, Razorbill and Guillemot	7.4 km east	None	No

[1] Short paraphrasing and/or cross reference to NPWS is acceptable – it is not necessary to reproduce the full text on the QI/SCI.

[2] If the site or part thereof is within the European site or adjacent to the European site, state here.

STEP 3. Assessment of Likely Significant Effects	
(a) Identify all potential direct and indirect impacts that may have an effect on the conservation objectives of a European site, taking into account the size and scale of the project under the following headings:	
Impacts:	**Possible Significance of Impacts: (duration/magnitude etc.)**
Construction phase e.g. • Vegetation clearance • Demolition • Surface water runoff from soil excavation/infill/landscaping (including borrow pits) • Dust, noise, vibration • Lighting disturbance • Impact on groundwater/dewatering • Storage of excavated/construction materials • Access to site • Pests	Pollutants generated during construction works may reach the *River Boyne and River Blackwater* SAC. This is highly unlikely to occur, but under the precautionary principle it cannot be excluded. All other potential effects can be ruled out.
Operational phase e.g. • Direct emission to air and water • Surface water runoff containing contaminant or sediment • Lighting disturbance • Noise/vibration • Changes to water/groundwater due to drainage or abstraction • Presence of people, vehicles and activities • Physical presence of structures (e.g. collision risks) • Potential for accidents or incidents	Rainwater runoff poses no risk to the qualifying interests of the SAC. The proposed development will not generate foul water. Increased human activity in the area will not affect the qualifying interests of the SAC or the special conservation interests of nearby SPAs (either in-situ or ex-situ).
In-combination/Other	No developments were identified that could potentially give rise to in-combination effects.

(b) Describe any likely changes to the European site:	
Examples of the type of changes to give consideration to include: • Reduction or fragmentation of habitat area • Disturbance to QI species • Habitat or species fragmentation	Potential temporary reduction in water quality during construction work

• Reduction or fragmentation in species density • Changes in key indicators of conservation status value (water or air quality etc.) • Changes to areas of sensitivity or threats to QI • Interference with the key relationships that define the structure or ecological function of the site	

(c) Are *'mitigation'* measures necessary to reach a conclusion that likely significant effects can be ruled out at screening?	
☒ **Yes** ☐ **No**	

Step 4. Screening Determination Statement		
The assessment of significance of effects: Describe how the proposed development (alone or in-combination) is/is **not likely** to have **significant** effects on European site(s) in view of its conservation objectives.		
Potential pollution events during construction cannot be excluded		
Conclusion:		
	Tick as Appropriate:	**Recommendation:**
(i) It is clear that there is **no likelihood** of significant effects on a European site.	☐	The proposal can be screened out: Appropriate assessment not required.
(ii) It is **uncertain** whether the proposal will have a significant effect on a European site.	☒	☐ Request further information to complete screening ☒ Request NIS ☐ Refuse planning permission
(iii) **Significant effects** are likely.	☐	☐ Request NIS ☐ Refuse planning permission

8 REFERENCES

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