

PROPOSED RESIDENTIAL DEVELOPMENT

(PHASE 4) AT LINENFIELD,

BALLYMAKENNY ROAD,

DROGHEDA, CO. LOUTH

RECEIVED: 21/11/2025

NATURA IMPACT STATEMENT

OCTOBER 2025

Prepared for

Glenarch Holdings Ltd.

by

Biosphere Environmental Services

29 La Touche Park, Greystones, Co. Wicklow

Tel: 01-2875249 / 087-2309906; E-mail: maddenbio20@gmail.com



TABLE OF CONTENTS

1.	INTRODUCTION.....	3
1.1	Background.....	3
1.2	Statement of Authority.....	4
1.3	Regulatory Context.....	4
1.4	Stages of the Appropriate Assessment (AA).....	5
2.	SCREENING FOR APPROPRIATE ASSESSMENT	7
2.1	Location and Description of the Site	7
2.2	Description of the Project.....	10
2.3	Identification of European Sites with Potential for Significant Effects	12
2.4	Potential Impacts in the Absence of Mitigation	17
2.4.1	Direct impacts on habitats and/or species during construction and operational phases.....	17
2.4.2	Provision of ex-situ habitat.....	18
2.4.3	Potential indirect impacts by pollutants during construction phase.....	18
2.4.4	Potential impacts by water discharges during operational phase.....	20
2.5	AA Screening Concluding Statement.....	20
3.	NATURA IMPACT STATEMENT	22
3.1	Surface water management and pollution control – construction phase	22
3.2	Analysis of “In-combination” Effects	25
4.	CONCLUSION.....	26
5.	REFERENCES.....	27

1. INTRODUCTION

1.1 Background

This Appropriate Assessment Screening Report and Natura Impact Statement has been prepared by Dr. Brian Madden of BioSphere Environmental Services on behalf of Glenarch Holdings Limited. The purpose of the report is to provide the information required to assist the competent authority to undertake a Screening Assessment and, if considered necessary, an Appropriate Assessment (AA). The AA screening process will determine whether a proposed residential development at Linenfield, Ballymakenny Rpad, Drogheda, Co. Louth, either individually or in combination with other plans and projects, is likely to have a significant effect on European sites in view of best and objective scientific knowledge and of those sites' conservation objectives. The AA process will determine whether the Project will adversely affect the integrity of a European site in view of its conservation objectives,

Based on best available objective scientific knowledge, the potential effects on European sites, both as a result of the proposed Project and in-combination with other plans and projects, are appraised in this report.

The requirements for an Appropriate Assessment are set out under Article 6 of the EU Habitats Directive (92/34/EEC), transposed into Irish law through the European Union (Birds and Natural Habitats) Regulations 2011 as amended and the Planning and Development Act, 2000 (as amended).

The report is based on a site visit by Dr Brian Madden (11th September 2025), review of technical reports which accompany the planning application, and a comprehensive literature review.

During the preparation of this report, the following technical documents have been reviewed:

- Engineering Assessment Report. Proposed Residential Development at Linenfield, Ballymakenny Road, North Drogheda, Co. Louth (Phase 4). Prepared by Waterman Moylan Consulting Engineers, October 2025.
- Preliminary Construction & Waste Management Plan. Proposed Residential Development at Linenfield, Ballymakenny Road, North Drogheda, Co. Louth (Phase 4). Prepared by Waterman Moylan Consulting Engineers, October 2025.
- Flood Risk Assessment. Proposed Residential Development at Linenfield, Ballymakenny Road, North Drogheda, Co. Louth (Phase 4). Prepared by Waterman Moylan Consulting Engineers, October 2025.

Present planning application in context of overall Linenfield development lands

The subject site covers Construction Phase 4 of a larger residential development scheme on which lands measuring 6.16 ha were previously granted planning permission for a 204 No. residential development & crèche under Planning Reg. Ref. No. 08/368 and extended under Planning Reg. Ref. No. 18/635. A previous permission has been granted for the amendment of Construction Phase 1 under Reg. Ref 19/106 which sought to amend the layout of northern portion of the overall site and

increase the total number of dwellings from 204 No. to 205 No. On 9 November 2021, planning permission was granted by Louth County Council (LCC Reg. Ref. 21/1350) for amendments to a part (1.91 ha) of the wider development permitted under LCC Ref. 08/368.

On 23 October 2023, Louth County Council granted permission for Phase 2 of the Linenfield Development LCC Reg. Ref. 23346). This development consists of a development of 59 no. residential units on a site of 1.89 ha.

On 20 November 2023, Louth County Council granted permission for Phase 3 of the Linenfield Development (LCC Reg. Ref. 23347). This development consists of a development of 77 no. residential units on a site of 2.0 ha.

1.2 Statement of Authority

Brian Madden (BA. Mod. Hons., Ph.D., MCIEEM) qualified in Natural Sciences in the early 1980s and earned a doctorate degree from NUI in 1990 for research in peatland ecosystem processes. In the early 1990s, Brian worked as a Research Fellow on nuisance algal growths in Dublin Bay. Since the mid-1990s, Brian has managed BioSphere Environmental Services which specializes in Environmental Impact Assessment, Appropriate Assessment, and Nature Conservation related projects.

1.3 Regulatory Context

The Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora (as amended), better known as “The Habitats Directive”, provides the framework for legal protection for habitats and species of European importance. Articles 3 to 9 provide the legislative means to protect habitats and species of Community interest through the establishment and conservation of an EU-wide network of sites known as Natura 2000. These are Special Areas of Conservation (SACs) designated under the Habitats Directive and Special Protection Areas (SPAs) designated under the Conservation of Wild Birds Directive (2009/147/EC) (better known as “The Birds Directive”).

Article 6(3) and 6(4) of the Habitats Directive set out the decision-making tests for plans and projects likely to affect Natura 2000 sites (Annex 1.1). Article 6(3) establishes the requirement for Appropriate Assessment (see below).

“Any plan or project not directly connected with or necessary to the management of the [Natura 2000] site but likely to have a significant effect thereon, either individually or in combination with other plans and projects, shall be subjected to appropriate assessment of its implications for the site in view of the site’s conservation objectives. In light of the conclusions of the assessment of the implication for the site and subject to the provisions of paragraph 4, the 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

This provision has been implemented in the context of the planning code under article 177U and 177V of the Planning and Development Act, 2000, as amended.

The Habitats Directive promotes a hierarchy of avoidance, mitigation and compensatory measures. First the project should aim to avoid any adverse effects on European sites by identifying possible effects early in the planning stage, and designing the project in order to avoid such effects. Second, mitigation measures should be applied, if necessary, during the AA process to the point where no adverse effects on the integrity of site(s) remain. If the project is still likely to result in adverse effects, and no further practicable mitigation is possible, then it is rejected, unless in accordance with Article 6(4) of the Habitats Directive the project must be carried out for imperative reasons of overriding public interest ('IROPI test') and there are no alternative solutions. In such circumstances, compensation measures are required for any remaining adverse effect(s) in order to ensure that the overall coherence of Natura 2000 is protected.

1.4 Stages of the Appropriate Assessment (AA)

This Appropriate Assessment Report / Natura Impact Statement has been prepared in accordance with the following guidance:

- *Appropriate Assessment of Plans and Projects in Ireland*. Guidance for Planning Authorities. Department of the Environment, Heritage and Local Government, 2010 revision;
- *Managing Natura 2000 sites: The Provisions of Article 6 of the Habitats Directive 92/43/EEC*. Guidance issued by European Commission (21st November 2018).
- *Assessment of Plans and Projects in relation to Natura 2000 sites – (Revised) Methodological guidance on Article 6(3) and (4) of the Habitats Directive 92/43/EEC*. Guidance issued by European Commission (28.9.2021 C(2021) 6913 final)
- *ANNEX to the Commission notice to the Assessment of Plans and Projects in relation to Natura 2000 sites – (Revised) Methodological guidance on Article 6(3) and (4) of the Habitats Directive 92/43/EEC: Examples of Practices, Case Studies, Methods and National Guidance*. Issued by European Commission (28.9.2021 C(2021) 6913 final)
- OPR Practice Note PN01 Appropriate Assessment Screening for Development Management. March 2021.

There are up to four successive stages involved in the Appropriate Assessment process. The outcome at each stage determines whether the next stage in the process is required. The following describes each of the four stages:

Stage 1 – Screening

The purpose of the screening stage is to determine, in view of best scientific knowledge, whether a plan or project, individually or in-combination with other plans or projects, is likely to have a significant effect on a European site in view of the site's conservation objectives.

A Stage 2 AA is required if it cannot be excluded, on the basis of objective scientific information following screening, that the plan or project, individually or in combination with other plans or projects, will have a significant effect on a European site.

Stage 2 – Appropriate Assessment

A Stage Two AA determines whether the plan or project, individually or in-combination with other plans and projects, will adversely affect the integrity of a European site.

Stage 1 (Screening) is the process that addresses and records the reasoning and conclusions in relation to the first two tests of Article 6(3):

- o Whether a plan/project is directly connected to or necessary for the management of the site,
- o Whether a plan /project, alone or in combination with other plans and projects, is likely to have significant effects on a Natura 2000 site in view of its conservation objectives.

If the effects are deemed to be significant, potentially significant, or uncertain, or if the screening process becomes overly complicated, or includes mitigation measures for the purpose of avoiding or reducing adverse effects on an European Site, then the process requires a **Stage 2** Appropriate Assessment (AA), with preparation of a Natura Impact Statement (NIS). Screening is undertaken on the potential impact of the project, including the construction works. The greatest level of evidence and justification is needed in circumstances where the process ends at the screening stage on grounds of no potential impact on elements of conservation interest in the Natura 2000 site/s.

Stage 2. Appropriate Assessment considers whether the plan or project, alone or in combination with other projects or plans, will have an adverse effect on the integrity of a Natura 2000 site. Stage 2 requires preparation of a Natura Impact Statement. This is a scientific examination of the project and the relevant Natura 2000 sites, to identify any possible implications for the designated site in view of the site's conservation objectives, taking account of mitigation measures and cumulative effects arising from other projects undertaken in the catchment area, and should provide information to enable the competent authority to carry out a full assessment of the project impact on the Natura sites

Stage 3 – Assessment of Alternatives

This stage of the potential process arises where it is determined that a project would have an adverse effect on the integrity of a European site and examines alternative ways of achieving the objectives of the project or plan that avoid adverse effects on the integrity of the European site.

Stage 4 – Imperative Reasons of Overriding Public Interest (IROPI)

This is the derogation process of Article 6(4), which examines whether there are imperative reasons of overriding public interest [IROPI] for allowing a project to proceed where adverse effects on the

integrity of a European site have been predicted. Compensatory measures must be proposed and assessed as part of this stage.

2. SCREENING FOR APPROPRIATE ASSESSMENT

Screening determines whether appropriate assessment is necessary by examining:

1. Whether a plan or project can be excluded from AA requirements because it is directly connected with or necessary to the management of a Natura 2000 site;
2. Whether it is possible that the project may have a significant effect on a Natura 2000 site, either alone or in combination with other projects or plans, in view of the site's conservation objectives.

Screening involves the following:

- i. Description of plan or project;
- ii. Identification of relevant Natura 2000 sites, and compilation of information on their qualifying interests and conservation objectives;
- iii. Assessment of likely effects – direct, indirect and cumulative – undertaken on the basis of available information as a desk study or field survey or primary research as necessary;
- iv. Screening Statement with conclusions.

2.1 Location and Description of the Site

The application site is located to the east of the Ballymakenny Road within the northern outskirts of the Drogheda suburban area. It is within the townland of Yellowbatter. An outline of the site is shown in Figure 1.

The subject site is currently bounded to the north-east and east by Phase 1 of the Linenfield development, which has been completed. It is bounded to the east and south-east by Phase 2 and Phase 3, which are in various phases of construction. Existing factory buildings occur to the south/south-west of the site. The site is bounded to the west by the Ballymakenny Road.

The site includes the existing Morgan's Furniture Factory and associated buildings – these are classified as Buildings and artificial surfaces BL3 (after Fossitt 2000). The northern sector of the site comprises recent hardcore compounds (BL3) (see **Plate 1**). Bare or disturbed ground, including a large soil mound (now vegetated), occurs in the south-eastern part of the site – this area is classified as Disturbed ground (ED) (mosaic of Spoil and bare ground ED2, and Recolonising bare ground ED3 - see **Plate 2**). A remnant hedgerow (WL1) of blackthorn *Prunus spinosa*, hawthorn *Crataegus*

monogyna, sycamore *Acer pseudoplatanus* and elder *Sambucus nigra* mark the south-eastern boundary of the site.

The site falls from 39 m AOD at the western end to 33 m AOD at the eastern end.

The site is located within the River Boyne catchment. It was former agricultural land and naturally drained into field ditches, which flowed to the Beaulieu Stream, a tributary of the Boyne. This stream appears to rise several kilometres to the northwest (Liscorrey area). After passing to the east of the site, it flows beneath the railway line and continues in an east to southeast direction to enter the Boyne Estuary at Beaulieu (a channel distance of approximately 3 km). There is an existing ditch at the south of the site, which is diverted as part of the Phase 2 works and ultimately discharges to the Beaulieu Stream to the east.

Overall, the site can be described as being within the suburban fabric of Drogheda town and presently does not support any natural habitats.



Figure 1 Location of Linenfield Phase 4 study site.



Plate 1 View of northern sector of site showing recent hardcore surface, looking southwards, (September 2025).



Plate 2 The south-east sector of site comprises disturbed ground. Remnant hedge sections exist along part of boundary. Looking south-eastwards, (September 2025).

2.2 Description of the Project

Glenarch Holdings Limited intend to apply for Planning Permission for development at this site at Linenfield, to the east of the Ballymakenny Road, Drogheda, Co. Louth.

The proposed development comprises:

- The demolition of the existing industrial/warehouse structures on site (3,580 sq.m),
- The construction of 68 no. residential dwellings consisting of:
 - 2 no. 2-bedroom houses,
 - 52 no. 3-bedroom houses, and
 - 14 no. 4-bedroom houses.
- The provision of 2,130 sq.m of public open space.
- A new vehicular, pedestrian and cycle access junction with the Ballymakenny Road linking to the existing Linenfield Crescent Road serving the established Linenfield residential estate, and amendments to the alignment of the Old Ballymakenny Road including the closing of the existing junction with the Ballymakenny Road to the north of the proposed new junction.
- Landscaping works along the boundary with Ballymakenny Road including a mobility hub accommodating cycle and scooter parking.
- The provision of 138 no. ancillary car parking spaces
- All associated and ancillary infrastructure (including surface water and foul water drainage and water supply), internal streets, public lighting, landscaping, boundary treatments and development works.

Overview of proposed surface water drainage arrangement

The surface water drainage arrangements for the proposed development are detailed in the Engineering Assessment Report prepared by Waterman Moylan Consulting Engineers.

The greenfield runoff rate for the site has been calculated using the Institute of Hydrology report No 124 "Flood Estimation for Small Catchments" and is 4.4 l/s for the proposed Phase 4 site.

As per Louth County Council guidelines surface water should be managed in accordance with the Greater Dublin Strategic Drainage Study (GDSDS) Regional Drainage Policies Volume 6, for New Developments and CIRIA documents. These documents specify that surface water run-off should be managed as close to its source as possible. Sustainable Urban Drainage Systems (SUDS) have been developed and are in use to alleviate the detrimental effects of traditional urban storm water drainage practice that typically consisted of piping run-off of rainfall from developments to the nearest receiving watercourse. Surface water drainage methods that take account of quantity, quality and amenity issues are collectively referred to as SUDS. They are typically made up of one or more structures, built to manage surface water run-off. The use of SUDS to control run-off also provides the additional

benefit of reducing pollutants in the surface water by settling out suspended solids, and in some cases providing biological treatment.

A stormwater management or treatment train approach ensures that run-off quantity and quality is improved. The following objectives of the treatment train provide an integrated and balanced approach to help mitigate the changes in stormwater run-off flows that occur as land is urbanised and to help mitigate the impacts of stormwater quality on receiving systems:

- 1) Source control: conveyance and infiltration of run-off; and
- 2) Site Control: reduction in volume and rate of surface run-off, with some additional treatment provided.

The applicant has considered the use of all appropriate SUDS measures as part of the site SUDS strategy, and these comprise the following measures:

Permeable Pavements – to be utilised for public and private carparking to provide treatment and storage to rainwater falling on these surfaces

Attenuation Tank and Hydrobrake – an underground Stormtech attenuation tank and hydrobreak will be provided within Phase 4 to attenuate the surface water runoff before discharging it to the Phase 1 surface water network via a hydrobrake (which flows to the local Beaulieu stream).

Petrol Interceptor – to be installed upstream of the proposed attenuation tank in Phase 4.

It is proposed, in accordance, with the recommendations of the Greater Dublin Strategic Drainage Study, that the 1 in 100-year critical design storm plus an additional 20% for climate change will be used for storm water attenuation calculations.

It is noted that strict separation of surface water and waste water will be implemented within the development.

Overview of proposed foul water drainage arrangement

The existing Linenfield development drains by gravity to the east of the development and discharges to a foul water pumping station. Waste water from the foul pump station is then pumped to an existing 225mm gravity foul sewer located on Ballymakenny Road. This foul pumping station, as well as a rising main and gravity sewer along Ballymakenny Road, have been constructed as part of the Linenfield Development (Phase 1) to cater for Phase 1, 2 and 3.

The foul sewer along Ballymakenny Road discharges into a large diameter foul sewer at Ballymakenny College and ultimately outfalls to the Drogheda Wastewater Treatment Plant on Marsh Road.

It is proposed that foul water discharge from the proposed Phase 4 development will outfall into the existing foul drainage network within the adjacent already constructed Phase 1 Linenfield development. The proposed Phase 4 development will comprise 2 no. catchments with 2 no. outfall

points (one for the north and another for the south catchment). The existing foul rising main will also need to be diverted as part of the proposed development.

A pre-connection enquiry was submitted to Uisce Eireann in respect of the foul water connection from the proposed development. Uisce Eireann responded with a Confirmation of Feasibility (see Engineering Assessment Report, Appendix A). In summary, the letter states that the foul connection is feasible without any infrastructure upgrades.

The foul water will be treated at Drogheda Waste Water Treatment Plant on Marsh Road before discharging ultimately to the River Boyne.

2.3 Identification of European Sites with Potential for Significant Effects

In accordance with the European Commission Methodological Guidance (EC, 2002), consideration is given to European sites that could potentially be affected by the proposed project.

The “Guidance for Planning Authorities” (Department of Environment, Heritage and Local Government) notes the following in section 3.2.3 “Natura 2000 Sites”:

“The second stage (of the AA Screening process) is an examination of what Natura 2000 sites might be affected. These sites should be identified and listed, bearing in mind the potential for a plan or project, whether it is within or outside a Natura 2000 site, to have direct, indirect or cumulative effects, and taking a precautionary approach so that a site is included if doubt exists”.

The approach to screening is likely to differ somewhat between plans and projects, depending on scale and on the likely effects, but the following should be included:

1. *Any Natura 2000 sites within or adjacent to the plan or project area*
2. *Any Natura 2000 sites within the likely zone of impact of the plan or project. A distance of 15 km is currently recommended in the case of plans, and derives from UK guidance (Scott Wilson et al. 2006). For projects, the distance could be much less than 15 km, and in some cases less than 100 m, 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.*
3. *Natura 2000 sites that are more than 15 km from the plan or project area depending on the likely impacts and the sensitivities of the ecological receptors, bearing in mind the precautionary principle. In the case of sites with water dependent habitats or species, and a plan or project that could affect water quality or quantity, for example, it may be necessary to consider the full extent of the upstream and/or downstream catchment.”*

For the proposed application, the important attributes in considering the European sites that could be affected are as follows:

- The nature of the works, *i.e.* a residential development as part of a larger overall development plan much of which has been constructed or is under construction.
- The context and character of the site within the wider development area of Drogheda town.
- The location of the site within the catchment of the River Boyne.

Taking into account the above attributes, it is considered that the possibility for effects on European sites is limited to the series of sites associated with the River Boyne and its estuary (see Figure 2 & <http://webgis.npws.ie/npwsviewer/>). These are as follows and are described in Table 1.

- River Boyne and River Blackwater SAC (code 002299)
- Boyne Coast and Estuary SAC (code 001957)
- Boyne Estuary SPA (code 004080)
- North-west Irish Sea SPA (code 004236)

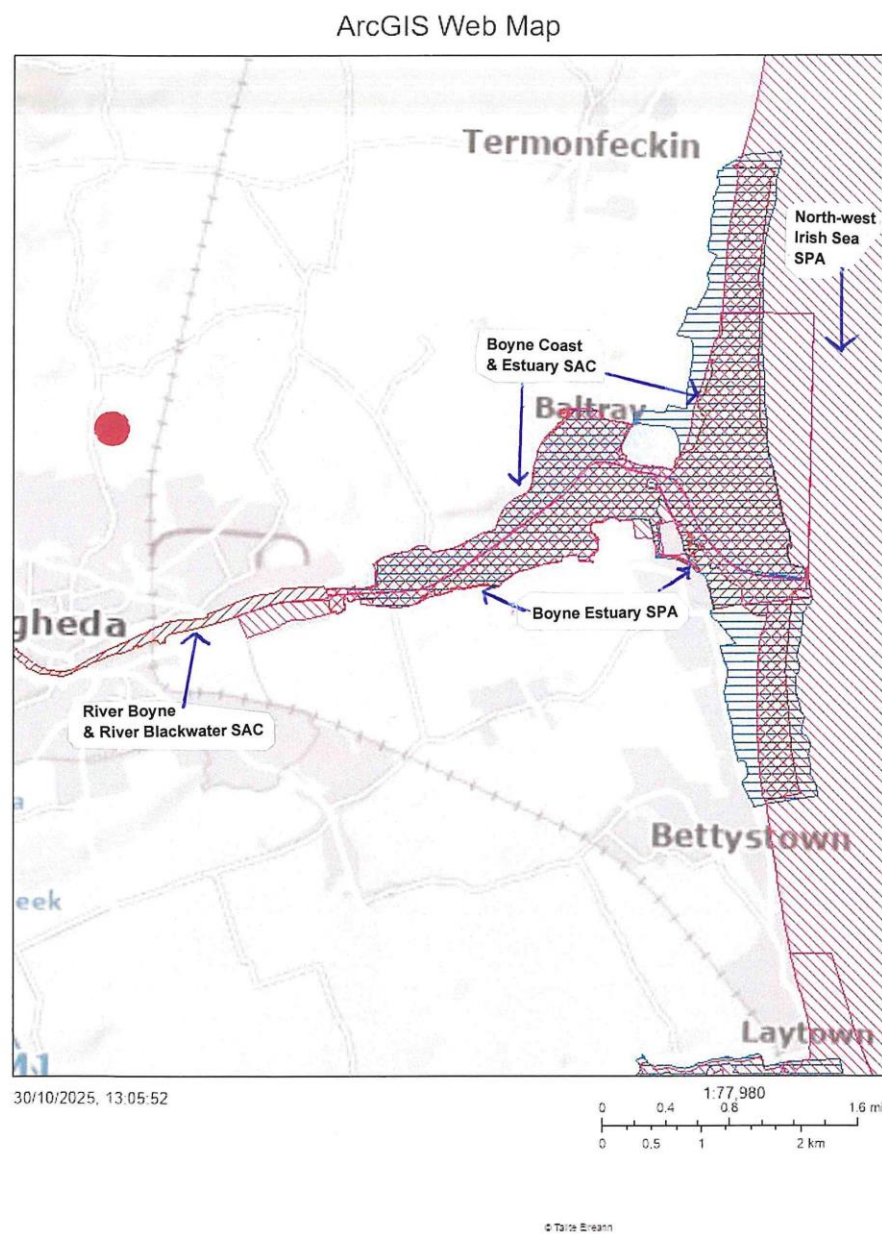


Figure 2. Location of Linenfield Phase 4 site (red dot) in relation to Special Areas of Conservation and Special Protection Areas.

Table 1. Relevant European sites, reasons for designation, distances from Project Area and summary of connectivity.

European Site	Reasons for designation (information correct as of 28 th October 2025) (*denotes a priority habitat)	Distance from Project Area and summary of connectivity
SPECIAL AREAS OF CONSERVATION		
River Boyne and River Blackwater SAC (site code: 002299)	Alkaline fens [7230] *Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (Alno-Padion, Alnion incanae, Salicion albae) [91E0] <i>Lampetra fluviatilis</i> (River Lamprey) [1099] <i>Salmo salar</i> (Salmon) [1106] <i>Lutra lutra</i> (Otter) [1355] According to this SAC's site Conservation Objectives document: River Boyne and River Blackwater SAC 002299, Version 1, 03 December 2021, Department of Housing, Local Government and Heritage), for each of the listed QIs, the Conservation Objective is to maintain the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected.	The application site is located approximately 2.5 km north of the SAC. There will be no loss of habitat or disturbance to the qualifying interests of this SAC site as a result of the proposed development. However, drainage from the application site area enters the River Boyne (via local watercourse) less than 1 km downstream of the eastern extremity of the SAC. As the river is tidal in this section, there is a theoretical hydrological linkage between the subject site and the River Boyne and River Blackwater SAC
Boyne Coast and Estuary SAC (site code: 001957)	Estuaries [1130] Mudflats and sandflats not covered by seawater at low tide [1140] Annual vegetation of drift lines [1210] Salicornia and other annuals colonising mud and sand [1310] Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>) [1330] Embryonic shifting dunes [2110] Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) [2120] *Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130] According to this SAC's site Conservation Objectives document: Boyne Coast and Estuary SAC 001957, Version 1, dated 31st October 2012, Department of Arts, Heritage and the Gaeltacht, for the listed QI, the Conservation Objective is to maintain the favourable conservation condition of the Annex I habitat or Annex II species for which the SAC has been selected.	The application site is located approximately 3 km north-west of the SAC. There will be no loss of habitat or disturbance to the qualifying interests of this SAC site as a result of the proposed development. However, drainage from the application site area enters the River Boyne and the SAC at Beaulieu. A hydrological linkage between the subject site and the Boyne Coast and Estuary SAC is identified.

European Site	Reasons for designation (information correct as of 28 th October 2025) (*denotes a priority habitat)	Distance from Project Area and summary of connectivity
SPECIAL PROTECTION AREAS		
Boyne Estuary SPA (site code: 004080)	Shelduck (<i>Tadorna tadorna</i>) [A048] Oystercatcher (<i>Haematopus ostralegus</i>) [A130] Golden Plover (<i>Pluvialis apricaria</i>) [A140] Grey Plover (<i>Pluvialis squatarola</i>) [A141] Lapwing (<i>Vanellus vanellus</i>) [A142] Knot (<i>Calidris canutus</i>) [A143] Sanderling (<i>Calidris alba</i>) [A144] Black-tailed Godwit (<i>Limosa limosa</i>) [A156] Redshank (<i>Tringa totanus</i>) [A162] Turnstone (<i>Arenaria interpres</i>) [A169] Little Tern (<i>Sterna albifrons</i>) [A195] Wetland and Waterbirds [A999] According to this SPA's site Conservation Objectives document: Boyne Estuary SPA 004080, Version 1, 26 Feb 2013, Department of Arts, Heritage and the Gaeltacht, for each of the listed SCIs, the Conservation Objective is to maintain the favourable conservation condition of the species and wetland habitat for which the SPA has been selected.	The application site is located approximately 3 km north-west of the SPA. There will be no loss of habitat or disturbance to the Special Conservation Interests of this SPA site as a result of the proposed development. The application site, which is a mix of built surfaces and disturbed ground, does not have potential to support any of the SCIs for which the SPA is listed. Drainage from the application site area enters the River Boyne and the SPA at Beaulieu. A hydrological linkage between the subject site and the Boyne Estuary SPA is identified.
North-west Irish Sea SPA (site code: 004080)	Red-throated Diver (<i>Gavia stellata</i>) [A001] Great Northern Diver (<i>Gavia immer</i>) [A003] Fulmar (<i>Fulmarus glacialis</i>) [A009] Manx Shearwater (<i>Puffinus puffinus</i>) [A013] Cormorant (<i>Phalacrocorax carbo</i>) [A017] Shag (<i>Phalacrocorax aristotelis</i>) [A018] Common Scoter (<i>Melanitta nigra</i>) [A065] Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179] Common Gull (<i>Larus canus</i>) [A182] Lesser Black-backed Gull (<i>Larus fuscus</i>) [A183] Herring Gull (<i>Larus argentatus</i>) [A184] Great Black-backed Gull (<i>Larus marinus</i>) [A187] Kittiwake (<i>Rissa tridactyla</i>) [A188] Roseate Tern (<i>Sterna dougallii</i>) [A192] Common Tern (<i>Sterna hirundo</i>) [A193] Arctic Tern (<i>Sterna paradisaea</i>) [A194] Guillemot (<i>Uria aalge</i>) [A199] Razorbill (<i>Alca torda</i>) [A200]	The application site is located approximately 7 km west of the SPA. There will be no loss of habitat or disturbance to the Special Conservation Interests of this SPA site as a result of the proposed development. The application site, which is a mix of built surfaces and disturbed ground, does not have potential to support any of the SCIs for which the SPA is listed. Drainage from the application site area enters the River Boyne and the SPA at Beaulieu. A hydrological linkage between the subject site and the waters of the SPA is identified.

European Site	Reasons for designation (information correct as of 28 th October 2025) (*denotes a priority habitat)	Distance from Project Area and summary of connectivity
	Puffin (<i>Fratercula arctica</i>) [A204] Little Gull (<i>Hydrocoloeus minutus</i>) [A862] Little Tern (<i>Sternula albifrons</i>) [A885] According to this SPA's site Conservation Objectives document: North-west Irish Sea SPA 0040236, Version 1, 19 Sept 2023, Department of Housing, Local Government and Heritage, for each of the listed SCIs, the Conservation Objective is to maintain the favourable conservation condition of the species and wetland habitat for which the SPA has been selected.	

2.4 Potential Impacts in the Absence of Mitigation

Impacts are considered in the context of the **Source-Pathway-Receptor (S-P-R)** conceptual model for environmental management risk assessment. This provides a systematic means of determining and evaluating the nature, effect and extent of exposure a vulnerable receptor may experience in relation to a particular hazard. For a risk to exist there must be a source (or hazard or pressure), a pathway, and a receptor (or target) (Daly, 2004). An environmental hazard is an event, or continuing process, which if realised will lead to circumstances having the potential to degrade, directly or indirectly, the quality of the environment (Royal Society, 1992). A pathway is a route by which a particle of water, substance or contaminant moves through the environment and comes into contact with, or otherwise, affects a receptor (Environment Agency, 2001).

2.4.1 Direct impacts on habitats and/or species during construction and operational phases

The site for the proposed residential development at Linenfield is separated from the four identified European sites associated with the River Boyne by (straight line) distances of between approximately 2.5 km and 7 km.

On this basis, it can be concluded with full scientific certainty that there could be no direct impacts, such as loss of habitat or physical disturbance of habitats or species, by the construction and/or operation phases of the proposed residential development on any European designated site.

2.4.2 Provision of ex-situ habitat

As described in section 2.1, the Proposed Development site is a brownfield site comprising buildings, hardcore surfaces and disturbed ground. Such habitats do not provide feeding or roosting potential for any of the wetland bird species associated with the Boyne Estuary SPA or the North-west Irish Sea SPA.

It can be concluded with full certainty that the Proposed Development site does not provide potential ex-situ habitat for any species associated with a European site.

2.4.3 Potential indirect impacts by pollutants during construction phase

Assessment of the hydrological environment allows Source-Pathway-Receptor linkages to be identified. If no S-P-R linkages are identified, then there is no risk to identified receptors.

As already noted, the natural drainage of the Linenfield site area is to a stream which discharges to the River Boyne estuary at Beaulieu – the channel distance from application site to the confluence with the Boyne is approximately 3 km.

During the Construction Phase, significant quantities of waste and potential pollutants can be generated. Potential sources for water pollution from the construction site to local drains and watercourses include:

- Suspended solids derived from soil excavation and movement within site.
- Run-off from wet cement surfaces which can result in alkaline water with high pH.
- Leakages and spillages of hydrocarbons

In the absence of mitigation, there is potential for pollutants emanating from the site to reach the River Boyne via the local watercourse (Beaulieu stream). It is concluded that a Pathway exists from Source (application site) to Receptor (European sites). The interests which could be affected adversely in each of the identified European sites (Table 1) are as follows:

River Boyne and River Blackwater SAC

In the absence of mitigation, the input of potential pollutants to the River Boyne could have potential adverse effects on the following qualifying interests of the SAC:

- Lampetra fluviatilis (River Lamprey) [1099]
- Salmo salar (Salmon) [1106]
- Lutra lutra (Otter) [1355]

While the confluence of the Beaulieu stream with the Boyne is downstream of the SAC, the river here is estuarine and contaminated water entering the system at Beaulieu could be pushed upstream on an incoming tide. Also, the three identified Annex II species would at times pass along the estuarine section of the river downstream of the SAC.

It is considered unlikely that pollutants entering the system would have any adverse impact on the other two qualifying interests of the SAC, namely alkaline fen and alluvial forest.

Boyne Coast and Estuary SAC

In the absence of mitigation, the input of potential pollutants to the River Boyne could have potential adverse effects on the following qualifying interests of the SAC:

- Estuaries [1130]
- Mudflats and sandflats not covered by seawater at low tide [1140]
- Salicornia and other annuals colonising mud and sand [1310]
- Atlantic salt meadows (*Glauco-Puccinellietalia maritima*) [1330]

It is considered unlikely that input of potential pollutants to the system could have any effect on the other qualifying interests for this SAC (various types of sand dunes) as all are above the level of high tide.

Boyne Estuary SPA

In the absence of mitigation, the input of potential pollutants to the Boyne Estuary SPA could have potential effects on the following Special Conservation Interests of the SPA:

- Shelduck (*Tadorna tadorna*) [A048]
- Oystercatcher (*Haematopus ostralegus*) [A130]
- Golden Plover (*Pluvialis apricaria*) [A140]
- Grey Plover (*Pluvialis squatarola*) [A141]
- Lapwing (*Vanellus vanellus*) [A142]
- Knot (*Calidris canutus*) [A143]
- Sanderling (*Calidris alba*) [A144]
- Black-tailed Godwit (*Limosa limosa*) [A156]
- Redshank (*Tringa totanus*) [A162]
- Turnstone (*Arenaria interpres*) [A169]
- Little Tern (*Sterna albifrons*) [A195]

The qualifying interest, A999 Wetlands, could also be potentially affected.

North-west Irish Sea SPA

The Special Conservation Interests of the SPA are species which frequent shallow marine waters, including divers, sea duck, seabirds, gulls and terns. In the absence of mitigation, substances carried from the site to the Boyne Estuary via the Beaulieu Stream would then need to be carried another 4 km (approx.) to the mouth of the estuary. There would then be enormous dilution and mixing with the marine waters. With such a long hydrological pathway, and then dilution with marine waters, it is considered that any substances, such as suspended solids, carried to the SPA from the site would not have potential to have significant adverse effects on any of the Special Conservation Interests of the SPA.

In the absence of mitigation, it is considered that the conservation objectives of the qualifying interests/special conservation interests for three of the above listed European sites (River Boyne and Blackwater SAC, Boyne Estuary and Coast SAC, Boyne Estuary SPA), could potentially be affected, as a Pathway exists between Source and Receptor. The significance of potential effects would be dependent on the magnitude and duration of the pollution event, as well as local currents and tidal states at the time of the event.

2.4.4 Potential impacts by water discharges during operational phase

As described in section 2.2 of this report, Louth County Council guidelines require that surface water will be managed in accordance with the Greater Dublin Strategic Drainage Study (GDSDS), which includes the incorporation of Sustainable Urban Drainage Systems (SUDS) into the design.

For the application site, the surface water will drain into an attenuation tank located within the Phase 4 site. The attenuated water will then be discharged to the Phase 1 surface water network via a hydrobrake. The water will flow towards the Beaulieu Stream via local drains and will eventually discharge to the River Boyne at Beaulieu.

It is noted that strict separation of surface water and waste water will be implemented within the development.

Foul water will be carried via an existing pipe network to the Drogheda Waste Water Treatment Plant on Marsh Road before discharging ultimately to the River Boyne. Irish Water have confirmed that the WWTP has capacity to treat the foul water generated by the proposed development.

It is considered that the surface and foul water design arrangements for the proposed project will ensure that contaminated water does not leave the site and will not result in potential for significant adverse effects on any of the qualifying interests of the three European sites associated with the River Boyne.

2.5 AA Screening Concluding Statement

It is concluded that for three identified European sites associated with the River Boyne, namely River Boyne and Blackwater SAC, Boyne Estuary and Coast SAC, and Boyne Estuary SPA, there is potential for contaminated water emanating from the application site to enter local watercourses and ultimately the aquatic and intertidal environments of these sites during the construction phase of the proposed development.

As the conservation objectives of the three identified European sites potentially could be affected adversely, measures are required to avoid or reduce harmful effects of the proposed project, *i.e.* mitigation measures. As a result, it is respectfully submitted that the competent authority should carry out an

Appropriate Assessment (AA) in respect of the proposed Project. A Natura Impact Statement has been prepared to assist with the AA.

For one further site within the identified zone of influence, the North-west Irish Sea SPA, it is concluded beyond reasonable scientific doubt, and in view of the best available scientific knowledge, that there is no potential for likely significant effects on the conservation objectives of the site as a result of the proposed Project. Accordingly, it is concluded that no further assessment is required for this site and that it can be 'screened-out'.

It is noted that measures intended to avoid or reduce the harmful effects of the Proposed Development on European sites, *i.e.* "mitigation measures", have not been taken into account in this screening stage appraisal.

3. NATURA IMPACT STATEMENT

The report on screening for Appropriate Assessment presented in Section 2 of this report concludes that potential effects on three identified European sites may arise as a result of the proposed development during the construction phase of the development.

Surface and storm water drainage from the area of the application site is to a local watercourse (Beaulieu Stream) which discharges direct to the River Boyne estuarine channel.

During the Construction Phase, potential sources for water pollution from the construction site to local drains and watercourses include:

- Suspended solids derived from soil excavation and movement within site.
- Run-off from wet cement surfaces which can result in alkaline water with high pH.
- Leakages and spillages of hydrocarbons.

For this project, a hydrological pathway from the proposed development site to the following European sites has been identified. The sites are:

River Boyne and River Blackwater SAC

Boyne Coast and Estuary SAC

Boyne Estuary SPA

In the absence of mitigation during the construction phase, the input of potential pollutants to the aquatic environments of these sites could have potential effects on the various qualifying interests and Special Conservation Interests of these sites (as discussed in section 2.4.2).

Mitigation measures will be implemented during the construction phase of the development to avoid or reduce potential harmful effects on the relevant interests of these European sites.

3.1 Surface water management and pollution control – construction phase

All works carried out as part of the construction works will comply with all Statutory Legislation including the Local Government (Water Pollution) Acts, 1977 to 2007.

The Preliminary Construction & Waste Management Plan prepared by Waterman Moylan Consulting Engineers (specifically Section 11 Erosion and Sediment Control) outlines measures which will be in force for the duration of the construction phase to ensure protection of surface waterbodies and the control of potential pollutants generated on site – while this sets out the primary construction and management strategy the Contractor will prepare a final Construction & Waste Management Plan to build upon the preliminary plan and the Plan will remain a live document and will be subject to updates as necessary for

the duration of the project. A Construction Environmental Management Plan (CEMP) will also be prepared by the Contractor (see section 5 of accompanying Preliminary Construction & Waste Management Plan).

A main purpose of the Plans is to ensure that storm water and wastewater runoff is managed and that there is no off-site environmental impact caused by overland storm water flows.

The following measures will be put in place by the Contractor during the construction phase to ensure protection of surface waterbodies. These measures are in compliance with the following relevant CIRIA guidance documents:

- Control of Water Pollution from Construction Sites, Guidance for consultants and contractors (C532) (2001); and
- Environmental Good Practice on Site Guide (4th edition, 2015) (C741).

Stripping of topsoil and excavations

Site development works will include stripping of topsoil and excavation of subsoil layers. These activities will be carried out in a controlled and carefully managed way and coordinated with the proposed staging for the development. The following measures will be implemented:

- At any given time, the extent of topsoil strip (and consequent exposure of subsoil) will be limited to the immediate vicinity of active work areas
- Topsoil stockpiles will be protected for the duration of the works and not located in areas where sediment laden runoff may enter existing surface water drains – a minimum distance of 10 m will be maintained from drains and ditches
- Topsoil stockpiles will also be located so as not to necessitate double handling
- The duration that subsoil layers are exposed to the effects of weather will be minimized
- Disturbed subsoil layers will be stabilized as soon as practicable (e.g. backfill of drainage trench excavations)
- Stockpiles of excavated subsoil material will be protected for the duration of the works, stockpiles of subsoil material will be located separately from topsoil stockpiles
- Typical seasonal weather variations will be taken account of when planning stripping of topsoil and excavations with an objective of minimizing soil erosion

Management of suspended solids in run-off

Any temporary storage of spoil, hardcore, crushed concrete or similar material will be located as far as possible from surface water drains and also stored in receptacles where possible. In order to minimise the risk of contamination, the stockpiled material will be removed off-site as soon as possible. Surface water drain gratings in areas near or close to where stockpiles are located will be covered by appropriate durable polyurethane covers or similar.

It is imperative that sediment control measures are installed *before* any major works commence on site.

There will be no direct pumping of silt-laden water from the works to any watercourse or drain. All water from excavations must be treated by infiltration over lands or via sediment retention ponds, silt fencing, straw bales etc. It is imperative that all waters discharged from the site will have been treated beforehand to remove contaminants.

Concrete run-off

- Concrete batching will take place off site, wash down and wash out of concrete trucks will take place off site and any excess concrete is not to be disposed of on site
- Pumped concrete will be monitored to ensure there is no accidental discharge
- Mixer washings are not to be discharged into surface water drains

Accidental spills and leaks

- All oils, fuels and other chemicals will be stored in a secure bunded hardstand area
- Refuelling and servicing of construction machinery will take place in a designated hardstand area which is also remote from any surface water inlets (where not possible carry out such activities off site)
- A response procedure will be put in place to deal with any accidental pollution events and spillage kits will be available and construction staff will be familiar with the emergency procedures and use of the equipment

Monitoring

In addition to vigilance on a daily basis to ensure that all environmental planning conditions are being adhered to, designated weekly checks will be carried out on site by relevant personnel to ensure that the surface water drains etc. are operating efficiently and that all dirty water is being treated appropriately prior to discharge from site.

A written log of site inspections will be maintained by the Environmental Officer, and any significant spill incidents will be recorded for root cause investigation purposes and updating procedures to ensure incidents do not re-occur.

Overview

With best practice construction methods adhered to during the construction phase, it is considered that the risk of contaminated water emanating from the application site and discharging to local drains and watercourses, and ultimately to the River Boyne and the associated European sites, is not significant.

3.2 Analysis of “In-combination” Effects

The Habitats Directive requires competent authorities to make an appropriate assessment of any plan or project which is likely to have a significant effect alone or in-combination with other plans and projects.

The present assessment has considered the possibility for effects by the proposed Linenfield Phase 4 residential development at Drogheda on designated European sites.

As already noted (section 1.1) the application subject site covers Phase 4 of the larger Linenfield residential development scheme on which lands were initially granted planning permission for a 204 No. residential development & crèche under Planning Reg. Ref. No. 08/368 and extended under Planning Reg. Ref. No. 18/635. A previous permission has been granted for the amendment of Construction Phase 1 under Reg. Ref 19/106 which sought to amend the layout of northern portion of the overall site and increase the total number of dwellings from 204 No. to 205 No. On 9 November 2021, planning permission was granted by Louth County Council (LCC Reg. Ref. 21/1350) for amendments to a part (1.91 ha) of the wider development permitted under LCC Ref. 08/368. On 23 October 2023, Louth County Council granted permission for Phase 2 of the Linenfield Development LCC Reg. Ref. 23346). This development consists of a development of 59 no. residential units on a site of 1.89 ha. On 20 November 2023, Louth County Council granted permission for Phase 3 of the Linenfield Development (LCC Reg. Ref. 23347). This development consists of a development of 77 no. residential units on a site of 2.0 ha.

Of particular relevance to Phase 4 is that the surface water drainage scheme is fully in place for the overall development.

A residential development on the lands immediately to the south of the overall Linenfield development was permitted under LCC Reg. Ref 18/274 and comprises 599 no. units. The appropriate period of this planning permission was extended to 13 November 2023 under LCC Ref. 18/872,

Residential developments have also been permitted on lands to the east of the application site (LCC Reg. Ref 08/70) and lands to the west (LCC Reg. Ref. 18/539, LCC Reg. Ref. 18/540 & LCC Reg. Ref. 18/641).

All of these primarily residential developments have been permitted in the context of the North Drogheda Environs Local Area Plan and Masterplan (2006), which provided for an area of 254 ha located c.2 km north of Drogheda town centre. The LAP area is bounded to the north by the Port Access Northern Cross Route (PANCR), which will connect the lands with the R132 to the west and the R166 to the east.

The various permitted developments, which are either complete or in various stages of construction, have been subject to rigorous assessment by the competent planning authorities for potential effects on the environment and particularly for significant environmental impacts on European sites (which are described in Section 8.3 of the Louth County Development Plan 2021-2027).

On the basis that all of the various developments as referred to above have been planned in the context of an overall Masterplan for North Drogheda, and each has been individually evaluated by the planning

authority, it is considered that the present Phase 4 application site, which is an integral part of the permitted overall Linenfield project, will not result in a significant in-combination effect on the integrity of the designated sites associated with the River Boyne.

Overall, are in-combination effects during the construction and operation phases of the proposed project are considered to be not significant.

4. CONCLUSION

This Natura Impact Statement has considered the potential effects of the proposed Phase 4 residential project at a site at Linenfield, North Drogheda on the integrity of relevant European sites (all associated with the River Boyne system).

For the reasons set out in detail in this NIS, in the light of the best scientific knowledge in the field, all aspects of the proposed Project, by itself or in combination with other plans or projects, which may affect the relevant European Sites have been considered.

The NIS contains information that Louth County Council, as competent authority, may consider in making its own complete, precise and definitive findings and conclusions as to the effects of the proposed Project. It is respectfully submitted that the information contained in this NIS is such that the competent authority will be capable of determining that all reasonable scientific doubt has been removed as to any adverse effects of the proposed Project on the integrity of the relevant European sites.

In conclusion, on the basis of the assessment set out in this NIS, it is respectfully submitted that the competent authority is able to determine that no reasonable scientific doubt remains that the proposed Project will not adversely affect the integrity of any European site, in view of the conservation objectives of that site.

5. REFERENCES

Daly, D. (2004), Groundwater at Risk in Ireland - Putting Geoscientific Information and Maps at the Core of Land Use and Environmental Decision-making, John Jackson Memorial Lecture, Royal Dublin Society, November 2004

Department of Environment, Heritage and Local Government (2009). Appropriate Assessment of Plans and Projects in Ireland. Guidance for Planning Authorities.

Department of the Housing, Local Government and Heritage (2025). Protected sites - listings and maps. See www.npws.ie

European Commission (2013). *Interpretation Manual of European Union Habitats*. Version Eur 28.

Environment Agency (2001), Guide to Good Practice for the Development of Conceptual Models and the Selection and Application of Mathematical Models of Contaminant Transport Processes in the Subsurface. Environment Agency National Groundwater and Contaminated Land Centre Report, Solihull, UK.

Royal Society (1992) Risk: Analysis, Perception and Management. The Royal Society, London (ISBN 0-85403-467-6).