

**Errigal View Pump Station Upgrade
Ballagherg
Letterkenny**

**HABITATS DIRECTIVE ARTICLE 6
SCREENING ASSESSMENT**

June 2021



Chomhairle Chondae Dhun na RíGail

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1.0 EXECUTIVE SUMMARY

This report contains a Screening for Appropriate Assessment for the Errigal View Pump Station Upgrade in accordance with the requirements of Article 6(3) and Article 6(4) of the EU Habitats Directive (92/43/EEC).

The project is unlikely to have a significant effect on any Natura 2000 site or qualifying interest due to the nature of the works and the separation distance between the works and the sites.

This report clearly determines that an Appropriate Assessment is not required.

Presented in Figure 1.0 below is the location of the development.



Figure 1.0: Location of the development

2.0 INTRODUCTION

Article 6(3) and 6(4) of the Habitats Directive states the following:

6(3) – ‘Any **plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon**, either individually or in combination with other plans or projects, shall be subject to **appropriate assessment** of its implications for the site in view of the site’s **conservation objectives**. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the **competent national authorities** shall agree to the plan or project only after having ascertained that it will not adversely affect the **integrity of the site** concerned and, if appropriate, after having obtained the opinion of the general public’.

6(4) – ‘If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for **imperative reasons of overriding public interest**, including those of a social or economic nature, the Member State shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted.

Where the site concerned hosts a priority natural habitat type and/or a priority species, the only considerations which may be raised are those relating to human health or public safety, to beneficial consequences of primary importance for the environment or, further to an opinion from the Commission, to other imperative reasons of overriding public interest’.

Appropriate Assessment process follows a four stage approach. The outcome of each successive stage determines whether a further stage in the process is required. Stages 1-2 deal with the main requirements for assessment under Article 6(3). Stage 3 may be part of Article 6(3) or may be a necessary precursor to Stage 4. Stage 4 is the main derogation step in Article 6(4).

Appropriate Assessment process comprises of the following stages;

Stage 1 – Screening for Appropriate Assessment (AA)

Stage 2 – Appropriate Assessment (AA)

Stage 3 – Alternative Solutions

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

Screening determines whether Appropriate Assessment (AA) is necessary by examining:

-
1. *'whether a plan or project can be excluded from AA requirements because it is directly connected with or necessary to the management of the site, and'*
 2. *'the potential effects of a project or plan, either alone or in combination with other projects and plans, on a Natura 2000 site in view of its conservation objectives, and considering whether these effects will be significant'.*

Screening is an iterative process that involves consideration of the plan or project and its likely effects, and of the Natura 2000 sites and their ecological sensitivities, and the likely interaction of these. 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).

3.0 DESCRIPTION OF PROJECT

Donegal County Council proposes to carry out development at Errigal View, Ballaghderg, Letterkenny, Co. Donegal.

The proposed **Errigal View Pump Station Upgrade at Ballaghderg, Letterkenny** has been developed to provide a permanent solution for the existing non-functioning, defective and environmentally hazardous wastewater pumping station. Currently, the existing pump station is periodically emptied by tanker and occasionally overflows raw sewage to adjoining properties and the nearby Ellistrin Little stream (EPA code 39E05), which is hydraulically linked to the Leannan River Special Area of Conservation, located approximately 6.5km downstream.

Donegal County Council proposes to demolish the existing defective and environmentally hazardous wastewater pumping station at Errigal View estate and construct a new pump station designed and constructed in accordance with current Irish Water specification, approximately 70m east of the existing.

The project will be carried out in accordance with the drawings associated with this application and will include:

- Construction of underground chambers for wastewater pumping and emergency storage;
- 2 no. 2m high kiosks and 2 no. 1.4m high kiosks for housing of mechanical and electrical plant;
- 6.5m high vent stack;
- 2.4m high wire mesh fencing around the pump station for security;
- 1 no. 5.5m high lamppost to light the pump station.
- Decommissioning and demolition of existing non-functioning pumping station infrastructure including above ground kiosks, underground chambers and associated pipework.

4.0 NATURA 2000 SITES

The approach to screening follows guidance provided in the document 'Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities'.

1. Any Natura 2000 sites **within or adjacent** to the plan or project area.
 - **There are no SAC or SPA sites within or adjacent to the proposed project.**
2. Any Natura sites **within the likely zone of impact** of the plan or project. A distance of 15km is currently recommended in the case of plans, while for projects the distance could be much less than 15km, and in some cases less than 100m, and must be evaluated on a case-by-case basis with reference to the nature, size and location of the project, and the sensitivities of the ecological receptors, and the potential for in combination effects. Due to the nature of the proposed works i.e. replacing and upgrading existing non-functioning infrastructure, and the fact that this will not significantly increase the paved surface area, likely surface water runoff or pollutants, it is considered that a zone of likely influence of **5km** will be more than sufficient in this case. The following SAC or SPA sites are located within the likely zone of impact (5km) of the proposed project.
 - **Leannan River Special Area of Conservation (Site Code 002176)**
 - **Lough Swilly Special Area of Conservation (Site Code 002287)**
 - **Lough Swilly Special Protection Area (Site Code 004075)**

Note that the development lies approximately 4.5km south and northwest of the above sites respectively.

County Donegal has 72 Natura sites and together they cover a large area of the county. In particular, watercourses are frequently included within the Natura sites and contribute significantly to the environmental diversity throughout the county. Where a particular watercourse is not directly included within a Natura site then it may often discharge into a Natura site and thus has a direct connector to that site. The following Natura 2000 sites are located near the proposed works:

- **Leannan River Special Area of Conservation (Site Code 002176)**

Situated in north Co. Donegal, this site comprises the River Leannan and its main tributaries and lakes, including Loughs Fern, Gartan and Akibbon. The river from source to sea measures 46 km and drains a catchment area of 282 km². The Bullaba River drains off the

Glendowan Mountains and flows into Lough Gartan. The Leannan River flows from Lough Gartan in a north-easterly direction, passes through Lough Fern, and then onwards in an easterly direction through the town of Rathmelton and into Lough Swilly. The main tributaries within the site are the lower Glashagh and Lurgy (Department of Arts, Heritage and the Gaeltacht, 2015).

- **Lough Swilly Special Area of Conservation (Site Code 002287)**

This large site, situated in the northern part of Co. Donegal, comprises the inner part of Lough Swilly. It extends from below Letterkenny to just north of Buncrana. Lough Swilly is a long sea lough, cutting through a variety of metamorphic rocks on the west side of Inishowen. The main rivers flowing into the site are the Swilly, Lennan and Crana. At low tide, extensive sand and mudflats are exposed, especially at the mouths of the Swilly and Lennan rivers. The site is estuarine in character, with shallow water and intertidal sand and mudflats being the dominant habitats (Department of Arts, Heritage and the Gaeltacht, 2016).

- **Lough Swilly Special Protection Area (Site Code 004075)**

Lough Swilly is a long sea inlet cut through a variety of metamorphic rocks, situated on the west side of the Inishowen Peninsula in north Co. Donegal. The SPA comprises the inner part of Lough Swilly from just east of Letterkenny northwards to Killygarvan (c. 2 km north of Rathmullan) on the west side and to c. 2 km south of Buncrana on the east side; it includes the adjacent Inch Lough. Also forming part of the site is a series of improved pasture and arable fields on the south side of Lough Swilly between Farsetmore and Inch Levels – these are of importance to geese and swans. It includes sections of the estuaries of the River Swilly, the River Leannan and the Isle Burn and the predominant habitat is a series of extensive sand and mud flats which are exposed at low tide - both estuaries and sand/mud flats are listed on Annex I of the E.U. Habitats Directive. Other habitats represented in the site are salt marshes, lagoons (at Inch Lough and Blanket Nook), rivers and streams, sand and shingle beaches, lowland wet and dry grasslands, drainage ditches, reedbeds and scrub. Inch Lough, whilst artificial in origin, is one of the largest and best examples of a shallow, low salinity lagoon in the country; it supports what is probably the largest population in the country of the Red-listed charophyte *Chara canescens*. A small sandy island, used by nesting terns, swans and gulls, occurs in the southern part of the lagoon (Department of Housing, Local Government and Heritage, 2014).

Site Synopses of the Natura 2000 sites identified in (2) above is attached in Appendix 1 of this report.

Note that there are no works proposed within the Sites.

Favourable conservation status of a habitat is achieved when its natural range, and 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. The favourable conservation status of a species is 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, a sufficiently large habitat to maintain its populations on a long-term basis.

3. Natura 2000 sites **that are more than 15km** from the plan and project area depending on the likely impacts of the plan or project, and the sensitivities of the ecological receptors, bearing in mind the precautionary principle.
 - **Due to the nature and relatively small scale of the works proposed it is considered that the works will not impact on any SAC or SPA sites that are more than 15km from the proposed project.**

The project overview and location in relation to Natura 2000 sites are shown in Figure 4.0

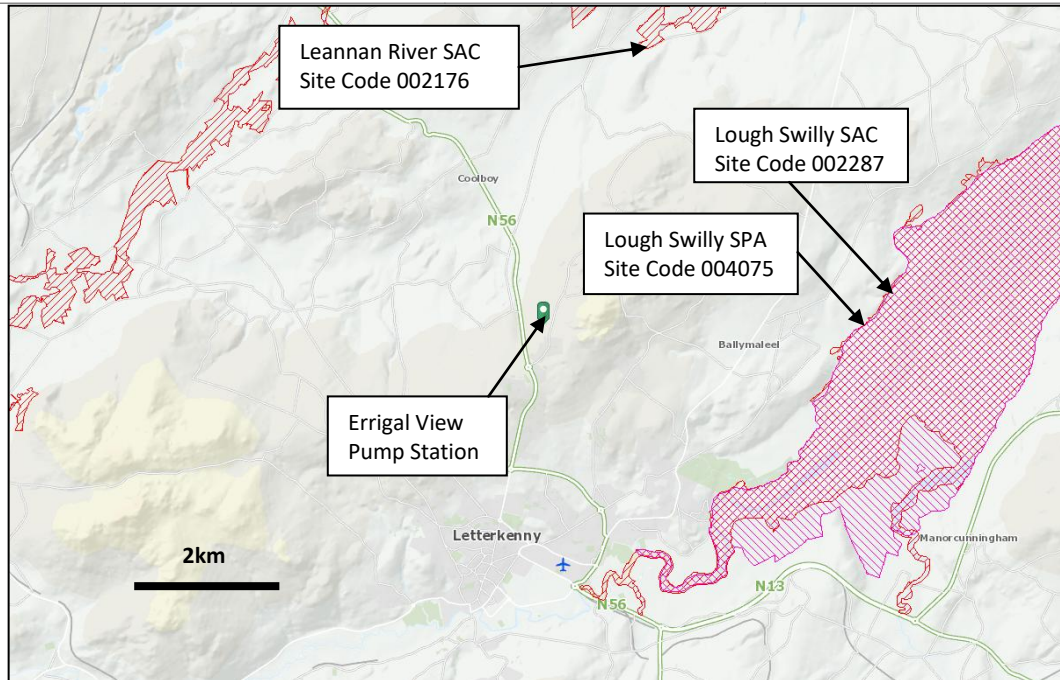


Figure 4.0 – Project overview of Natura 2000 sites identified.

(Source - <https://natura2000.eea.europa.eu/>)

4.1 CONSERVATION OBJECTIVES FOR NATURA 2000 SITES

Conservation objectives for the various SPA's and SAC's have been set by the National Parks and Wildlife Service. These objectives are generally to maintain or restore the favorable conservation status for habitats and species of community interest within the Natura sites. The specific conservation objectives for the sites are listed below:

- **Leannan River Special Area of Conservation (Site Code 002176)**

The site is a Special Area of Conservation (SAC) selected for the following habitats and/or species listed on Annex I / II of the E.U. Habitats Directive (numbers in brackets are Natura 2000 codes):

- Oligotrophic waters containing very few minerals [3110]
- Oligotrophic to Mesotrophic Standing Waters [3130]
- Freshwater Pearl Mussel (*Margaritifera margaritifera*) [1029]
- Atlantic Salmon (*Salmo salar*) [1106]
- Otter (*Lutra lutra*) [1355]
- Slender Naiad (*Najas flexilis*) [1833]

- **Lough Swilly Special Area of Conservation (Site Code 002287)**

The site is a Special Area of Conservation (SAC) selected for the following habitats and/or species listed on Annex I / II of the E.U. Habitats Directive:

- Estuaries [1130]
- Coastal Lagoons [1150]
- Atlantic Salt Meadows [1330]
- Molinia Meadows [6410]
- Old Oak Woodlands [91A0]
- Otter (*Lutra lutra*) [1355]

- **Lough Swilly Special Protection Area (Site Code 004075)**

The site is a Special Area of Conservation (SAC) selected for the following habitats and/or species listed on Annex I / II of the E.U. Habitats Directive:

- Great Crested Grebe (*Podiceps cristatus*) [A005]
- Grey Heron (*Ardea cinerea*) [A028]
- Whooper Swan (*Cygnus cygnus*) [A038]
- Greylag Goose (*Anser anser*) [A043]
- Shelduck (*Tadorna tadorna*) [A048]
- Wigeon (*Anas penelope*) [A050]
- Teal (*Anas crecca*) [A052]
- Mallard (*Anas platyrhynchos*) [A053]
- Shoveler (*Anas clypeata*) [A056]
- Scaup (*Aythya marila*) [A062]
- Goldeneye (*Bucephala clangula*) [A067]
- Red-breasted Merganser (*Mergus serrator*) [A069]
- Coot (*Fulica atra*) [A125]
- Oystercatcher (*Haematopus ostralegus*) [A130]
- Knot (*Calidris canutus*) [A143]
- Dunlin (*Calidris alpina*) [A149]
- Curlew (*Numenius arquata*) [A160]
- Redshank (*Tringa totanus*) [A162]
- Greenshank (*Tringa nebularia*) [A164]
- Black-headed Gull (*Chroicocephalus ridibundus*) [A179]
- Common Gull (*Larus canus*) [A182]

- Sandwich Tern (*Sterna sandvicensis*) [A191]
- Common Tern (*Sterna hirundo*) [A193]
- Greenland White-fronted Goose (*Anser albifrons flavirostris*) [A395]
- Wetland and Waterbirds [A999]

5.0 ASSESSMENT OF LIKELY EFFECTS

Assessment of likely effects is the process of establishing whether the plan or project is likely to affect a Natura 2000 site or sites. It is based on a preliminary impact assessment using available information and data. This is followed by a determination of whether there is a risk that the effects identified could be significant.

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).

A preliminary impact assessment using available information and data was undertaken to establish whether the plan or project is likely to have an effect on a Natura 2000 site.

Examples of effects that are likely to be significant are:

- Any impact on an Annex I habitat.
- Causing reduction in the area of the habitat or Natura 2000 site.
- Causing direct or indirect damage to the physical quality of the environment (e.g. water quality and supply, soil compaction) in the Natura 2000 site.
- Causing serious or ongoing disturbance to species or habitats for which the Natura 2000 site is selected (e.g. increased noise, illumination and human activity).
- Causing direct or indirect damage to the size, characteristics or reproductive ability of populations on the Natura 2000 site.
- Interfering with mitigation measures put in place for other plans or projects.

It is concluded the subject project does not have any significant impact on the identified Natura 2000 Sites. Appendix 2 contains an Assessment of the Natura 2000 Sites identified at Section 4.0 above. No other plans or projects have been identified in respect of which combined effects with the subject project require consideration.

5.1 CUMULATIVE, DIRECT, INDIRECT, SHORT & LONG TERM EFFECTS

The development will not have a direct effect on the Natura 2000 sites identified near the proposed project. The development will not lead to loss of habitat, fragmentation or any impact on water resources. In fact, the proposed development will remove an environmentally hazardous situation where periodic overflows of raw sewage may affect the Ellistrin Little stream (EPA code 39E05), which is hydraulically linked to the Leannan River Special Area of Conservation,

located approximately 6.5km downstream.

The development is located adjacent to a residential area. The proposal is to demolish the existing defective and environmentally hazardous wastewater pumping station at Errigal View estate and construct a new pump station designed and constructed in accordance with current Irish Water specification.

Of the Natura 2000 sites identified near the development, they neither overlap the development nor come into contact with it, but rather are located a minimum distance of 4.5km from the development.

5.2 OTHER SPECIES – Otter [1355], Salmon [1106] & Fresh Water Pearl Mussels [1029]

Otter, Salmon and Fresh Water Pearl Mussels have been identified in the Site Synopses for Leannan River SAC and Lough Swilly SAC. As these sites are more than 4.5km from the development, it is extremely unlikely they will be affected by the development. Given that the development will not affect any rivers or streams, rather it will remove the current risk of contamination of a stream hydraulically linked to Leannan River SAC, it is therefore considered extremely unlikely that the proposed works will have a significant effect on these species.

5.3 WETLAND BIRDS

Lough Swilly SPA is designated for a number of wintering wetland and water birds as listed in section 4.1. Given the separation distance of 4.5km between the development and the areas of ornithological interest, it is considered extremely unlikely that there will be a direct or indirect impact on the ornithological interest within the SPA as a result of the proposed works.

5.4 OTHER SPECIES AND LISTS IMPORTANT TO NOTE.

Within the Site Synopses for the sites there are a number of plants, birds and animals listed within the Red Data Book, The Flora (Protection) Order, 1999 & 2015, Annex I of the EU Birds Directive and within Annex II of the E.U. Habitats Directive. Although there are a number of plants, birds and animals to note, due to the nature of the works and the proximity to the SAC's and SPA it is extremely unlikely that these works will have a direct or indirect impact on these plants, birds or animals.

5.5 PARTICULAR HABITATS

The SAC's identified has various habitats including estuaries, coastal lagoons, Atlantic Salt Meadows, molinia meadows and old oak woodlands.

The SAC's and SPA are a considerable distance outside the development extents and therefore the project will not impact on these areas.

5.6 OTHER POLICIES, PLANS OR PROJECTS

There are no other works, policies, plans or projects known that would impact on the Natura 2000 sites identified. As the works are non intrusive on the Natura 2000 sites, it is unlikely that the project will have any effect on these species.

6.0 CONCLUSION

Further to the above assessment of the Natura 2000 sites (as detailed in Appendix 2) near the area of the proposed works, it is considered that the project will have no adverse effect on the integrity or conservation objectives of the Natura 2000 sites. The screening process has been undertaken to identify the proximity of Natura sites to the proposed works. The process has considered the qualifying interests of these Natura 2000 sites and potential impacts arising from the proposed project. Because of the type of qualifying interest, the separation between the construction site and Natura sites (minimum of 4.5km), the timing of the works (daytime), the standard construction controls that will be in place, the normal environmental checks and the use of good site management practices it is considered extremely unlikely that the proposed works will have any significant impact on the integrity on any Natura sites.

The process has shown that it is extremely unlikely that there will be any significant negative effects on Natura 2000 sites arising from the implementation of the project. It is also unlikely that there will be 'in combination' negative effects from any other plans or known developments.

In conclusion the Stage 1 screening for Appropriate Assessment has determined that the **Errigal View Pump Station Upgrade** will not adversely impact in any significant manner on any Natura 2000 site and the qualifying interests or conservation objectives associated with them.

As such, it is concluded that Stage 2 Appropriate Assessment is not required.

7.0 REPORT ACCEPTANCE SHEET

The Habitats Directive Article 6 screening report has determined that the proposed **Errigal View Pump Station Upgrade, Ballaghderg, Letterkenny** project is unlikely to have a significant effect on any Natura 2000 site.

Screening Report Prepared and Recommended By:

Seán Toland
Graduate Engineer

Date: June 2021

Screening Report Approved By:

Paddy Mullen
Senior Executive Engineer

Date: June 2021

Appendix 1 – Natura 2000 Site Synopses

Site Name: Leannan River SAC

Site Code: 002176

Situated in north Co. Donegal, this site comprises the River Leannan and its main tributaries and lakes, including Loughs Fern, Gartan and Akibbon. The river from source to sea measures 46 km and drains a catchment area of 282 km². The Bullaba River drains off the Glendowan Mountains and flows into Lough Gartan. The Leannan River flows from Lough Gartan in a north-easterly direction, passes through Lough Fern, and then onwards in an easterly direction through the town of Rathmelton and into Lough Swilly. The main tributaries within the site are the lower Glashagh and Lurgy.

The site is a Special Area of Conservation (SAC) selected for the following habitats and/or species listed on Annex I / II of the E.U. Habitats Directive (* = priority; numbers in brackets are Natura 2000 codes):

- | |
|---|
| [3110] Oligotrophic Waters containing very few minerals |
| [3130] Oligotrophic to Mesotrophic Standing Waters |
| [1029] Freshwater Pearl Mussel (<i>Margaritifera margaritifera</i>) |
| [1106] Atlantic Salmon (<i>Salmo salar</i>) |
| [1355] Otter (<i>Lutra lutra</i>) |
| [1833] Slender Naiad (<i>Najas flexilis</i>) |

The river has good water quality and its banks are fringed more or less continuously by deciduous woodland. The adjacent habitat is mainly wet grassland which has been improved to varying degrees for grazing. There is also a good scattering of woodland, mostly deciduous, in the surrounding area.

Gartan Lough and Lough Akibbon are excellent examples of oligotrophic lakes, a habitat type listed in Annex I of the E.U. Habitats Directive. Both are medium sized lakes and have vegetation that includes Shoreweed (*Littorella uniflora*), Quillwort (*Isoetes lacustris*), Water Lobelia (*Lobelia dortmanna*), Bulbous Rush (*Juncus bulbosus*), Bog Pondweed (*Potamogeton polygonifolius*) and the scarce Pillwort (*Pilularia globulifera*). Of particular note is the presence of Slender Naiad (*Najas flexilis*) in Lough Akibbon, as this species is listed in Annex II of the Habitats Directive, as well as on the Flora (Protection) Order, 2015. The other large lake in the site, Lough Fern, is a more mesotrophic lake system.

A range of Red Data Book plant species occur within site - Bird Cherry (*Prunus padus*), Globeflower (*Trollius europaeus*), Heath Cudweed (*Omalotheca sylvatica*),

Small-white Orchid (*Pseudochis albida*) and Pillwort. The last four from this list are legally protected under the Flora (Protection) Order, 2015.

A principal interest of this site lies in the presence of a population of Freshwater Pearl Mussel, a species listed on Annex II of the E.U. Habitats Directive and also protected under the Wildlife Act, 1976. A survey in 1995 estimated the population within the site at about 1,000 individuals, ranging in age from comparatively young (< 5 years) to 80+ years.

The site also supports Atlantic Salmon, another species listed in Annex II of the E.U. Habitats Directive. The Leannan is a good spring and grilse salmon river with extensive spawning habitats and good water quality. Lough Gartan has a population of Arctic Char (*Salvelinus alpinus*), a species listed in the Red Data Book.

Otter, a species listed on Annex II, is also known at the site. The site has a population of Leisler's Bat (*Nyctalus leisleri*) (67 individuals in July 1993), also a Red Data Book species.

Red-throated Diver, a species that is listed on Annex I of the E.U. Birds Directive, uses the site.

Relating specifically to the Freshwater Pearl Mussel, the section of river within the site appears to have escaped recent pearl fishing, but the area below the site has recently been fished out. Pearl fishing remains a threat to all sections of this river. A main threat to the overall quality of the site is intensification of agriculture in the surrounding areas which could lead to eutrophication of the lake and river waters. Lake acidification is also a potential threat. Reduction in water quality, lake acidification and introduction of alien fish species are all threats to the population of Arctic Char in Lough Gartan. The population of breeding Red-throated Diver is vulnerable to disturbance from activities such as boating and angling.

This site is of high conservation importance, due to the presence of the Habitats Directive Annex I habitat oligotrophic lakes of sandy plains, as well as the Annex II species Freshwater Pearl Mussel, Otter, Atlantic Salmon and Slender Naiad. A range of Red Data Book plant and animal species also occur.

Site Name: Lough Swilly SAC

Site Code: 002287

This large site, situated in the northern part of Co. Donegal, comprises the inner part of Lough Swilly. It extends from below Letterkenny to just north of Buncrana. Lough Swilly is a long sea lough, cutting through a variety of metamorphic rocks on the west side of Inishowen. The main rivers flowing into the site are the Swilly, Lennan and Crana. At low tide, extensive sand and mudflats are exposed, especially at the mouths of the Swilly and Lennan rivers. The site is estuarine in character, with shallow water and intertidal sand and mudflats being the dominant habitats.

The site is a Special Area of Conservation (SAC) selected for the following habitats and/or species listed on Annex I / II of the E.U. Habitats Directive (* = priority; numbers in brackets are Natura 2000 codes):

[1130] Estuaries
[1150] Coastal Lagoons*
[1330] Atlantic Salt Meadows
[6410] <i>Molinia</i> Meadows
[91A0] Old Oak Woodlands
[1355] Otter (<i>Lutra lutra</i>)

Ecological communities present in the intertidal sediments at Lough Swilly SAC include fine sand community complexes, intertidal mixed sediment communities with polychaetes, subtidal mixed sediment communities with polychaetes and bivalves, muddy fine sand communities with *Thyasira flexuosa*, muddy community complexes and *Ostrea edulis* dominated communities. Bivalves and polychaete worms are well represented in the macro-invertebrate fauna, with species such as Cockles (*Cerastoderma edule*), Mussels (*Mytilus edulis*), Baltic Tellin (*Macoma balthica*), Ragworm (*Nereis diversicolor*) and Sand Mason (*Lanice conchilega*) being common. Common Cord-grass (*Spartina anglica*) is well established on parts of the intertidal flats. The shoreline above the flats varies from bedrock shore to shingle or cobbles, and here is found a scattering of salt tolerant plants such as Common Scurvygrass (*Cochlearia officinalis*), Sea-milkwort (*Glaux maritima*) and Red Fescue (*Festuca rubra*).

Saltmarshes are well represented in the inner sheltered areas of the site, with good examples in the Ramelton area. The marshes are the Atlantic salt meadow type, and are characterised by such species as Thrift (*Armeria maritima*), Sea-milkwort, Sea Aster (*Aster tripolium*), Sea Arrowgrass (*Triglochin maritima*) and Red Fescue.

Lakes which are lagoonal in character occur at Inch and Blanket Nook. Inch Lough is a good example of a large, shallow lagoon with very low salinity in most of the lagoon. Less information is available for Blanket Nook but it is of a higher salinity and adds to the richness of the habitat within the site as a whole. The vegetation in Inch is diverse and typically lagoonal, with well-developed charophyte communities, including a large population of *Chara canescens* (a Red Data Book species). It also supports Horned Pondweed (*Zannichellia palustris*) and a mixed Pondweed/Tassleweed community (*Potamogeton pectinatus/Ruppia maritima*). The green alga *Chaetomorpha linum* occurs at Blanket Nook. The aquatic fauna at Inch is rich and diverse and includes a range of lagoonal specialists and species that are apparently rare. These include *Lekanesphaera hookeri* (Order Isopoda), *Palaemonetes varians* (Order Decapoda), *Conopeum seurati* (a bryozoan), *Sigara stagnalis* (Order Hemiptera), *S. concinna* (Order Hemiptera), *Jaera nordmanni* (Order Isopoda), *Neomysis integer* (Order Mysida) and *Cordylophora caspia* (a hydrozoan). Less information is available on the aquatic fauna at Blanket Nook, though several lagoonal specialists have been recorded, including *Jaera ischiosetosa* (Order Isopoda), which appears to be a rare species in Ireland. Inch Lough is regarded as being of significant conservation value for ecotonal Coleoptera, with several species indicative of well-developed shoreline habitats including two that are apparently rare: *Bembidion bipunctatum*, a halo-tolerant shore species, and *Bembidion aeneum*, a stenotopic halobiont species. Although artificial in origin, the lagoon habitat in this site is one of the largest and best examples of a shallow, low salinity lagoon habitat in the country.

Over 11 hectares of *Molinia* Meadows, a habitat listed on Annex I of the E.U. Habitats Directive, are reported to occur at Inch Level, according to the Irish Semi-natural Grasslands Survey, 2010.

Two woodlands occur adjacent to the north-western shore of Lough Swilly. These are Rathmullen and Carradoan Woods, the former being a Nature Reserve. They are dominated by Sessile Oak (*Quercus petraea*) and Downy Birch (*Betula pubescens*), but many other species are present including exotics such as Beech (*Fagus sylvatica*). Alder (*Alnus glutinosa*) and willows (*Salix* spp.) occur in the wetter parts. An area of wet heath, dominated by Heather (*Calluna vulgaris*), occurs on the hill above Carradoran Wood. These woodlands display a generally intact structure and support a range of breeding birds, including Woodcock.

A further area of woodland, scrub and heath occurs above the north-east shore at Crockacashel and at Porthaw. Oak/Hazel (*Corylus avellana*) scrub is frequent, and there is a well-developed ground flora with species such as Wood-sorrel (*Oxalis acetosella*), Herb-Robert (*Geranium robertianum*), Lady-fern (*Athyrium filix-femina*) and Broad Buckler Fern (*Dryopteris dilatata*). The heath vegetation includes Heather, Gorse (*Ulex europaeus*), Wood Sage (*Teucrium scorodonia*) and Tormentil (*Potentilla erecta*). In the wetter areas, Purple Moor-grass (*Molinia caerulea*) and Cross-leaved Heath (*Erica tetralix*) occur.

The site supports a population of Otter, a species listed on Annex II of the E.U. Habitats Directive.

Lough Swilly is an important site for waterfowl in autumn and winter. The shallow waters provide suitable habitat for grebes and diving duck, while the intertidal flats are used by an excellent diversity of wildfowl and waders. At high tide, the duck and wader species roost on the saltmarshes and shorelines, with some species moving to the adjacent pasture and arable fields. In the three winters 1994/95 to 1996/97, 16 species occurred in nationally important numbers as follows (figures are average maximum counts for the 3 winters): Great Crested Grebe (274), Shelduck (646), Wigeon (1,673), Teal (1,381), Mallard (1,155), Shoveler (58), Scaup (143), Goldeneye (169), Red-breasted Merganser (103), Coot (335), Oystercatcher (1,459), Knot (327), Dunlin (7,995), Curlew (1,716), Redshank (1,080) and Greenshank (30). Other species which occur in regionally or locally important numbers, and at times may exceed the threshold for national importance, include Brent Goose, Pochard, Tufted Duck, Lapwing, Ringed Plover, Grey Plover, Bar-tailed Godwit and Turnstone. The site is also an important area for the Great Northern Diver and the rare Slavonian Grebe.

The adjacent pasture and arable polders at Inch, Big Isle and Blanket Nook support internationally important populations of Whooper Swans, Greenland White-fronted Goose and Greylag Goose. Inch Lough is an important roosting area for these birds and at times they utilise other parts of Lough Swilly for roosting.

This site is of conservation importance as it contains good examples of at least five habitats listed on Annex I of the E.U. Habitats Directive (estuaries, lagoons, Atlantic salt meadows, *Molinia* meadows, old oak woods) and supports a population of Otter. In addition, it is of high ornithological importance for wintering waterfowl, with 16 species occurring regularly in numbers of national importance, plus three species occurring within the site and on adjacent polders in numbers of international importance.

SITE SYNOPSIS

SITE NAME: LOUGH SWILLY SPA

SITE CODE: 004075

Lough Swilly is a long sea inlet cut through a variety of metamorphic rocks, situated on the west side of the Inishowen Peninsula in north Co. Donegal. The SPA comprises the inner part of Lough Swilly from just east of Letterkenny northwards to Killygarvan (c. 2 km north of Rathmullan) on the west side and to c. 2 km south of Buncrana on the east side; it includes the adjacent Inch Lough. Also forming part of the site is a series of improved pasture and arable fields on the south side of Lough Swilly between Farsetmore and Inch Levels – these are of importance to geese and swans. It includes sections of the estuaries of the River Swilly, the River Leannan and the Isle Burn and the predominant habitat is a series of extensive sand and mud flats which are exposed at low tide - both estuaries and sand/mud flats are listed on Annex I of the E.U. Habitats Directive. Other habitats represented in the site are salt marshes, lagoons (at Inch Lough and Blanket Nook), rivers and streams, sand and shingle beaches, lowland wet and dry grasslands, drainage ditches, reedbeds and scrub. Inch Lough, whilst artificial in origin, is one of the largest and best examples of a shallow, low salinity lagoon in the country; it supports what is probably the largest population in the country of the Red-listed charophyte *Chara canescens*. A small sandy island, used by nesting terns, swans and gulls, occurs in the southern part of the lagoon.

The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: Great Crested Grebe, Grey Heron, Whooper Swan, Greenland White-fronted Goose, Greylag Goose, Shelduck, Wigeon, Teal, Mallard, Shoveler, Scaup, Goldeneye, Red-breasted Merganser, Coot, Oystercatcher, Knot, Dunlin, Curlew, Redshank, Greenshank, Black-headed Gull, Common Gull, Sandwich Tern and Common Tern. The site is also of special conservation interest for holding an assemblage of over 20,000 wintering waterbirds. The E.U. Birds Directive pays particular attention to wetlands and, as these form part of this SPA, the site and its associated waterbirds are of special conservation interest for Wetland & Waterbirds.

The site supports an excellent diversity of waterfowl species in autumn and winter as well as breeding terns, gulls and ducks. The shallow waters provide suitable habitat for grebes and diving duck, while the intertidal flats are used by an abundance of wildfowl and waders. At high tide, the duck and wader species roost on the salt marshes and shorelines, with some species moving to the adjacent pasture and arable fields. The combination within this site of extensive feeding areas and safe resting and roosting sites makes this one of the most important wetlands in the north-west of the country for wintering waterfowl.

Lough Swilly SPA supports internationally important numbers of Whooper Swan (1,673 - mean peak for the five winters 1995/96-1999/2000), Greenland White-

fronted Goose (847 for the Lough Swilly flock - mean peak for the five winters 1994/95-1998/99) and Greylag Goose (1,218 - mean peak for the five winters 1995/96-1999/2000). The main areas of the site used by these species are at Big Isle, Farsetmore, Blanket Nook, Ballylawn and Inch Levels. The flock sizes for Whooper Swan and Greylag Goose are the highest in the country. Considerably higher numbers of Whooper Swan (peak of 1,946) have been recorded, especially early in the season, as this is the area where the swans make their Irish landfall in autumn on their return from breeding grounds in Iceland. Both Greenland White-fronted Goose and Whooper Swan are listed on Annex I of the E.U. Birds Directive.

The site includes nationally important populations of 18 wintering waterbird species as follows (all figures are mean peaks for the five winters 1995/96-1999/00): Great Crested Grebe (284), Grey Heron (57), Shelduck (772), Wigeon (1,580), Teal (1,581), Mallard (1,169), Shoveler (60), Scaup (103), Goldeneye (170), Red-breasted Merganser (127), Coot (514), Oystercatcher (1,595), Knot (303), Dunlin (7,285), Curlew (1,720), Redshank (1,404), Greenshank (48) and Common Gull (1,523). Other species which occur include Light-bellied Brent Goose (152), Pochard (102), Golden Plover (749), Lapwing (1,408), Ringed Plover (81), Grey Plover (15), Bar-tailed Godwit (139) and Turnstone (73). The site is an important area for Great Northern Diver (19) and the rare Slavonian Grebe (11). The rare winter visitor, Pink-footed Goose, also occurs (15). Nationally important numbers of Mute Swan (265) also use the site.

The small island in Inch Lough supports the largest tern colony in the north-west, with nationally important populations of Sandwich Tern (258 pairs in 2001) and Common Tern (89 pairs in 2001) occurring. These two species are listed on Annex I of the E.U. Birds Directive. There is also a nationally important colony of Black-headed Gull (800 pairs in 2001), which represents one of the largest populations in the country.

Several species of duck breed on Inch Lough, most notably Tufted Duck, with an estimate of between 100 and 200 pairs occurring in 1997. Mute Swan breeds in important numbers and a concentration of 50 pairs on the small island in Inch Lough is most unusual as this species seldom nests in colonies. Whooper Swan, a very rare breeding species in Ireland, has been recorded nesting at Inch Lough. Lapwing breeds in regionally important numbers either on wet grass fields within the levels or around the edge of the lagoon. Coot also breed (estimate of 50 pairs in the 1990s).

Lough Swilly SPA is of major ornithological importance for wintering waterbirds, with three species occurring in numbers of international importance and 18 occurring regularly in numbers of national importance. The site is regularly used by more than 20,000 waterfowl and as such is of international importance. Additionally, it holds nationally important breeding populations of three species, i.e. Sandwich Tern, Common Tern and Black-headed Gull. The site is used by a good range of species that are listed on Annex I of the E.U. Birds Directive. Part of Lough Swilly SPA is a Wildfowl Sanctuary.

8.7.2014

Appendix 2 –Assessment of Natura 2000 Sites

1. Natura 2000 Site ID & Characteristics	2. Site Importance	3. Site Vulnerability	4. Likely Impact of Proposed Development	5. Cumulative Effects	6. Development Likely to Cause Significant Impact
<p>Site Name: Leannan River SAC Site Code: 002176</p> <p>Situated in north Co. Donegal, this site comprises the River Leannan and its main tributaries and lakes, including Loughs Fern, Gartan and Akibbon. The river from source to sea measures 46 km and drains a catchment area of 282 km². The Bullaba River drains off the Glendowan Mountains and flows into Lough Gartan. The Leannan River flows from Lough Gartan in a north-easterly direction, passes through Lough Fern, and then onwards in an easterly direction through the town of Rathmelton and into Lough Swilly. The main tributaries within the site are the lower Glashagh and Lurgy.</p> <p>The site is a Special Area of Conservation (SAC) selected for the following habitats and/or species listed on Annex I / II of the E.U. Habitats Directive (* = priority; numbers in brackets are Natura 2000 codes):</p> <p>[3110] Oligotrophic Waters containing very few minerals; [3130] Oligotrophic to Mesotrophic Standing Waters; [1029] Freshwater Pearl Mussel (<i>Margaritifera margaritifera</i>); [1833] Slender Naiad (<i>Najas flexilis</i>); [1106] Atlantic Salmon (<i>Salmo salar</i>) [1355] Otter (<i>Lutra lutra</i>)</p>	<p>Gartan Lough and Lough Akibbon are excellent examples of oligotrophic lakes of sandy plains. The aquatic flora is diverse and includes an important population of the rare and legally protected <i>Najas flexilis</i>, as well as scarce species such as <i>Pilularia globulifera</i>. Habitat quality is good. The site supports an important population of <i>Margaritifera margaritifera</i>, with over 1000 individuals estimated in 1995 and an age range from comparatively young to elderly (c.80+ years). The system is of importance for the conservation of <i>Salmo salar</i> and is notable as a good spring and grilse salmon river with extensive spawning habitats and good water quality. <i>Lutra lutra</i> is well distributed throughout. Lough Gartan has a population of <i>Salvelinus alpinus</i>. A number of Red Data Book plant species occur within the site, including <i>Trollius europaeus</i>, <i>Pseudorchis albida</i> and <i>Omalotheca sylvatica</i>. An important roost for <i>Nyctalus leisleri</i> occurs at Ramelton. <i>Gavia stellata</i>, an extremely rare breeding bird in Ireland, nests within the site.</p>	<p>Site is extensive and primarily vulnerable to effects of surrounding agricultural activities and urban residential and industrial development.</p> <p>During construction, a potential risk factor is the entry of pollutants into the drainage network and particularly nutrient pollution of waters/streams that may be hydraulically linked to the SAC (approx 4.5km downstream). During the operational stage, the presence of emergency storage capacity and controls/alarms will significantly reduce any current threat to the Site.</p>	<ul style="list-style-type: none"> • Proposal is to upgrade the existing environmentally hazardous pump station as detailed above. • The SAC is located outside the development extents. With the relatively large separation distance (4.5km) and normal construction controls and best practice in place, impact on the SAC is highly unlikely. <p>Consideration: Scheme does not impact the SAC.</p>	<ul style="list-style-type: none"> ▪ There are no other works planned for the area. ▪ The works do not constitute a change in the land use of the area. <p>Consideration: Scheme does not have a cumulative impact on the SAC.</p>	<p>Consideration: The scheme does not have a significant impact on the Natura 2000 Site. This is due to the separation distance between the works and the qualifying interests contained in the SAC and the normal controls that will be in place during construction. In addition, the development will remove an ongoing threat to the Site by removing the non-functioning and hazardous pump station.</p>

1. Natura 2000 Site ID & Characteristics	2. Site Importance	3. Site Vulnerability	4. Likely Impact of Proposed Development	5. Cumulative Effects	6. Development Likely to Cause Significant Impact
<p>Site Name: Lough Swilly SAC Site Code: 002287</p> <p>This large site, situated in the northern part of Co. Donegal, comprises the inner part of Lough Swilly. It extends from below Letterkenny to just north of Bunrana. Lough Swilly is a long sea lough, cutting through a variety of metamorphic rocks on the west side of Inishowen. The main rivers flowing into the site are the Swilly, Lennan and Crana. At low tide, extensive sand and mudflats are exposed, especially at the mouths of the Swilly and Lennan rivers. The site is estuarine in character, with shallow water and intertidal sand and mudflats being the dominant habitats.</p> <p>The site is a Special Area of Conservation (SAC) selected for the following habitats and/or species listed on Annex I / II of the E.U. Habitats Directive (* = priority; numbers in brackets are Natura 2000 codes):</p> <p>[1130] Estuaries; [1150] Coastal lagoons; [1330] Atlantic salt meadows; [6410] Molinia meadows; [91A0] Old oak woodlands; [1355] Otter (<i>Lutra lutra</i>)</p>	<p>The site is important as a fine example of a large, natural sea inlet which is estuarine in character. Extensive intertidal sand and mud flats are exposed at low tide. Salt marshes of the Atlantic salt meadow type are well represented. The estuarine habitats are generally of good quality, though areas along the south-eastern shore have been embanked in the past to create polders. Although the lagoon habitat is artificial in origin, it is one of the largest and best examples of a shallow, low salinity lagoon in the country. It supports what is probably the largest population in the country of <i>Chara canescens</i>, a Red Data Book species. The fauna is rich and diverse and contains 8 lagoonal specialists, and is of significant conservation value for ecotonal Coleoptera. Prospects for maintenance of the conservation structure of the habitat are good. The site includes several areas of old oak woodland, mostly of good quality and with natural regeneration. One of these woods is a Statutory Nature Reserve. Lough Swilly supports important populations of wintering and staging waterfowl. Of particular significance is that the site provides roosting and limited feeding areas for the internationally important populations of <i>Cygnus cygnus</i>, <i>Anser anser</i> and <i>Anser albifrons flavirostris</i> which feed mainly on the polders adjacent to the site. In addition, there are at least 16 species occurring in numbers of national importance, while <i>Pluvialis apricaria</i> and <i>Limosa lapponica</i>, both listed on Annex I of the EU Birds Directive, also occur regularly. Has breeding <i>Lutra lutra</i>.</p>	<p>Site is extensive and primarily vulnerable to effects of surrounding agricultural activities and urban residential and industrial development.</p> <p>This site is not linked to the development either hydraulically or by geographic proximity.</p>	<ul style="list-style-type: none"> • Proposal is to upgrade the existing environmentally hazardous pump station as detailed above. • The SAC is located outside the development extents. With the relatively large separation distance (4.5km) and normal construction controls and best practice in place, impact on the SAC is highly unlikely. <p>Consideration: Scheme does not impact the SAC.</p>	<ul style="list-style-type: none"> ▪ There are no other works planned for the area. ▪ The works do not constitute a change in the land use of the area. <p>Consideration: Scheme does not have a cumulative impact on the SAC.</p>	<p>Consideration: The scheme does not have a significant impact on the Natura 2000 Site. This is due to the significant separation distance between the works and the qualifying interests contained in the SAC and the normal controls that will be in place during construction.</p>

1. Natura 2000 Site ID & Characteristics	2. Site Importance	3. Site Vulnerability	4. Likely Impact of Proposed Development	5. Cumulative Effects	6. Development Likely to Cause Significant Impact
<p>Site Name: Lough Swilly SPA Site Code: 004075</p> <p>Lough Swilly is a long sea inlet cut through a variety of metamorphic rocks, situated on the west side of the Inishowen Peninsula in north Co. Donegal. The SPA comprises the inner part of Lough Swilly from just east of Letterkenny northwards to Killygarvan (c. 2 km north of Rathmullan) on the west side and to c. 2 km south of Bunrana on the east side; it includes the adjacent Inch Lough. Also forming part of the site is a series of improved pasture and arable fields on the south side of Lough Swilly between Farsetmore and Inch Levels – these are of importance to geese and swans. It includes sections of the estuaries of the River Swilly, the River Leannan and the Isle Burn and the predominant habitat is a series of extensive sand and mud flats which are exposed at low tide - both estuaries and sand/mud flats are listed on Annex I of the E.U. Habitats Directive. Other habitats represented in the site are salt marshes, lagoons (at Inch Lough and Blanket Nook), rivers and streams, sand and shingle beaches, lowland wet and dry grasslands, drainage ditches, reedbeds and scrub. Inch Lough, whilst artificial in origin, is one of the largest and best examples of a shallow, low salinity lagoon in the country; it supports what is probably the largest population in the country of the Red-listed charophyte <i>Chara canescens</i>. A small sandy island, used by nesting terns, swans and gulls, occurs in the southern part of the lagoon.</p>	<p>Lough Swilly is a fine example of a large, natural sea inlet which is estuarine in character. The site supports an excellent diversity of wintering waterfowl for which it is the most important site in the north-west. It is of international importance because total numbers easily exceed 20,000 birds but it also has internationally important populations of <i>Cygnus cygnus</i>, <i>Anser anser</i> and <i>Anser albifrons flavirostris</i>. The <i>Anser anser</i> population represents over 27% of the All-Ireland total, whilst the flock of <i>Anser albifrons flavirostris</i> is the largest in the country outside of the Wexford Slob. In addition, there are at least 18 species which occur in numbers of national importance. Of particular note are the populations of <i>Tadorna tadorna</i> (5.3% of the All - Ireland total), <i>Calidris alpina</i> (6.1% of total) and <i>Tringa totanus</i> (4.8% of total). The site also supports regionally important numbers of <i>Pluvialis apricaria</i> and <i>Limosa lapponica</i>. The wintering birds of Lough Swilly have been well-monitored since the early 1980s.</p>	<p>This site is not linked to the development either hydraulically or by geographic proximity.</p>	<ul style="list-style-type: none"> • Proposal is to upgrade the existing environmentally hazardous pump station as detailed above. • The SPA is located outside the development extents. With the relatively large separation distance (4.5km) and normal construction controls and best practice in place, impact on the SPA is highly unlikely. <p>Consideration: Scheme does not impact the SPA.</p>	<ul style="list-style-type: none"> ▪ There are no other works planned for the area. ▪ The works do not constitute a change in the land use of the area. <p>Consideration: Scheme does not have a cumulative impact on the SPA.</p>	<p>Consideration: The scheme does not have a significant impact on the Natura 2000 Site. This is due to the significant separation distance between the works and the qualifying interests contained in the SPA and the normal controls that will be in place during construction.</p>

<p>The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: Great Crested Grebe, Grey Heron, Whooper Swan, Greenland White-fronted Goose, Greylag Goose, Shelduck, Wigeon, Teal, Mallard, Shoveler, Scaup, Goldeneye, Red-breasted Merganser, Coot, Oystercatcher, Knot, Dunlin, Curlew, Redshank, Greenshank, Black-headed Gull, Common Gull, Sandwich Tern and Common Tern. The site is also of special conservation interest for holding an assemblage of over 20,000 wintering waterbirds. The E.U. Birds Directive pays particular attention to wetlands and, as these form part of this SPA, the site and its associated waterbirds are of special conservation interest for Wetland & Waterbirds.</p>			•	▪	
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