AA Screening and Natura Impact Statement – proposed development at Jamesbrook, Saleen, Co. Cork.

Limosa Environmental
ecological & environmental consultancy

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Limosa Environmental (2026) AA Screening and Natura Impact Statement – proposed development at Jamesbrook, Saleen, Co. Cork. May 2026.

Front cover photo: Photo of Saleen Creek (also known as Poulnabibe Inlet), Cork Harbour (Limosa Environmental)

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1. Introduction and background

Limosa Environmental was commissioned to provide information to inform Appropriate Assessment (AA) Screening and Natura Impact Assessment for a proposed development at Jamesbrook, Saleen, Co. Cork.

The obligation to undertake Appropriate Assessment arises from Articles 6 (3) and (4) of European Union (EU) Council Directive 92/43/EEC ('Habitats Directive') and transposed into Irish law by the European Communities (Birds and Natural Habitats) Regulations S.I. No 477 of 2011; as amended by European Communities (Birds and Natural Habitats) Regulations 2011-2021. Screening is the first stage of an Appropriate Assessment (AA) and aims to establish whether a proposed plan or project (in this case a project) either alone or in combination with other plans or projects, could have significant negative effects on a Natura 2000 site (also known as a European site) in view of the site's conservation objectives. At Stage 2 (Appropriate Assessment), the impact of a project or plan alone and in combination with other projects or plans on the integrity of the Natura 2000 site is considered with respect to the conservation objectives of the site and to its structure and function (DoEHLG, 2009).

Natura 2000 sites ('European sites') are Special Areas of Conservation (SACs) designated under the EU Habitats Directive,[1] and Special Protection Areas (SPAs), designated under the EU Birds Directive.[2] As signatories to these Directives, Ireland like other EU Member states, has designated prime areas of ecological importance as SACs and SPAs and these are part of a network of sites of 'community importance' for biodiversity across the EU called the 'Natura 2000' network.

The proposed site lies close to Cork Harbour Special Protection Area (SPA Site Code 4030) and within the screening zone of Great Island Channel Special Area of Conservation (SAC site code 001058). On account of the proposed project's location, and in accordance with legislative requirements (Articles 6 (3) and (4) of European Union (EU) Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora, a *Habitats Directive Screening Statement* and if necessary, a *Natura Impact Statement,* should be prepared to assess the potential for impacts upon these Natura 2000 sites.

2. Methodology

2.1 Appropriate Assessment methodology

There are 4 stages in an Appropriate Assessment as outlined in the European Commission Guidance document (EU Commission, 2001) (Table 1, Figure 1). The following is a brief summary of these steps.

Stage 1 - Screening: This stage examines the likely effects of a project/plan either alone or in combination with other projects/plan upon a Natura 2000 site and considers whether it can be

[1] Council Directive 92/43/EEC on the conservation of natural habitats and wild flora and fauna, as amended by Council Directive 97/62/EC. The Directive was transposed into Irish law by the European Communities (Natural Habitats) Regulations 2011, amended and later consolidated by the European Communities (Birds and Natural Habitats) Regulations 2011 – 2021.

[2] Directive 2009/147/EC (Birds Directive) on the conservation of wild birds (the codified version of Council Directive 79/409/EEC as amended).

objectively concluded that these effects will not be significant. The assessment of significance is carried out in consultation with the relevant nature conservation agencies.

Table 1. Steps for the undertaking of AA Screening

Step One	*Determination of whether the plan or project is directly connected with the necessary management of the Natura 2000 site.*
Step Two	*Description of the proposed project/plan and the description of other plans/projects that in combination have the potential to have significant effects on a Natura 2000 site.*
Step Three	*Characteristics of the site. Identification of relevant Natura 2000 sites, and compilation of information on their qualifying interests and conservation objectives. Identification of the potential effects upon a Natura 2000 site and characterisation of the site as a whole to identify where impacts are most likely to fall.*
Step Four	*Assessment of the significance of effects on the Natura 2000 site.* *If the effects are deemed to be significant then the process must pass to Stage 2 – Appropriate Assessment.*

Stage 2 - Appropriate Assessment: In this stage, the impact of the project on the integrity of the Natura 2000 site is considered with respect to the conservation objectives in place for site.

Stage 3 - Assessment of Alternative Solutions: Should the Appropriate Assessment determine that adverse impacts are likely upon a Natura 2000 site, this stage examines alternative ways of implementing the project that, where possible, avoid these adverse impacts.

In the absence of any reasonable alternatives for a project/plan that would be less damaging to the integrity of a Natura 2000 site, it is then necessary to proceed to Stage 4.

Stage 4 - Where imperative reasons of overriding public interest (IROPI) exist, an assessment to consider whether compensatory measures will or will not effectively offset the damage to the Natura site will be necessary.

The statutory agency responsible for designated areas in Ireland is the National Parks & Wildlife Service of the Department of Housing, Local Government and Heritage.

Figure 1. Summary of AA process (Source: DoEHLG, 2009).

2.2 Assessment methodology

- **Identification of Natura 2000 sites**

The proximity of subject sites to Natura 2000 sites is of importance when identifying potential impacts. The zone of influence (ZoI) i.e. the area over which impacts can occur, varies from project to project based on a range of factors including development type, scale, size and location. Irish guidance (DoEHLG, 2009) states '*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.*' The ZoI is identified using the Source-Pathway-Receptor model (S-P-R model), where:

- A 'source' is defined as the individual element of the project that has the potential to impact on a European site, its qualifying features, and its conservation objectives,
- A 'pathway' is defined as the means or route by which a source can affect the ecological receptor; and
- A 'receptor' is defined as the Special Conservation Interest (SCI) of a SPA or a Qualifying Interest (QI) of a SAC for which conservation objectives have been set for the European site(s) being assessed.

In the case of the current proposed project, a 15 km radius was used as a starting point and connectivity to Natura 2000 sites was identified thereafter using the S-P-R model described above.

- **Desk top Study**

The study included a review of published literature pertaining to the ecology of the site and surrounding area of Cork Harbour. The areas were viewed using Google Earth, Google maps[3] and Bing maps.[4] EPA mapping was used to identify the main inland surface waters (e.g. rivers, streams, canals, lakes and reservoirs) within the wider study area. The National Parks and Wildlife Service (NPWS) and National Biodiversity Data Centre (NBDC) online databases were reviewed concerning sites, habitats and ecological features of interest within the site and wider study area. Other sources of information included the Cork County Development Plan 2022–2028.

- **Consultation**

Written consultation (by email) was made with the National Parks and Wildlife Service (NPWS) Development Applications Unit.

- **Winter bird surveys**

Winter bird surveys were undertaken on the 30th January, 12th February, 20th February and 14th March 2026. The aim of the surveys was to assess whether wintering waterbirds, associated with the nearby Cork Harbour, use the subject site, or the adjacent large stubble field which lies to the east, for foraging (i.e. an *ex situ* foraging site). In addition to waterbirds, all passerine species were also recorded. As part of these surveys, wintering waterbirds within the nearby Saleen Creek were recorded and their positions noted; the extent of the survey area is shown in Figure 2.

During the visits, the field observer viewed the study area from suitable vantage points and recorded all bird species observed or heard. The observations were recorded onto a field map (aerial photo) using the species code (two letter system developed by the British Trust for Ornithology (BTO)). Birds flying over and obviously not interacting with the site were recorded separately but the direction of flight was noted. Fieldwork was completed in suitable weather conditions (dry, light winds).

[3] https://www.google.com/maps
[4] https://www.bing.com/maps/

Figure 2. Extent of area surveyed for usage by wintering birds shown by yellow line.

- **Habitat and mammal survey**

A habitat survey was undertaken on the 12th March 2026. This survey identified, classified and mapped habitats within the proposed site according to *'A guide to habitats in Ireland'* (Fossitt, 2000). Particular attention was paid in identifying the presence of Invasive Alien Species (IAS) e.g. Japanese Knotweed (*Fallopia japonica*). The survey recorded the signs of mammals, and other fauna, where present. In addition, signs of mammals were recorded on each of the bird survey days.

- **Aquatic survey (stream)**

Aquatic surveys were conducted on the 29th March 2026 by Derick Bora of Triturus Environmental Ltd (Figure 3). Survey effort focused on both instream and riparian habitats at each aquatic sampling location and included a fisheries assessment (fisheries habitat appraisal), macrophyte and aquatic bryophyte survey and biological water quality sampling (Q-sampling). This holistic approach informed the overall aquatic ecological evaluation of the watercourse in the context of the proposed development, to best inform mitigation.

In addition to the ecological characteristics of the site, a broad aquatic and riparian habitat assessment was conducted utilising elements of the methodology given in the Environment Agency's 'River Habitat Survey in Britain and Ireland Field Survey Guidance Manual 2003' (EA, 2003) and the Irish Heritage Council's 'A Guide to Habitats in Ireland' (Fossitt, 2000). This broad characterisation helped define the watercourses' conformity or departure from naturalness. The survey site was assessed in terms of:

- Physical watercourse/waterbody characteristics (i.e. width, depth, channel form), including associated evidence of historical drainage,
- Substrate type and relative condition, listing substrate fractions in order of dominance (i.e. bedrock, boulder, cobble, gravel, sand, silt, etc.),
- Flow type by proportion of riffle, glide and pool in the sampling area,
- An appraisal of the macrophyte and aquatic bryophyte community at each site,
- Riparian vegetation composition and bordering land use practices.

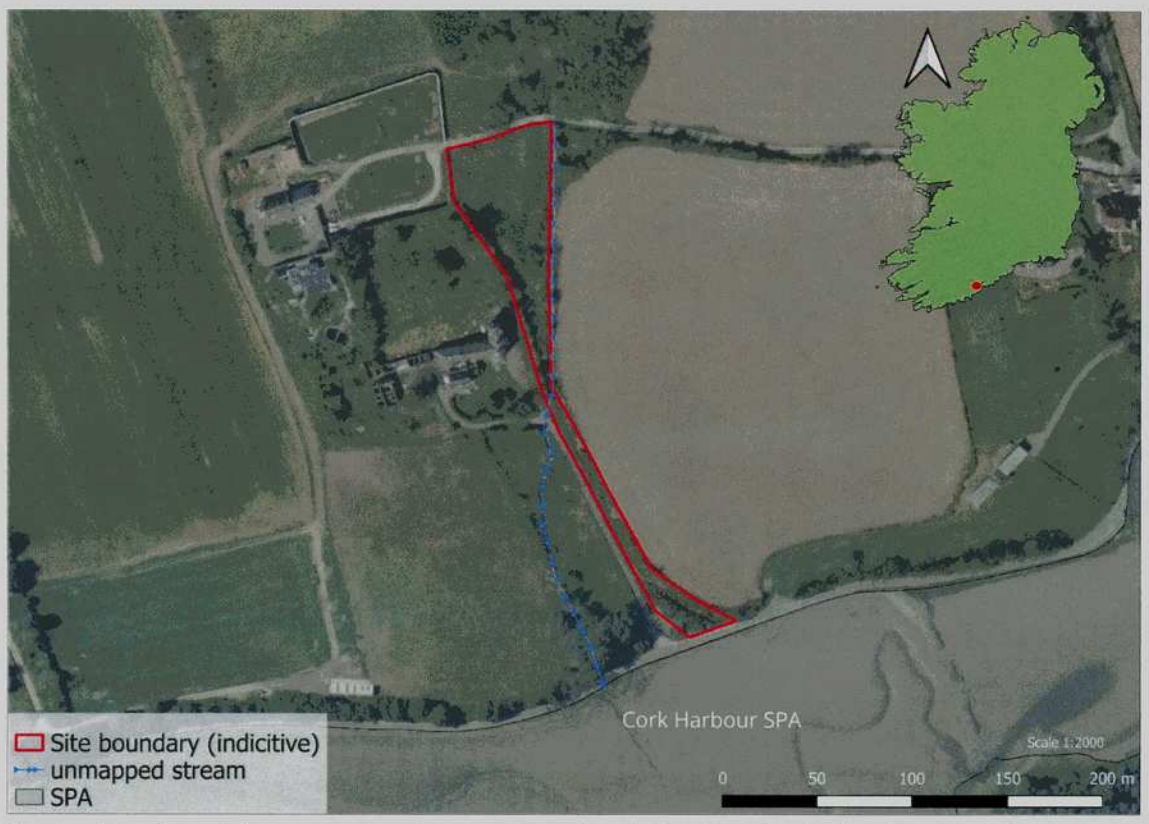


Figure 3. Overview of the proposed works area at Jamesbrook, East Ferry, Co. Cork, and position of stream.

- **Reporting**

Ecological Impact assessment was carried out following the methodology detailed in Appendix 1 and aided using the following standard texts, while impact terminology follows EPA (2022). The assessment was undertaken with regard to the following documents:

- Assessment of plans and projects significantly in relation to Natura 2000 sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC (EU Commission, Brussels (2021),
- Appropriate Assessment of plans and projects in Ireland: Guidance for planning authorities (DoEHLG, 2009),
- European Commission: Directorate-General for Environment, 'Managing Natura 2000 sites' – The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC, Publications Office, 2019, https://data.europa.eu/doi/10.2779/02245
- Appropriate Assessment Screening for Development Management (Office of the Planning Regulator, 2021),
- Guidelines on the information to be contained in Environmental Impact Statements (EPA, 2022),

- Guidelines for Ecological Impact Assessment in the United Kingdom and Ireland (Chartered Institute of Ecology and Environmental Assessment (CIEEM, 2018).

Where mentioned in the report, habitat classification follows *'A Guide to Habitats within Ireland'* (Fossitt, 2000). A statement of competency for the author of this report is provided in Appendix 3.

3. Project details

3.1. Site location

The proposed development site is located at Jamesbrook, Midleton, Co. Cork (Irish Grid reference: W 87753 67779) (Figure 4). The site is greenfield in nature, that of an agricultural field that lies immediately east of Jamesbrook Hall, a site of archaeological and heritage importance. The village of Saleen lies due east, and the site is accessed by a local road (Jamesbrook Road). The Poulnabibe Inlet (or Saleen Creek) lies due south, part of Cork Harbour. The site area (red line boundary in Figure 5) is 0.6 hectares.

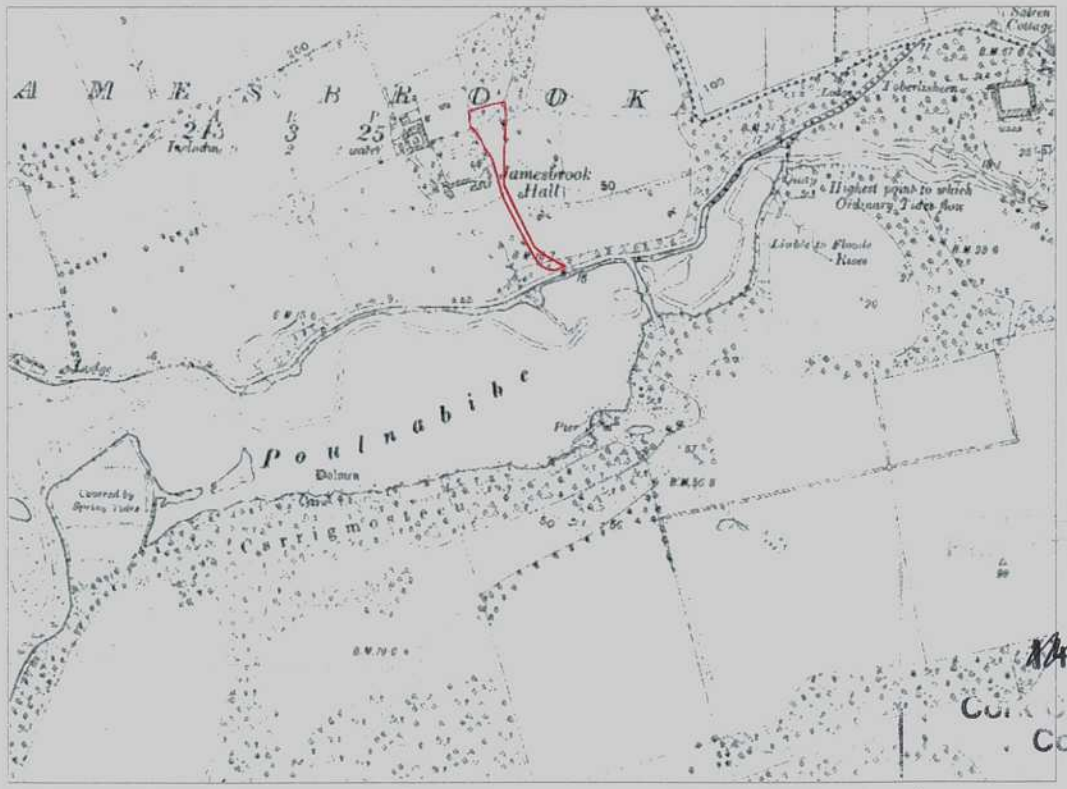


Figure 4. Site location (Source: excerpt from OS 6'' map included within planning package).

The site is accessed from the local road to the south. The site comprises an entrance track and it then rises gradually to the north, widening and climbing more steeply at the upper end to form a triangular wedge shape. The very northern part of the site begins to flatten and along the north-west edge, the boundary is formed by part of an historic walled garden wall. The site is bordered on the east side by a small stream which flows from a wooded valley to the north down to discharge in the Poulnabibe Inlet (Saleen Creek). To the west the site is bounded by the lands associated with Jamesbrook Hall,

(which is a Protected Structure: RPS ID 00584, CO088- 009, and listed on NIAH: 20908815). The total rise over the length of the site is approximately 21 m (Magee Creedon Architects, 2025).

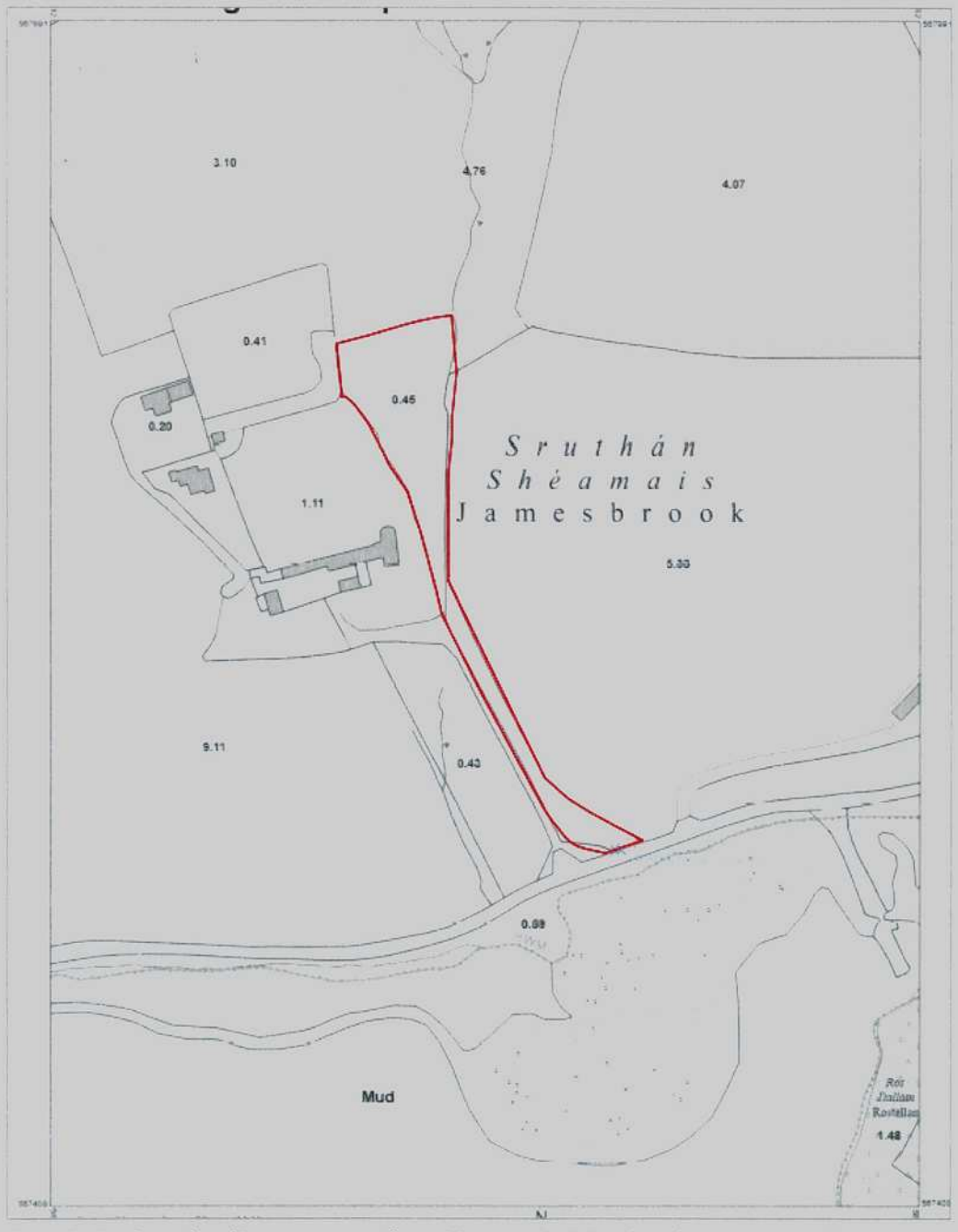


Figure 5. Site boundary (Source: excerpt from OS map included within planning package).

3.2. Development description

The planning application is described as follows:

Re: Permission sought for the construction of a dwelling house on two levels, adjacent garage/plant room/workshop, wastewater treatment system and tertiary treatment system and infiltration /treatment area, and all associated site works and landscaping including entrance gate and driveway at Jamesbrook, Midleton, Co. Cork.

3.3. Development details

From the outset the design approach has been guided by a heritage-led perspective (Magee Creedon Architects, 2025). The panoramic landscape vista from the front of Jamesbrook Hall has been protected as a matter of principle. The proposed location for the new house, adjacent to the historic walled garden walls and screened from Jamesbrook Hall by an existing stand of trees, has been acknowledged as a preferred location. The key sensitive views, both from Jamesbrook Hall out over the landscape, and towards Jamesbrook Hall from the road and creek edge, have been carefully considered. As well as the sensitive siting, the visual impacts of the proposal have been carefully minimised by the scale, massing, material choices, fenestration design and landscaping (Magee Creedon Architects, 2025).

The proposed site layout is shown in Figure 7

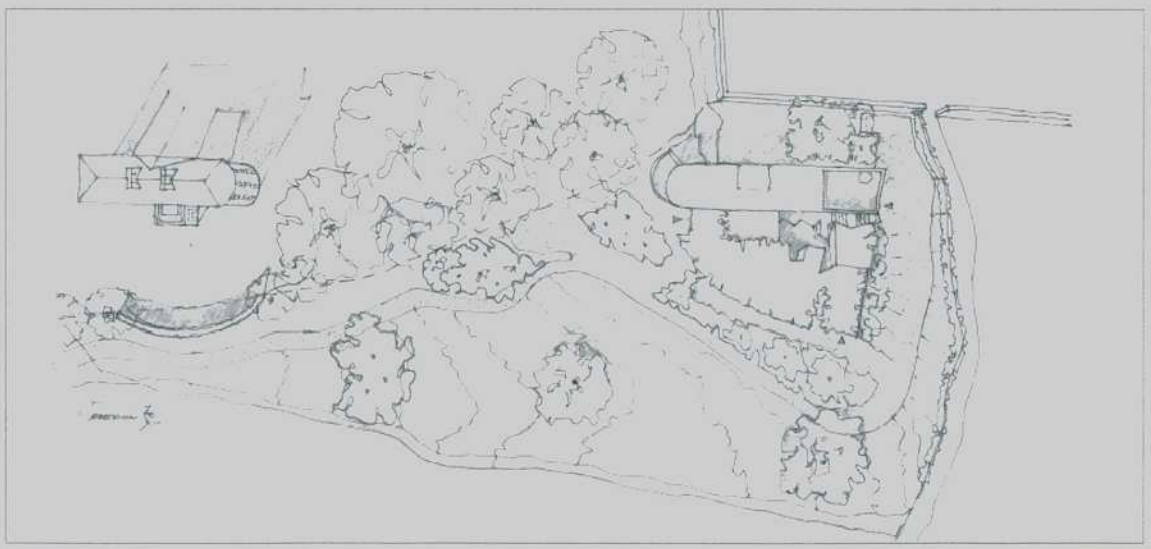


Figure 6. Aerial sketch view of proposed site layout (SourceL Magee Creedon Architects, 2025).

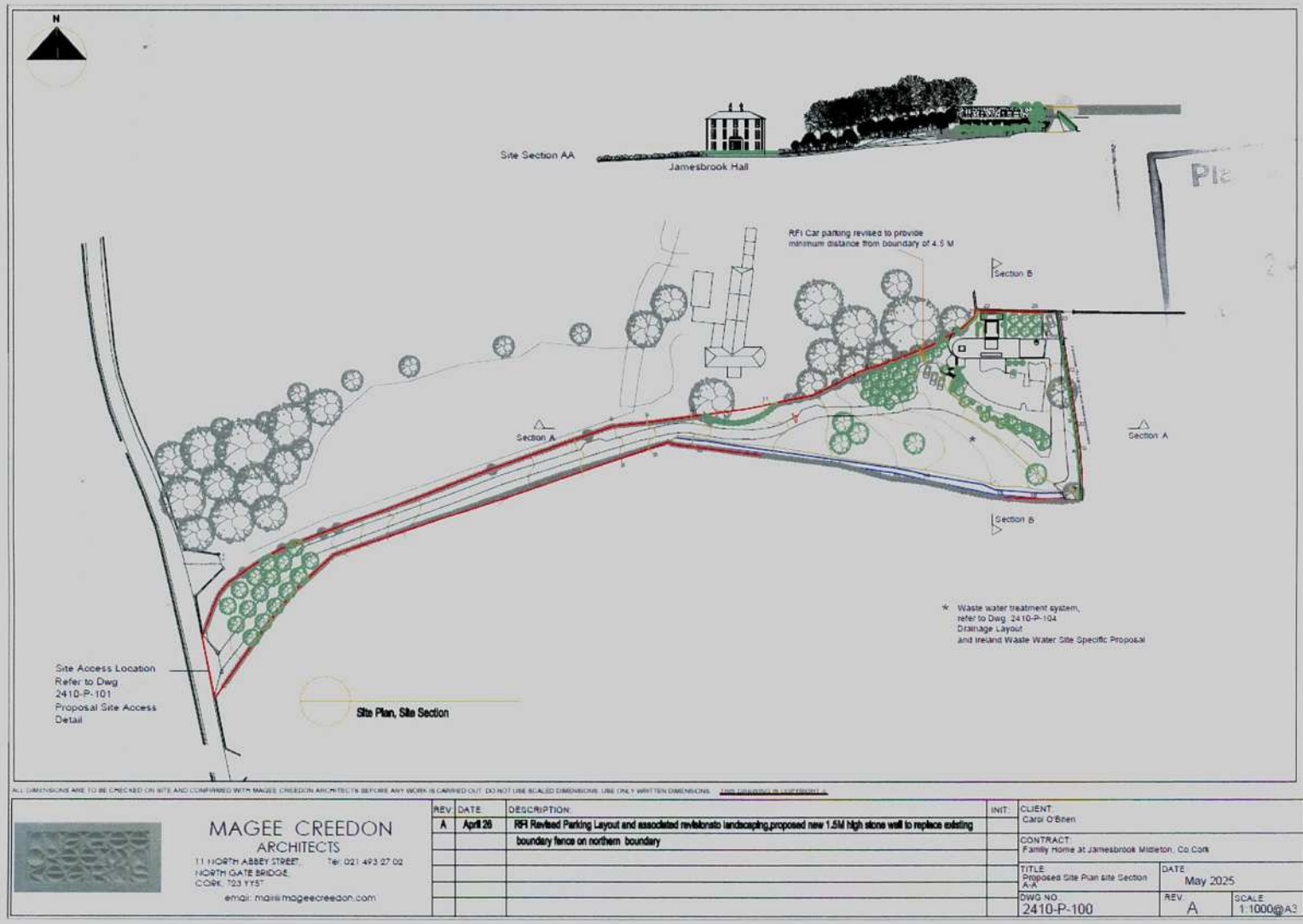


Figure 7. Proposed site layout plan (Source: Magee Creedon Architects, 2025, Revised April 2026). Please refer to submitted drawings for more detail

Foul water management

A site suitability assessment has been undertaken by Ireland Wastewater (2025). Based on this assessment, it is proposed to install a wastewater treatment system and tertiary treatment system and infiltration/treatment area, as follows:

System type: Euro Bio 7-11 Precast concrete SBR Wastewater treatment system IS EN12566-3&SR66 Circle 7 Tertiary Treatment system and infiltration area IS EN12566-7 (Figure 8)

The proposed system is in line with the requirements of the EPA (2021) Code of practice '*Wastewater treatment and disposal systems serving single houses* (P.E. <10). Importantly, the minimum 10 m separation distance to the stream is achieved. Please also refer to the site characterisation report and system design details as submitted with the planning application.

	Biochemical Oxygen Demand BOD_5	Suspended Solids SS	Ammonia NH_4-N
Minimum Required from the EPA 2021 CoP	<20 mg/l	<30 mg/l	<20 mg/l
Euro Bio Performance	4 mg/l	11 mg/l	0.2 mg/l

Figure 8. Standards that the 'Euro-Bio' system is designed to achieve.

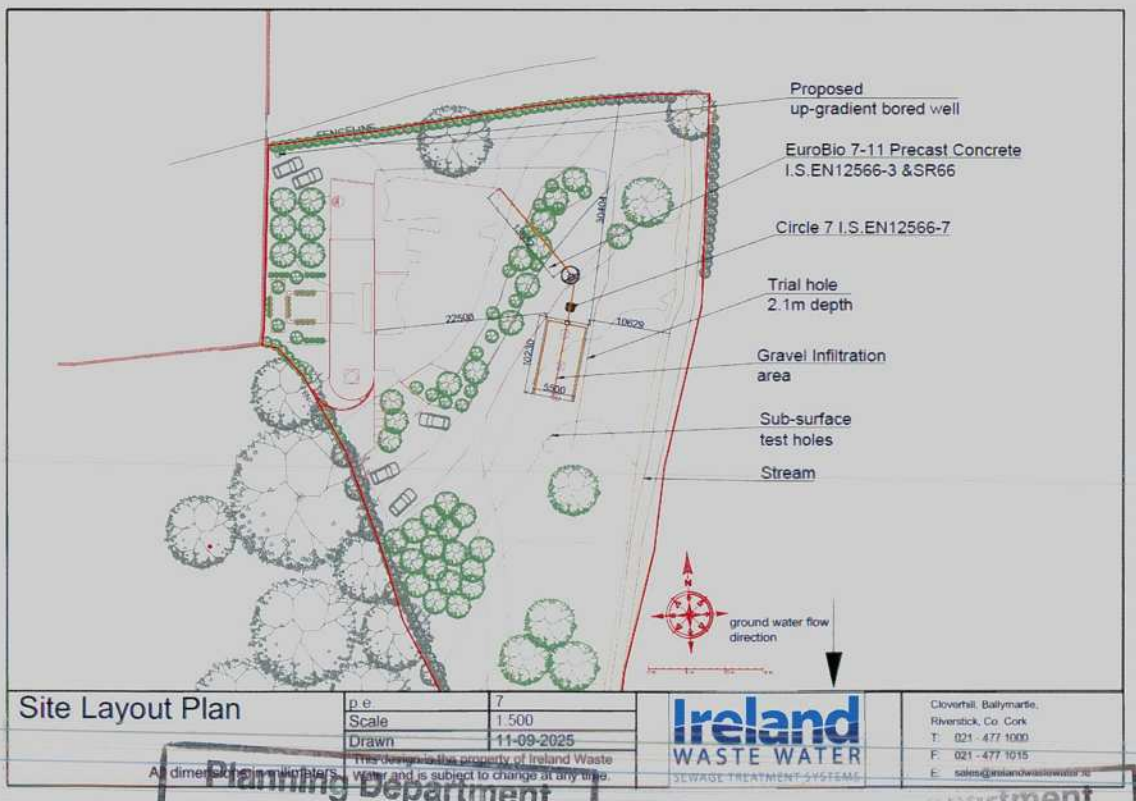


Figure 9. Foul water drainage layout (Source: Ireland Wastewater, 2025)

Surface water management

A surface water drainage assessment has been undertaken by Ireland Wastewater (2026) in accordance with Cork County Council's *Advice Note 1: SuDS Selection Hierarchy for Small-Scale Developments*. The proposed strategy includes:

- Storm water soakaways to manage runoff from roof areas and sections of the driveway,
- A permeable finish to the lower section of the driveway to promote infiltration,
- Incorporation of Sustainable Drainage Systems (SuDS), including water butt for rainwater harvesting and bio-retention planter/areas.

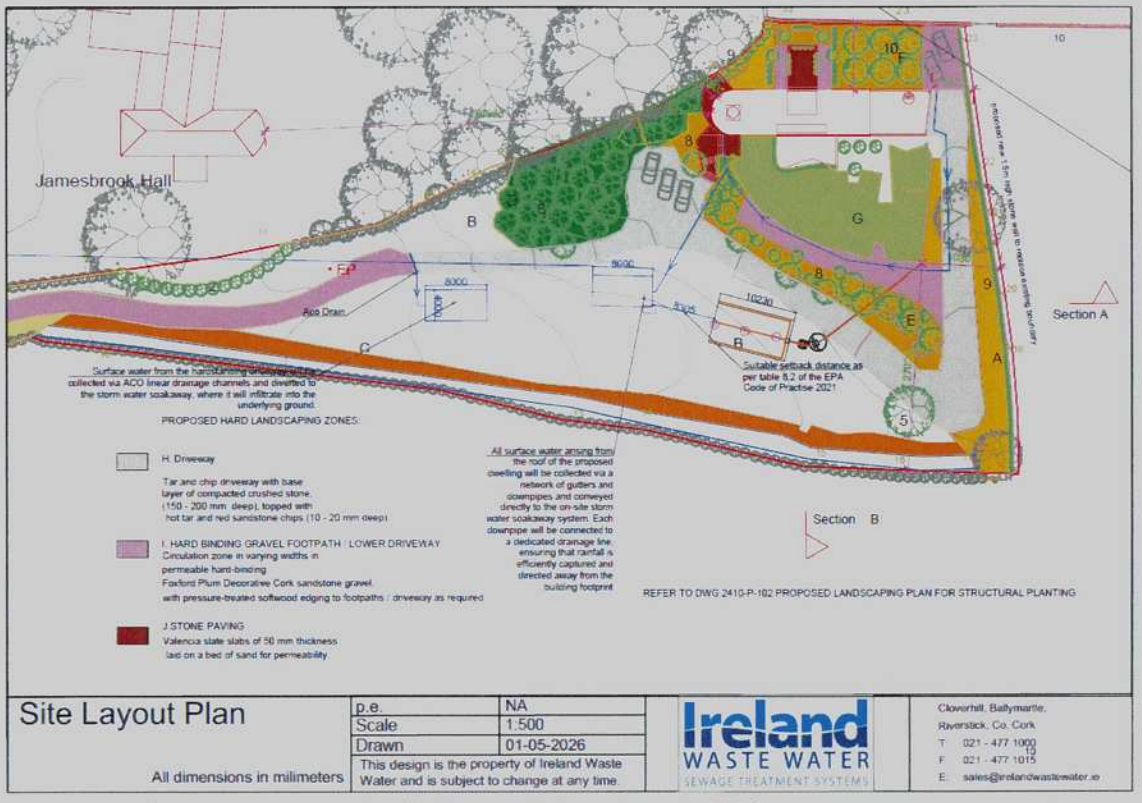


Figure 10. Surface water drainage plan (Source: Ireland Wastewater, 2026)

Water supply

It is proposed to construct a new bored well within the site (refer to Figure 9).

Site access

The vehicular access is proposed as a permeable-surfaced meandering drive of 3 m width, having intermittent lay-bys for passing to minimise the visual impact of this element. Car parking will be dispersed and divided between the lower main entrance area to the front of the house and the rear entrance at the upper end of the site.

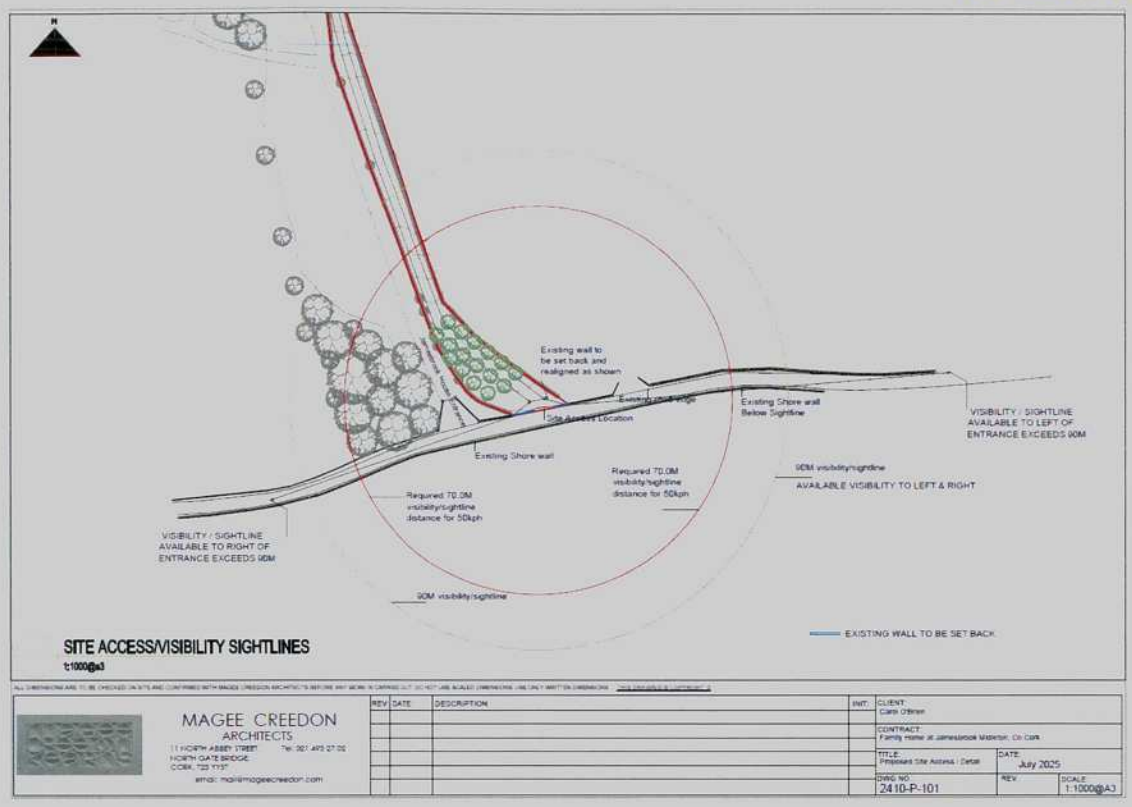


Figure 11. Proposed site access arrangements.

Lighting

Lighting is proposed at the entrance to the proposed property, and along the driveway. Acknowledging the sensitivity of the area, it is proposed to install a small downward-facing wall light, one each side of the entrance gate, mounted on the stone gate piers which are set back from the road edge. These lights will wash light downwards and have a suitable wattage/colour lamp.

Figure 12. Example of a suitable wall light to be used at the property entrance.

Along the drive it is proposed to install low (60 cm high) downward-directed lighting bollards, at well-spaced intervals. The illuminated side of the bollard will be turned away from the approach, so that they are less apparent from the shore.

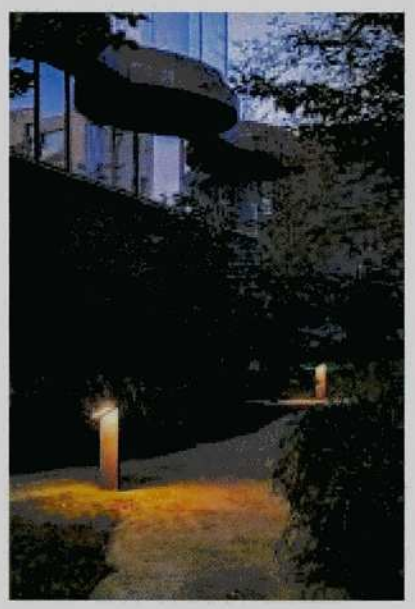


Figure 13. Example of lighting bollards to be used along the drive.

Both lighting styles will be operated by sensor and come on as the daylight fades. The lights will then stay on until dawn to avoid an 'on-off' approach that would be more disturbing to wildlife.

Landscaping

A detailed landscape plan has been prepared. This includes elements of woodland, meadow and hedging using native plant species. The northern site boundary (currently a wire fence) will be enhanced with a natural stone wall. Please refer to Figures 14 and 15.

Construction Environmental Management Plan (CEMP)

A *Construction Environmental Management Plan* has been prepared for the proposed project (Ahern Bros, 2026). The CEMP defines the approach to construction management at the site during the construction phase of the project. Compliance with the CEMP, the procedures, work practices and controls will be mandatory and must be adhered to by all personnel and contractors employed on the construction phase of the project. The objective of this plan is to mitigate the impacts of construction upon wildlife in the local environs, and the environment in general, and covers:

- Site Access, Site Set-up and Parking,
- The programme of the proposed works,
- Roles and Responsibilities of the contractor on site,
- Management of surface water,
- Emissions,
- Noise and vibrations,
- Waste, and
- Water quality.

The CEMP was reviewed in detail and referred to, as necessary, during the assessment of impacts of the proposed project.

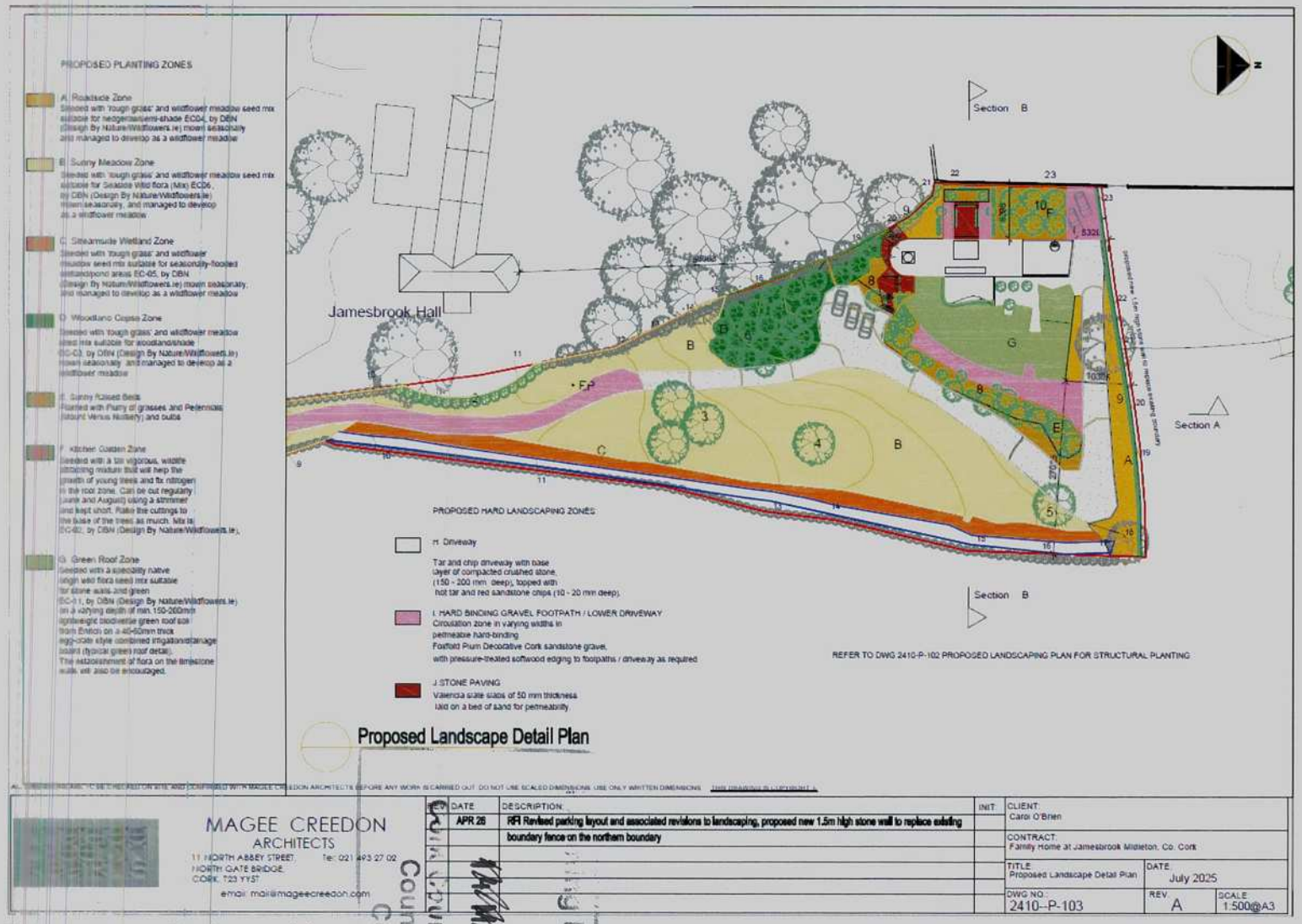


Figure 14. Proposed landscaping (1)

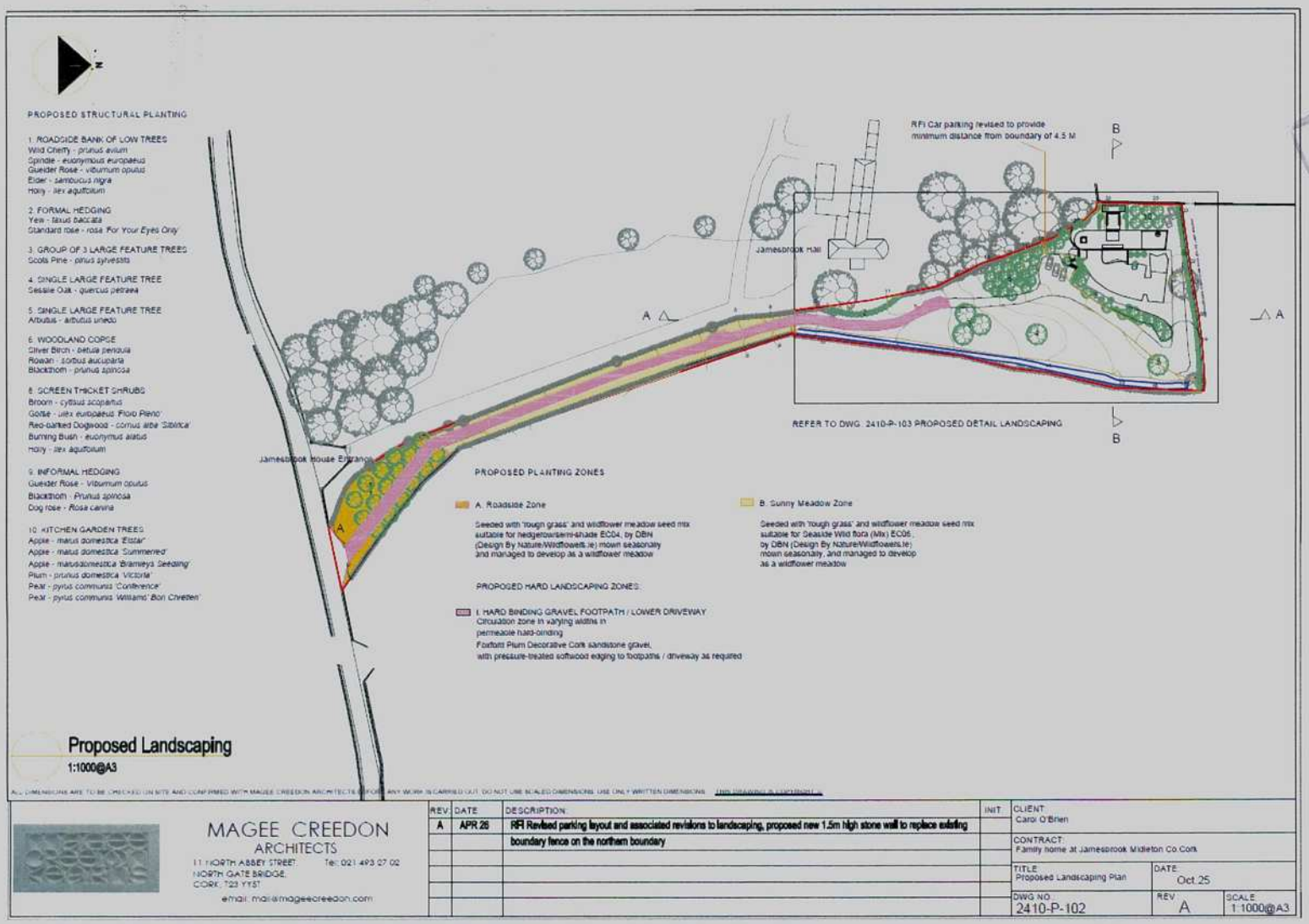


Figure 15. Proposed landscaping (2)

4. Baseline environment

4.1 Natura 2000 (European) sites

Natura 2000 sites within a 15 km radius of the proposed site are:

- Cork Harbour Special Protection Area (Site Code 4030) – located *c.*2 m at closest point drawn by a straight line (Figure 16).
- Great Island Channel Special Area of Conservation (SAC Site Code 1058) – located *c.*2.2 km at closest point drawn by a straight line (Figure 16).
- Ballycotton Bay Special Area of Conservation (SAC Site Code 4022) – located c. 10 km to the south-east (Figure 16).

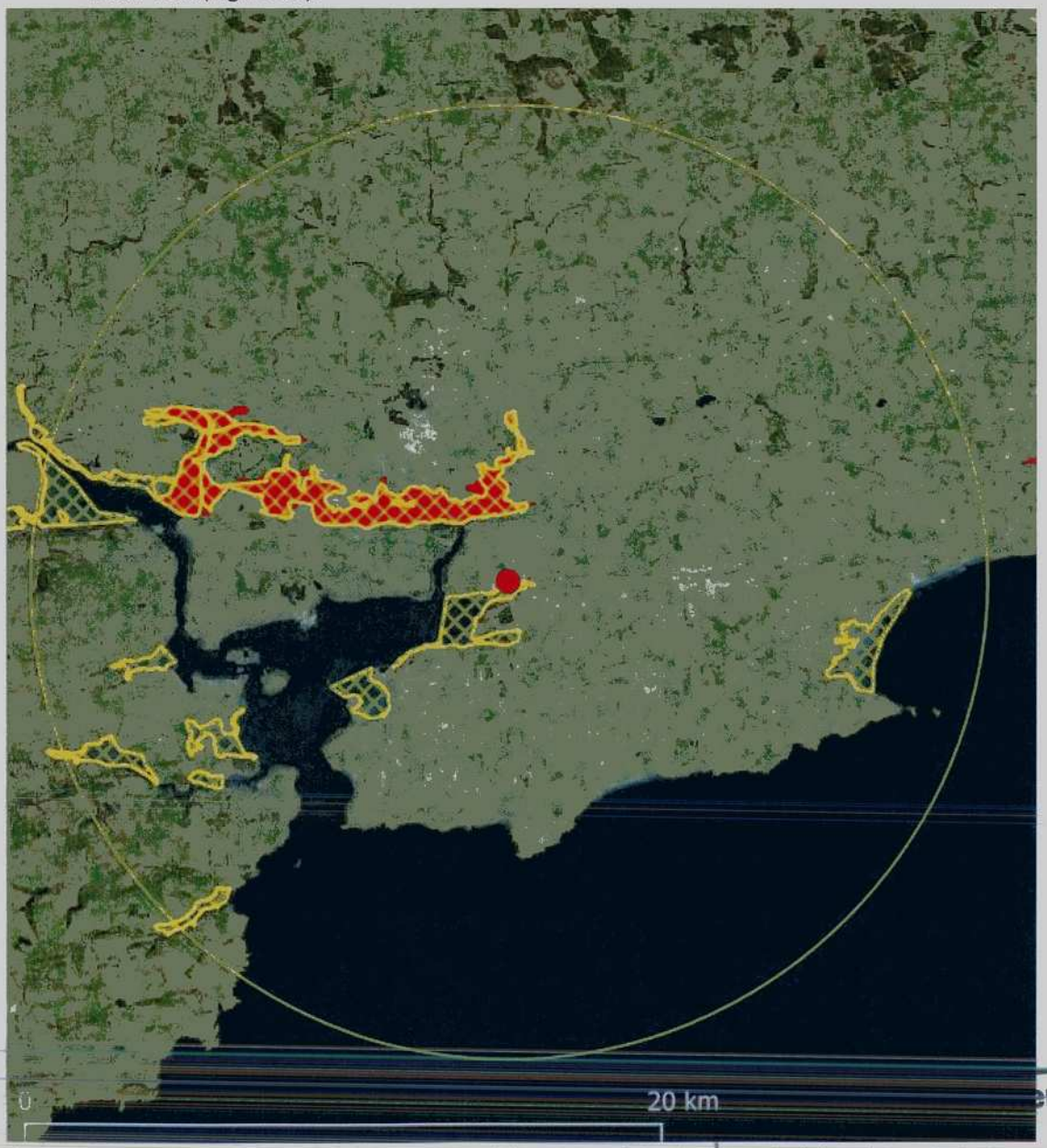


Figure 16. Natura 2000 sites within a 15 km radius of the proposed development site (The subject site is shown by the red dot in the centre of the circle). SACs are shown shaded red, SPAs are shown outlined in yellow. (Source: Map produced in QGiS 3.4).

4.2 Determining relevant Natura 2000 (European) sites

Natura 2000 (European) sites that lie within a 15 km radius of the proposed development site were identified in Section 4.1 above and are shown in Figure 16. Using the Source-Pathway-Receptor model (S-P-R model), relevant Natura 2000 sites are identified below (Table 2). This shows that both Cork Harbour SPA and Great Island Channel SAC are considered relevant. No other Natura 2000 (European) site has connectivity with the proposed development site.

Table 2. Determining relevant Natura 2000 (European) sites.

Natura 2000 site	Distance	Connectivity/pathway for impacts?
Cork Harbour SPA	c. 2 m	**Yes.** There is a risk that surface/storm water may flow into a small stream that flows along the boundary of the site and discharges into Saleen Creek (Cork Harbour). **Yes.** Potential for *ex situ* impacts if waterbird SCIs utilise the agricultural fields within or adjacent to the proposed site for roosting/foraging. **Yes.** The SPA lies within the ZOI of the construction works.
Great Island Channel SAC	2.2 km at closest point	**No.** Although there is connectivity via the tidal waters of Cork Harbour, this SAC is considered too distant for there to be any risk posed by the construction of a single dwelling house. This European site is screened out at this stage.
Ballycotton Bay SPA	c. 10 km to the south-east.	No connectivity or pathway for impacts. This European site is screened out at this stage.

4.3 Relevant Natura 2000 site - designation details

4.3.1 Cork Harbour SPA

Cork Harbour Special Protection Area (SPA) is a large, sheltered bay system, which stretches from the two main estuaries of the River Lee, near Cork City in the northwest, and the Owenacurra River, near Midleton in the northeast, southwards as far as Roches Point. It is a complex site and encompasses many other estuaries and inlets including the North Channel, the Douglas River Estuary, inner Lough Mahon, Monkstown Creek, Lough Beg, the Owenboy River Estuary, Whitegate Bay and the Rostellan and Poulnabibe inlets.

Cork Harbour is an internationally important wetland site which regularly supported in excess of 20,000 wintering waterfowl at the time of site designation. The site was also selected as a SPA because it supported Black-tailed Godwit *Limosa limosa islandica* and Redshank *Tringa totanus* in numbers of international importance, while a further 20 non-breeding (wintering) waterbird species occurred in numbers of national importance. The Annex I species Common Tern *Sterna hirundo* also has a breeding population within Cork Harbour (NPWS, 2014b).

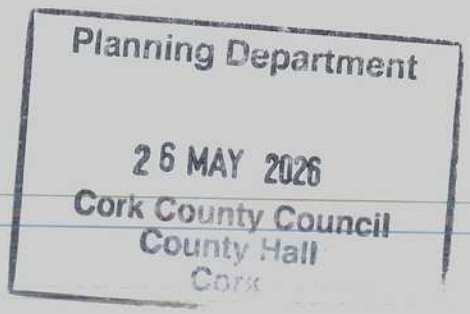
The Special Conservation Interest (SCI) species for Cork Harbour SPA are listed in Table 3 together with their baseline data[5] and conservation importance, in terms of All-Ireland importance or international importance, at the time of site designation. The NPWS Site Synopsis is given in Appendix 2.

Table 3. Waterbird Special Conservation Interest (SCI) species for Cork Harbour SPA.
(* denotes an Annex I species).

Special Conservation Interest Species (SCIs)	Baseline data (Mean peak 1995/96 – 1999/00) (I-WeBS)	Conservation status during baseline period (Source: NPWS, 2014b)
Shelduck (*Tadorna tadorna*)	2,009	All-Ireland Importance
Wigeon (*Anas penelope*)	1,791	All-Ireland Importance
Teal (*Anas crecca*)	1,065	All-Ireland Importance
Pintail (*Anas acuta*)	57	All-Ireland Importance
Shoveler (*Anas clypeata*)	103	All-Ireland Importance
Red-breasted Merganser (*Mergus serrator*)	121	All-Ireland Importance
Little Grebe (*Tachybaptus ruficollis*)	57	All-Ireland Importance
Great Crested Grebe (*Podiceps cristatus*)	253	All-Ireland Importance
Cormorant (*Phalacrocorax carbo*)	521	All-Ireland Importance
Grey Heron (*Ardea cinerea*)	80	All-Ireland Importance
Oystercatcher (*Haematopus ostralegus*)	1,809	All-Ireland Importance
Golden Plover (*Pluvialis apricaria*)*	3,342	All-Ireland Importance
Grey Plover (*Pluvialis squatarola*)	95	All-Ireland Importance
Lapwing (*Vanellus vanellus*)	7,569	All-Ireland Importance
Dunlin (*Calidris alpina*)	9,621	All-Ireland Importance
Black-tailed Godwit (*Limosa limosa*)	1,896	International Importance
Bar-tailed Godwit (*Limosa lapponica*)*	233	All-Ireland Importance
Curlew (*Numenius arquata*)	2,237	All-Ireland Importance
Redshank (*Tringa totanus*)	2,149	International Importance
Black-headed Gull (*Chroicocephalus ridibundus*)	3,640	All-Ireland Importance
Common Gull (*Larus canus*)	1,562	All-Ireland Importance
Lesser Black-backed Gull (*Larus fuscus*)	783	All-Ireland Importance
Common Tern (*Sterna hirundo*)*	102 breeding pairs	All-Ireland Importance

Conservation Objectives

For coastal SPA sites, conservation objectives are defined for attributes relating to waterbird species populations, and for attributes related to the maintenance and protection of habitats that support them. These attributes are (1) population trend; (2) population distribution, and (3) habitat range and area. Site-specific conservation objectives for Cork Harbour SPA were published in 2014 and are shown in Table 4.



[5] Baseline data based on the Irish Wetland Bird Survey (I-WeBS) in NPWS (2014b).

Table 4. Conservation Objectives – Cork Harbour SPA (after NPWS, 2014a, 2014b)

Objective 1 *To maintain the favourable conservation condition of the waterbird Special Conservation Interest species listed for the SPA.*	*To be favourable, the long-term population trend for each waterbird Special Conservation Interest species should be stable or increasing. Waterbird populations are deemed to be unfavourable when they have declined by 25% or more, as assessed by the most recent population trend analysis.*
	To be favourable, there should be no significant decrease in the range, timing or intensity of use of areas by the waterbird species of Special Conservation Interest, other than that occurring from natural patterns of variation
Objective 2 *To maintain the favourable conservation condition of the wetland habitat at the SPA as a resource for the regularly occurring migratory waterbirds that use it.*	*To be favourable, the permanent area occupied by the wetland habitat (2,587 ha) should be stable and not significantly less than the measured area, other than that occurring from natural patterns of variation.*

Conservation Status

The conservation status of non-breeding waterbird species of Cork Harbour SPA in relation to Objective 1a (population trend) was provided in the Conservation Objectives supporting document (NPWS, 2014b). However, this conservation status assessment is now out of date. Recent site-specific waterbird trends are not available for Cork Harbour. National trends for each of the waterbird SCI species are available (after Burke et al. 2025) and are shown in Table 5 (note that the conservation status/condition is not known for breeding Common Tern, or wintering gull species).

Table 5. Current national trends (where available) of waterbird SCI species listed for Cork Harbour SPA (after Burke et al. 2025).

SCI Species	5-year trend (2016-2022)	12-year trend (2009-2022)	26-year trend (2016-2022)	Trend classification (based on 26-year trend)
Shelduck	2.5	-2.4	-30.9	Moderate Decline
Wigeon	4.2	0	-28.1	Intermediate Decline
Teal	2.2	9.2	-8.7	Intermediate Decline
Pintail	40.9	31	8.1	Stable or Increasing
Shoveler	50	12.5	14.3	Stable or Increasing
Red-breasted Merganser	4.5	5.7	-19.1	Intermediate Decline
Little Grebe	-0.9	0	39	Stable or Increasing
Great Crested Grebe	10.6	-9.6	-16.8	Intermediate Decline
Cormorant	15.1	3.1	32	Stable or Increasing
Grey Heron	0	-4.7	2	Stable or Increasing
Oystercatcher	-9.4	-21.3	-14.3	Intermediate Decline
Golden Plover	-12.3	-20.9	-48.1	Moderate Decline
Grey Plover	-14.3	-30.8	-66	Large Decline
Lapwing	-8.4	-27.9	-72.9	Large Decline
Dunlin	23.9	16.9	-47.8	Moderate Decline
Black-tailed Godwit	14.9	42.6	120	Stable or Increasing
Bar-tailed Godwit	22.4	-3.7	8.3	Stable or Increasing
Curlew	-2.9	-13.2	-41.1	Moderate Decline
Redshank	-8.4	-22.2	-15.5	Intermediate Decline
Black-headed Gull	-	-	-	Not available

Common Gull	-	-	-	Not available
Lesser Black-backed Gull	-	-	-	Not available
Common Tern	-	-	-	Not available

4.4 Baseline ecology of the subject site

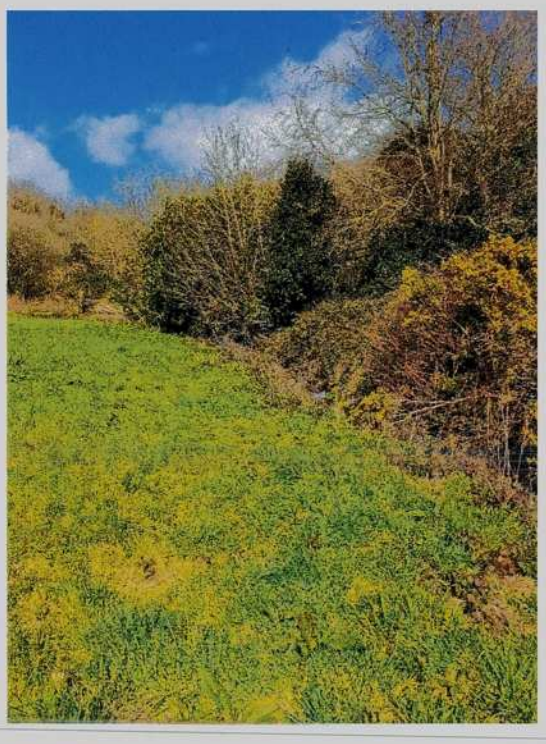
4.4.1 Habitats

The site is greenfield in nature comprising an agricultural field surrounded by hedgerows and treelines (Figure 17). The site is accessed by an existing track which is well vegetated that runs in a north-wards direction from the local road (Jamesbrook Road). The following section describes the habitats that were identified and the key plant species that were found within each at the time of survey (March 2026). Nomenclature follows Stroh et al. (2023).

Scrub (WS1)

Scrub habitat occurs in various places around the site. Most notably it occurs along the edges of the entrance track where Gorse and Bramble occur on the eastern side, while the western side comprises a well-vegetated bank with trees beyond (within the boundary of Jamesbrook Hall). Here, Willow, Gorse, Elder, as well as Broad-leaved Dock, Foxglove and Nettle occur.

Bramble *Rubus fruticosus* agg., *Broad-leaved Dock Rumex obtusifolius,* Elder *Sambucus nigra, Foxglove Digitalis purpurea,* Gorse *Ulex europaeus*, Ivy *Hedera helix, Male-fern Dryopteris filix-mas,* Willow *Salix spp.*



Area of scrub in north-eastern corner of the site has a semi-mature Cherry Laurel tree.

Recolonising bare ground (ED3) and dry grassland (GS2)

The entrance track is best described as recolonizing bare ground although with 100% vegetation cover in large parts, it is also classified as dry grassland, and various grass species dominate. The herb species on the track also extend into the bank on the western side, as follows:

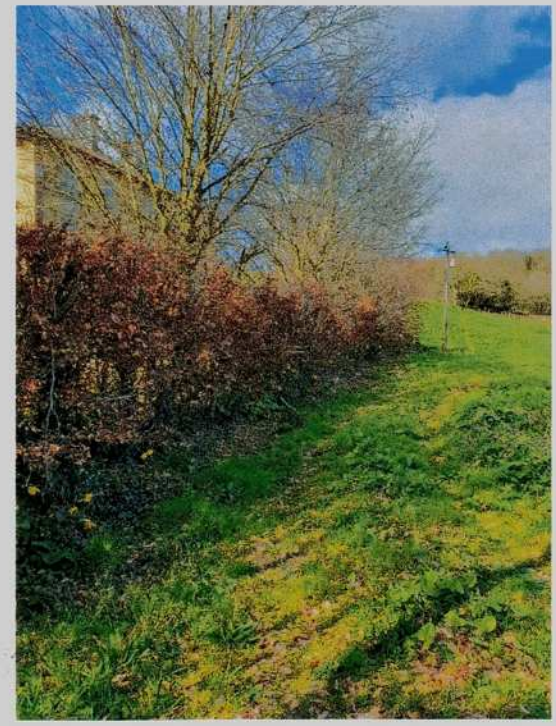
Bramble Rubus fruticosus agg., Broad-leaved Dock Rumex obtusifolius, Cleavers *Galium aparine, Common Nettle Urtica dioica, Curled Dock Rumex crispus, Daffodils Narcissus,* Dandelion *Taraxacum, Dead-nettle sp. Lamium spp, Elder Sambucus nigra, Foxglove Digitalis purpurea, Gorse Ulex europaeus, Herb-Robert Geranium robertianum, Hogweed Heracleum sphondylium, Ivy Hedera helix, Male-fern Dryopteris filix-mas, Marsh Thistle Cirsium palustre, Meadow Buttercup Ranunculus acris, Ribwort plantain Plantago lanceolata, Sea Beet Beta vulgaris subsp. maritima, Soft-rush Juncus effusus, Speedwell sp. Veronica spp., Thistle spp., Willow Salix spp., Winter Heliotrope Petasites pyrenaicus.*

As one progresses up (northwards) along the access track the vegetated bank on the western side continues until it reaches a treeline boundary. On the western side however, the boundary is formed by a wire fence with a cover of Bramble and Gorse (Figure 17).

Hedgerow (WL1) and Treeline (WL2)

The shared boundary with Jamesbrook Hall is in part a hedgerow or treeline comprised of Beech *Fagus sylvatica.* Further north the western boundary treeline comprises Beech, Elder, Hawthorn, Holly, Oak and Sycamore.

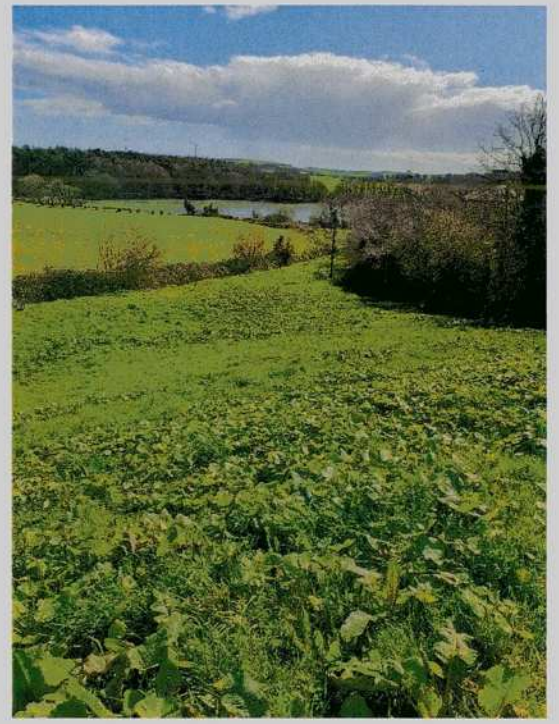
Beech Fagus sylvatica, Elder Sambucus nigra, Hawthorn Crataegus monogyna, ***Holly*** *Ilex aquifolium, Oak Quercus spp., Sycamore Acer psedoplatanus*



Beech hedging close to Jamesbrook Hall.

Improved agricultural grassland (GA1)

The site interior is best described as Improved agricultural grassland, although unmanaged in recent times. In large parts this habitat is dominated by Broad-leaved Dock and Winter Heliotrope. Oxeye Daisy *Leucanthemum vulgare* was also observed along with Lesser Celandine *Ficaria verna* closer to the stream.



Site interior, looking south.

Old stone wall (BL1)

Part of the site boundary in the north-west is formed by an old stone wall. It is vegetated with Ivy and Navelwort *Umbilicus rupestris.*

Old stone wall on north-east boundary.

Lowland depositing stream (FW2)

The stream on the boundary of the site is a lowland depositing cascading watercourse (FW2), which was 1 m-1.2 m wide, 0.1 m- 0.3 m deep, with bank heights ranging from 0.2 m to 1 m. The stream had been straightened and deepened historically. The bed comprised exposed bedrock, small boulder and cobble with intermittent gravels which were moderately silted. The flow profile was predominantly fast-flowing riffle with shallow pooling areas below bedrock cascades. The stream flowed through a large concrete pipe culvert at the northern extent of the study site. The stream was also culverted under the access track near Jamesbrook Hall and continued south before discharging into Cork Harbour SPA via a concrete pipe culvert. No instream macrophytes were present; however, Watercress (*Nasturtium officinale*) and Fool's watercress (*Helosciadium nodiflorum*) were occasional along the stream littorals. The moss *Leptodictyum riparium* was growing on exposed boulder. Bordering vegetation comprised scattered Grey willow (*Salix cinerea*), non-native Fuchsia (*Fuchsia magellanica*), Bramble (*Rubus fruticosus*), Gorse (*Ulex europaeus*) and Pendulous sedge (*Carex pendula*). Sycamore (*Acer pseudoplatanus*) and a mature non-native Cherry laurel (*Prunus laurocerasus*) are growing below the concrete pipe culvert in the north-east of the site.

The bordering land use comprised unmanaged agricultural grassland (GA1) within the study site, arable land (BC1) and mixed broadleaved woodland (WD1) upstream of the pipe culvert (north).

The stream had some value as a salmonid spawning habitat with gravels in fast-flowing rifle providing suitable spawning habitat. However, these were compromised by moderate siltation. Salmonid nursery habitat was limited to small pools below boulder cascades. No signs of Otter *Lutra lutra* were identified and no Otter breeding and/or resting areas were located within 150 m of the site.

Water quality results are provided in Appendix 4. These show that the water quality was Q4 (good status).

Representative image of the stream at the eastern boundary of the proposed works area (facing downstream).

Concrete pipe culvert at the northern boundary of the site (i.e. the entrance point to the NE corner of the site)

Outflow of the stream into Cork Harbour SPA (Saleen Creek), south of the proposed works area.

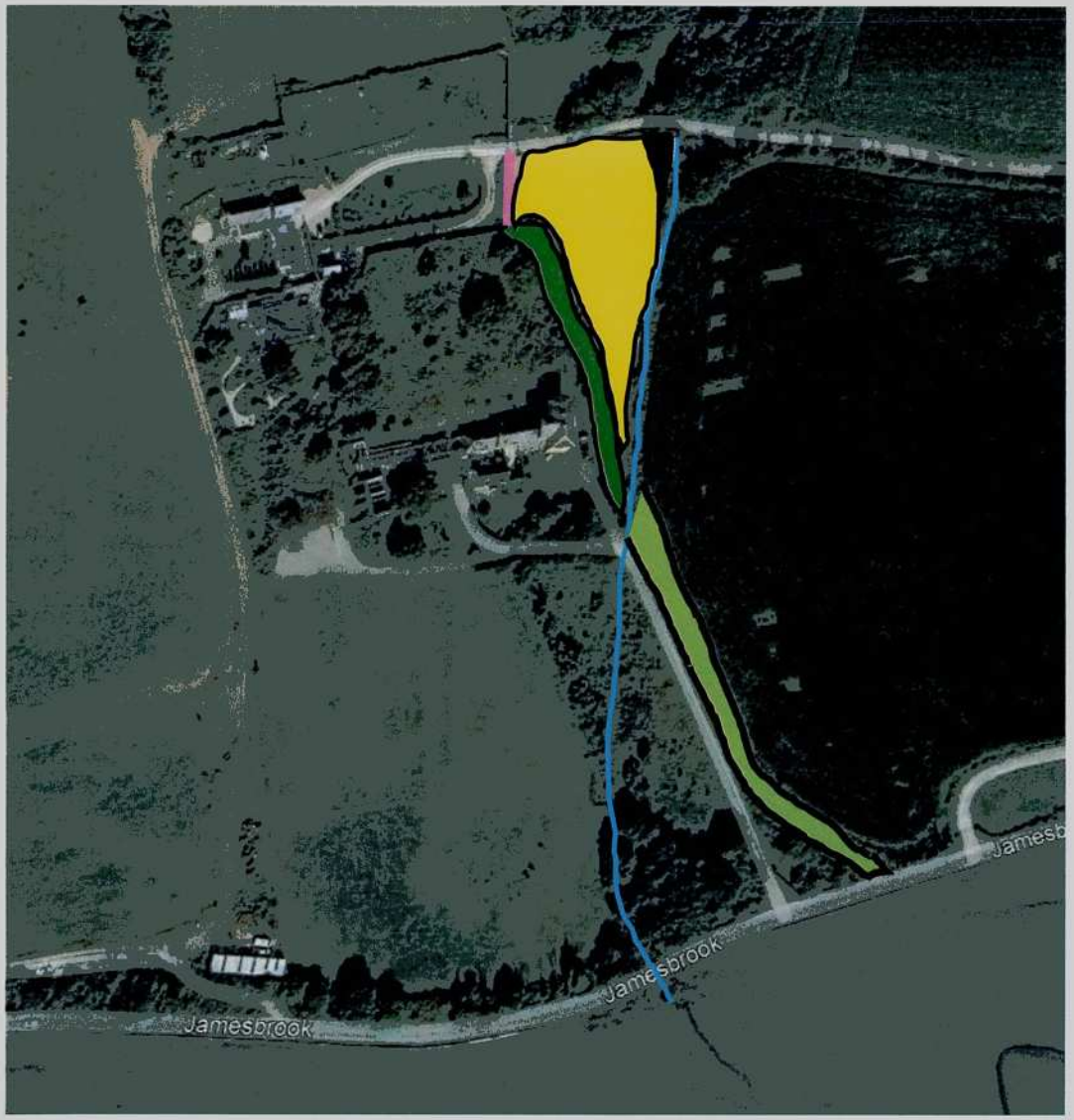


Figure 17. Habitats recorded within the site and on its boundaries.
KEY: Black = Scrub (WS1), Blue = Stream (FW2), Dark green – Hedgerow and Treeline (WL1/WL2), Light green = Recolonising bare ground/dry grassland, Pink = old stone wall (BL1), Yellow = Improved agricultural grassland (GA1).

Invasive alien species

No species included in the First Schedule of The European Union (Invasive Alien Species) Regulations 2024 (S.I. No. 374 of 2024) were recorded within the site. However, three species of concern were recorded (Table 6).

Table 6. Invasive alien plant species recorded within the site.

Species name	Classification	Location
Cherry Laurel *Prunus laurocerasus*	High Impact Invasive Species	One large tree in north-east corner of boundary
Sycamore *Acer pseudoplatanus*	Medium Impact Invasive Species	On northern roadside boundary
Winter Heliotrope Petasites pyrenaicus	Low Impact Invasive Species	Within grassland and along access track

4.4.2 Winter birds

A total of 15 bird species was recorded during the winter bird surveys within the site, on its boundaries, or in the adjacent terrestrial fields (Table 7). Of the total, eight species were recorded inside or on the site boundaries, all of which are common and widespread birds of the countryside. In addition, Buzzard and Jay were observed on all visits, emerging from woodland that lies to the north of the site. These species are likely nesting in this woodland. A waterbird, the Annex I Little Egret, was observed foraging in the arable field and grassland adjacent to the site.

The wintering waterbird species that occurred within a 50 m zone from the site access point are shown in Table 8. This represents a good diversity of waterbirds that appear relatively habituated to the presence of the road, and cars and people passing by. Of note is the point of entrance of the small stream; this freshwater input was clearly influencing waterbird positioning and behaviour with several species seen using the water for drinking, swimming (at low tide) and bathing (Figure 18). The closest high tide roost site (Figure 18) is located c. 100 m away and was observed on one occasion to support 48 roosting Redshank along with smaller numbers of Teal, Black-tailed Godwit and Greenshank.

Figure 18. Waterbird areas of note.

Key:
Red dot = site location,
Blue star = point of freshwater inflow,
Yellow star = closest high tide roost site to the site,
Green star = terrestrial foraging position of Little Egret.

Intertidal mudflats directly adjacent to the site entrance supports good numbers of foraging waterbirds at low tide.

Table 7. Bird species recorded within the site and immediate surrounding habitats during winter surveys. The table provides the location (within site, on boundaries or outside) and the level of conservation concern in Ireland (BoCCI-4, Red or Amber-listed) after Gilbert et al (2021). The CBS trend is from the Countryside Bird Survey[1].

Common name	Latin name	BoCCI-4	CBS Trend 98-24	Location	Notes
Woodpigeon	*Columba palumbus*		Moderate increase	On boundaries/In flight	
Little Egret	*Egretta garzetta*		-	Arable field	
Buzzard	*Buteo buteo*		Strong increase	In flight, Arable field	Observed flying out of woodland to the north, likely nesting there.
Jay	*Garrulus glandarius*		-	In flight	Observed flying out of woodland to the north, likely nesting there.
Jackdaw	*Corvus monedula*		Stable	In flight	
Rook	*Corvus frugilegus*		Moderate decrease	In flight	
Hooded Crow	*Corvus cornix*		Moderate increase	In flight, Arable field	
Blue Tit	*Cyanistes caeruleus*		Moderate increase	On boundaries	
Great Tit	*Parus major*		Moderate increase	On boundaries	
Long-tailed Tit	*Aegithalos caudatus*		Stable	On boundaries	
Wren	*Troglodytes troglodytes*		Moderate increase	On boundaries	
Robin	*Erithacus rubecula*		Moderate decrease	On boundaries	
Chaffinch	*Fringilla coelebs*		Moderate increase	On boundaries	
Linnet	*Carduelis cannabina*	Amber	Stable	In flight, Arable field	
Goldfinch	*Carduelis carduelis*		Moderate increase	On boundaries	

***Note** Species order follows List of birds of the European Union (March 2024) which follows the sequence of the HBW–BirdLife checklist.*

[1]https://birdwatchireland.ie/our-work/surveys-research/research-surveys/countryside-bird-survey/

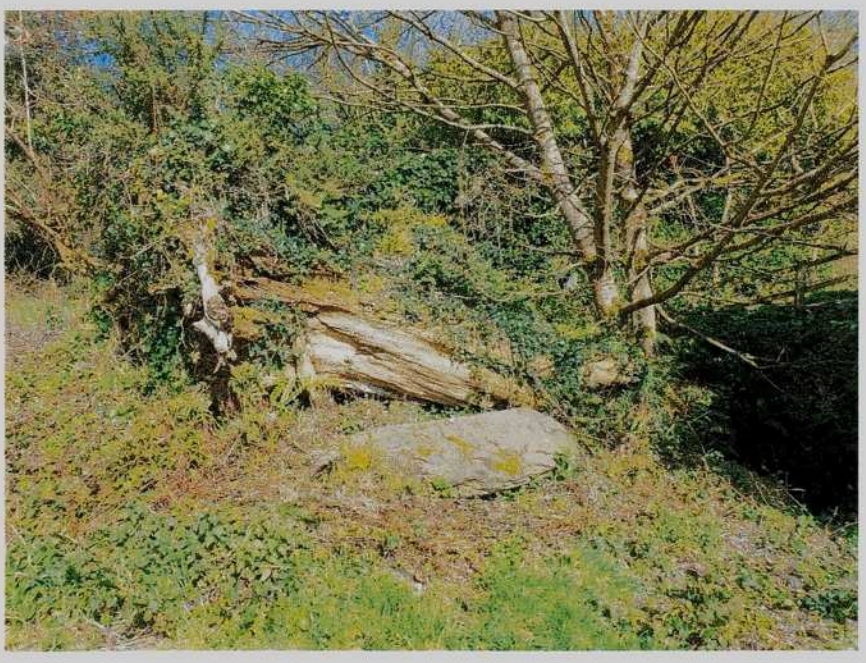
Table 8. Waterbird species recorded within a zone of c.50 m from the site access point. The table provides the level of conservation concern in Ireland (BoCCI-4, Red or Amber-listed) after Gilbert et al (2021) and the maximum number observed at any one time during the surveys.

Species	Latin	BoCCI-4	Max Number
Wigeon	*Mareca penelope*	Amber	5
Mallard	*Anas platyrhynchos*	Amber	2
Teal	*Anas crecca*	Amber	20
Little Egret	*Egretta garzetta*		4
Oystercatcher	*Haematopus ostralegus*	Red	11
Curlew	*Numenius arquata*	Red	1
Black-tailed Godwit	*Limosa limosa*	Red	20
Redshank	*Tringa totanus*	Red	7

Note *Species order follows List of birds of the European Union (March 2024) which follows the sequence of the HBW–BirdLife checklist.*

4.4.3 Mammals

Only signs of Foxes *Vulpes vulpes* were noted during surveys. A dropping was observed on the access track on one survey occasion. In addition, the smell of foxes was associated with an old tree and rock in the north-east corner of the site. This has potential to be a Fox den.



Potential Fox den.

4.4.4 Ecological evaluation

Ecological values have been assigned to the features recorded on site using the methods described in Section 2.1 (Table 9).

Table 9. The assigned **Ecological Value** of recorded features.

Feature	Ecological Value	Rationale
Recolonising bare ground (ED3) and dry grassland (GS2)	Moderate Local	Provides foraging habitat for insects, birds etc.. but no rare or protected plant species are present.
Hedgerows (WL1) Treelines (WL2)	Moderate Local	Very good and mature.
Scrub (WS1)	Moderate Local	Provides foraging habitat for insects, birds etc..
Lowland Depositing Stream (FW2)	High Local	Suitability as salmonid spawning and nursery habitat.
Improved agricultural grassland (GA1)	Low - Local	Of little ecological interest.
Adjacent Saleen Creek	International Importance	Part of Cork Harbour SPA.

5. Screening Assessment

5.1 Overview

Appropriate Assessment (AA) screening focuses on impacts upon Natura 2000 sites and their qualifying habitats and species, that may arise from a proposed development. Of importance within AA, is the assessment as to whether predicted impacts will be significant. Significance should be established in light of, amongst other things, the characteristics and specific environmental conditions of the site concerned, and the likely effects of the plan or project. If a plan or project is likely to undermine any of the site's conservation objectives it must be considered likely to have a significant effect on that site (EC, 2001). Conversely, if a plan or project will have impacts on a site, but these impacts will clearly not affect or undermine those conservation objectives, then it is considered that the project/plan will not have a significant effect on the site concerned (DoEHLG, 2009).

An essential first step in the process is the determination of whether there is an overlap or coincidence between the qualifying interest habitats and species of the relevant Natura 2000 site and the 'zone of influence' of a proposed project. The zone of influence can be defined as the geographical area over which a project could affect the receiving environment in a way that could have significant effects on the Qualifying Interests of a European site. This should be established on a case-by-case basis using the Source-Pathway-Receptor framework (OPR, 2021).

The Source-Pathway-Receptor framework assessments for Cork Harbour SPA is shown in Table 10. This shows that all SCI species listed for Cork Harbour SPA could be impacted by issues of water quality (hydrological connectivity), elements of the construction phase, disturbance, lighting and spread of invasive species.

Table 10. Determination of coincidence between the qualifying interest habitats/species of Cork Harbour SPA Conservation and the ZOI of the proposed development

Special Conservation Interests (SCIs)	Occurs within/adjacent to the site?	Source-pathway-receptor link?
Shelduck	No. None of the SCI species have been recorded within the proposed site nor within adjacent agricultural lands. All may occur within intertidal and marine habitats surrounding the site, however.	**Yes.** Hydrological connectivity by virtue of the small stream running along the eastern boundary that discharges into Saleen creek (Cork Harbour). **Yes.** The SPA lies within the ZOI of the construction works. **Yes.** The SPA lies within the ZOI of the operation of the site. The above is relevant to all SCI species.
Wigeon		
Teal		
Pintail		
Shoveler		
Red-breasted Merganser		
Little Grebe		
Great Crested Grebe		
Cormorant		
Grey Heron		
Oystercatcher		
Golden Plover		
Grey Plover		
Lapwing		
Dunlin		
Black-tailed Godwit		
Bar-tailed Godwit		
Curlew		
Redshank		
Black-headed Gull		
Common Gull		
Lesser Black-backed Gull		
Common Tern		

5.2 Potential for cumulative impacts

Plans concerning the Jamesbrook Area

- Cork County Development Plan 2022-2028.
- Saleen and District Biodiversity Action Plan 2024-2028.
- East Cork Municipal District Local Area Plan 2017.

Projects - Planning applications

A search of Cork County Council's online planning enquiry database was undertaken to identify other planning applications dated within one year of the 1st May 2026 that are proximal or within the Saleen area (searches under the location 'Saleen'). This search yielded three planning applications which were reviewed individually. These applications relate to the construction of a single domestic dwelling (25/5209) and applications for housing renovations (26/0046 and 25/4180).

Pressures upon water quality – Transitional and coastal water quality – Cork Harbour

The latest coastal water quality data provided by the EPA (gis.epa.ie/Maps) shows that the water quality of Saleen Creek is considered of 'intermediate' standard (between unpolluted and potentially eutrophic). The Water Framework Directive (WFD) status is 'at risk.' Therefore the objectives of the

WFD are not being met. This water quality status was considered during impact assessment. Mitigation measures are likely to be required to safeguard surface water quality and meet an objective of the County Development Plan –

'This plan seeks to ensure a balance between protection of the environment including the maintenance and improvement of water quality and biodiversity and meeting the development needs of the County in accordance with relevant environmental legislation and guidance such as the Water Framework, Floods, Habitats and Birds Directives, Our Sustainable Future – a Framework for Sustainable Development in Ireland (DECLG, 2012), the National Biodiversity Plan and the National Climate Change Strategy'.

Conclusion

Taking all the above into consideration, along with the proposed environmental management and controls integrated into the project assessed here, significant negative effects as a result of cumulative and in-combination impacts are considered unlikely.

5.3 Assessment – potential for impacts upon Cork Harbour SPA

Project Details	
Name of project	Proposed development of a single dwelling house
Natura 2000 sites within potential impact zone	Cork Harbour Special Protection Area (Site Code 4030) – located *c.*2 metres at closest point.
Qualifying features of Natura 2000 sites	Refer to Section 4.3.1 of this report.
Distance of project from Natura 2000 sites	2 m
Is the project directly connected with or necessary to the management of the sites?	No
Are there other projects that together with the project being assessed could affect the sites?	Refer to Section 5.2 of this report.
Brief description of project	Permission sought for the construction of a dwelling house on two levels, adjacent garage/plant room/workshop, wastewater treatment system and tertiary treatment system and infiltration /treatment area, and all associated site works and landscaping including entrance gate and driveway at Jamesbrook, Midleton, Co. Cork.
Describe the individual elements of the project (either alone or in combination with other projects) likely to give rise to impacts on the Natura 2000 site:	
• Construction and Operation phases – potential for surface/storm water laden with silts to flow into the small adjacent stream which flows directly into Saleen Creek (Cork Harbour) to the south of the development site. • Construction phase - potential for pollution from accidental spills of oils, fuels, cements, etc during the construction phase - could flow into the adjacent stream and lead to negative impacts upon the water quality of the stream, and wider area of Saleen Creek/Cork Harbour. • Construction phase - air, noise and vibration impacts could be generated by construction operations and associated traffic. • Construction phase – substandard waste management during the construction phase could lead to waste becoming airborne and entering the adjacent Cork Harbour, with various potential risks to waterbird SCIs and other wildlife. • Operation phase – foul water management.	

- Construction and Operation phases - direct disturbance to waterbirds within Cork Harbour SPA which occur in the vicinity of the proposed works.
- Construction and Operation phases - potential for *ex situ* impacts upon waterbird species listed for Cork Harbour SPA.
- Operation Phase - the proposed lighting could impact upon waterbirds using Saleen Creek/Cork Harbour SPA in terms of disturbance or habitat avoidance/change in distribution.
- Construction phase – spread of invasive, alien plant species into the wider environment and Cork Harbour SPA.

Describe any likely direct, indirect or secondary impacts of the project (either alone or in combination with other plans or projects) on Natura 2000 sites by virtue of:

(a) Size and scale; (b) Land-take; (c) Distance from Natura 2000 Site or key features of the Site; (d) Resource requirements; (e) Emissions; (f) Excavation requirements; (g) Transportation requirements; (h) Duration of construction, operation etc.; and (i) Other

(a) Size and scale

The proposed development of a single dwelling is small in nature, within a site of area 0.6 ha.

(b) Land take (Habitat loss)

There will be no direct habitat loss as the proposed site lies outside of the SPA boundary.

(c) Distance to Natura 2000 sites

2 m at closest point drawn by a straight line.

(d) Resource requirements

None.

(e) Emissions

Surface/storm water - Construction phase

Surface water from the construction phase, i.e. site clearance, ground works, removal of invasive alien species (see below) etc.. could increase siltation levels in the adjacent stream. Chemicals used during construction, including cements and hydrocarbons, could also enter the stream through spillage. Unmitigated construction phase impacts could result in potential *significant negative impacts* upon the stream ecology and upon the conservation objectives of Cork Harbour SPA. This potential impact cannot be screened out and passes to Stage 2: NIS.

Surface/storm water – Operational phase

The project has been subject to a dedicated surface water drainage assessment, undertaken by Ireland Wastewater (2026) in accordance with Cork County Council's *Advice Note 1: SuDS Selection Hierarchy for Small-Scale Developments*. The proposed strategy includes:

- Storm water soakaways to manage runoff from roof areas and sections of the driveway,
- A permeable finish to the lower section of the driveway to promote infiltration,
- Incorporation of Sustainable Drainage Systems (SuDS), including water butt for rainwater harvesting and bio-retention planter/areas.

The above measures have been designed to ensure that no unattenuated water will leave the site or enter the stream and downstream residual impacts are considered *imperceptible to slight negative (not significant)*. This potential impact is screened out.

Air, noise and vibration

Noise and vibration can be generated from a number of construction activities, with levels varying depending on the specific task being carried out. Measures will need to be implemented to control noise levels and ensure that

construction activities are managed in a way that minimises adverse impacts. Uncontrolled levels could lead to *significant negative impacts.* This potential impact cannot be screened out and passes to Stage 2: NIS.

Waste management
Substandard waste management during the construction phase could lead to waste becoming airborne and entering the adjacent Cork Harbour, with various potential risks to waterbird SCIs and other wildlife. Uncontrolled levels could lead to *significant negative impacts.* This potential impact cannot be screened out and passes to Stage 2: NIS.

Foul water management
A site suitability assessment has been undertaken by Ireland Wastewater (2025). Based on this assessment, it is proposed to install a waste water treatment system and tertiary treatment system and infiltration/treatment area, as follows:

System type: Euro Bio 7-11 Precast concrete SBR Wastewater treatment system IS EN12566-3&SR66 Circle 7 Tertiary Treatment system and infiltration area IS EN12566-7

The proposed system is in line with the requirements of the EPA (2021) Code of practice '*Wastewater treatment and disposal systems serving single houses* (P.E. <10). Importantly, the minimum 10 m separation distance to the stream is achieved. Please also refer to the site characterisation report and system design details as submitted with the planning application.

Given the above compliance with regulations and standards, the impact of foul water management is considered to be *imperceptible to slight negative (not significant).* This potential impact is screened out.

(f) Excavation requirements
Some excavation works will be necessary to construct foundations and to prepare and level the site. Any impacts arising from excavations are dealt with under 'emissions' above.

(g) Transportation requirements
The proposed development will lead to a temporary increase in traffic on the local road during the construction phase. The local road (Jamesbrook Road), as well as the site access track, is capable of supporting construction vehicles, and in itself, the temporary increase in traffic is thought not likely to cause any negative impacts *(not significant).* This potential impact is screened out.

(h) Duration of operation
The proposed development will be of a permanent nature.

(i) Other

Disturbance to waterbird SCIs within Cork Harbour SPA
At its closest distance, Cork Harbour lies just 2 m from the site boundary. Disturbance relates to any activity that results in waterbirds being displaced from an area. Displacement in response to disturbance, especially if frequent, can exert pressures upon a waterbird's foraging success as well as exerting an energetic cost due to flying to an alternative foraging area. Disturbance can also act upon roosting habitat thereby increasing a bird's energy expenditure in the same way. Disturbance relates directly to Conservation Objective 1b of coastal SPA sites supporting wintering waterbirds -

'To be favourable, there should be no significant decrease in the range, timing or intensity of use of areas by the waterbird species of Special Conservation Interest, other than that occurring from natural patterns of variation'.

Noise levels at construction sites vary greatly but can exceed levels of 100dB at times. While the majority of works will occur some distance away from the foreshore, there are works proposed at the site entrance and the access track.

If unmitigated, disturbance could lead to *significant negative impacts* upon the conservation objectives of waterbird SCIs. This potential impact needs further assessment, cannot be screened out and therefore passes to Stage 2: NIS.

Potential for ex situ impacts upon waterbird species listed for Cork Harbour SPA
Waterbird species listed for a SPA may at times use habitats situated within the immediate hinterland of the SPA or in areas outside of the SPA but ecologically connected to it. The reliance on these habitats will vary from species to species and from site to site. Significant habitat change/loss or increased levels of disturbance within these areas could result in impacts in terms of displacement and/or a reduction in waterbird numbers.

In the case of the current proposed development, the potential for *ex situ* impacts upon waterbirds can be ruled out. The proposed site was subject to winter bird surveys and was found not to support any waterbird SCI species (or indeed any waterbird species). Furthermore, the long, rank grassland within the proposed site is not suitable for waterbirds that forage terrestrially. The adjacent arable field was also found (during surveys) to not support any waterbird species. While Little Egret was observed locally foraging within fields they were too distant to be affected by the proposed development. They occurred close to existing houses which suggests that they are habituated to a certain level of human habitation.

Overall, the predicted impact is *no-change (imperceptible). No significant impacts are predicted.* This potential impact is therefore screened out at this stage with a high degree of confidence.

Impacts from proposed lighting
Lighting is proposed at the entrance to the proposed property, and along the driveway. Acknowledging the sensitivity of the area, it is proposed to install a small downward-facing wall light, one each side of the entrance gate, mounted on the stone gate piers which are set back from the road edge. These lights will wash light downwards and have a suitable wattage/colour lamp. Along the drive it is proposed to install low (60 cm high) downward-directed lighting bollards, at well-spaced intervals. The illuminated side of the bollard will be turned away from the approach, so that they are less apparent from the shore.
The driveway lights are not anticipated to lead to impacts upon the waterbird SCIs of Cork Harbour. The lights proposed at the site entrance however have the potential to spill light onto the foreshore if not chosen, designed and fitted adequately. This potential impact requires mitigation and therefore passes to Stage 2: NIS.

Spread of invasive, alien species
If unmitigated, development of the proposed site could lead to the spread of invasive, alien species that are deleterious to the environment and Cork Harbour SPA. While any impact is unlikely to be significant in view of the SPA's conservation objectives, this potential impact requires mitigation and therefore passes to Stage 2: NIS.

Describe any likely changes to the site as a result of: (a) Reduction of habitat area, (b) disturbance to key species, habitat or species fragmentation, (c) reduction in species density, (d) changes in key indicators of conservation value or climate change.

Based on the above assessment, the following potential impacts may give rise to significant negative impacts, as follows:

- Unmitigated surface/storm water during the construction phase,
- Air, noise and vibration,
- Inadequate waste management,
- Disturbance to waterbird SCIs within Cork Harbour SPA,
- Impacts from proposed lighting,

• Spread of invasive, alien species.
Describe any likely impacts on the Natura 2000 site as a whole in terms of: (a) Interference with the key relationships that define the structure of the site, and (b) Interference with key relationship that define the function of the site.
As above.

5.4 AA screening conclusions

Several elements of the proposed development are considered to present a risk of impacting Cork Harbour SPA and its waterbird SCIs. These elements do not pass AA screening and will progress to Stage 2: Appropriate Assessment.

6. Natura Impact Assessment

6.1 Potential for impacts upon Cork Harbour SPA

The following potential impacts have been identified as posing a risk to Cork Harbour SPA and the conservation objectives of its waterbird SCIs:

1. Unmitigated surface/storm water during the construction phase, and potential for pollution via accidental spills of oils, fuels, cements etc,
2. Air, noise and vibration,
3. Inadequate waste management,
4. Disturbance to waterbird SCIs within Cork Harbour SPA,
5. Impacts from proposed lighting,
6. Spread of invasive, alien species.

6.2 Mitigation measures

Potential impacts from surface/storm water and the potential for pollution from accidental spills of oils, fuels, cements, etc during the construction phase

A *Construction Environmental Management Plan* has been prepared for the proposed project (Ahern Bros, 2026). This document had input from ecologists at Limosa Environmental and Triturus Environmental. The following mitigation measures are proposed to protect the stream, and prevent downstream impacts upon Cork Harbour SPA:

- A minimum 10 m buffer will be maintained between the proposed development and the nearby watercourse. This area will be clearly marked before works begin and treated as a no-go zone. No construction activities, machinery, materials, refuelling, storage or excavation will be allowed within this buffer during the construction phase.
- Encroachment into the 10 m buffer will occur in relation to sections of the proposed driveway. These works shall be undertaken using best practice construction methods to prevent direct or indirect impacts on the adjacent watercourse (see below re silt fencing).

- A drainage trench comprising clean, coarse stone infill (filter drain) shall be installed around the perimeter of the site compound to intercept and attenuate surface water runoff during the construction phase
- Silt fencing shall be installed along the downslope edge of the works area adjacent to the watercourse.
- Silt fencing shall be installed along the downslope edge of all driveway works within or adjacent to the buffer zone prior to the commencement of works.
- All silt fencing shall be properly keyed into the ground, regularly inspected, and maintained in effective working order throughout the construction phase.
- All exposed soils associated with the driveway works shall be stabilised and reinstated as soon as practicable following construction to minimise the potential for sediment mobilisation.
- All drainage and sediment control measures shall be inspected regularly, particularly following heavy rainfall events, and repaired or replaced where necessary.
- Mixer washing and excess concrete will not be discharged to surface water drainage systems.
- Concrete washout areas will be located away from any surface water drainage features (50 m), to avoid accidental discharge to the watercourse.
- Washing out of any concrete trucks on site is not permitted.
- Refuelling of machinery will only take place within the site compound, at least 25 m away from the adjoining watercourse and any surface water pathways.
- All fuel storage on site will be bunded to 110% of tank capacity and designed in line with best practice guidelines (BPGCS005 – Oil Storage Guidelines). Mobile fuel bowsers, tanks and drums will be kept in a secure, impermeable area away from drains and open water. Equipment such as generators and fuel tanks will also be located within bunded areas.
- Only trained personnel will carry out refuelling, and spill kits will be available at all times. An emergency spill kit will be kept on site to respond to any accidental spills.
- Any generators stored in the compound will be bunded to 110% capacity.
- All works for the on-site wastewater treatment system will follow the EPA Code of Practice (2021) and current Building Regulations.
- The system will be installed by a qualified contractor and overseen by a chartered engineer.
- The infiltration area will be clearly marked and fenced off before construction begins to prevent access and damage.
- Trenches will be backfilled as soon as possible after excavation.

In addition to the above, the CEMP shows a drawing of the location of the site compound which confirms that a 50 m separation zone (buffer) can be achieved.

The following legislation and guidance documents were considered in relation to water management on site:
CIRIA Control of Water Pollution from Linear Construction Sites. Technical Guidance (C648)
CIRIA Control of Water Pollution from Construction Sites. Guidance for Consultants and Contractors (C532).

The CEMP also includes detailed measures to prevent impacts of fuels, lubricants and any other hydrocarbons if they are used during construction.

Measures within the Construction Environmental Management Plan (CEMP) are designed to prevent impacts upon all surface waters and ensure that all silts and solids will infiltrate to ground. If these measures are adhered to, then residual impacts are considered *imperceptible – slight negative* in nature (*not significant*). Please also refer to the Outline *Construction Environmental Management Plan* (Ahern Bros, 2026) for full details on environmental protection measures. Note that the CEMP should be updated with any additional measures as required by planning conditions.

Air, noise and vibration

Noise and vibration may be generated from a number of construction activities, with levels varying depending on the specific task being carried out. Measures will be implemented to control noise levels and ensure that construction activities are managed in a way that minimises adverse impacts. The following legislation, codes of practice, and regulations were considered:

- ProPG document 'Planning & Noise – Professional Practical Guidance on Planning & Noise - New Residential Development May 2017'.
- BS 5228-1:2009+A1:2014 and BS 5228-2:2009+A1:2014 Code of Practice for Noise and Vibration Control on Construction and Open Sites.
- Safety, Health and Welfare at Work (General Application) Regulations 2007 to 2016, Part 5 Noise and Vibration.
- Environmental Protection Agency Act 1992 (Noise) Regulations 1994.
- CIRIA guidance document C741 Environmental good practice on site guide'.
- National Roads Authority guidance 'Guidance for the treatment of noise and vibration in National Road Schemes'.
- British Standard BS 7385 -2:1993: Evaluation and measurement for vibration in buildings. Guide to damage levels from ground borne vibration.
- Construction activities will take place during standard working hours. Works are proposed to run from 08:00 to 18:00 Monday to Friday, and from 08:00 to 14:00 on Saturdays. No construction work will occur on Sundays or Bank Holidays.
- Deliveries of materials, plant, or machinery will not take place before 08:00 or after 19:00.
- The Main contractor/client will provide neighbours with contact details to ensure open communication regarding any noise or vibration concerns.
- Engines will not be revved unnecessarily, and equipment will be switched off when not in use.
- Drop heights for materials will be kept to a minimum to reduce noise.
- Plant and equipment will undergo regular maintenance and inspections.
- Minimal-impact reversing alarms will be used, and the use of horns will be avoided where possible.
- Noise-reducing barriers will be erected as required around noisy operations or equipment such as generators, heavy plant, or compressors.

The noise limits applicable for the duration of the construction works are those set out under Category B of BS 5228. These limits are considered appropriate with reference to Section E.2 of BS 5228, which advises that noise levels should not exceed 70 dB in rural, suburban, and urban areas that are removed from major road traffic and industrial noise sources.

Vibration limits for the construction phase will follow the requirements of BS 5228-2:2009+A1:2014 (Code of Practice for Vibration Control on Construction and Open Sites) and BS 7385:1993 (Evaluation

and Measurement for Vibration in Buildings – Part 2: Guide to Damage Levels from Ground-Borne Vibration).

The potential for impacts upon waterbird SCIs of Cork Harbour are assessed below in terms of disturbance. The potential for impacts upon other (site-based) receptors are considered to be *temporary slight negative* in nature (*not significant*). Please also refer to the *Construction Environmental Management Plan* (Ahern Bros, 2026) for full details on environmental protection measures.

Waste management

The CEMP (Ahern Bros, 2026) describes the actions to correctly store materials, dispose of waste materials, manage and prevent contamination of ground and surface waters, and manage noise and dust levels during construction. If the mitigation is adhered to, then residual impacts are considered *imperceptible – slight negative* in nature (*not significant*). Please also refer to the *Construction Environmental Management Plan* (Ahern Bros, 2026) for full details on environmental protection measures.

Disturbance to waterbird SCIs species within Cork Harbour SPA

Disturbance relates to any activity that results in waterbirds being displaced from an area. Displacement in response to disturbance, especially if frequent, can exert pressures upon a waterbird's foraging success as well as exerting an energetic cost due to flying to an alternative foraging area. Disturbance can also act upon roosting habitat thereby increasing a bird's energy expenditure in the same way. Disturbance relates directly to Conservation Objective 1b of coastal SPA sites supporting wintering waterbirds:

'*To be favourable, there should be no significant decrease in the range, timing or intensity of use of areas by the waterbird species of Special Conservation Interest, other than that occurring from natural patterns of variation*'.

Noise levels at construction sites vary greatly but it is estimated that noise levels for the proposed project will not exceed 70 dB.

Waterbird responses to disturbance from a range of activities including construction work have been collated and summarised over time. Cutts et al (2013) summarise waterbird responses to disturbance from a range of activities as follows:

Personnel and plant on mudflat:	High (and should be restricted at all times)
Third party on mudflat:	High (but difficult to restrict)
Personnel and plant on seaward toe and face:	High to Moderate
Intermittent plant and personnel on crest:	High to Moderate
Third party on bank:	High to Moderate
Irregular piling noise (above 70db):	High to Moderate
Long-term plant and personnel on crest:	Moderate
Regular piling noise (above 70db):	Moderate
Irregular noise (50db - 70db):	Moderate
Regular noise (50db - 70db):	Moderate to Low
Occasional movement of crane:	Moderate to Low
Noise below 50db:	Low
Long-term plant only on crest:	Low
Activity behind flood bank (inland):	Low

Cutts et al. (2013) suggest that construction works with regular levels of noise of 50bd to 70db result in 'moderate' responses from waterbirds, in that waterbirds become habituated to the levels. Above 70dB, the noise levels are likely to lead to waterbirds moving away from the source of noise (note however that this is generic and may differ greatly between differ noise stimuli and between different waterbird species). Noise levels attenuate over distance. For assessment purposes we measured the distance from the main centre of the site (using QGIS) to (i) the freshwater outflow, (ii) the foreshore at closest point, and (iii) the known roost site (Figure 19). These distances are 271 m, 250 m and 290 m respectively.

Figure 19. Distances from main works area to (left to right) (i) freshwater inflow, (ii) foreshore and (iii) roost location.

Following Cutts et al. (2013) at 250 m (the minimum measured distance), a 70 dB noise level is predicted to decrease to less than 20 dB and elicit a **low response** from waterbirds as per the table below:

Metres from Source	dB(A)										
0.67							80	75	70	65	60
1.33					84	79	74	69	64	59	
2.67				83	78	73	68	63	58		
5.33			82	77	72	67	62	57			
10.67			76	71	66	61	56				
20.67		80	70	65	60	55					
42.67	84	74	64	59							
85.33	78	68									
170.67	72	62									
341.33	66	56									
682.66											
1365.33											

This assessment therefore suggests that the majority of the proposed works will result in a negligible response from waterbirds (*not significant*). This assumes that works will be undertaken during winter however, but given inclement weather etc.. it is likely that works will not be continuous throughout winter months.

Good numbers of waterbirds can occur very close to the southern extent of the proposed development site (at site entrance), especially where the stream flows into Saleen Creek. Here waterbirds aggregate to bathe, drink, swim (at low tide) and loaf. Wading birds such as Black-tailed Godwit and Redshank appear habituated to the existing low level of activities that occur along Jamesbrook Road such as local traffic and walkers. However, construction works in the vicinity of the site entrance would be impactful because the birds would likely move away from such works and relocate elsewhere. This may lead to significant negative impacts in terms of Conservation Objective 1b.

The works proposed in the vicinity of the site entrance such as creating an access track surface (lower section) and building stone pillars etc.. will be relatively short-term in nature and can be timed to prevent any impacts. Therefore, to prevent impacts, it is proposed to undertake these works **outside** of the wintering bird period (i.e. not within the period September to March). If this mitigation is adhered to, then residual impacts are considered *imperceptible* in nature (*not significant*).

Impacts due to proposed lighting

Lighting is proposed at the entrance to the proposed property, and along the driveway. Lights along the driveway, and those close to the house, are unlikely to cause any impacts to waterbirds of Cork Harbour SPA. Lights at the entrance however, have the potential to cause impacts in terms of light spill, and disturbance/displacement of birds.

Acknowledging the sensitivity of the area, it is proposed to install a small downward-facing wall light, one each side of the entrance gate, mounted on the stone gate piers which are set back from the road edge. These lights will wash light downwards and have a suitable wattage/colour lamp.

The final lighting product has not yet been determined. The mitigation therefore is that the final lighting product should be chosen on the basis that no light will reach across the local road and spill onto the foreshore. If this mitigation is adhered to, then residual impacts are considered to be *imperceptible – slight negative* in nature (*not significant*).

Impacts due to invasive, alien species

The CEMP (Ahern Bros, 2026) contains the management measures that will be followed to remove Cherry Laurel and Winter Heliotrope. This mitigation was formulated by an ecologist, and follows standard guidance documents. If this mitigation is adhered to, then residual impacts upon Cork Harbour SPA are considered to be *imperceptible* in nature (*not significant*).

6.3 Conclusion

We conclude that with the incorporation of the recommended mitigation measures, the proposed development is unlikely to cause significant negative impacts upon the Natura 2000 (European) site, Cork Harbour Special Protection Area. With correct implementation of the mitigation measures, the proposed development does not include any element that has the potential to significantly negatively affect the conservation objectives associated with waterbird SCIs of Cork Harbour SPA, or interfere with the key relationships that define the SPA's structure or function, either alone or in-combination with other projects.

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Appendix 1

Ecological Evaluation and Ecological Impact Assessment (EcIA)

Ecological Impact Assessment (EcIA) process has three main steps:

1. Ecological evaluation – this step consists of evaluating each ecological resource (e.g. habitat, population, or species) within the zone of influence (area to be affected) using the criteria outlined in Table 1a (based on a geographic hierarchy of importance). Each ecological resource is given an evaluation value (ranking) as described in Table 1b.
2. Impact (Affect) prediction - based on information provided on the proposed project/development, this step aims to identify all direct and indirect impacts that may affect the ecological features in the zone of influence, and wider area. Table 1c gives impact terminology as per the EPA (2022).
3. Assessment of the magnitude of impact - impact magnitude refers to the 'size' or 'amount' of an impact/ affect (IEEM, 2006; EPA, 2022). The magnitude of an impact will depend on the nature and sensitivity of the ecological features and will be influenced by intensity, duration (temporary/permanent), timing, frequency and reversibility of the potential impact (CIEEM 2018). Levels of impact magnitude are given in Table 1d. Magnitude terminology is based on EPA (2003) while the rationale for assigning level of significant impact follows CIEEM (2018). Importantly, this step aims to identify the impacts which may be significant upon '*important ecological features*' (CIEEM, 2018).

Table 1a. Criteria for ecological evaluation

Evaluation criteria	Definitions and Notes
Site designations	Designated areas for conservation are areas that are designated under national and/or European laws in order to conserve habitats and species of national or international conservation importance. These include: • Natural Heritage Areas (NHA): a national designation given legal status by the Wildlife Amendment (2000) Act. • Special Areas of Conservation (SAC): areas considered of European and national importance whose legal basis is the EU Habitats Directive (92/43/EEC), transposed into Irish law through the European Union (Natural Habitats) Regulations, 1997. • Special Protection Areas (SPA): sites of conservation importance for birds whose legal basis is the EU Birds Directive (209/147/EC). • Wildfowl Sanctuary: designated under the 1976 Wildlife Act. • Ramsar Site: European designation based on the Ramsar Convention, 1984.
Species designations/criteria	Certain legislation refers directly to species/populations (e.g. annexed species): • Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora. • Council Directive 79/409/EEC on the Conservation of Wild Birds ('Birds Directive'). • Bern Convention on the Conservation of European Wildlife and Natural Habitats. • The Wildlife Act (1976) and the Wildlife (Amendment) Act (2000). • Birds of Conservation Concern in Ireland (Colhoun & Cummins, 2013). • Red Data Books (e.g. Wyse-Jackson et al. 2016) • Flora (Protection) Order, 2022.
Size	Includes both size of habitats (area) and population size of individual species and is intrinsically linked to other criteria such as rarity and fragility (below). Habitats: considers minimum viable size of habitats, habitat heterogeneity, species/area relationships, home-range size. Populations: considers concept of minimum viable population size (population viability), national and local population trends, extinction risk.

Diversity / Biodiversity	At a minimum species richness (number of species). Biodiversity defined as 'the variability among living organisms from all sources including, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part (Convention on Biological Diversity, 1993). Must be considered in terms of the habitat type - some habitats have low species diversity by nature. Keystone species deserve special attention – defined as a species whose removal would induce significant changes within the food web (Begon et al. 1996).
Rarity	Applies to habitats and to species. The degree to which a habitat or community approximates a natural state. The degree to which the site is a good example of the habitat types. National, county, local scales e.g. within 10-km^2 squares.
Naturalness	The degree of modification by human intervention. Habitats that are least modified are generally regarded more highly (Treweek, 1999). Also considers the extent to which the habitat is free of alien species.
Representativeness/ Typicalness	How well the area represents habitats or vegetation types on a wider scale (Treweek, 1999); 'degree of representivity of the natural habitat type on the area' (Council Directive 92/43/EEC; Habitats Directive).
Fragility	The degree of sensitivity of habitats, communities and species to environmental change.
Stability/Resistance/Resilience	Habitats and species. Stability refers to the ability of an ecosystem to maintain some form of equilibrium in the presence of a disturbance. Resilience is defined as the ability and speed with which a community returns to its former state following a disturbance. Resistance is defined as the ability of a community to avoid displacement by a disturbance (Begon et al. 1996).
Other criteria include:	
Recorded history (scientific value), Potential value, Educational value, Amenity value.	

Table 1b. Ecological Evaluation

Ecological value	Examples
A International	Sites designated as Special Protection Areas (SPA), Special Areas of Conservation (SAC), Ramsar Sites. Sites meeting criteria for international designation.
B National	Sites designated as Natural Heritage Areas (NHA) or sites qualifying for designation. Undesignated sites containing good examples of Annex I habitats. Undesignated sites containing significant numbers of resident or regularly occurring populations of Annex II species under the EU Habitats Directive or Annex I species under the EU Birds Directive or species protected under the Wildlife (Amendment) Act 2000. Sites supporting viable populations of Red Data Book species (nationally rare species).
C Regional	Undesignated sites that are prime examples of the habitat (natural or semi-natural) type, exhibit high biodiversity or support important communities/assemblages of species within the region. Sites exhibiting habitats that are scarce within the region.

	Sites that support nationally scarce plant species (recorded from less than 65 10-km^2 squares, unless they are locally abundant). Sites that hold regionally scarce vertebrate species.
D High Local	Sites that are prime examples of the habitat type, exhibit high biodiversity or important communities/assemblages of species within the local area. Habitats that are considered important in a local context – e.g. semi-natural habitats within an urban setting, hedgerows and treelines that serve as important ecological corridors within an otherwise modified landscapes. Sites exhibiting habitats/species that are generally scarce within the local area.
E Moderate Local	Sites that exhibit good quality semi-natural habitats. Hedgerows and treelines.
F Low Local	Artificial or modified habitats considered of low value for wildlife.

Adapted from CIEEM, 2018; IEEM, 2005; NRA, 2004; Regini, 2000.

Table 1c. Description of effects as per the EPA (2022):

Positive Impact	A change which improves the quality of the environment.
Negative Impact	A change which reduces the quality of the environment (for example, lessening species diversity or diminishing the reproductive capacity of an ecosystem, or damaging health or property or by causing nuisance).
Neutral Impact	No effects or effects that are imperceptible, within normal bounds of variation or within the margin of forecasting error.
Indirect Effects/ Secondary Effects	Impacts not directly associated with the project, often produced away from the project site or because of a complex pathway.
Cumulative Effects	The addition of many small impacts to create one larger, more significant, impact.
Do-Nothing Effects	The environment as it would be in the future if no development was carried out.
Worst-Case Effects	Impacts arising from a development in the case where mitigation measures substantially fail.
Indeterminable Effects	When the full consequences of a change in the environment cannot be described.
Irreversible Effects	When the character, distinctiveness, diversity or reproductive capacity of an environment is permanently lost.
Residual Effects	The degree of environmental change that will occur after the proposed mitigation measures have taken effect.
Synergistic Effects	Where the resultant impact is of greater significance than the sum of its constituents.

Table 1d. Significance of Effects (terminology based on EPA 2022; CIEEM 2018).

Impact Magnitude	Definition / Rationale
Imperceptible	An effect capable of measurement but without noticeable consequences.
Not Significant	An effect that causes noticeable changes in the character of the environment but without significant consequences.
Slight Effects	An effect that has noticeable consequences without affecting its sensitivities.
Moderate Effects	An effect that alters the character of the environment in a manner that is consistent with existing and emerging baseline trends.

Significant Effects	A significant effect is one which undermines the conservation objectives for 'important ecological features' (CIEEM, 2018). In broad terms, significant effects encompass impacts upon the structure and function of a defined site, its habitats and species and their conservation status; or in other words on site integrity**. EPA (2022) measures these effects as those that significantly alter a sensitive aspect of the environment.
Very Significant Effects	An effect which, by its character, magnitude, duration or intensity significantly alters most of a sensitive aspect of the environment.
Profound Effects	An effect that obliterates sensitive characteristics.

** Integrity is defined as 'the integrity of a site is the coherence of its ecological structure and function, across its whole area, that enables it to sustain the habitat, complex of habitats and/or the levels of populations of the species for which it was classified.

Table 1e. Quality of Effects (terminology based on EPA, 2022)

Impact Magnitude	**Definition / Rationale**
Positive Effects	A change which improves the quality of the environment (e.g. increasing species diversity, improving reproduction capacity or by removing nuisances).
Neutral Effects	No effects or effects that are imperceptible, within normal bounds of variation or within the margin of forecasting error.
Negative Adverse Effects	A change which reduces the quality of the environment (for example, lessening species diversity or diminishing the reproductive capacity of an ecosystem; damaging health or property or by causing nuisance).

Appendix 2

SITE NAME: CORK HARBOUR SPA
SITE CODE: 004030

Cork Harbour is a large, sheltered bay system, with several river estuaries - principally those of the Rivers Lee, Douglas, Owenboy and Owennacurra. The SPA site comprises most of the main intertidal areas of Cork Harbour, including all of the North Channel, the Douglas River Estuary, inner Lough Mahon, Monkstown Creek, Lough Beg, the Owenboy River Estuary, Whitegate Bay and the Rostellan and Poulnabibe inlets.

Owing to the sheltered conditions, the intertidal flats are often muddy in character. These muds support a range of macro-invertebrates, notably *Macoma balthica, Scrobicularia plana, Hydrobia ulvae, Nepthys hombergi, Nereis diversicolor* and *Corophium volutator.* Green algae species occur on the flats, especially *Ulva* spp. Cordgrass (*Spartina* spp.) has colonised the intertidal flats in places, especially where good shelter exists, such as at Rossleague and Belvelly in the North Channel. Salt marshes are scattered through the site and these provide high tide roosts for the birds. Some shallow bay water is included in the site. Rostellan Lake is a small brackish lake that is used by swans throughout the winter. The site also includes some marginal wet grassland areas used by feeding and roosting birds.

The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: Little Grebe, Great Crested Grebe, Cormorant, Grey Heron, Shelduck, Wigeon, Teal, Pintail, Shoveler, Red-breasted Merganser, Oystercatcher, Golden Plover, Grey Plover, Lapwing, Dunlin, Black-tailed Godwit, Bar-tailed Godwit, Curlew, Redshank, Black-headed Gull, Common Gull, Lesser Black-backed Gull and Common Tern. The site is also of special conservation interest for holding an assemblage of over 20,000 wintering waterbirds. The E.U. Birds Directive pays particular attention to wetlands and, as these form part of this SPA, the site and its associated waterbirds are of special conservation interest for Wetland & Waterbirds. Cork Harbour is an internationally important wetland site, regularly supporting in excess of 20,000 wintering waterfowl. Of particular note is that the site supports internationally important populations of Black-tailed Godwit (1,896) and Redshank (2,149) - all figures given are five year mean peaks for the period 1995/96 to 1999/2000. At least 18 other species have populations of national importance, as follows: Little Grebe (57), Great Crested Grebe (253), Cormorant (521), Grey Heron (80), Shelduck (2,009), Wigeon (1,791), Teal (1,065), Pintail (57), Shoveler (103), Red-breasted Merganser (121), Oystercatcher (1,809), Golden Plover (3,342), Grey Plover (95), Lapwing (7,569), Dunlin (9,621), Bar-tailed Godwit (233) and Curlew (2,237). The Shelduck population is the largest in the country (over 10% of national total). Other species using the site include Mute Swan (38), Whooper Swan (5), Pochard (72), Gadwall (6), Mallard (513), Tufted Duck (64), Goldeneye (21), Coot (53), Ringed Plover (73), Knot (26), Greenshank (46) and Turnstone (113). Cork Harbour is an important site for gulls in winter and autumn, especially Black-headed Gull (3,640), Common Gull (1,562) and Lesser Black-backed Gull (783), all of which occur in numbers of national importance. Little Egret and Mediterranean Gull, two species which have recently colonised Ireland, also occur at this site.

A range of passage waders occurs regularly in autumn, including such species as Ruff (5-10), Spotted Redshank (1-5) and Green Sandpiper (1-5). Numbers vary between years and usually a few of each of these species over winter.

Cork Harbour has a nationally important breeding colony of Common Tern (102 pairs in 1995). The birds have nested in Cork Harbour since about 1970, and since 1983 on various artificial structures, notably derelict steel barges and the roof of a Martello Tower. The birds are monitored annually and the chicks are ringed.

Cork Harbour is of major ornithological significance, being of international importance both for the total numbers of wintering birds (i.e. > 20,000) and also for its populations of Black-tailed Godwit and Redshank. In addition, there are at least 20 species that have wintering populations of national importance, as well as a nationally important breeding colony of Common Tern. Several of the species which occur regularly are listed on Annex I of the E.U. Birds Directive, i.e. Whooper Swan, Little Egret, Golden Plover, Bar-tailed Godwit, Ruff,

Mediterranean Gull and Common Tern. The site provides both feeding and roosting sites for the various bird species that use it. Cork Harbour is also a Ramsar Convention site and part of Cork Harbour SPA is a Wildfowl Sanctuary.

21st November 2014

Appendix 3

Certificate of Competence

Limosa Environmental was established by **Dr Lesley J Lewis** and associates in 2004 and has since amassed a range of experience across both the private and public sectors. Our aim is to provide a first-class professional service at competitive prices in line with national and international best practice and adhering to the codes of conduct laid down by the Chartered Institute of Ecology and Environmental Management. We can provide a wide range of ecological and environmental services, bringing together teams of professionally qualified, accredited and specialist ecologists and environmental scientists to meet the specific requirements of each individual project. We hold current Professional Indemnity and Public Liability Insurances.

Relevant Experience in relation to Appropriate Assessment: Dr Lesley J Lewis has over 20 years of experience as a consultant ecologist.

Consultant ecologist to planning departments – Lesley has recently been engaged as a consultant ecologist by planning authorities including Dublin City Council and Cork City Council. Lesley is also on a panel of expert ecological consultants contracted by An Coimisiún Pleanála. In this work Lesley reviews ecological reporting (AA/EIAR) and advises on planning opinions and decisions.

Recent Experience Ecological Impact Assessment/Appropriate Assessment: Private development of a single dwelling house at Toe Head, Co. Cork (2025/2026, private client), Appropriate Assessment/EcIA for a proposed business park, Carrigtwohill, Cork (2025, private client), Appropriate Assessment of the Cliffs of Moher 2040 Strategy (2024, The Planning Partnership/Clare County Council), Appropriate Assessment of a LRD housing development, Douglas, Cork (2024 private client), Appropriate Assessment of Westfields Wetlands Management Plan (2023 Limerick City and County Council), development of industrial units, Carrigtwohill, Cork (2023 private client), development of a warehouse, Macroom, Cork (2023 private client), development of a Data Centre, Little Island, Cork (2022 private client), private development Baltimore, Co. Cork (2021, private client), light industrial/warehousing development, Little Island, Cork (2021, private client), mixed-use development Carrigaline, Co. Cork (2021, Lidl Ireland), Youghal Front Strand Flood Mitigation Works (2020, Cork County Council), Mixed-use development (2020, Mallow, Co. Cork, Lidl Ireland), development of a light industrial park, Watergrasshill, Cork (2019, private client); Re-development of Carrignacurra Castle, Co Cork (2019, private client), private development Baltimore Co. Cork (2019, private client), bus shelter/accessible stop program – East Cork (2019, Cork County Council), development of a light industrial park, Little Island, Cork (2019, private client); installation of a zip-line on Bull Rock (2019, BirdWatch Ireland), development of a light industrial park/warehousing, Little Island, Cork (2019, private client); development of a light industrial park/warehousing, Watergrasshill, Co. Cork (2019, private client); repair works to sea walls Cork Harbour (2019, Cork County Council); housing development at Newmarket (2018, private client), housing development at Toonsbridge, Macroom (2018, private client), road re-surfacing at Toonsbridge, Macroom, Co. Cork (2018, for Cork County Council), development of pedestrian footbridges Castlemartyr, Co. Cork (2018, Cork County Council), private development Castletownbere Co. Cork (2018, private client), residential/business development Clonakilty, Co. Cork (2018, private client), re-development of site of former Duhallow Park Hotel (2018, private client), housing development (50 houses) Carrigtwohill, Co. Cork (2018, private client), road re-surfacing at Toonsbridge, Macroom, Co. Cork (2017, for Cork County Council), development of a discount foodstore Fermoy, Cork (2017, Lidl Ireland), housing development (47 houses), Cobh, Co Cork (2017, private client), extension to light industrial unit, Douglas, Cork (2017, private client), development of a discount foodstore Douglas, Cork (2017, Lidl Ireland), works to sea walls at Rosscarbery (2017 Cork County Council), development of a footbridge at Killeagh Co Cork (2017, Cork County Council), development of an eco-campsite in West Cork (2017, private client),

Rosscarbery flood defence works (2016, Cork County Council), development of Lidl stores at Mallow and Kanturk (2016, Lidl Ireland).

Relevant Experience in relation to coastal ecology, wetlands and waterbirds:

1999- 2003 PhD Studies - Ecological disturbance and its effects on estuarine benthic invertebrate communities and their avian predators (wading birds). The study site was Clonakilty Bay.

Waterbird Surveys: I-WeBS Counter of Clonakilty Bay (20 years), Coordinator and participant in waterbird surveys at Bannow Bay (Co Wexford) during winters of 2014/15 – 2018/19 (for Inis Environmental/Marine Institute); Survey team member for waterbird surveys at Dungarvan Harbour (2015/16, 2017/18, 2018/19, 2020/21 and 2021/22 Atkins Ireland for the Marine Institute); Monthly I-WeBS counts at various sites including Clonakilty Bay (Co Cork) and Dungarvan Harbour (Co. Waterford) (September to March annually and on-going), waterbird surveys as part of ecological monitoring of Youghal Landfill (2014-2016, Cork County Council), and East Cork Landfill (2006 - 2016, Cork County Council). Survey team member during the NPWS Waterbird Survey Programme (2009-2012) including Courtmacsherry Estuary, Clonakilty Estuary, Ballyteigue Burrow, Dungarvan Harbour, Dundalk Harbour, Bannow Bay, Blackwater Estuary and Cork Harbour.

UCC Project Supervisor – Student supervisor that resulted in a published paper: Murphy, S., **Lewis, L. J.** & Kelly T. C. (2006) The spatial ecology of wildfowl in Courtmacsherry Bay, Southern Ireland, with particular reference to Shelduck *Tadorna tadorna*. *Irish Birds* 8, 51-58.

Estuarine benthic studies - annual benthic study of the River Fergus Estuary (2006 – current, private client); intertidal survey of the Owenboy estuary (2013 Atkins Ireland Ltd), benthic surveys of Rossmore Bay and peninsula (as part of annual monitoring of East Cork Landfill (2006 – 2014, Cork County Council); benthic surveys of Tramore Bay (as part of annual monitoring of Tramore Landfill (2004 – 2008, Waterford County Council); benthic surveys of upper Colligan Estuary (as part of annual monitoring of Dungarvan Landfill (2004 – 2008, Waterford County Council).

Waterbird Ecologist/Project Manager BirdWatch Ireland (P/T 2009 - 2025) – Lesley was the Project Manager of the Irish Wetland Bird Survey (I-WeBS) and Countryside Bird Survey (CBS) between September 2017 and March 2025.

Birds of Conservation Concern in Ireland (BoCCI4) – co-author of the most recent assessment of the status of birds in Ireland (Gilbert et al. 2021).

Waterbird Ecologist (2009–2014) – As a BWI employee, Lesley was contracted to the National Parks & Wildlife Service (NPWS) between 2009 and 2014. In her role as 'Waterbird Ecologist' Lesley was responsible for the design and implementation of the NPWS Waterbird Survey Programme. Lesley was the project manager for the programme of surveys that ran over three winters (2009/10, 2010/11 and 2011/12) with surveys undertaken across 32 coastal Special Protection Areas (SPAs). Data collected were analysed and used in the process of formulating conservation objectives for coastal SPAs. Lesley worked on all aspects of this process from the initial stages of conception and development, data analysis, through to the production of conservation objectives documents for all 32 coastal SPAs. This work culminated in the publication of standard low-tide survey methods for waterbirds (Lewis & Tierney, 2014).

Recent relevant selected publications and reports:

McDougall, R. N., Judge, M., Kennedy, J., **Lewis, L. J.** & Green, S. (2025) Use of remotely mapped land cover features as a proxy for Irish bird and butterfly abundance and distribution. *Biology and the Environment* 124B, 131-152.

Kennedy, J., Burke, B., Fitzgerald, N, Kelly, S.B.A., Walsh, A. & Lewis, L.J. (2023) Site-level trends and national trends for wintering waterbirds in Ireland 1994/95-2019/20. *Irish Birds* 45, 11-24.

Gilbert, G., Stanbury, A. & Lewis, L.J. (2021) Birds of conservation concern in Ireland 4 2020 – 2026. *Irish Birds* 43, 1-22.

Burke, B., McElwaine, J. G., Fitzgerald, N., Kelly, S.B.A., McCulloch, N., Walsh, A. J., & Lewis, L. J. (2021) Population size, breeding success and habitat use of Whooper Swan *Cygnus cygnus* and Bewick's Swan Cygnus *columbianus bewickii* in Ireland: results of the 2020 International Swan Census. *Irish Birds* 43, 57-70.

Lewis, L. J. & Hayes, W. (2019) Waterbird survey of Lough Gur, County Limerick 2018 – 2019. Final Report. Report commissioned by Limerick City & County Council in association with Lough Gur Development Co-Operative Society Ltd and prepared by BirdWatch Ireland and Limosa Environmental. June 2019.

Lewis, L. J., Burke, B., Fitzgerald, N., Tierney, T. D. & Kelly, S. (2019) Irish Wetland Bird Survey: Waterbird Status and Distribution 2009/10 - 2015/16. Irish Wildlife Manuals No. 106. National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht, Ireland.

Lewis, L. J. (2019) An assessment of the effects of recreational and other activities on the waterbirds using the Bull Island saltmarsh. Final Report. Report commissioned by Dublin City & County Council and prepared by BirdWatch Ireland. April 2019.

Adcock, T., Lewis, L. J. & Hodd, R. (2019) Sutton to Sandycove (S2S) cycleway and footway ecology and ornithological monitoring 2018-2019. Report by BirdWatch Ireland to Dublin City Council. June 2019.

Burke, B., **Lewis, L. J.,** Fitzgerald, N., Frost, T., Austin, G. & Tierney, T. D. (2018) Estimates of waterbird numbers wintering in Ireland, 2011/12 – 2015/16. *Irish Birds* 11, 1-12.

Burke, B. & **Lewis, L. J.** (2018) Assessment of numbers and distribution of post-breeding terns at Irish coastal wetlands in August and September 2017. BirdWatch Ireland & the National Parks & Wildlife Service.

Pavon-Jordán, D., Clausen, P., Dagys, M., Devos, K., Encarnacao, V., Fox, A. D., Frost, T., Guadard, C., Hornman, M., Keller, V., Langendoen, T., Tawocki, T., **Lewis, L. J.,** Lorentsen, S-H., Luigujoe, L., Meissner, W., Molina, B., Musil, P., Musilova, Z., Nilsson, L., Paquet, J-Y., Ridzon, J., stipniece, A., Teufelbauer, N., Wahl, J., Zentatello, M & Lehikoinen, A. (2018) Habitat- and species-mediated short- and long-term distributional changes in waterbird abundance linked to variation in European winter weather. Diversity & Distributions https://doi.org/10.1111/ddi.12855.

Burke, B., Fitzgerald, N. & **Lewis, L. J.** (2018) Irish Wetland Bird Survey: Results of waterbird monitoring in Ireland 2015/16. BirdWatch Ireland & the National Parks & Wildlife Service.

Lewis, L. J., Fennessy, G. & Cummins, S. (2018) Light-bellied Brent Goose *Branta bernicla hrota* at Sruwaddacon Bay, north-west Co. Mayo, Ireland. Goose Bulletin 2018.

Lewis, L. J. Austin, G., Boland, H., Frost, T., Crowe, O. & Tierney, T. D. (2017) Waterbird populations on non-estuarine coasts of Ireland: results of the 2015/16 Non-Estuarine Coastal Waterbird Survey (NEWS-III). Irish Birds 10, 511-522.

Appendix 4

Biological water quality (Q-sampling) (Triturus Environmental)

The unnamed stream adjacent to the proposed development was assessed for biological water quality through Q-sampling in April 2026. Samples were collected upstream and downstream of the proposed development site. Samples were taken with a standard kick sampling hand net (250mm width, 500µm mesh size) from areas of riffle/glide utilising a 2-minute kick sample, as per Environmental Protection Authority (EPA) methodology (Feeley et al. 2020). Large cobble was also washed at each site for 1-minute (where present) to collect attached macro-invertebrates (as per Feeley et al. 2020). Samples were elutriated and fixed in 70% ethanol for subsequent laboratory identification to species level. Samples were converted to Q-ratings as per Toner et al. (2005) and assigned to WFD status classes (Table 4.1). Any rare invertebrate species were identified from the NPWS Red List publications for beetles (Foster et al., 2009), mayflies (Kelly-Quinn & Regan, 2012), stoneflies (Feeley et al., 2020) and other relevant taxa (i.e. Byrne et al., 2009; Nelson et al., 2011).

Table 4.1 Reference categories for EPA Q-ratings (Q1 to Q5)

Q Value	WFD status class	Pollution status	Condition
Q5 or Q4-5	High status	Unpolluted	Satisfactory
Q4	Good status	Unpolluted	Satisfactory
Q3-4	Moderate status	Slightly polluted	Unsatisfactory
Q3 or Q2-3	Poor status	Moderately polluted	Unsatisfactory
Q2, Q1-2 or Q1	Bad status	Seriously polluted	Unsatisfactory

Results

Biological water quality & macro-invertebrates

No rare or protected macro-invertebrate species (according to national red lists) were recorded in the biological water quality samples collected in April 2026 (Table 4.2).

The unnamed stream achieved **Q4 (good status)**, based on a high abundance of EPA Group A (most pollution sensitive) taxa. The mayfly *Rhithrogena semicolorata,* along with the stonefly *Siphonoperla torrentium* accounted for approximately 47% of the overall sample. The unnamed stream is therefore, meeting the target of good ecological status required under the European Union Environmental Objectives (Surface Waters) Regulations and the Water Framework Directive (2000/60/EC).
The remainder of the sample was dominated by EPA Group C taxa (approximately 45% of the total sample), including *Gammarus duebeni* and *Baetis rhodani*, with Group B taxa comprising low abundances of the mayfly *Alainites muticus* and the stonefly *Leuctra hippopus.* More pollution-tolerant Group D taxa were absent from the sample.

Table 4.2 Macro-invertebrate Q-sampling results for the unmapped stream adjacent to the proposed development site, April 2026

Taxon	Family	Binomial name	Site 1	EPA group
Ephemeroptera	Heptageniidae	*Rhithrogena semicolorata*	72	A
Ephemeroptera	Baetidae	*Alainites muticus*	6	B
Ephemeroptera	Baetidae	*Baetis rhodani*	17	C
Plecoptera	Chloroperlidae	*Siphonoperla torrentium*	3	A
Plecoptera	Leuctridae	*Leuctra hippopus*	1	B
Trichoptera	Hydropsychidae	*Hydropsyche instabilis*	1	C
Trichoptera	Hydropsychidae	*Hydropsyche siltalai*	1	C
Trichoptera	Polycentropodidae	*Plectrocnemia conspersa*	3	C
Trichoptera	Rhyacophilidae	*Rhyacophila dorsalis*	1	C
Crustacea	Gammaridae	*Gammarus duebeni*	38	C
Diptera	Chironomidae	Non-chironomus spp.	2	C
Diptera	Pediciidae	Dicranota sp.	2	C
Diptera	Simuliidae	sp. indet.	4	C
Annelidae	Oligochaeta	sp. indet.	1	n/a
Abundance			**152**	
Taxon richness			14	
Q-rating			Q4	
WFD class			Good	