Remedial Natura Impact Statement

Retention of Completed Works to Slipway, Wall and Pathway

Ballynakillew

Mountshannon

Co. Clare

Report prepared for Declan Lyons

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1 Introduction

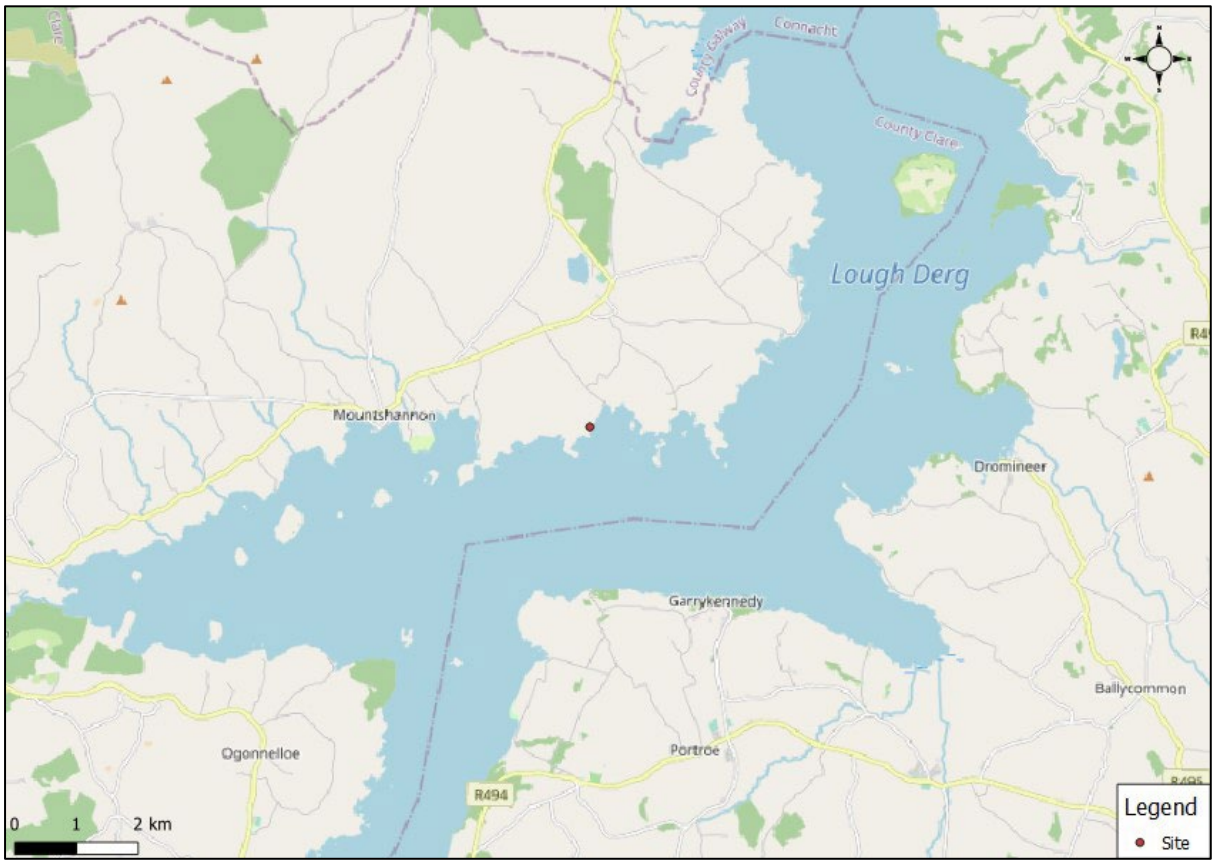
This Remedial Natura Impact Statement (NIS) provides information in support of the Appropriate Assessment (AA), prepared by Greenleaf Ecology on behalf of Declan Lyons, in respect of the proposed Retention of Completed Works to the Slipway, Wall and Pathway at Ballynakillew, Whitegate, Co. Clare. This report provides information and appraises the potential that the proposed retention of completed works, alone or in combination with other plans and projects, will have an adverse effect on the integrity of European sites in view of best scientific knowledge and the conservation objectives of the sites. European sites are those identified as sites of European Community importance designated as Special Areas of Conservation under the Habitats Directive (92/43/EEC) or as Special Protection Areas under the Birds Directive (79/409/ECC as codified by Directive 2009/147/EC).

The completed works are described in Section 1.2 of this report. The location of the development is illustrated in Figure 1-1.

1.1 Statement of Competence

This NIS has been prepared by Karen Banks. Karen is an ecologist with 18 years' experience in the field of ecological assessment. She holds a BSc (Hons) in Environment and Development from Durham University and is a full member of the Chartered Institute of Ecology and Environmental Management. Karen has extensive experience in ecological field survey and impact assessment. In her career as an ecologist Karen has undertaken reports to inform Appropriate Assessments (AA) covering the transport, energy and land use sectors, with work including assessment of Plans at the national, regional and local level; and numerous AAs of projects.

Figure 1-1: Site location map



1.2 Project Description

The site is located in the townland of Ballynakillew, Mountshannon, Co. Clare (Figure 1-1).

The project is for the retention of completed works, which comprise the following: (a) Repairs to gravel slipway with concrete and construction of an adjacent low stone wall (b) repairs to gravel pathway with gravel at Ballynakillew, Mountshannon, Co. Clare.

Slipway Construction

The slipway measures c.4.1m in length. The concrete for the slipway was a ready-mix load which was poured in one action over about half an hour. The concrete was barrowed down to the lake shore. Approximately 1.7 m^3 was used on the slipway.

The concrete was applied during warm dry weather in June 2021 when the lake level was low and the lake edge was well away from the lowest point of the slip. The concrete was laid over the existing gravel surface of the slipway. No excavation was required.

Similarly, the adjacent wall was laid and grouted with a cement mortar when the lake level was low and the lake edge was well away from the lowest point of the wall.

Pathway Construction

An existing gravel pathway was widened to c.3.9m width by the addition of further gravel and re-positioning of the timber fence.

1.3 Study Area and Zone of Influence

The completed works are located within the townland of Ballynakillew, Mountshannon, Co. Clare.

Determination of this project's Zone of Influence (ZoI) was achieved by assessing all elements of the project against the ecological receptors within the project footprint, in addition to all ecological receptors that could be connected to and subsequently impacted by the completed works through impact pathways. To this end, the ZoI extends outside of the completed works footprint to include ecological receptors connected to the project through overlap / intersection, proximity and connectivity through features such as waterbodies.

1.4 Findings of Screening for Appropriate Assessment

A Screening for Appropriate Assessment (AA) report was completed for this project in 2023 (Appendix A). The assessment report found that, due to the location of the development adjacent to Lough Derg, there is direct connectivity between the completed works and Lough Derg (Shannon) SPA. There is potential for transport of deleterious substances to Lough Derg (Shannon) SPA to have occurred during construction. It was concluded that there is potential for significant adverse effects on the SCI for Lough Derg (Shannon) SPA as a result of a reduction in water quality and disturbance during the construction phase. Given the potential for significant adverse effects on Lough Derg (Shannon) SPA, the report concluded that the Completed Works to the Slipway, Wall and Pathway at Ballynakillew, Mountshannon, Co. Clare could not be screened out for AA and that a Remedial NIS be completed to inform the AA.

1.5 NIS Objectives

This Remedial NIS considers impacts of the Completed Works to the Slipway, Wall and Pathway at Ballynakillew, Mountshannon, Co. Clare, focusing on potential impacts such as the release of water borne pollutants to Lough Derg and disturbance impacts on the SCI for Lough Derg (Shannon) SPA.

2 Methodology

2.1 Legislative Background for Appropriate Assessment

The Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora, better known as "The Habitats Directive", provides legal protection for habitats and species of European importance. Articles 3 to 9 provide the legislative means to protect habitats and species of Community interest through the establishment and conservation of an EU-wide network of sites known as Natura 2000. As defined under the Habitats Directive (Article 3(1)) Natura 2000 is a European ecological network composed of sites hosting the natural habitat types listed in Annex I and habitats of the species listed in Annex II, shall enable the natural habitat types and the species' habitats concerned to be maintained or, where appropriate, restored at a favourable conservation status in their natural range.

In Ireland, these sites are designated as European sites and include SPAs, established under the EU Birds Directive (79/409/EEC, as codified by 2009/147/EC) for birds and SACs, established under the Habitats Directive 92/43/EEC for habitats and species.

The Habitats Directive has been transposed into Irish law by Part XAB of the Planning and Development Act (as amended) and the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. 477/2011) as amended.

Articles 6(3) and 6(4) of the Habitats Directive sets out the decision-making tests for plans and projects likely to have a significant effect on or to adversely affect the integrity of European sites. Article 6(3) establishes the requirement for Appropriate Assessment (AA):

Any plan or project not directly connected with or necessary to the management of the [Natura 2000] site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subjected to appropriate assessment of its implications for the site in view of the site's conservation objectives. In light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.

Both EU and national guidance exists in relation to Member States fulfilling their requirements under the EU Habitats Directive, with particular reference to Article 6(3) and 6(4) of that Directive. The methodology followed in this report to inform the assessment has had regard to the following legislation and guidance listed in Section 2.2:

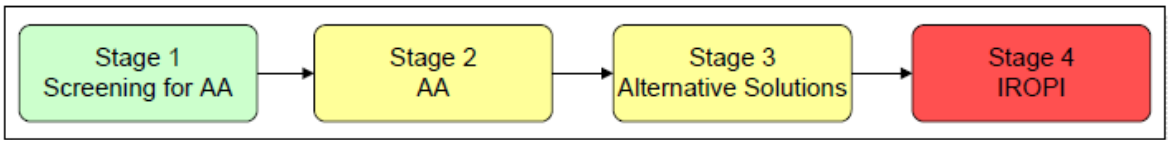
- Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (also known as the 'Habitats Directive');
- Council Directive 2009/147/EC on the conservation of wild birds, codified version, (also known as the 'Birds Directive');
- The European Communities (Birds and Natural Habitats) Regulations 2011 to 2015; and
- The Planning and Development Act (as amended).

2.2 Stages of Appropriate Assessment

Article 6(3) & (4) of the Habitats Directive defines a stepwise procedure where plans or projects are considered. The Department of the Environment, Heritage and Local Government guidelines (DoELHG, 2009, rev 2010) outlines the European Commission's methodological guidance (EC, 2002) promoting a four-stage process to complete the AA and outlines the issues and tests at each stage. An important aspect of the process is that the outcome at each successive stage determines whether a further stage in the process is required.

The four stages are summarised diagrammatically in Figure 2-1. Stages 1-2 deal with the main requirements for assessment under Article 6(3). Stage 3 may be part of the Article 6(3) Assessment or may be a necessary precursor to Stage 4. Stage 4 is the main derogation step of Article 6(4).

Figure 2-1: Four stages of appropriate assessment[1]



Stage 1 Appropriate Assessment

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

i. whether a plan or project (in this instance the proposed project) is directly connected to or necessary for the management of the European sites, and

ii. whether a plan or project, alone or in combination with other plans and projects, is likely to have significant effects on the European sites in view of their conservation objectives.

If the effects are deemed to be significant, potentially significant, or uncertain, or if the screening process becomes overly complicated, then the process must proceed to Stage 2 (AA).

Stage 2: Appropriate Assessment

The aim of the stage 2 AA process is to identify any adverse impacts that the plan or project might have on the integrity of relevant European sites. As part of the assessment, a key consideration is 'in combination' effects with other plans or projects. Where adverse impacts are identified, mitigation measures can be proposed that would avoid, reduce or remedy any such negative impacts and the plan or project can be amended and / or conditions and restrictions imposed. If it is considered that mitigation measures will not be able to satisfactorily reduce potential adverse impact on a Natura 2000 site then an assessment of alternative solutions is considered in Stage 3. This is then followed by Stage 4 in the event that adverse impacts remain and the proposed activity or development is deemed to be of Imperative Reasons of Overriding Public Interest (IROPI), allowing an assessment of compensatory measures to be considered.

This NIS informs Stage 2 of the AA process and determines if the project is likely to affect the integrity (structure and function) of European sites. As the screening process identified that potential impacts to Lough Derg (Shannon) SPA are unknown, uncertain or cannot be ruled out without further assessment, then an AA is required.

The NIS represents a detailed, targeted assessment of the nature and potential significance of direct and indirect impacts arising from the project. An assessment of cumulative impacts (both from the project objectives, and other policies, plans and programmes) is also completed as part of the NIS. The NIS also incorporates best practice and mitigation measures to eliminate potential adverse impacts.

This NIS has been prepared having regard to the following guidance and legislation:

Guidance

- Department of the Environment, Heritage and Local Government (DoEHLG) (2009, rev 2010a), Appropriate Assessment of Plans and Projects in Ireland Guidance for Planning Authorities.
- Department of the Environment, Heritage and Local Government (DoEHLG, 2010b), Department of Environment Heritage and Local Government Circular NPWS 1/10 and PSSP

[1] IROPI – Imperative Reasons for Overriding Public Interest

2/10 on Appropriate Assessment under Article 6 of the Habitats Directive – Guidance for Planning Authorities.

- EPA (2013) Integrated Biodiversity Impact Assessment – Streamlining AA, SEA and EIA Processes: Practitioners Manual. Environmental Protection Agency.
- European Commission (2018), Managing Natura 2000 Sites: the provisions of Article 6 of the 'Habitats' Directive 92/43/EEC, Office for Official Publications of the European Communities, Luxembourg.
- European Commission (2000a), Communication from the Commission on the Precautionary Principle, Office for Official Publications of the European Communities, Luxembourg.
- European Commission Notice Brussels C(2021) 6913 final 'Assessment of plans and projects in relation to Natura 2000 sites - Methodological guidance on Article 6(3) and (4) of the Habitats Directive 92/43/EEC' (EC, 2021).
- European Commission (2007) Guidance document on Article 6(4) of the 'Habitats Directive' 92/43/EEC – Clarification of the concepts of: alternative solutions, imperative reasons of overriding public interest, compensatory measures, overall coherence, opinion of the Commission. Office for Official Publications of the European Communities, Luxembourg.
- European Commission (2013), Interpretation Manual of European Union Habitats. Version EUR 28.
- European Commission (2006), Nature and biodiversity cases: Ruling of the European Court of Justice. Office for Official Publications of the European Communities.

3 European Sites within Project Zone of Influence

The findings of the Screening for AA concluded that one European site, namely Lough Derg (Shannon) SPA, is located within the ZoI of the completed works.

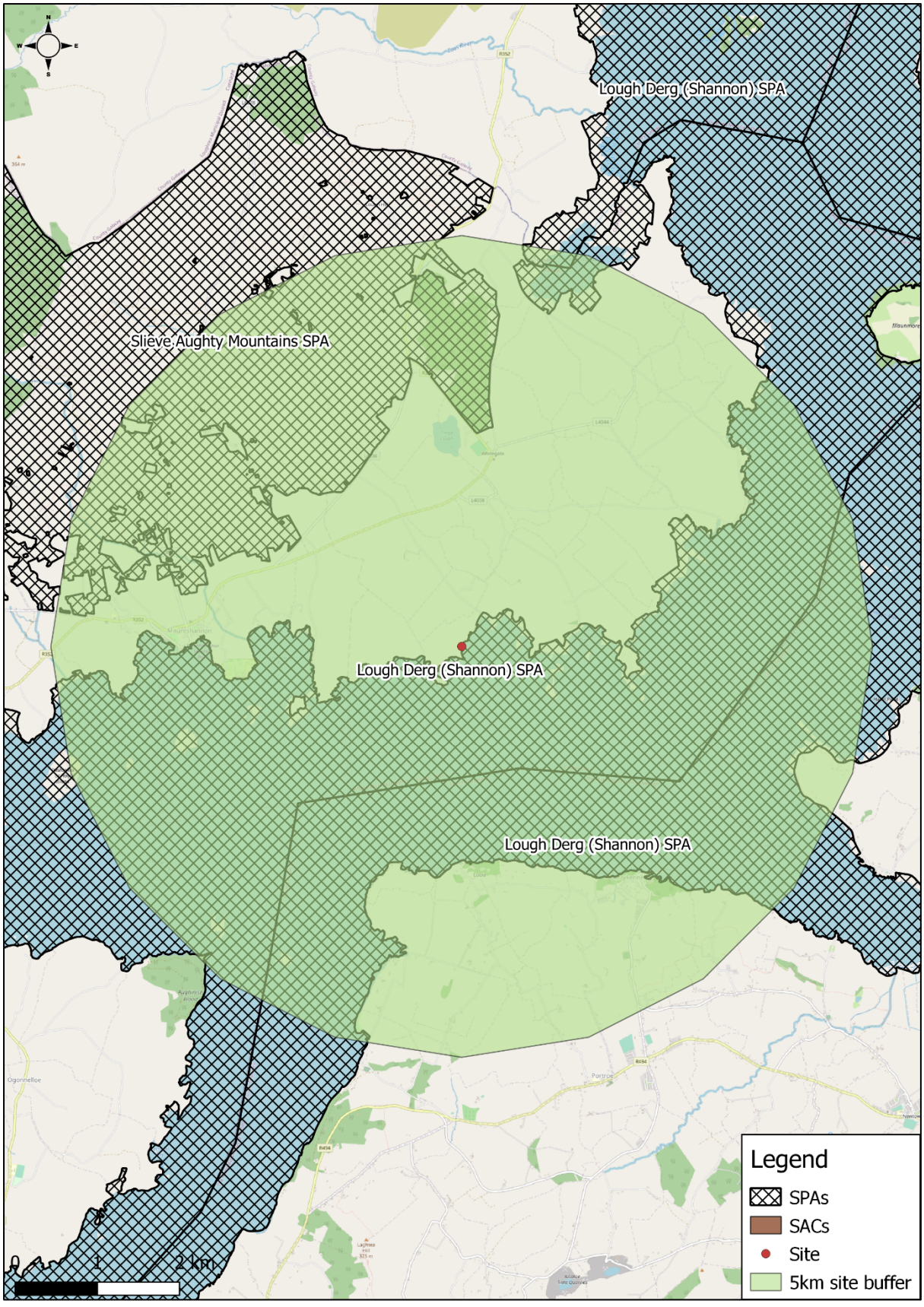
Table 3-1 details this European site and its proximity and connectivity to the completed works. Figure 3-1 illustrates the European sites within a 5km radius of the site.

Table 3-1: Connectivity of European sites within the zone of influence of the completed works at Ballynakillew

European Site	**Distance from Site (km)[2]**	**Connectivity**
Lough Derg (Shannon) SPA (Site Code: 004058)	0 (directly adjacent)	The site is directly adjacent to this SPA, therefore there is potential direct connectivity.

[2] Distance measured "as the crow flies"

Figure 3-1: European sites within 5km of the completed works at Ballynakillew



3.1 Summary of European Site Relevant to the Stage 2 Appropriate Assessment

3.1.1 Lough Derg (Shannon) SPA (Site Code: 004058)

The Standard Data Form (NPWS, 2020, available at N2K IE0004058 dataforms (europa.eu)) describes Lough Derg as the largest of the Shannon Lakes, being some 40 km long. Its maximum breadth across the Scarriff Bay-Youghal Bay transect is 13km but for most of its length it is less than 5 km wide. The lake is relatively shallow at the northern end being mostly 6 m in depth but in the middle region it has an axial trench and descends to over 25m in places. The narrow southern end of the lake has the greatest average depth, with a maximum of 34m. The greater part of the lake lies on Carboniferous limestone but the narrow southern section is underlain by Silurian strata. Most of the lower part of the lake is enclosed by hills on both sides, the Slieve Aughty Mountains to the west and the Arra Mountains to the east. The northern end is bordered by relatively flat, agricultural country. The lake shows the high hardness levels and alkaline pH to be expected from its mainly limestone catchment basin and it has most recently been classified as a mesotrophic system. The lake has many small islands, especially on its western and northern sides. The shoreline is often fringed with swamp vegetation. Aquatic vegetation includes a range of charophyte species.

Lough Derg is of importance for both breeding and wintering birds. The islands support nationally important breeding colonies of *Sterna hirundo*, *Phalacrocorax carbo*, *Podiceps cristatus* and probably *Aythya fuligula*. It is a traditional site for nesting *Larus ridibundus* but there is no recent survey information. In winter, the lake is particularly important for diving ducks, with nationally important populations of *Aythya fuligula* and *Bucephala clangula* occurring. *Cygnus olor* also has a population of national importance, whilst a range of other species occur in lesser numbers, including *Cygnus cygnus*, *Anas crecca*, *Fulica atra* and *Vanellus vanellus*. A flock of *Anser albifrons flavirostris* has traditionally used the site, where they feed on grassy islands, but birds have seldom been recorded in recent years.

3.1.1.1 Species of Conservation Interest for Lough Derg (Shannon) SPA

Qualifying interests for Lough Derg (Shannon) SPA are given in Table 3-2, along with the conservation status. Information on the conservation status for each species within the SPA was extracted from the Natura 2000 Standard Data Form (N2K IE0004058 dataforms (europa.eu)). This information provides specific details on the conservation status of each SCI within the SPA.

Table 3-2: SCI species of Lough Derg (Shannon) SPA and their Conservation Status

SCI	Conservation Status at Lough Derg (Shannon) SPA[3]
[A193] Common Tern (*Sterna hirundo*)	B= Good conservation status.
[A061] Tufted Duck (*Aythya fuligula*)	A= Excellent conservation status.
[A067] Goldeneye (*Bucephala clangula*)	A= Excellent conservation status.
[A017] Cormorant (*Phalacrocorax carbo*)	A= Excellent conservation status.

3.1.1.2 Threats and Pressures to Lough Derg (Shannon) SPA

The Natura Standard Data Form for Lough Derg (Shannon) SPA identifies the threats and pressures on this SPA as detailed in Table 3-3.

[3] https://www.npws.ie/sites/default/files/protected-sites/natura2000/NF004058.pdf

Table 3-3: Negative threats, pressures and activities with impacts on Lough Derg (Shannon) SPA

Threats and Pressures (Code)[4]	Threat Type	Rank[5]	Inside(i) / Outside (o) / Both (b)
A08	Fertilisation	M	b
G01.01	Nautical sports	H	i
F03.01	Hunting	M	i
F02.03	Leisure fishing	M	i

3.2 Conservation Objectives of European Site

Article 6.3 of the Habitats Directive and Part XAB of the Planning and Development Act (as amended) require that the impact of the project (either alone or in combination with other projects or plans) on the integrity of the European Site is considered with respect to the conservation objectives of the site and to its structure and function. The EC guidance on Natura 2000 (MN2000) states that:

"*The 'integrity of the site' can be usefully defined as the coherent sum of the site's ecological structure, function and ecological processes, across its whole area, which enables it to sustain the habitats, complex of habitats and/or populations of species for which the site is designated.* (MN2000, Section 3.2.3)."

The maintenance of favourable condition of qualifying interests at the site level will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level. Favourable conservation status of habitats and species is described in the Guidance as follows:

- **Favourable conservation status** of a **habitat** can be described as being achieved when: "*its natural range, and the area it covers within that range, is stable or increasing, and the ecological factors that are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future, and the conservation status of its typical species is favourable*".
- **Favourable conservation status** of a **species** can be described as being achieved when: "*population data on the species concerned indicate that it is maintaining itself, and the natural range of the species is neither being reduced or likely to be reduced for the foreseeable future, and there is, and will probably continue to be, sufficiently large habitat to maintain its populations on a long term basis*".

Site-specific conservation objectives aim to define favourable conservation conditions for the qualifying interests, i.e. Annex I habitat and Annex II species, as applicable. The conservation objectives are presented as a list of attributes against which targets have been set. All of the attributes in relation to each relevant feature have been considered in relation to the potential impacts associated with the completed works.

The first order site-specific conservation objectives for Lough Derg (Shannon) SPA[6] are:

[4] Threat code sourced from Natura 2000 data form and follows reference list provided on threats, pressures and activities for European sites

[5] Threat, pressure and impact ranking provided on Natura 2000 data form: H – High, M – Medium, L - Low

[6] NPWS (2022) Conservation objectives for Lough Derg (Shannon) SPA [004058]. First Order Site-specific Conservation Objectives Version 1.0. Department of Housing, Local Government and Heritage.

To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA: Common Tern (Sterna hirundo) [A017], Tufted Duck (Aythya fuligula) [A061], Goldeneye (Bucephala clangula) [A067] and Cormorant (Phalacrocorax carbo) [A193].

A second objective is included as follows:

"*To maintain or restore the favourable conservation condition of the wetland habitat at Lough Derg (Shannon) SPA as a resource for the regularly occurring migratory waterbirds that utilise it.*".

4 Existing Environment

A site survey was undertaken on 6th February 2023 by ecologist Ms. Karen Banks, MCIEEM.

The survey assessed the potential for species of Special Conservation Interest (SCIs) of European sites to be present within the ZoI of the site.

4.1 Terrestrial Habitats

A site survey was undertaken on 6th February 2023 by ecologist Ms. Karen Banks, MCIEEM.

The site comprises a gravel pathway and concrete slipway (buildings and artificial surfaces, BL3) and surrounding lands. Habitats in the surrounding lands consist of species poor wet grassland (GS4), with species present including Meadow Grass (*Poa*) species, Yorkshire Fog (*Holcus lanatus*), Red Fescue (Festuca rubra), Cock's-foot (*Dactylis glomerata*), Compact Rush (*Juncus conglomeratus*), Glaucous Sedge (*Carex flacca*), Creeping Buttercup (*Ranunculus repens*), Cuckoo Flower (*Cardamine pratensis*), Common Sorrel (Rumex acetosa), Curled Dock (*Rumex crispus*) and abundant Pointed Spear-moss (*Calliergonella cuspidata*); Gorse (*Ulex europaeus*) is encroaching in some areas.

Woodland (WN6), comprising Willow (*Salix cinerea*), Alder (*Alnus glutinosa*), Hawthorn (*Crataegus monogyna*), Ash (*Fraxinus excelsior*), Silver Birch (*Betula pendula*), Gorse and Bramble (*Rubus fruticosus*) are present at the west and east of the site; Alder and Ash are also present at the lakeshore at the south of the site.

No evidence of invasive plant species was recorded at the site.

4.2 Avifauna

4.2.1 Desktop Study

Wintering Waterbirds

There is no Irish Wetland Bird Survey data (IWeBS) for Lough Derg (Shannon), Southwest (Rinbarra Point-Rinnaman Point) sub-site available for the last 5 years, the last available data is from 2013/14 and 2015/2016. This data is summarised in Table 4-1. The Southwest (Rinbarra Point-Rinnaman Point) sub-site covers the area of Lough Derg adjacent to the site, and also the south-west area of Lough Derg at Rinbarra Point, located c.11.7km to the south-west of the site and Rinnaman Point, located c.6.9km to the north of the site, which are outside of the zone of influence of the completed works. Because the Southwest (Rinbarra Point-Rinnaman Point) sub-site is larger than the likely zone of influence of the completed works, it is noted that population peaks (Table 4-1) may not occur within the zone of influence of the completed works.

Three species included in Annex I of the EU Bird's Directive have been recorded within Lough Derg (Shannon), Southwest, however, none of these species are SCI for Lough Derg (Shannon) SPA (Table 4-1). A total of three of the four SCI species for Lough Derg (Shannon) SPA were recorded within Lough Derg, Southwest in the 2013/2014 to 2015/2016 recording period. As Table 4-1 shows, 1% or more of the population of Greylag Goose and Tufted Duck occurring in Ireland has been recorded in the Lough Derg, Southwest sub-site.

Table 4-1: Wintering bird species recorded in the IWeBS Lough Derg (Shannon) Southwest (Rinbarra Point-Rinnaman Point) subsite between 2014 and 2016

Species	Annex I	BoCCI	SCI Lough Derg (Shannon) SPA	1% National	1% International	2013/14	2015/16
Mute Swan		Amber		90	100	76	46
Whooper Swan	√	Amber		150	340	55	23
Greylag Goose		Amber		35	980	46	48
Teal		Amber		360	5000	4	
Mallard		Amber		280	53000	57	34
Tufted Duck		Amber	√	270	8900	309	208
Goldeneye		Red	√	40	11400	12	12
Little Grebe		Green		20	4700	17	11
Great Crested Grebe		Amber		30	6300	21	12
Cormorant		Amber	√	110	1200	73	11
Grey Heron		Green		25	5000	1	2
Water Rail		Green				1	
Coot		Amber		190	15500	154	66
Golden Plover	√	Red		920	9300		20
Lapwing		Red		850	72300	288	76
Curlew		Red		350	7600	38	15
Greenshank		Green		20	3300		2
Black-headed Gull		Amber				200	57
Lesser Black-backed Gull		Amber				2	
Kingfisher	√	Amber				1	

National Parks and Wildlife Service (NPWS)

A request for data held on the NPWS database was made on 20th February 2023. The results of the request indicate that the NPWS database does not hold any records of SCI species for Lough Derg SPA within 10km OS Grid Square (hectad) R78.

Ecological Surveys Undertaken in the Vicinity of the Site

As detailed in the Natura Impact Statement for the Proposed Single Berth Floating Mooring at Castle Bawn, Scarriff Bay, Lough Derg, Co. Clare (MKO, 2019), MKO undertook avifaunal surveys within Lough Derg in 2017. Castle Bawn is located c.6.9km to the south-west of the proposed site. The results of the surveys undertaken by MKO at Castle Bawn are summarised below.

SCI Wintering Bird Populations

Goldeneye

The survey found that goldeneye were recorded primarily in sheltered areas along the shoreline of Lough Derg. 80 birds were recorded on Lough Derg during the surveys meaning the site is above the threshold of national importance for the species (60 birds). Goldeneye was not recorded within 1km of the proposed mooring.

SCI Breeding Bird Populations

Cormorant

Whilst colonial nesting species such as cormorant were not a target of the surveys, two cormorant colonies were recorded near Portumna and near Bushypark, in the northern half of Lough Derg. These two colonies are nationally important breeding sites for cormorant. The nearest of these colonies to the proposed mooring site is over 17km away. No breeding cormorant were recorded in the vicinity of the proposed mooring.

Tufted Duck

During the 2017 breeding season, it was estimated that there were 141 breeding pairs of tufted duck on Lough Derg. 1% of the national breeding population is 8 pairs. Numbers recorded on Lough Derg were above the threshold for National Importance. Most of the breeding tufted duck were between Bushypark and Illaunmore in the northern half of Lough Derg, with small numbers of pairs spread throughout the rest of the lake. The nearest breeding pairs were located over 1km from the proposed mooring location.

Common Tern

Colonial nesting species were not targets of the surveys and there are no records for breeding common tern from the surveys. Common tern were not recorded at the proposed mooring site during breeding season surveys.

The Boathouse, Williamstown

As detailed in the Natura Impact Statement for the Proposed Boathouse at Williamstown, Whitegate, Lough Derg, Co. Clare (Greenleaf Ecology, 2021), Greenleaf Ecology undertook avifaunal surveys at the edge of Lough Derg at Williamstown in 2021. The Boathouse is located c.3.8km to the north-east of the proposed site. The results of the surveys undertaken by Greenleaf Ecology at Lough Derg are summarised below.

A low diversity and low number of waterbirds were recorded at the proposed site and its environs during the surveys undertaken in January and February 2021. A total of five species of waterbird were recorded, including one SCI species of Lough Derg (Shannon) SPA, namely Cormorant. One cormorant was recorded in a sheltered area c.400m to the south-west of the site in January 2021. Other species recorded were Coot, Great Crested Grebe, Mallard and Little Grebe. No waterbirds were recorded adjacent to the proposed site; all five species were recorded in the vicinity of Philip's Point to the south-west of the proposed site.

Four of the species recorded are listed on the Amber list of Birds of Conservation Concern in Ireland (BoCCI). Amber listed species are those with an unfavourable conservation status in Europe, but not necessarily of global concern.

A total of nine species were recorded at the proposed site and its environs during the course of the breeding bird surveys undertaken in May and June 2021. Six of these species are listed on the BoCCI Amber list, the remainder of the species recorded are green listed, i.e. they are common birds with favourable conservation status. Of these species, Swallow was recorded flying over the site and one Black-headed Gull was recorded foraging adjacent to the site. No breeding evidence for these species was recorded during the course of the site surveys and the habitats at the proposed site and its immediate environs do not provide suitable breeding habitat for these species.

One SCI for Lough Derg (Shannon) SPA was recorded, namely a single Cormorant, which was recorded at Philip's Point in May 2021. Two pairs of Mute Swan were recorded; one pair c.450m to the south-west of the site and one pair c.400m to the north of the site. No birds were confirmed as breeding at the proposed site and its immediate environs.

4.2.2 Site Survey

A bird survey was undertaken in conjunction with the site survey on 6th February 2023. Birds recorded within the waters of Lough Derg were limited to Mallard (*Anas platyrhynchos*) and Little Grebe (*Tachybaptus ruficollis*), which was heard calling from the reed bed to the south of the slipway and the reed bed located c.200m to the south of the slipway. These species are both Amber listed on the BoCCI but are not SCI for Lough Derg SPA. A gull (not identified to species level) was also recorded flying overhead.

Species recorded within the site were Wren (*Troglodytes troglodytes*) and Blackbird (*Turdus merula*). These species are both included on the BoCCI Green list.

4.2.3 Surface Water

4.2.3.1 Water Bodies

The site is located within the Shannon (Lower)_040 Sub-basin. Lough Derg is located directly adjacent to the east of the site. The site overlies the Tynagh Ground Waterbody(GWB).

EPA codes for these water bodies are shown below in Table 4-2**.**

Table 4-2: EPA water body codes

EPA water body name	Water body type	EPA Code	EPA water body code
Lough Derg	Lake		IE_SH_25_191a
Tynagh	Groundwater	n/a	IE_SH_G_236

4.2.3.2 Surface Water Quality and Risk Characterisation

Lough Derg is classified as 'Not at risk' and has a 'Moderate' status under the WFD.

A summary of the WFD and Risk status[7] is shown below in Table 4-3**.**

[7] https://www.catchments.ie/maps/

Table 4-3: Summary of WFD status for waterbodies at the site

EPA Waterbody Name	Code	Risk	WFD Status 2016-2021
Lough Derg	IE_SH_25_191a	At risk	Moderate
Tynagh	IE_SH_G_236	Not at risk	Good

4.2.4 Flooding

The Office of Public Works (OPW) flood mapping (http://www.floodinfo.ie/map/floodmaps/) indicates the flood extents for Lough Derg at Ballynakillew. As indicated in Figure 4-1**,** the flood extents of Lough Derg reach the slipway at the east of the site boundary, but do not reach the footprint of the development.

Figure 4-1: OPW flood risk mapping of the site and surrounding area

4.2.5 Soil, Geology and Hydrogeology

The Geological Survey of Ireland (GSI) online database (www.gsi.ie) was consulted for available edaphic, geological and hydrological information of the site and its environs. The site is overlaid by AminDW - Deep well drained mineral (Mainly acidic) soils. In terms of bedrock geology, Ballysteen Formation composed of Dark muddy limestone, shale underlie the site.

The bedrock units which underlie the site are mapped by the GSI as part of the same Locally Important Aquifer. Groundwater vulnerability is a term used to represent the intrinsic geological and hydrogeological characteristics that determine the ease at which groundwater may be contaminated.

The study area is of ‘moderate’ groundwater vulnerability. There are no karst features located in the vicinity of the completed works.

5 Impact Assessment

Impacts can be direct and indirect and the impacts that could potentially occur through the construction and operation of the slipway and pathway are as follows:

- Changes in key indicators of conservation value such as decrease in water quality within Lough Derg SPA
- Disturbance to SCI species for Lough Derg SPA

The assessment of impacts identifies the potential construction and operational phase impacts on Lough Derg SPA in the absence of mitigation.

5.1 Direct Impacts

The footprint of the development is not located within lands designated for nature conservation, including Lough Derg (Shannon) SPA. Further, there were no resource requirements (e.g. excavation or abstraction) from European sites for the completed works. Consequently, none of the lands designated as part of European sites have been directly impacted or removed as a result of the completed works. Likewise, there are no resource requirements from European sites during the operational phase of the development. Therefore, there are no direct impacts to European sites in this regard.

5.2 Indirect Impacts

5.2.1 Lough Derg (Shannon) SPA

As detailed in the Screening for AA report (Appendix A) and Section 3 of this report, there are potential source-pathway-receptor links between the development and Lough Derg (Shannon) SPA. The slipway and its adjacent low wall and the pathway are located adjacent to Lough Derg (Shannon) SPA. In view of the location of the slipway, wall and pathway in relation to Lough Derg (Shannon) SPA, there is potential for disturbance and displacement impacts on the SCI of Lough Derg (Shannon) SPA during the construction phase.

Displacement/ disturbance

Lough Derg is of special conservation interest for the following species: Cormorant, Tufted Duck, Goldeneye and Common Tern. Noise and visual disturbance from human presence and machinery during the construction phase may displace wetland birds from foraging and roosting areas within Lough Derg (Shannon) SPA. This site is of importance for both breeding and wintering birds.

A low diversity and low number of waterbirds were recorded during avifaunal surveys undertaken to inform NIS/ EcIA reports for developments in the environs of the site. Surveys for the permitted boathouse development (located c.3.8km north-east of the site) and its environs during the wintering bird surveys undertaken in January and February 2021 recorded a total of five species of waterbird, including one SCI species of Lough Derg (Shannon) SPA, namely Cormorant. One cormorant was recorded in a sheltered area at Philip's Point in January 2021. Other species recorded in the environs of the site were Coot, Great Crested Grebe, Mallard and Little Grebe. A total of nine species were recorded at the boathouse site and its environs during the course of the breeding bird surveys undertaken in May and June 2021. Six of the species recorded during the course of the surveys are listed on the BoCCI Amber list, the remainder of the species recorded are green listed, i.e. they are common birds with favourable conservation status. One SCI for Lough Derg (Shannon) SPA was recorded, namely a single Cormorant, which was recorded at Philip's Point in May 2021.

The results of surveys undertaken by MKOS in 2017 at Castle Bawn (c.6.9km to the south-west of the site) indicate that Goldeneye was not recorded within 1km of the proposed site at Castle Bawn. Two cormorant colonies were recorded near Portumna and near Bushypark, in the northern half of Lough Derg, however, no breeding cormorant were recorded in the vicinity of the proposed site at Castle

Bawn. Most of the breeding tufted duck were between Bushypark and Illaunmore in the northern half of Lough Derg, with small numbers of pairs spread throughout the rest of the lake. Common tern were not recorded at the proposed site at Castle Bawn during breeding season surveys.

The site at Ballynakillew comprises hardstanding, grassland and woodland and is unsuitable to support breeding populations of the SCI for Lough Derg (Shannon) SPA. No reeds are present directly adjacent to the completed works footprint; a scant Reed bed (FS1) is present at the lake shore to the south of the site. As such, the footprint of the completed works and its immediate environs do not provide supporting habitat for the SCI for Lough Derg (Shannon) SPA. As described in Section 4.2.2, a low diversity and low number of waterbirds were recorded within Lough Derg in the environs of the site during the walkover survey (i.e. Mallard and Little Grebe).

In view of the low diversity and number of waterbirds recorded at the site and its wider environs, no disturbance impacts on breeding and wintering populations of SCI for Lough Derg (Shannon) are expected to have occurred during the construction of the slipway and pathway.

There is potential for ongoing noise and visual disturbance from human presence during the operational phase. Ongoing disturbance has the potential to result in localised displacement of wildfowl and waterbirds, interfering with the distribution and density of key species in the vicinity of the site. However, the works to the pathway, wall and slipway have not resulted in changes to the type of activity or number of people present at the site and its environs. Therefore, the completed works will not result in significant effects on the SCI for Lough Derg SPA as a result of disturbance/ displacement during the operational phase.

No disturbance impacts on breeding and wintering populations of SCI for Lough Derg (Shannon) are expected during the construction or operational phase.

Degradation of water quality

The site is located directly adjacent to Lough Derg. There is potential for the completed works to the slipway, wall and pathway to have resulted in the loss of hydrocarbons (diesel, oils and hydraulic fluid) and/or wet concrete and cement grouting during the construction phase. Hydrocarbon spills from poorly secured or non-bunded fuel storage areas, leaks from vehicles or plant or spills during re-fuelling can all give rise to the escape of hydrocarbons from construction sites to waterbodies. These spills, if they occurred, could give rise to a reduction in water quality within Lough Derg (Shannon) SPA. Concrete and cement spills, or release of concrete wash-out or wheel-wash water to nearby waterbodies can also result in a reduction in water quality and an alteration in pH in the receiving waters. However, it is noted that the likelihood of either hydrocarbon or concrete/cement loss occurring from a well-equipped and well-maintained construction site is low.

In view of the small scale of the completed works, deleterious impacts on the water quality within Lough Derg (Shannon) SPA during construction of the slipway, wall and pathway would be temporary and localised.

No significant adverse effects on the water quality within Lough Derg (Shannon) SPA are anticipated during the operational phase. Therefore, it is considered that the completed works will not have significant adverse effects on the conservation objectives of Lough Derg (Shannon) SPA during the operational phase.

5.3 Assessments of Habitats and Species of Conservation Interest

This section assesses the likelihood of the completed works impacting the conservation objectives and SCI for Lough Derg (Shannon) SPA.

5.3.1 Lough Derg (Shannon) SPA

Lough Derg (Shannon) SPA supports four SCI species; Common Tern (*Sterna hirundo*), Tufted Duck (*Aythya fuligula*), Goldeneye (*Bucephala clangula*) and Cormorant (*Phalacrocorax carbo*). The first order site-specific conservation objectives for Lough Derg (Shannon) SPA[8] are:

To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA: Common Tern (Sterna hirundo) [A017], Tufted Duck (Aythya fuligula) [A061], Goldeneye (Bucephala clangula) [A067] and Cormorant (Phalacrocorax carbo) [A193].

A second objective is included as follows:

"*To maintain or restore the favourable conservation condition of the wetland habitat at Lough Derg (Shannon) SPA as a resource for the regularly occurring migratory waterbirds that utilise it."*.

As described in Section 5.2.1, it is considered that the completed works will not result in disturbance or displacement impacts on the SCI for Lough Derg (Shannon) SPA. However, applying the precautionary principle, there is potential for the completed works to have resulted in a reduction in water quality within Lough Derg (Shannon) SPA during the construction phase. As such, the potential for the completed works to affect the achievement of the conservation objectives for Lough Derg (Shannon) SPA during the construction phase cannot be discounted.

5.4 Cumulative/ In-Combination Effects

It is a requirement of Appropriate Assessment that the cumulative or in-combination effects of the development together with other Plans or projects are assessed. Cumulative impacts can result from the successive, incremental, and/or combined effects of a development (plan, project or activity) when added to other existing, planned, and/or reasonably anticipated developments.

A search of the Clare County Council planning enquiry system[9] and the EIA Portal[10] was conducted for developments that may have in-combination effects on European sites with the completed works. The search included developments that are proximal to the site and those that may have an adverse cumulative or in-combination impact with the proposed retention of completed works on the SCI for Lough Derg (Shannon) SPA.

Plans relevant to the area were searched in order to identify any elements of the Plans that may act cumulatively or in-combination with the proposed retention of completed works.

A list of those projects and Plans which may potentially contribute to cumulative or in-combination impacts with the completed works was generated for as listed in Table 5-1 below.

Table 5-1: List of potential projects and Plans which may contribute to cumulative impacts

Plan / Programme/Policy	Key Objectives/Policies/Proposals	Potential for In-combination Effects and Mitigation
Clare County Development Plan 2023-2029	**Policies and Objectives:** **CDP15.1: Biodiversity** It is an objective of Clare County Council: a) To implement the National Biodiversity Action Plan 2017-2021, the All Ireland Pollinator Plan 2021-2025, the County Clare Heritage Plan 2017-	Policies and objectives of the Clare County Development Plan 2023 – 2029 ensure that local planning applications comply with proper planning and sustainability and with the requirements of relevant

[8] NPWS (2022) Conservation objectives for Lough Derg (Shannon) SPA [004058]. First Order Site-specific Conservation Objectives Version 1.0. Department of Housing, Local Government and Heritage.

[9] http://www.eplanning.ie/ClareCC/searchresults/Default/1, accessed 05/08/2021

[10] https://www.housing.gov.ie/planning/environmental-assessment/environmental-impact-assessment-eia/eia-portal

	2023 and the County Clare Biodiversity Plan 2017-2023, or any subsequent plans, in partnership with all relevant stakeholders; b) To review the Clare County Heritage Plan 2017-2023 and to prepare a new plan, which will be set within the context of the National Heritage Plan "Heritage Ireland 2030", upon the expiry of the existing adopted Plan; c) To support National Biodiversity Week and events such as Bioblitz in order to increase awareness of biodiversity and its benefits to the community; d) To ensure that features of importance to local biodiversity are retained as part of developments and projects being undertaken in the County; e) To identify ecological buffer zones, where appropriate, in the Plan area; and f) To support current and future projects with the aim of restoration/rehabilitation of natural habitats and species. **CDP15.3: European Sites** It is an objective of Clare County Council: a) To afford the highest level of protection to all designated European sites in accordance with the relevant Directives and legislation on such matters; b) To require all planning applications for development that may have (or cannot rule out) likely significant effects on European Sites in view of the site's Conservation Objectives, either in isolation or in combination with other plans or projects, to submit a Natura Impact Statement in accordance with the requirements of the EU Habitats Directive and the Planning and Development Act, 2000 (as amended); and c) To recognise and afford appropriate protection to any new or modified SPAs or SACs that are identified during the lifetime of this Development Plan through the planning application process bearing in mind proposals for development outside of a European site may also have an indirect effect. **CDP15.4: Appropriate Assessment** It is an objective of Clare County Council: a) To implement Article 6(3) and where necessary 6(4) of the Habitats Directive and to ensure that Appropriate Assessment is carried out in relation to works, plans and projects likely to impact on European sites (SACs and SPAs), whether directly or indirectly or in combination with any other plan(s) or project(s); and	EU Directives and environmental considerations, there is no potential for adverse in-combination effects on European Sites.

	b) To have regard to Appropriate Assessment of Plans and Projects in Ireland – Guidelines for Planning Authorities 2009 or any updated version.	
Draft River Basin Management Plan 2022-2027	The project should comply with the environmental objectives of the Irish RBMP which are to be achieved generally by 2027. ▪ Ensure full compliance with relevant EU legislation ▪ Prevent deterioration ▪ Meeting the objectives for designated protected areas ▪ Protect high status waters ▪ Implement targeted actions and pilot schemes in focus sub-catchments aimed at: targeting water bodies close to meeting their objective and addressing more complex issues which will build knowledge for the third cycle.	The implementation and compliance with key environmental policies, issues and objectives of this management plan will result in positive in-combination effects to European sites. The implementation of this plan will have a positive impact for the biodiversity. It will not contribute to in-combination effects with the proposed development.
River Basin Management Plan 2018-2021	The project should comply with the environmental objectives of the Irish RBMP which are to be achieved generally by 2021. ▪ Ensure full compliance with relevant EU legislation ▪ Prevent deterioration ▪ Meeting the objectives for designated protected areas ▪ Protect high status waters ▪ Implement targeted actions and pilot schemes in focus sub-catchments aimed at: targeting water bodies close to meeting their objective and addressing more complex issues which will build knowledge for the third cycle.	The implementation and compliance with key environmental policies, issues and objectives of this management plan will result in positive in-combination effects to European sites. The implementation of this plan will have a positive impact for the biodiversity. It will not contribute to in-combination or cumulative impacts with the proposed development.
Inland Fisheries Ireland Corporate Plan 2021 -2025 **The Inland Fisheries Act 2010.**	To place the inland fisheries resource in the best sustainable position possible for the benefit of future generations. To protect, manage and conserve Ireland's inland fisheries and sea angling resources and to maximise their sustainability and natural biodiversity. ▪ To sustainably develop and improve fish habitats. ▪ To protect, maintain and enhance Ireland's wild fish populations. ▪ To actively engage with stakeholders in the continued stewardship of our shared resource. ▪ To play a leadership role in achieving our climate action and biodiversity goals. ▪ To vlaue our people and support their development and performance.	The implementation and compliance with key environmental issues and objectives of this corporate plan will result in positive on-combination effects to European sites. The implementation of this corporate plan will have a positive impact for biodiversity of inland fisheries and ecosystems. It will not contribute to in-combination or cumulative impacts with the completed works.

	▪ To foster a culture of value for money and evaluation of performance in a measurable, transparent and accountable manner. ▪ Harness the power of innovation to continue to deliver a modern fisheries service.	
WWTP discharges	Scarriff	Discharges from municipal WWTPs are required to meet water quality standards. Irish Water Capital Investment Plan 2020-2024 proposes to upgrade water treatment services countrywide. The long-term cumulative impact is predicted to be negligible.
IPPC Programme	None within the zone of influence of the completed works.	-
Residential Applications[11]	Local planning applications[12] in proximity and within the Zone of Influence of the completed works are limited to small scale domestic dwelling (Ref: 18799) and agricultural (Ref: 211031) developments.	Adherence to the overarching policies and objectives of the Clare County Development Plan 2023 - 2029 ensure that local planning applications and subsequent grant of planning comply with the core strategy of proper planning and sustainability and with the requirements of relevant EU Directives and environmental considerations, there is no potential for significant adverse in combination effects on European Sites.

5.5 Conclusion of Impact Assessment

The site is located adjacent to Lough Derg and supports direct connectivity to Lough Derg (Shannon) SPA. There may have been temporarily elevated concentrations of deleterious substances during the construction phase arising if spillages occurred during the construction phase, but given the scale of the completed works, the effect would be limited to a temporary localised reduction in water quality within Lough Derg, which forms part of Lough Derg (Shannon) SPA. Further, no evidence of spillage of concrete or cement to the lake shore was observed during the site survey.

The townland of Ballynakillew and its environs support a low number of small-scale local developments that have been granted planning permission. These developments have been granted planning permission on the basis that, where relevant, targeted and site-specific mitigation is completed to minimise potential impacts to Lough Derg (Shannon) SPA. Assuming that best practice construction methods and mitigation measures are effectively implemented for all other

[11] The Local Planning Applications included in this potential in-combination impacts assessment support the following criteria: planning applications granted within the past five years that may contribute to potential cumulative impacts on European sites of concern.

[12] http://www.eplanning.ie/ClareCC/searchresults/Default/1, accessed 29/03/2023

developments, then no significant negative cumulative and in-combination impacts on the water quality of Lough Derg (Shannon) SPA with the completed works are expected.

No potential adverse impacts on the water quality of Lough Derg (Shannon) SPA have been identified during the operational phase of the development.

All possible sources of effects from the completed works, in combination with all other sources in the existing environment and any other effects likely to arise from other proposed plans or projects have been identified.

Robust and effective mitigation measures to avoid and or ameliorate these impacts are provided in Section 6.

6 Mitigation

As stated in Section 3.2.4 of the European Commission Notice Brussels C(2021) 6913 final '*Assessment of plans and projects in relation to Natura 2000 sites - Methodological guidance on Article 6(3) and (4) of the Habitats Directive 92/43/EEC*' (EC, 2021):

"If adverse impacts on the site's integrity have been identified during the appropriate assessment or cannot be ruled out, the plan or project in question cannot be approved. However, depending on the degree of impact identified, it may be possible to apply mitigation measures to avoid these impacts or reduce them to a level where they will no longer adversely affect the integrity of the site".

Potential impacts identified in the above chapters primarily relate to the deterioration in the water quality of Lough Derg, which forms part of Lough Derg (Shannon) SPA, during the construction phase of the completed slipway, wall and pathway. Mitigation measures to avoid or reduce the potential impacts on Lough Derg (Shannon) SPA were employed during construction of the slipway, wall and pathway as detailed in the following section.

6.1 Construction Phase

Hydrocarbons

The works were completed in accordance with best practice management of hydrocarbons. It is noted that, in view of the short time frame required for the completed works, refuelling of machinery was not required. Management of hydrocarbons included, *inter alia*, the following:

- At no time were hazardous materials stored within 50m of waterbodies.
- Potential impacts caused by spillages etc. during the construction phase were reduced by keeping spill kits, drip trays and other appropriate equipment on site.
- All equipment was kept in good condition to avoid spillage or discharge of oil, smoke and excessive noise.
- Fuels, lubricants and hydraulic fluids for equipment used on the construction site were carefully handled to avoid spillage, properly secured against unauthorised access or vandalism, and provided with spill containment in accordance with current best practice.
- No vehicle washing occurred on site.

Concrete and mortar

The works were completed in accordance with best practice management for concrete control. The works to the slipway were completed in dry conditions in June 2021 when the lake level was low. No excavation took place, a ready mix of c.1.7m^3 of concrete was poured on top of the existing gravel slipway. The lake edge was well away from the lowest point of the slip at the time and no concrete entered the lake. It was about three days before the lake rose above the lowest edge of the slipway at which stage it was fully dry. No vehicle washing occurred on site.

The edge of the poured concrete slipway was clearly visible at the time of survey in February 2023 and there was no visual evidence of spilt concrete.

Similarly, the wall was constructed in dry conditions in June 2021 when the lake level was low. The wall was constructed of block stone and cement mortar was placed between the stonework and on top of the wall while the lake edge was away from the lowest point of the wall. No mortar entered the lake and the mortar was dry before the lake water rose to meet the lowest level of the wall. No visual evidence of spilt mortar was observed during the site survey completed in February 2023.

The pathway has been widened with a gravel surfacing and there are no materials within the constructed pathway that are likely to have resulted in degradation of water quality within Lough Derg (Shannon) SPA.

6.1.1.1 Likely Success of Mitigation

The mitigation measures employed during construction of the slipway, wall and pathway, as detailed in Section 6.1. are based on best practice measures provided in current best practice pollution prevention guidelines. With the effective implementation of these measures, there is a high level of confidence in their likely success.

6.1.2 Operational Phase

No significant adverse effects have been identified during the operational phase, therefore no specific mitigation measures are required.

7 Analysis and Conclusions

7.1 Integrity of the European Site

From "*Managing Natura 2000 sites: The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC*" (EC, 2018), the meaning of integrity is described as follows;

'*The integrity of the site involves its constitutive characteristics and ecological functions. The decision as to whether it is adversely affected should focus on and be limited to the habitats and species for which the site has been designated and the site's conservation objectives*.' (MN2000, Section 4.6.4)'.

7.2 Integrity of the Lough Derg (Shannon) SPA

First Order Site-Specific Conservation Objectives were published for Lough Derg (Shannon) SPA in October 2022. The overarching conservation objective for the European site is as follows:

Objective: "*To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA*"(see Section 3).

Potential exists for impacts to the SCI of Lough Derg (Shannon) SPA during the construction phase of the completed works; however, these have been readily mitigated through the implementation of mitigation as outlined in Section 6.

From the information gathered and the predictions made about the changes that are likely to result from the construction and operation stages of the project and the mitigation measures employed to avoid impacts to the SPA, the integrity of site checklist is completed for Lough Derg (Shannon) SPA in Table 7-1 below.

Table 7-1: Integrity of site checklist for Lough Derg (Shannon) SPA

Conservation Objectives		
Does the project have the potential to:	**Yes or No**	**Comment**
Cause delays in progress towards achieving the conservation objectives of the site?	No	Potential impacts affecting Lough Derg (Shannon) SPA have been avoided and will not cause delays in achieving the conservation objectives of the site. Mitigation measures are outlined in Section 6.
Interrupt progress towards achieving the conservation objectives of the site?	No	Potential impacts affecting Lough Derg (Shannon) SPA have been avoided and will not interrupt progress in achieving the conservation objectives of the site. Mitigation measures are outlined in Section 6.
Disrupt those factors that help to maintain the favourable conditions of the site?	No	Factors potentially disrupting the favourable conservation conditions of the site have been restricted through the implementation of mitigation measures. Mitigation measures are outlined in Section 6.
Interfere with the balance, distribution and density of key species that are the indicators of the favourable condition of the site?	No	Potential impacts affecting Lough Derg (Shannon) SPA such as the deterioration of water quality within the SPA have been minimised through the application of mitigation. Mitigation measures are outlined in Section 6.
Other Indicators		
Does the project or plan have the potential to:		
Cause changes to the vital defining aspects (e.g. nutrient balance) that determine how the	No	There is potential that impacts occurred through pollution of the receiving waterbody during the construction phase.

site functions as a habitat or ecosystem?		However, these impacts have been effectively mitigated. Mitigation measures are outlined in Section 6.
Change the dynamics of the relationships (between, for example, soil and water or plants and animals) that define the structure and/or function of the site?	No	There is potential that impacts occurred through pollution of the receiving waterbody during the construction phase. However, these impacts have been effectively mitigated. Mitigation measures are outlined in Section 6.
Interfere with predicted or expected natural changes to the site (such as water dynamics or chemical composition)?	No	There is potential that impacts occurred through pollution of the receiving waterbody during the construction phase. However, these impacts have been effectively mitigated. Mitigation measures are outlined in Section 6.
Reduce the area of key habitats?	No	There has been no direct loss of key habitats associated with Lough Derg (Shannon) SPA. Potential indirect impacts may have occurred through pollution of the receiving waterbody during the construction phase. However, these impacts have been effectively mitigated. Mitigation measures are outlined in Section 6.
Reduce the population of key species?	No	Indirect impacts may have occurred due to the deterioration of water quality in the receiving waterbody during the project's construction phase. However, these impacts have been effectively mitigated. Mitigation measures are outlined in Section 6.
Change the balance between key species?	No	Indirect impacts may have occurred due to the deterioration of water quality in the receiving waterbody during the project's construction phase. However, these impacts have been effectively mitigated. Mitigation measures are outlined in Section 6.
Reduce diversity of the site?	No	Indirect impacts may have occurred due to the deterioration of water quality in the receiving waterbody during the project's construction phase. However, these impacts have been effectively mitigated. Mitigation measures are outlined in Section 6.
Result in disturbance that could affect population size or density or the balance between key species?	No	Indirect impacts may have occurred due to the deterioration of water quality in the receiving waterbody during the project's construction phase. However, these impacts have been effectively mitigated. Mitigation measures are outlined in Section 6.
Result in fragmentation?	No	The completed works have not resulted in the fragmentation of areas designated as part of Lough Derg (Shannon) SPA.
Result in loss or reduction of key features (e.g. tree cover, tidal exposure, annual flooding, etc.)?	No	No key features Lough Derg (Shannon) SPA have been lost or reduced as a result of construction or operation of the development.

7.3 Conclusion

This NIS has been prepared following the Department of the Environment, Heritage and Local Government guidance *'Appropriate Assessment of Plans and Projects in Ireland. Guidance for Planning Authorities*' (DoEHLG, 2010a). The assessment for Retention of Completed Works to the Slipway, Wall and Pathway at Ballynakillew, Co. Clare investigates the potential adverse effects on the qualifying interests of European sites arising from the proposals. The assessment considers whether the

completed works and operation of the completed works, alone or in combination with other projects or plans, has had, or will have adverse effects on the integrity of a European site, and includes any mitigation measures necessary to avoid, reduce or offset negative effects.

It can be objectively concluded that retention of the completed works will not adversely affect the integrity of Lough Derg (Shannon) SPA in view of the sites conservation objectives and that the conservation status of the special conservation interests will not be compromised by the proposed retention of works directly, indirectly or cumulatively.

The key considerations that have contributed towards this conclusion are summarised as follows:

- The completed works are not located within Lough Derg (Shannon) SPA. Further, there are no resource requirements (e.g. excavation or abstraction) from European sites for the works. Consequently, none of the lands designated as part of European sites have been or will be directly impacted or removed as a result of the completed works.
- No disturbance or displacement impacts on the SCI for Lough Derg (Shannon) SPA are expected to have occurred due to the low number and diversity of bird species present at the site and its environs.
- No indirect impacts on the water quality of Lough Derg (Shannon) SPA are expected to have occurred in relation to pollution laden surface water run-off or spillage of concrete or cement mortar during the construction of the slipway and pathway due to the adherence to best practice construction guidelines as detailed in Section 6. No evidence of concrete or mortar spillage was observed at the site during the site visit completed in February 2023.

The conclusion of this NIS is that with the implementation of best practice there is no potential for direct, indirect or cumulative impacts arising from Retention of Completed Works to Slipway, Wall and Pathway at Ballynakillew, Co. Clare either alone or in combination with any other plans or projects. The integrity of Lough Derg (Shannon) SPA will not be adversely affected. No reasonable scientific doubt remains as to the absence of such adverse effects.

8 References

Balmer, D., Gillings, S., Caffrey, B., Swann, B., Downie, I., Fuller, R. (2013) Bird Atlas 2007-2011.British Trust for Ornithology.

CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. Chartered Institute of Ecology and Environmental Management, Winchester.

Council of the European Communities (1992) Council Directive of 21 May 1992 on the Conservation of Natural Habitats and of Wild Fauna and Flora (92/43/EEC). OJL 206/35, 1992

DoEHLG (2010). Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities (Department of Environment, Heritage and Local Government, Rev. Feb 2010).

DEHLG (2010a) Appropriate Assessment of Plans and Projects in Ireland. Guidance for Planning Authorities. Department of the Environment, Heritage and Local Government, Dublin.

DEHLG (2010b) Department of the Environment, Heritage and Local Government Circular NPW1/10 and PSSP 2/10 on Appropriate Assessment under Article 6 of the Habitats Directive – Guidance for Planning Authorities. Department of the Environment, Heritage and Local Government, Dublin.

Environmental Protection Agency. EPA ENVision Service (online environmental information portal). http://gis.epa.ie/Envision

EPA (2017) Draft Guidelines on the Information to be contained in Environmental Impact Assessment Reports (EIAR), Environmental Protection Agency, PO Box 3000, Johnstown Castle Estate, Wexford, Ireland. Niven, A.J & McCauley, M. (2017)

European Commission (2007). Guidance Document on Article 6(4) of the Habitats Directive 92/43/EEC. Clarification of the Concepts of Alternative Solutions, Imperative Reasons of Overriding Public Interest, Compensatory Measures, Overall Coherence. Opinion of the European Commission.

European Commission (2000a). *Managing Natura 2000 Sites: the provisions of Article 6 of the 'Habitats' Directive 92/43/EEC.* Office for Official Publications of the European Communities, Luxembourg.

European Commission (2000b) Communication from the Commission on the Precautionary Principle. Office for Official Publications of the European Communities, Luxembourg.

European Commission Notice Brussels C(2021) 6913 final 'Assessment of plans and projects in relation to Natura 2000 sites - Methodological guidance on Article 6(3) and (4) of the Habitats Directive 92/43/EEC' (EC, 2021).

European Parliament and European Council (2009). Directive 2009/147/EC of 30th November 2009 on the Conservation of Wild Birds (2009/147/EC). Official Journal L20/7, 2010.

EU Habitats Directive (92/43/EEC)

Fossitt, J.A. (2000) A Guide to Habitats in Ireland. The Heritage Council, Kilkenny.

Geological Survey of Ireland (2011). *GIS datasets Public Viewer*. Online at http://spatial.dcenr.gov.ie/imf/imf.jsp?site=GSI_Simple

Greenleaf Ecology (2021) Natura Impact Statement, Proposed Boathouse, Williamstown, Whitegate, Co. Clare.

NPWS (2010). Circular NPW 1/10 & PSSP 2/10 Appropriate Assessment under Article 6 of the Habitats Directive: Guidance for Planning Authorities. (Department of Environment, Heritage and Local Government, 2010).

NPWS (2019a) The Status of EU Protected Habitats and Species in Ireland. Volume 2: Habitats Assessments. Unpublished Report, National Parks and Wildlife Service.

NPWS (2019b) The Status of EU Protected Habitats and Species in Ireland. Volume 3: Species Assessments. Unpublished Report, National Parks and Wildlife Service.

Scott Cawley (2018) Screening Report and Natura Impact Statement- Provision of Information for Appropriate Assessment for a Proposed Dwelling at Williamstown, Co. Clare.

Smit, C. J., & Visser, G. J. (1993) Effects of disturbance on shorebirds: a summary of existing knowledge from the Dutch Wadden Sea and Delta. Wader Study Group Bulletin: 68: 6-19.

Smith, G. F., O'Donoghue, P., O'Hora, K., Delaney, E., 2011. Best Practice Guidance for Habitat Survey and Mapping. The Heritage Council, Kilkenny.

Whitfield, D. P., Ruddock, M., & Bullman, R. (2008) Expert opinion as a tool for quantifying bird tolerance to human disturbance. Biological Conservation,141 (11), 2708-2717.

Appendix A Screening for Appropriate Assessment Report

Report to Inform Screening for Appropriate Assessment

Retention of Completed Works to Slipway, Wall and Pathway

Ballynakillew

Mountshannon

Co. Clare

Report prepared for Declan Lyons

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24th September 2024

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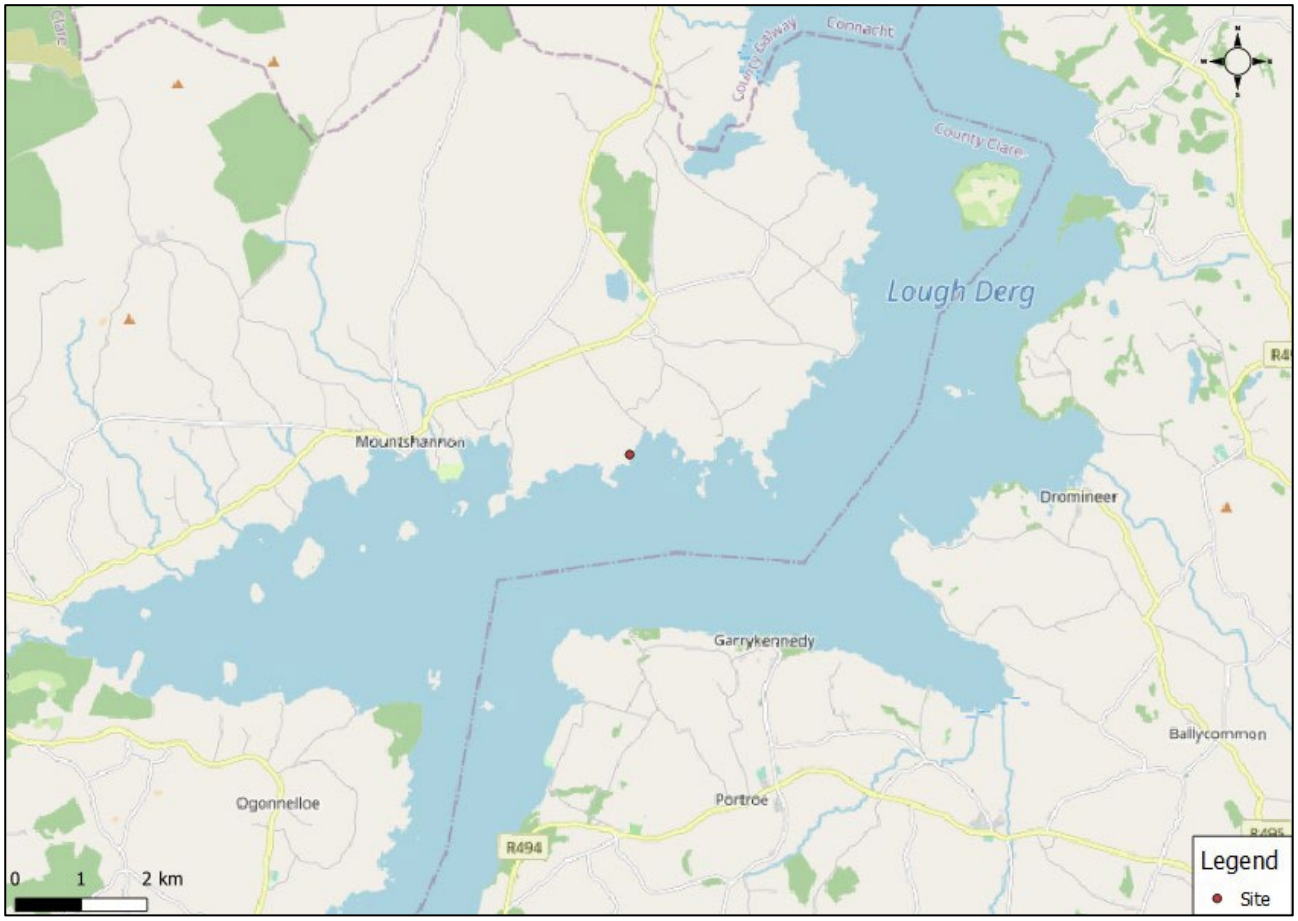
1 Introduction

Greenleaf Ecology was commissioned by Declan Lyons to prepare a report to inform Screening for Appropriate Assessment (AA) for the proposed Retention of Completed Works to the Slipway, Wall and Pathway at Ballynakillew, Whitegate, Co. Clare (Figure 1-1).

This report comprises information in support of screening for AA to be undertaken by the competent authority in line with the requirements of Article 6(3) of the EU Habitats Directive (Directive 92/43/EEC) on the Conservation of Natural Habitats and of Wild Fauna and Flora; the Planning and Development Act (as amended), and the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477/2011) as amended.

Figure 1-1: Location of the site



1.1 Legislative Context for Appropriate Assessment

The Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora, better known as "The Habitats Directive", provides legal protection for habitats and species of European importance. Articles 3 to 9 provide the legislative means to protect habitats and species of Community interest through the establishment and conservation of an EU-wide network of sites known as Natura 2000.

The Habitats Directive has been transposed into Irish law by Part XAB of the Planning and Development Act (as amended) and the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. 477/2011) as amended. In the context of the proposed development, the governing legislation is the Birds and Habitats Regulations.

Article 6(3) of the Habitats Directive set out the decision-making tests for plans and projects likely to adversely affect the integrity of European sites (Annex 1.1). Article 6(3) establishes the requirement for AA:

Any plan or project not directly connected with or necessary to the management of the [Natura 2000] site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subjected to appropriate assessment of its implications for the site in view of the site's conservation objectives. In light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.

Natura 2000 sites are defined under the Habitats Directive (Article 3) as a coherent European ecological network of special areas of conservation, composed of sites hosting the natural habitat types listed in Annex I and habitats of the species listed in Annex II, shall enable the natural habitat types and the species' habitats concerned to be maintained or, where appropriate, restored at a favourable conservation status in their natural range. In Ireland, these sites are designated as European sites and include Special Protection Areas (SPAs), established under the EU Birds Directive (79/409/EEC, as codified by 2009/147/EC) for birds and Special Areas of Conservation (SACs), established under the Habitats Directive 92/43/EEC for habitats and species.

The competent authority is obliged to consider, in view of best scientific knowledge, whether the works are likely to have a significant effect either individually or in combination with other plans and projects. If screening determines that there is likely to be significant effects on a European site, then AA must be carried out for the completed works at Ballynakillew, including the compilation of a Natura Impact Statement (NIS) to inform the decision making.

1.2 Statement of Competence

This AA Screening was carried out by Karen Banks, MCIEEM. Karen is an ecologist with Greenleaf Ecology and has 18 years' experience in the field of ecological assessment. Karen is experienced in the production of reports to inform AAs and Natura Impact Statements including those for transport infrastructure, small to large scale housing and mixed-use developments, flood alleviation schemes and wind farms.

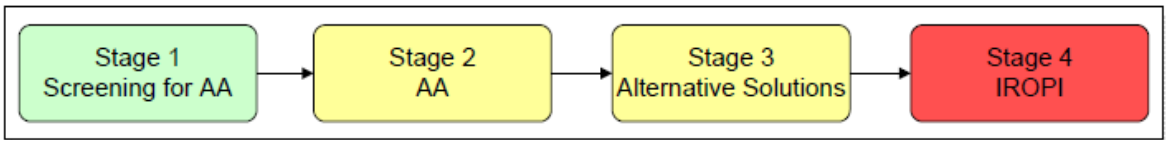
2 Methodology

2.1 Stages of Appropriate Assessment

The Department of the Environment, Heritage and Local Government guidelines (DELHG, 2009, rev. 2010) outlines the European Commission's methodological guidance (EC, 2002) promoting a four-stage process to complete the AA and outlines the issues and tests at each stage. An important aspect of the process is that the outcome at each successive stage determines whether a further stage in the process is required.

The four stages are summarised diagrammatically in Figure 2-1. Stages 1-2 deal with the main requirements for assessment under Article 6(3), and Regulation 42 of the Birds and Habitats Regulations. Stage 3 may be part of the Article 6(3) Assessment or may be a necessary precursor to Stage 4. Stage 4 is the main derogation step of Article 6(4).

Figure 2-1: Four stages of Appropriate Assessment



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

i. whether a plan or project (in this instance the proposed project) is directly connected to or necessary for the management of the European sites, and

ii. whether a plan or project, alone or in combination with other plans and projects, is likely to have significant effects on the European sites in view of their conservation objectives.

If the effects are deemed to be significant, potentially significant, or uncertain, or if the screening process becomes overly complicated, then the process must proceed to Stage 2 (AA). This report fulfils the information necessary to enable the competent authority to screen the proposal for the requirement to prepare an AA.

This report forms Stage 1 of the AA process and sets out the following information:

- Description of the works;
- Characteristics of the proximal European sites; and
- Assessment of significance of the works on the European sites in question.

The methodology followed in relation to this assessment has had regard to the following guidance and legislation:

- European Union Habitats Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora 92/43/EEC;
- Appropriate Assessment of Plans and Projects in Ireland Guidance for Planning Authorities (DOEHLG 2009, rev 2010);
- The Planning and Development Act (as amended);
- Managing Natura 2000 Sites: the provisions of Article 6 of the 'Habitats' Directive 92/43/EEC, Office for Official Publications of the European Communities, Luxembourg (EC, 2018);
- European Commission Notice Brussels C (2021) 6913 final 'Assessment of plans and projects in relation to Natura 2000 sites - Methodological guidance on Article 6(3) and (4) of the Habitats Directive 92/43/EEC' (EC, 2021);

- Interpretation Manual of European Union Habitats. Version EUR 28. European Commission 2013;
- The European Union (Environmental Impact Assessment and Habitats) Regulations 2011; and
- The European Communities (Birds and Natural Habitats) Regulations, S.I. No. 477 of 2011 (as amended).

2.2 Information consulted for this report

The Screening assessment had regard to the following sources of data and information:

- Information on the location, nature and design of the proposed project;
- Department of Housing, Planning, and Local Government – online land use mapping www.myplan.ie/en/index.html;
- Department of Housing, Planning, and Local Government- EIA Portal https://www.housing.gov.ie/planning/environmental-assessment/environmental-impact-assessment-eia/eia-portal
- Environmental Protection Agency (EPA) – Water Quality www.epa.ie, http://gis.epa.ie/Envision;
- Geological Survey of Ireland – Geology, soils and Hydrogeology www.gsi.ie;
- Water Framework Directive website – www.catchments.ie;
- Inland Fisheries Ireland website and www.wfdfish.ie;
- National Parks and Wildlife Service – online European site network information, including site conservation objectives www.npws.ie;
- National Parks and Wildlife Service – Information on the status of EU protected habitats in Ireland (NPWS 2019);
- National Biodiversity Data Centre – www.biodiversityireland.ie;
- Ordnance Survey of Ireland – Mapping and Aerial photography www.osi.ie; and
- Site survey, undertaken on 6th February 2023.

2.3 Screening Protocol

The sequence of events when completing the AA Screening process is provided below:

- Ascertain whether the plan or project is necessary for the management of the European site;
- Description of the plan or project;
- Definition of the likely zone of influence for the proposed development;
- Identification of the European sites that are situated (in their entirety or partially or downstream) within the zone of influence of the completed works;
- Identification of the most up-to-date QIs and SCIs for each European site within the zone of influence;
- Identification of the environmental conditions that maintain the QIs/SCIs at the desired target of Favourable Conservation Status;
- Identification of the threats/impacts – actual or potential that could negatively impact the environmental conditions of the QIs/SCIs within the European sites;
- Highlighting the activities of the completed works that could give rise to significant negative impacts; and
- Identification of other plans or projects, for which in-combination impacts would likely have significant effects.

2.3.1 Screening Determination

In accordance with Regulation 42(7) of the Birds and Natural Habitats Regulations 2011 (S.I. No. 477/2011) as amended, the competent authority shall:

> *"determine that an Appropriate Assessment of a plan or project is not required where the plan or project is not directly connected with or necessary to the management of the site as a European site and if it can be excluded on the basis of objective scientific information following screening under this Regulation, that the plan or project, individually or in combination with other plans or projects, will have a significant effect on a European site*".

2.3.2 Zone of Influence

In accordance with EC (2021) *Assessment of plans and projects in relation to Natura 2000 sites - Methodological guidance on Article 6(3) and (4) of the Habitats Directive 92/43/EEC*, identification of the European sites that may be affected should be done by taking into consideration all aspects of the plan or project that could have potential effects on any European sites located within the zone of influence of the plan or project. This should take into account all of the designating features (species, habitat types) that are significantly present on the sites and their conservation objectives.

In particular, it should identify:

- Any European sites geographically overlapping with any of the actions or aspects of the plan or project in any of its phases, or adjacent to them;
- Any European sites within the likely zone of influence of the plan or project. Natura 2000 sites located in the surroundings of the plan or project (or at some distance) that could still be indirectly affected by aspects of the project, including as regards the use of natural resources (e.g. water) and various types of waste, discharge or emissions of substances or energy;
- European sites in the surroundings of the plan or project (or at some distance) which host fauna that can move to the project area and then suffer mortality or other impacts (e.g. loss of feeding areas, reduction of home range);
- European sites whose connectivity or ecological continuity can be affected by the plan or project.
- The range of European sites to be assessed, i.e. the zone in which impacts from the plan or project may arise, will depend on the nature of the plan or project and the distance at which effects may occur.

2.3.3 Likely Significant Effects

The threshold for a likely significant effect is treated in the screening exercise as being above a *de minimis* level[1]. The opinion of the Advocate General in CJEU case C-258/11 outlines:

"*the requirement that the effect in question be 'significant' exists in order to lay down a de minimis threshold. Plans or projects that have no appreciable effect on a European site are thereby excluded. If all plans or projects capable of having any effect whatsoever on the site were to be caught by Article 6(3), activities on or near the site would risk being impossible by reason of legislative overkill*."

[1] *Sweetman v. An Bord Pleanála* (Court of Justice of the EU, case C-285/11). A de minimis effect is a level of risk that is too small to be concerned with when considering ecological requirements of an Annex I habitat or a population of Annex II species present on a European site necessary to ensure their favourable conservation condition. If low level effects on habitats or individuals of species are judged to be in this order of magnitude and that judgment has been made in the absence of reasonable scientific doubt, then those effects are not considered to be likely significant effects.

In this report, therefore, 'relevant' European sites are those within the potential zone of influence of the construction and / or operation of the development, and to which likely significant effect pathways were identified through the source-pathway-receptor model.

3 Project Description

The site is located in the townland of Ballynakillew, Mountshannon, Co. Clare.

The project is for the retention of completed works, which comprise the following: (a) Repairs to gravel slipway with concrete and construction of an adjacent low stone wall (b) repairs to gravel pathway with gravel at Ballynakillew, Mountshannon, Co. Clare.

3.1 Existing Environment

A site survey was undertaken on 6th February 2023 by ecologist Ms. Karen Banks, MCIEEM.

The site comprises the gravel pathway and concrete slipway (buildings and artificial surfaces, BL3) and surrounding lands. Habitats in the surrounding lands consist of species poor wet grassland (GS4), with species present including Meadow Grass (*Poa*) species, Yorkshire Fog (*Holcus lanatus*), Red Fescue (*Festuca rubra*), Cock's-foot (*Dactylis glomerata*), Compact Rush (*Juncus conglomeratus*), Glaucous Sedge (*Carex flacca*), Creeping Buttercup (*Ranunculus repens*), Cuckoo Flower (*Cardamine pratensis*), Common Sorrel (*Rumex acetosa*), Curled Dock (*Rumex crispus*) and abundant Pointed Spear-moss (*Calliergonella cuspidata*); Gorse (*Ulex europaeus*) is encroaching in some areas.

Woodland (WN6), comprising Willow (*Salix cinerea*), Alder (*Alnus glutinosa*), Hawthorn (*Crataegus monogyna*), Ash (*Fraxinus excelsior*), Silver Birch (*Betula pendula*), Gorse and Bramble (*Rubus fruticosus*) are present at the west and east of the site; Alder and Ash are also present at the lakeshore at the south of the site.

No evidence of invasive plant species was recorded at the site.

3.1.1 Surface Water

3.1.1.1 Water Bodies

The site is located within the Shannon (Lower)_040 Sub-basin. Lough Derg is located directly adjacent to the east of the site. The site overlies the Tynagh Ground Waterbody (GWB).

EPA codes for these water bodies are shown below in Table 3-1**.**

Table 3-1: EPA water body codes

EPA water body name	Water body type	EPA Code	EPA water body code
Lough Derg	Lake	n/a	IE_SH_25_191a
Tynagh	Groundwater	n/a	IE_SH_G_236

3.1.1.2 Surface Water Quality and Risk Characterisation

Lough Derg is classified as 'At risk' and has a 'Moderate' status under the WFD.

A summary of the WFD and Risk status[2] is shown below in Table 3-2**.**

Table 3-2: Summary of WFD status for waterbodies at the site

EPA Waterbody Name	Code	Risk	WFD Status 2016-2021
Lough Derg	IE_SH_25_191a	At risk	Moderate

[2] https://www.catchments.ie/maps/

Tynagh	IE_SH_G_236	Not at risk	Good

3.1.2 Flooding

The Office of Public Works (OPW) flood mapping (http://www.floodinfo.ie/map/floodmaps/) indicates the flood extents for Lough Derg at Ballynakillew. As indicated in Figure 3-1**,** the flood extents of Lough Derg reach the slipway to the east of the site boundary, but do not reach the footprint of the development.

Figure 3-1: OPW flood risk mapping of the site and surrounding area

3.1.3 Soil, Geology and Hydrogeology

The Geological Survey of Ireland (GSI) online database (www.gsi.ie) was consulted for available edaphic, geological and hydrological information of the site and its environs. The site is overlaid by Lacustrine type soils and AminPD- mineral poorly drained (Mainly acidic) soils. In terms of bedrock geology, Ballysteen Formation composed of Dark muddy limestone, shale underlie the site.

The bedrock units which underlie the site are mapped by the GSI as part of the same Locally Important Aquifer. Groundwater vulnerability is a term used to represent the intrinsic geological and hydrogeological characteristics that determine the ease at which groundwater may be contaminated. The study area is of 'moderate' groundwater vulnerability. There are no karst features located in the vicinity of the completed works.

3.2 Description of European Sites

This stage of the screening for AA process describes European sites within the likely zone of influence of the works. The methodology for establishing the likely zone of influence is described in Section 2.3.2.

Connectivity between the works and European sites has been reviewed. Connectivity is identified via the potential source-pathway-receptor model which identifies the potential impact pathways such as land, air, hydrological, hydrogeological pathways etc. which may support direct or indirect connectivity of the works to European sites and/or their qualifying features.

In view of the location of the works in relation to European sites (see Figure 3-2), the characteristics of the completed works (see Section 3) and the source, pathway and receptors of potential impacts, a 5km radius is considered an appropriate zone of influence to screen all likely significant effects that might impact upon the European sites. The establishment of the likely zone of influence is in line with EC (2021) *Assessment of plans and projects in relation to Natura 2000 sites - Methodological guidance on Article 6(3) and (4) of the Habitats Directive 92/43/EEC*.

The European sites located within 5km of the works are outlined in Table 3-3 and Figure 3-2**.** There are 2 European sites located within 5km of the works:

1. Lough Derg (Shannon) SPA (Site Code: 004058); and
2. Slieve Aughty Mountains SPA (Site Code: 004168).

Source – pathway – receptor dynamics were assessed for Lough Derg (Shannon) SPA and Slieve Aughty Mountains SPA it was determined that there is no connectivity (via surface water, groundwater, air or other environmental vectors) between the works and Slieve Aughty Mountains SPA. The completed works are located directly adjacent to Lough Derg (Shannon) SPA, therefore there is potential direct connectivity between the works and this European site.

Figure 3-2: European Sites Located within 5km of the Works

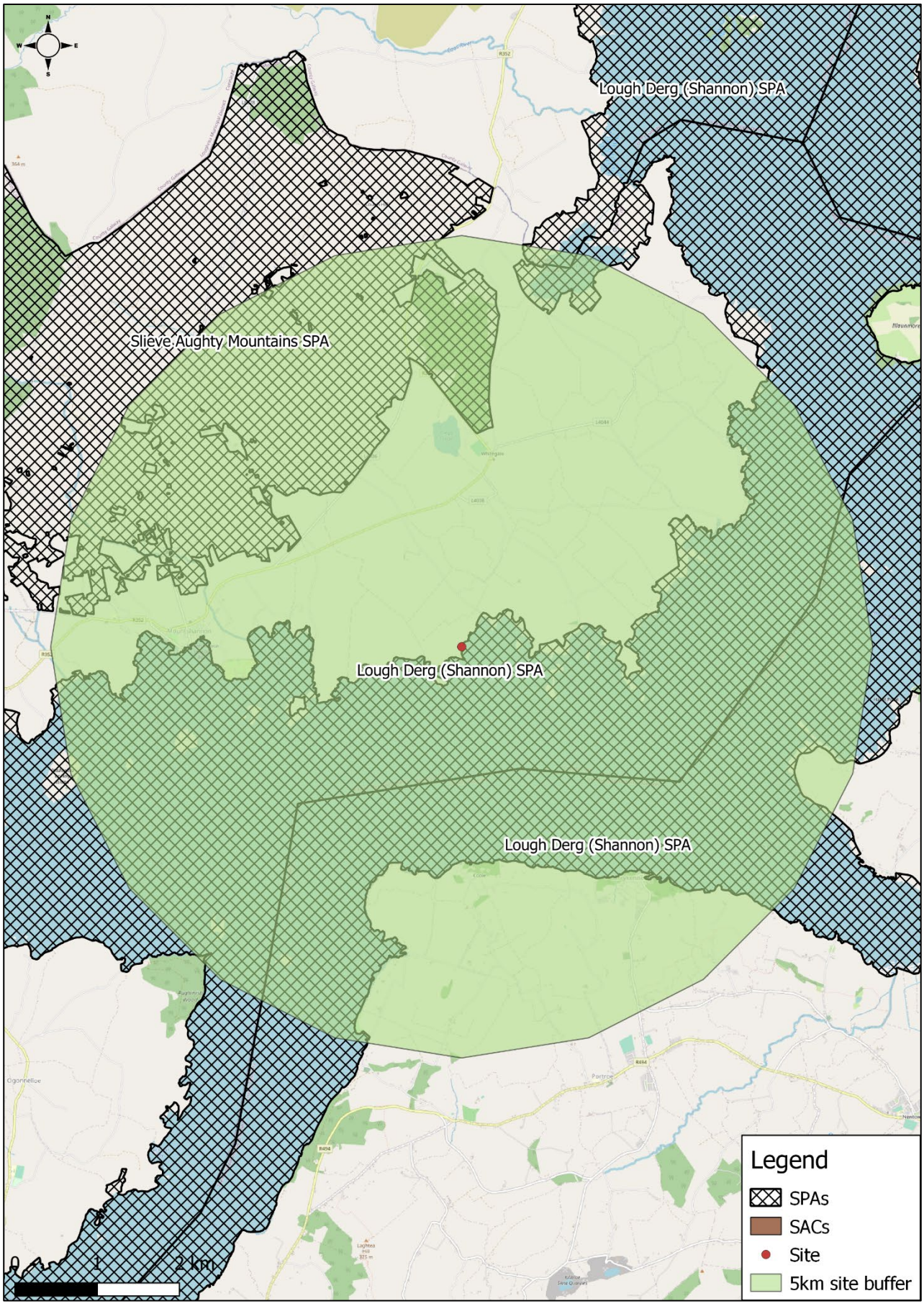


Table 3-3: European Sites within 5km of the Works

Site Name and Code	Qualifying Interests	Distance from Site (km)[3]	Connectivity
Lough Derg (Shannon) SPA (Site Code: 004058)	**Birds** [A193] Common Tern (*Sterna hirundo*) [A061] Tufted Duck (*Aythya fuligula*) [A067] Goldeneye (*Bucephala clangula*) [A017] Cormorant (*Phalacrocorax carbo*) Wetlands	0 (directly adjacent)	The site is directly adjacent to this SPA, therefore there is potential direct connectivity.
Slieve Aughty Mountains SPA (004168)	**Birds** [A098] Merlin (*Falco columbarius*) [A082] Hen Harrier (*Circus cyaneus*)	2.3	There is no hydrological connectivity. The site and this SPA are both located within the Tynagh ground waterbody. However, review of local topography indicates that groundwater at the site would not flow in the direction of this SPA.

[3] Distance measured "as the crow flies"

4 Screening Assessment Criteria

4.1 Management of European Sites

AA Screening is not required where the development is connected with, or necessary to, the management of any European site. In this case, the development is not directly connected with or necessary to the management of any European site(s).

4.2 Likely Direct, Indirect or Secondary Impacts of the Project on the European Sites

Table 3-3 lists the European sites within 5km of the completed works at Ballynakillew. There are two European sites within the likely zone of influence of the completed works: Slieve Aughty Mountains SPA and Lough Derg (Shannon) SPA. The development is not situated within any SACs or SPAs, therefore no direct impacts will have occurred through land take or fragmentation of habitats.

The Slieve Aughty Mountains SPA is of special conservation interest for Merlin and Hen Harrier. This SPA is located c.2.3km to the north-west of the site. The site is not suitable to support breeding Merlin or Hen Harrier and would not provide a significant foraging resource for these species. Therefore, the development would not have resulted in ex-situ disturbance impacts on the SCI species for this SPA. There is no hydrological connectivity between the site and this SPA, therefore the development will not have resulted in a reduction in water quality within this SPA. It is not likely that the development has resulted in significant adverse effects on the Slieve Aughty Mountains SPA.

The site is located directly adjacent to Lough Derg (Shannon) SPA. Due to the proximity of the site to Lough Derg (Shannon) SPA, there is potential for disturbance to the SCI for this SPA during the construction phase of the development. There is also potential for adverse effects on water quality within Lough Derg (Shannon) SPA during the construction phase as a result of spillage of deleterious substances. Should a reduction in water quality be severe enough, there is potential for a temporary adverse effect on the foraging resources for the SCI of Lough Derg (Shannon) SPA.

The operation of the completed slipway, wall and pathway has not altered the type or level of activity occurring within Lough Derg. As such, no significant disturbance or displacement effects on the SCI for Lough Derg (Shannon) SPA are expected to occur during the operational phase. No significant adverse effects on the water quality within Lough Derg (Shannon) SPA are expected during the operational phase.

4.2.1 Cumulative Impacts with Other Plans and Projects in the Area

As part of the screening for an AA, in addition to the completed works, other relevant projects and plans in the region must also be considered at this stage and assessed in the context of potential for in-combination effects. These plans and projects are outlined and assessed in Table 4-1 below.

It is concluded that there will be no negative in-combination effects between the development and plans or project in the area.

Table 4-1: Other Projects and Plans that could result in potential cumulative impacts

Plan / Programme/Policy	Key Objectives/Policies/Proposals	Potential for In-combination Effects and Mitigation
Clare County Development Plan 2023-2029	**Policies and Objectives:** **CDP15.1: Biodiversity** It is an objective of Clare County Council: a) To implement the National Biodiversity Action Plan 2017-2021, the All Ireland Pollinator Plan 2021-	Policies and objectives of the Clare County Development Plan 2023 – 2029 ensure that local planning applications comply with proper planning and sustainability and with the requirements of relevant EU

	2025, the County Clare Heritage Plan 2017-2023 and the County Clare Biodiversity Plan 2017-2023, or any subsequent plans, in partnership with all relevant stakeholders; b) To review the Clare County Heritage Plan 2017-2023 and to prepare a new plan, which will be set within the context of the National Heritage Plan "Heritage Ireland 2030", upon the expiry of the existing adopted Plan; c) To support National Biodiversity Week and events such as Bioblitz in order to increase awareness of biodiversity and its benefits to the community; d) To ensure that features of importance to local biodiversity are retained as part of developments and projects being undertaken in the County; e) To identify ecological buffer zones, where appropriate, in the Plan area; and f) To support current and future projects with the aim of restoration/rehabilitation of natural habitats and species. **CDP15.3: European Sites** It is an objective of Clare County Council: a) To afford the highest level of protection to all designated European sites in accordance with the relevant Directives and legislation on such matters; b) To require all planning applications for development that may have (or cannot rule out) likely significant effects on European Sites in view of the site's Conservation Objectives, either in isolation or in combination with other plans or projects, to submit a Natura Impact Statement in accordance with the requirements of the EU Habitats Directive and the Planning and Development Act, 2000 (as amended); and c) To recognise and afford appropriate protection to any new or modified SPAs or SACs that are identified during the lifetime of this Development Plan through the planning application process bearing in mind proposals for development outside of a European site may also have an indirect effect. **CDP15.4: Appropriate Assessment** It is an objective of Clare County Council: a) To implement Article 6(3) and where necessary 6(4) of the Habitats Directive and to ensure that Appropriate Assessment is carried out in relation to works, plans and projects likely to impact on European sites (SACs and SPAs), whether directly or indirectly or in combination with any other plan(s) or project(s); and	Directives and environmental considerations, there is no potential for adverse in-combination effects on European Sites.

	b) To have regard to Appropriate Assessment of Plans and Projects in Ireland – Guidelines for Planning Authorities 2009 or any updated version.	
River Basin Management Plan 2018-2021	The project should comply with the environmental objectives of the Irish RBMP which are to be achieved generally by 2021. ▪ Ensure full compliance with relevant EU legislation ▪ Prevent deterioration ▪ Meeting the objectives for designated protected areas ▪ Protect high status waters ▪ Implement targeted actions and pilot schemes in focus sub-catchments aimed at: targeting water bodies close to meeting their objective and addressing more complex issues which will build knowledge for the third cycle.	The implementation and compliance with key environmental policies, issues and objectives of this management plan will result in positive in-combination effects to European sites. The implementation of this plan will have a positive impact for the biodiversity. It will not contribute to in-combination or cumulative impacts with the proposed development.
Inland Fisheries Ireland Corporate Plan 2021 -2025 **The Inland Fisheries Act 2010.**	To place the inland fisheries resource in the best sustainable position possible for the benefit of future generations. To protect, manage and conserve Ireland's inland fisheries and sea angling resources and to maximise their sustainability and natural biodiversity. ▪ To sustainably develop and improve fish habitats. ▪ To protect, maintain and enhance Ireland's wild fish populations. ▪ To actively engage with stakeholders in the continued stewardship of our shared resource. ▪ To play a leadership role in achieving our climate action and biodiversity goals. ▪ To vlaue our people and support their development and performance. ▪ To foster a culture of value for money and evaluation of performance in a measurable, transparent and accountable manner. ▪ Harness the power of innovation to continue to deliver a modern fisheries service.	The implementation and compliance with key environmental issues and objectives of this corporate plan will result in positive on-combination effects to European sites. The implementation of this corporate plan will have a positive impact for biodiversity of inland fisheries and ecosystems. It will not contribute to in-combination or cumulative impacts with the completed works.
WWTP discharges	Scarriff	Discharges from municipal WWTPs are required to meet water quality standards. Irish Water Capital Investment Plan 2020-2024 proposes to upgrade water treatment services countrywide. The long-term cumulative impact is predicted to be negligible.
IPPC Programme	None within the zone of influence of the completed works.	-

Residential Applications[4]	Local planning applications[5] in proximity and within the Zone of Influence of the completed works are limited to small scale domestic dwelling (Ref: 18799) and agricultural (Ref: 211031) developments.	Adherence to the overarching policies and objectives of the Clare County Development Plan 2023 - 2029 ensure that local planning applications and subsequent grant of planning comply with the core strategy of proper planning and sustainability and with the requirements of relevant EU Directives and environmental considerations, there is no potential for significant adverse in combination effects on European Sites.

4.3 Screening Assessment

Table 4-2 identifies the potential direct, indirect and secondary impacts of the development on European Sites within a 5 km radius.

Table 4-2: Potential Significant Effects on European Sites from the Completed Works at Ballynakillew

Site Name and Code	Direct Impacts	Indirect / Secondary Impacts	Resource Requirements	Emissions (Disposal to land, Water or Air)	Excavation Requirements
Lough Derg (Shannon) SPA (Site Code: 004058)	No impact on QI	Disturbance impacts on the SCI for Lough Derg SPA during the construction phase. Potential water quality degradation in Lough Derg during construction, which may in turn have a significant effect on the SCI of this SPA.	No impact on QI	Potential water quality degradation during the construction phase.	No impact on QI
Slieve Aughty Mountains SPA (004168)	No impact on QI	No impact on QI	No impact on QI	No impact on QI	No impact on QI

[4] The Local Planning Applications included in this potential in-combination impacts assessment support the following criteria: planning applications granted within the past five years that may contribute to potential cumulative impacts on European sites of concern.

[5] http://www.eplanning.ie/ClareCC/searchresults/Default/1, accessed 13/04/2022

4.4 Likely Changes to the European Site(s)

The likely changes that could arise from the Completed Works to the Slipway, Wall and Pathway at Ballynakillew, Mountshannon, Co. Clare have been examined in the context of a number of factors that could have a significant effect on the relevant European Sites (Table 4-3)

Table 4-3: Likely Changes to European Sites

Site Name and Code	Reduction of Habitat Area	Disturbance to Key Species	Habitat or Species fragmentation	Reduction in Species Density	Changes in Key Indicators of Conservation Value (Water Quality, etc.)	Climate Change
Lough Derg (Shannon) SPA (Site Code: 004058)		Potential disturbance impacts on SCI for Lough Derg SPA	None	Potential reduction in density of SCI species locally within Lough Derg SPA	Potential reduction in water quality	None
Slieve Aughty Mountains SPA (004168)	None	None	None	None	None	None

4.4.1 Elements of the Project where the Impacts are Likely to be Significant

There is potential for the Completed Works to the Slipway and Pathway at Ballynakillew, Mountshannon, Co. Clare to result in likely significant effects on the SCI of Lough Derg (Shannon) SPA as a result of degradation of water quality and disturbance/ displacement during the construction phase.

5 Conclusion

This AA screening report has been prepared to assess whether the proposed retention of completed works, individually or in-combination with other plans or projects, and in view of best scientific knowledge, is likely to have a significant effect on any European site(s).

The screening exercise was completed in compliance with the relevant European Commission guidance, national guidance and case law. The potential impacts of the proposed retention of completed works have been considered in the context of the European sites potentially affected, their qualifying interests or special conservation interests, and their conservation objectives.

Through an assessment of the source-pathway-receptor model, which considered the zone of influence of effects from the proposed retention of completed works and the potential in-combination effects with other plans or projects, the following findings were reported:

- In the absence of mitigation measures to control surface water pollution during construction of the Completed Works to the Slipway, Wall and Pathway at Ballynakillew, Mountshannon, Co. Clare, the potential for likely significant effects to the SCI for Lough Derg SPA cannot be excluded.
- In the absence of mitigation measures during the construction phase of the development, the potential for likely significant effects to the SCI species of Lough Derg SPA, as a result of a disturbance cannot be ruled out.

In view of objective information, best scientific knowledge and the conservation objectives of the European sites, the potential for likely significant effects to Lough Derg SPA cannot be excluded.

Likely significant effects (in the absence of mitigation) to this European site arise primarily from the potential for disturbance to SCI and water quality degradation as a result of the completed works which, in turn, has the possibility to affect the conservation objectives of the European site alone or in combination with other plans or projects.

It is acknowledged that the competent authority shall make the determination whether AA is required.

6 References

Balmer, D., Gillings, S., Caffrey, B., Swann, B., Downie, I., Fuller, R. (2013) Bird Atlas 2007-2011.British Trust for Ornithology.

DoEHLG (2010) Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities. Rev. Feb 2010. Department of Environment, Heritage and Local Government.

DoHPLG (2018) River Basin Management Plan for Ireland 2018-2021. Department of Housing, Planning and Local Government.

EC (2000) Communication from the Commission on the precautionary principle. Brussels, 2.2.2000. COM (2000) 1 final. European Communities, Luxembourg.

EC (2021) Assessment of plans and projects in relation to Natura 2000 sites - Methodological guidance on Article 6(3) and (4) of the Habitats Directive 92/43/EEC, Office for Official Publications of the European Communities, Luxembourg.

EC (2006) Nature and biodiversity cases: Ruling of the European Court of Justice. Office for Official Publications of the European Communities, Luxembourg.

EC (2007) Guidance document on Article 6(4) of the 'Habitats Directive' 92/43/EEC – Clarification of the concepts of: alternative solutions, imperative reasons of overriding public interest, compensatory measures, overall coherence, opinion of the Commission. Office for Official Publications of the European Communities, Luxembourg.

EC (2013) Interpretation manual of European Union Habitats. EUR 28, April 2013: European Commission G Environment, Nature ENV B.3.

EC (2014) Article 6 of the Habitats Directive: Rulings of the European Court of Justice. EC (2018) Commission notice "Managing Natura 2000 sites, The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC". Brussels, 21.11.2018, C (2018) 7621 final. European Communities, Luxembourg.

Government of Ireland (2018) National Development Plan 2018-2027. Project Ireland.

NPWS (2019). The Status of EU Protected Habitats and Species in Ireland. Volume 2: Habitat Assessments. Unpublished NPWS report. Edited by: Deirdre Lynn and Fionnuala O'Neill

NRA (2006) Guidelines for the Treatment of Otters during the Construction of National Road Schemes. National Roads Authority.

NRA (2009) Guidelines for Assessment of Ecological Impacts of National Roads Schemes. Revisions 2, 1st June 2009. National Roads Authority.

Scott Cawley (2018) Screening Report and Natura Impact Statement- Provision of Information for Appropriate Assessment for a Proposed Dwelling at Williamstown, Co. Clare.

Smit, C. J., & Visser, G. J. (1993) Effects of disturbance on shorebirds: a summary of existing knowledge from the Dutch Wadden Sea and Delta. Wader Study Group Bulletin: 68: 6-19.

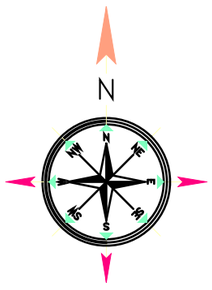
Whitfield, D. P., Ruddock, M., & Bullman, R. (2008) Expert opinion as a tool for quantifying bird tolerance to human disturbance. Biological Conservation,141 (11), 2708-2717.

Appendix A: Site Layout Drawing

section 5- applicaiton

Notes:

A2



Ballynakillew

EXISTING PASSING BAY ON PRIVATE ROAD

Applicants HOUSE V94 AEW9

Lands in ownership outlined in Red

TIMBER POST AND RAIL STOCKPROOF FENCE TO ROADSIDE BOUNDARY

30671

GATE

54788

GRAVEL PATH

34889

3967

14393

19977

4128

2123

Jetty

CONCRETE SLIPWAY

27697

JETTY

TIMBER POST AND RAIL STOCKPROOF FENCE TO ROADSIDE BOUNDARY

114119

55574

TIMBER POST AND RAIL STOCKPROOF FENCE TO ROADSIDE BOUNDARY

44546

Water line

Lake

Water line

Lake

lyons designs architectural services — 14 bellewood, ballyneety, co. limerick		drawn:	mike lyons, T- 087 2768650, E- mike@ldas.ie
project: Section 5 application- repair to path/ jetty	drawing title: Site layout plan	date: 02/12/2022	sheet no. P02 — revision .
client: Declan Lyons, Ballynakillew, Mounshannon, Co. Clare		scale: 1:500@A2	
		stage: SECTION_5	