

PROPOSED INTEGRATED CONSTRUCTED WETLANDS

BALLYNACARRICK LANDFILL SITE, BALLINTRA, CO. DONEGAL

**Stage 1 Screening Appraisal for Appropriate Assessment and
Stage 2 Natura Impact Statement**



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1 INTRODUCTION

1.1 Purpose of this Report

This report has been prepared by RPS on behalf of Donegal County Council and examines whether or not a proposed construction of integrated wetlands at Ballynacarrick Landfill Site north of L7385, in the townland of Ballynacarrick, outside Ballintra, Co. Donegal is likely to have a significant effect on any European site.

RPS has prepared the report in support of an application for consent to a competent authority. The planning authority shall be furnished with this report in association with an application for planning permission to assist the planning authority in fulfilling its duties in accordance with Part XAB of the Planning and Development Act 2000, as amended (“the PDA”) which transposes certain aspects of Article 6(3) and 6(4) of Council Directive 92/43/EEC on the Conservation of natural habitats and of wild fauna and flora (the “Habitats Directive”).

Section 177U(1) of the PDA requires a screening for appropriate assessment of an application for consent for proposed development to be carried out by the competent authority to assess, in view of best scientific knowledge, if that proposed development, individually or in combination with another plan or project, is likely to have a significant effect on a European site.

1.2 Appropriate Assessment

1.2.1 The Habitats Directive

With the introduction of the Habitats Directive came the obligation to establish the Natura 2000 network of Sites of Community Interest (“SCIs”), comprising a network of areas of highest biodiversity importance for rare and threatened habitats and species across the European Union (“EU”).

The Natura 2000 network of sites comprises Special Areas of Conservation (SACs, including candidate SACs) designated under legislation transposing the obligations under Directive 92/43/EEC, and Special Protection Areas (SPAs, including proposed SPAs) classified under the Birds Directive (Directive 2009/147/EC on the conservation of wild birds) and designated under Irish legislation. SACs and SPAs make up the pan-European network of Natura 2000 sites in Ireland and they are referred to as European sites.

SACs are designated for the conservation of Annex I habitats (including priority types which are in danger of disappearance) and Annex II species (other than birds). SPAs are designated for the conservation of Annex I birds and other regularly occurring migratory birds and their habitats. The annexed habitats and species for which each site is designated correspond to the Qualifying Interests (QIs) of the sites in the case of SACs and Special Conservation Interests (SCIs) of the sites in the case of SPAs. From these qualifying features, the Conservation Objectives (COs) of the site are derived.

Article 6(3) of the Habitats Directive requires that–

“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.”

1.2.2 Step-Wise Procedure

Thus, Article 6(3) provides a two-stage process:

- The first stage involves a screening for appropriate assessment; and
- The second stage arises where, having screened the proposed development, the competent authority determines that an appropriate assessment is required, in which case it must then carry out that appropriate assessment.

According to European Commission guidance documents ‘Assessment of plans and projects significantly affecting Natura 2000 sites’ (EC, 2001) and the ‘Managing Natura 2000 sites: The Provisions of Article 6 of the ‘Habitats’ Directive 92/43/EEC’ (EC, 2019), the obligations arising under Article 6 establish a step-wise procedure for Habitats Regulations Appraisal as follows, and as illustrated in Box 1.

The first part of this procedure consists of a pre-assessment stage (‘screening’) to determine whether, firstly, a plan or project is directly connected with or necessary to the management of the site, and secondly, whether it is likely to have a significant effect on the site; it is governed by the first sentence of Article 6(3).

The second part of the procedure, governed by the second sentence of Article 6(3), relates to the appropriate assessment and the decision of the competent national authorities.

A third part of the procedure (governed by Article 6(4)) comes into play if, despite a negative assessment, it is proposed not to reject a plan or project but to give it further consideration. In this case Article 6(4) allows for derogations from Article 6(3) under certain conditions.

The extent to which the sequential steps of Article 6(3) apply to a given plan or project depends on several factors, and in the sequence of steps, each step is influenced by the previous step. The order in which the steps are followed is therefore essential for the correct application of Article 6(3).

Each step determines whether a further step in the process is required. If, for example, the conclusion at the end of a Stage 1 screening appraisal is that significant effects on European sites can be excluded, there is no requirement to proceed to the next step.

1.1 Document Structure

This report is structured as follows:

- **Section 2: Methodology and Guidance** - This section sets out the methodology followed, and guidance documents used in conducting a Stage 1 screening appraisal of the implications of the proposed development on European sites;
- **Section 3: The Proposed Development** - This section describes the Proposed Development, and is the basis of the subsequent Stage 1 screening appraisal that follows; and
- **Section 4: Stage 1 Screening Appraisal** - This section contains a preliminary examination and analysis to understand whether or not the Proposed Development is likely to have a significant effect on any European site. This is the Stage 1 screening appraisal. It has been undertaken in view of best scientific knowledge, in light of the Conservation Objectives of the sites concerned and considers the Proposed Development individually and in combination with other plans and projects. Measures intended to avoid or reduce the harmful effects of the proposed development on European sites (i.e. “mitigation measures”) or best practice measures have not been taken into account in the screening stage appraisal, and should not be taken into account by the competent authority in conducting its screening exercise.

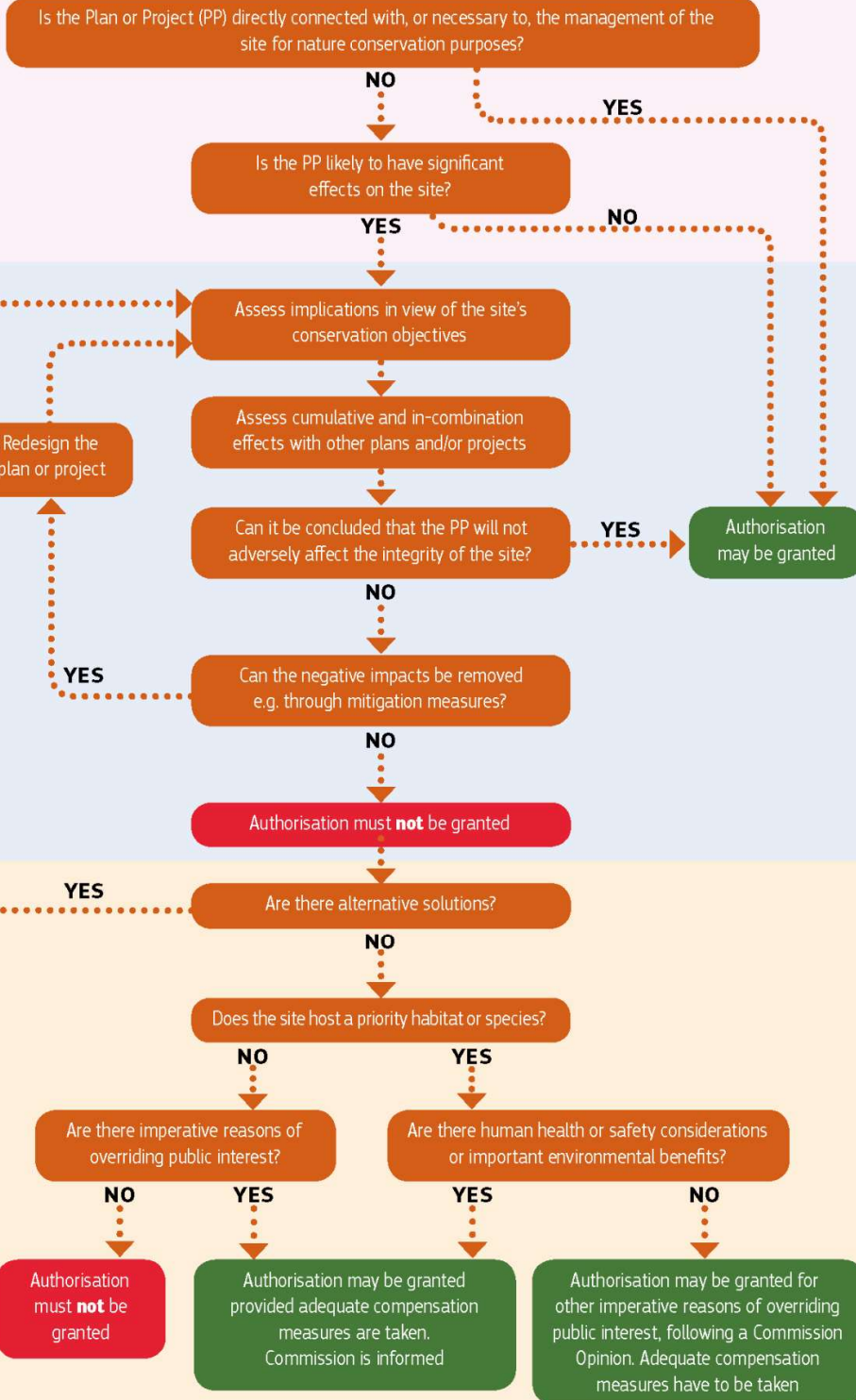
ANNEX II

Consideration of plans and projects affecting Natura 2000 sites

Screening

Appropriate Assessment

Derogation: Article 6(4)



Source: Commission guidance on Article 6 of the Habitats Directive

Box 1: Step-wise procedure of Article 6 of the Habitats Directive

2 APPROPRIATE ASSESSMENT METHODOLOGY

2.1 Guidance Documents

Appropriate Assessment Guidelines for Planning Authorities have been published by the Department of the Environment, Heritage and Local Government (DEHLG, 2010a) and more recently by the Office of the Planning Regulator Practice Note (PN01) (OPR, 2021). In addition to the advice available from the Department, the European Commission has published a number of documents which provide a significant body of guidance on the requirements of Appropriate Assessment, most notably including, 'Assessment of Plans and Projects Significantly Affecting Natura 2000 sites - Methodological Guidance on the Provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC' (EC, 2001), which sets out the principles of how to approach decision making during the process.

These principal national and European guidelines have been followed in the preparation of this report. The following list identifies these and other pertinent guidance documents:

- Communication from the Commission on the Precautionary Principle, Office for Official Publications of the European Communities, Luxembourg (EC, 2000);
- Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Articles 6(3) and (4) of the Habitats Directive 92/43/EEC. Office for Official Publications of the European Communities, Brussels (EC, 2001);
- Estuaries and Coastal Zones within the Context of the Birds and Habitats Directives - Technical Supporting Document on their Dual Roles as Natura 2000 Sites and as Waterways and Locations for Ports. European Commission (EC, 2009);
- Appropriate Assessment of Plans and Projects in Ireland. Guidance for Planning Authorities. Department of the Environment, Heritage and Local Government, Dublin (DEHLG, 2010a);
- Department of Environment Heritage and Local Government Circular NPW 1/10 and PSSP 2/10 on Appropriate Assessment under Article 6 of the Habitats Directive – Guidance for Planning Authorities (DEHLG, 2010b);
- Interpretation Manual of European Union Habitats. Version EUR 28. European Commission (EC, 2013a);
- Guidelines on Climate Change and Natura 2000. European Commission (EC, 2013b);
- European Commission Notice C(2018) 7621 '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, 2019);
- Institute of Air Quality Management 'A guide to the assessment of air quality impacts on designated nature conservation sites (Version 1.1)' (IAQM, 2020);
- Office of the Planning Regulator Practice Note (PN01) 'Appropriate Assessment Screening for Development Management' (OPR, 2021); and
- European Commission Notice C(2021) 6913 '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, 2021).

EC (2000) notes that the implementation of an approach based on the precautionary principle should start with a scientific evaluation, as complete as possible, and where possible, identifying at each stage the degree of scientific uncertainty, and also that decisions taken based on the precautionary principle should be maintained so long as scientific information is incomplete or inconclusive. EC (2001) notes

also that predicting the response of a receptor to a disturbance effect can be difficult and, in the absence of firm scientific information, requires a precautionary approach.

2.2 Likely Significant Effects

The Commission’s 2018 Notice (EC, 2019) advises that the appropriate assessment procedure under Article 6(3) is triggered not by the certainty but by the likelihood of significant effects, arising from plans or projects regardless of their location inside or outside a protected site. Such likelihood exists if significant effects on the site cannot be excluded. The significance of effects should be determined in relation to the specific features and environmental conditions of the site concerned by the plan or project, taking particular account of the site’s conservation objectives and ecological characteristics.

The threshold for a Likely Significant Effect (“LSE”) is treated in the screening exercise as being above a *de minimis* level. 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 LSEs.

The analysis involved in a Stage 1 screening appraisal for Appropriate Assessment is described in EC (2021) as comprising four steps:

- ascertaining whether the plan or project is directly connected with or necessary to the management of a Natura 2000 site;
- identifying the relevant elements of the plan or project and their likely impacts;
- identifying which (if any) Natura 2000 sites may be affected, considering the potential effects of the plan or project alone or in combination with other plans or projects;
- assessing whether likely significant effects on the Natura 2000 site can be ruled out, in view of the site's conservation objectives.

Case law of the Court of Justice of the European Union (CJEU) has confirmed that a significant effect is triggered when:

- there is a probability or a risk of a plan or project having a significant effect on a European site;
- the plan is likely to undermine the site’s conservation objectives; and
- a significant effect cannot be excluded on the basis of objective information.

EC (2021) defines a LSE as being “*any effect that may reasonably be predicted as a consequence of a plan or project that would negatively and significantly affect the conservation objectives established for the habitats and species significantly present on the Natura 2000 site. This can result from either on-site or off-site activities, or through combinations with other plans or projects*”.

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.

2.3 Mitigation Measures

In determining whether or not likely significant effects will occur or can be excluded in the Stage 1 appraisal, measures intended to avoid or reduce the harmful effects of the proposed development on European sites, (i.e. “mitigation measures”) or best practice measures have not been taken into account

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in this screening stage appraisal. This approach is consistent with up-to-date EU guidance (EC, 2019; EC, 2021) and the case law of the CJEU:

EC (2001) states that “*project and plan proponents are often encouraged to design mitigation measures into their proposals at the outset. However, it is important to recognise that the screening assessment should be carried out in the absence of any consideration of mitigation measures that form part of a project or plan and are designed to avoid or reduce the impact of a project or plan on a Natura 2000 site*”. This direction in the European Commission’s guidance document is unambiguous in that it does not permit the inclusion of mitigation at screening stage.

In April 2018, the Court of Justice of the European Union issued a ruling in case C-323/17 *People Over Wind & Peter Sweetman v Coillte Teoranta* (“People Over Wind”) that Article 6(3) of Directive 92/43/EEC must be interpreted as meaning that, in order to determine whether it is necessary to carry out, subsequently, an appropriate assessment of the implications, for a site concerned, of a plan or project, it is not appropriate, at the screening stage, to take account of the measures intended to avoid or reduce the harmful effects of the plan or project on that site. The judgment in *People Over Wind* is further reinforced in EC (2019) and EC (2021) which refers to CJEU Case C-323/17.

2.4 Consideration of Ex-Situ Effects

EC (2019) advises that Member States, both in their legislation and in their practice, allow for the Article 6(3) safeguards to be applied to any development pressures, including those which are external to European sites but which are likely to have significant effects on any of them.

The CJEU developed this point when it issued a ruling in case C-461/17 (“*Brian Holohan and Others v An Bord Pleanála*”) that determined inter alia that Article 6(3) of Directive 92/43/EEC must be interpreted as meaning that an appropriate assessment must on the one hand, catalogue the entirety of habitat types and species for which a site is protected, and, on the other, identify and examine both the implications of the proposed project for the species present on that site, and for which that site has not been listed, and the implications for habitat types and species to be found outside the boundaries of that site, provided that those implications are liable to affect the conservation objectives of the site.

In that regard, consideration has been given in this Habitats Directive appraisal to implications for habitats and species located both inside and outside of the European sites considered in the screening appraisal with reference to those sites’ Conservation Objectives where effects upon those habitats and/or species are liable to affect the conservation objectives of the sites concerned.

2.5 In-Combination Effects

Article 6(3) of the Habitats Directive requires that in-combination effects with other plans or projects are also considered. As set out in the Commission’s 2018 Notice (EC, 2019), significance will vary depending on factors such as magnitude of impact, type, extent, duration, intensity, timing, probability, cumulative effects and the vulnerability of the habitats and species concerned. Whilst the Directive does not explicitly define which other plans and projects are within the scope of the in-combination provision of Article 6(3), it is important to note that the underlying intention of this provision is to take account of cumulative impacts, and these will often only occur over time.

In that context, one can consider plans or projects which are completed, approved but uncompleted, or proposed. EC (2019) specifically advises that “*as regards other proposed plans or projects, on grounds of legal certainty it would seem appropriate to restrict the in-combination provision to those which have been actually proposed, i.e. for which an application for approval or consent has been introduced*”.

EC (2021) additionally advises that –

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- an in-combination assessment is often less detailed at the screening stage than in the appropriate assessment;
- there is still a need to identify all other plans or projects that could give rise to cumulative impacts with the plan or project in question and
- if this analysis cannot reach definitive conclusions, it should at least identify any other relevant plans and projects that should be scrutinised in more detail during the appropriate assessment.

3 THE PROJECT

The planning application proposes the development of integrated constructed wetlands (ICW) that will be utilised to treat leachate generated by the Ballynacarrick Landfill site. The leachate will be collected within the site and pumped to the ponds for treatment. Once treated, the leachate will then be discharged to existing surface water drainage channels.

An area of an approximately 3.5ha will be required for the bunded ponds to create the integrated constructed wetlands, plus additional surrounding areas for access tracks. A leachate treatment plant will also be installed within the landfill site along the northern boundary to the west, pipework will link the plant to the ponds.

3.1 Best Practice Measures

Information on the construction programme for this site will not be made available until the completion of the detailed design stage which is expected to be undertaken in 2023-2024.

An Outline Construction stage Environmental Management Plan (oCEMP) will be submitted in support of the application for planning permission, and will require the implementation of a range of measures during construction phase of the Proposed Development will occur to ensure that the potential for spillage and sedimentation is reduced to the greatest extent possible throughout construction in line with the control of water pollution.

Such measures are to include the timing of works, the use of sediment traps or lagoons, minimal use of stockpiling and the use of appropriate storage for all hazardous contaminants and pollutants within an appropriate compound during construction. These measures are normal aspects of a major public sector construction contract and would be incorporated into any significant development of this type, whether it be located upstream of a European site or not.

They are typical and environmentally responsible approaches that the employer will require their successful contractor to apply to the execution of any construction contract awarded by the employer. These measures have not been specified because the Proposed Development is upstream of the European sites - on the contrary they are specified because that is the standard that the employer requires as part its contract with the successful contractor. They are measures that the employer will demand of its contractors carrying out construction activities on its behalf in all circumstances, and as such has included them in the specification for the works. Their use is not triggered by the downstream presence of European sites.

For the avoidance of any doubt however, these best practice measures are not relied on in this stage 1 screening appraisal for appropriate assessment to avoid any possibility whatsoever that they could be construed as being “*measures intended to avoid or reduce the harmful effects of the plan or project*” on a European site and which have been applied to the screening for appropriate assessment of this project, as such an approach is inconsistent with law as confirmed by the Court of Justice of the European Union (CJEU) in Case C-323/17.

4 STAGE 1 SCREENING APPRAISAL FOR APPROPRIATE ASSESSMENT

4.1 Directly Connected with or Necessary to the Management of the Site

The proposed project involves the construction of a constructed integrated wetland. Refer to Section 3 for further details. On this basis, the project is not directly connected with or necessary to the management of any site as a European Site. As such, it will be subject to the assessment procedure under Article 6(3) of the Habitats Directive.

4.2 European Sites

This screening exercise considers European sites designated under the Habitats Directive and the Birds Directive 2009/147/EC. The proposed project must be screened against those European sites for which a pathway of effect can be reasonably established between a receptor and the source of an effect.

The site of the proposed project is not located within the boundary of any European site. A total of 19 European Sites were identified within 15km radius of the proposed project.

Table 4.1 below provides descriptive details of designated sites and features of natural heritage importance located within proximity to the site of the proposed project; or connected to it through an identifiable impact pathway. The boundary of each of these designated sites in relation to the proposed project is illustrated in Figure 2.0 Designated Sites appended at the end of this report.

Other sites listed below within Table 4.1 are located within 15km of proposed project, but not connected to it by a hydrological pathway.

4.3 Establishing an Impact Pathway

The possibility of significant effects is considered in this report using the source-pathway-receptor model, where:

- **'Source'** is defined as the individual elements of the proposed project that have the potential to affect the identified ecological feature (or receptor).
- **'Pathway'** is defined as the means or route by which a source can affect the ecological feature.
- **'Receptor'** or ecological feature is defined as qualifying features the SPA or SAC for which conservation objectives have been set for the European sites under consideration (refer to Table 4.1).

Each element can exist independently however an effect is created when there is a linkage between source, pathway and receptor. The principle identified pathways of effect upon European sites arise as a result of aspects of the proposed project which have the potential to lead to:

- Deterioration of water quality in the marine environment is via the hydrological connections to downstream sites; and
- Disturbance as a result of noise generated at construction phase of the proposed project.

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Table 4.1: European sites and their Qualifying Interests or Special Conservation Interests

*denotes a priority habitat under the Habitats Directive.

European site	Distance and direction from project	Selection feature	Conservation Objectives
Ballintra SAC [SAC000115]	388m N straight-line distance, no hydrological link	<ul style="list-style-type: none"> European dry heaths [4030] Limestone pavements [8240] 	<ul style="list-style-type: none"> To maintain the favourable conservation condition of European dry heaths in Ballintra SAC, as defined by 8 attributes and targets. To maintain the favourable conservation condition of Limestone pavements in Ballintra SAC, as defined by 12 attributes and targets.
Lough Golagh and Breesy Hill SAC [SAC 002164]	2.2km SE straight-line distance, no hydrological link	<ul style="list-style-type: none"> Blanket bogs (*if active bog) [7130] 	<ul style="list-style-type: none"> To restore the favourable conservation condition of blanket bogs (*if active bog) in Lough Golagh and Breesy Hill SAC, as defined by 19 attributes and targets.
Dunmuckrum Turloughs SAC [SAC 002303]	9.5km SW straight-line distance, no hydrological link	<ul style="list-style-type: none"> Turloughs [3180] 	<ul style="list-style-type: none"> To maintain the favourable conservation condition of Dunmuckrum Turloughs SAC, as defined by 15 attributes and targets.
Lough Melvin SAC [SAC 000428]	13.7km SW straight-line distance, no hydrological link	<ul style="list-style-type: none"> Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or Isoeto-Nanojuncetea [3130] Molinia meadows on calcareous, peaty or clayey-silt-laden soils [6410] Salmo salar (Salmon) [1106] Lutra lutra (otter) [1355] 	<ul style="list-style-type: none"> To maintain or restore the favourable conservation condition on the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected.
Tamur Bog SAC [SAC 001992]	5.8km E straight-line distance, no hydrological link	<ul style="list-style-type: none"> Northern Atlantic wet heaths with Erica tetralix [4010] Blanket bogs (*if active bog) [7130] Depressions on peat substrates of the Rhynchosporion [7150] 	<ul style="list-style-type: none"> To restore the favourable conservation condition of Northern Atlantic wet heaths in Tamur Bog SAC, as defined by 20 attributes and targets. To restore the favourable conservation condition of Blanket bogs (*if active) in Tamur Bog SAC, as defined by 19 attributes and targets. To restore the favourable conservation condition of Depressions on peat substrates in Tamur Bog SAC, as defined by 16 attributes and targets.
Dunragh Loughs/ Pettigo Plateau SAC [SAC 001125]	8km NE straight-line distance, no hydrological link	<ul style="list-style-type: none"> Northern Atlantic wet heaths with Erica tetralix [4010] Blanket bogs (*if active bog) [7130] 	<ul style="list-style-type: none"> To restore the favourable conservation condition of Northern Atlantic wet heaths in Dunragh Loughs/ Pettigo Plateau SAC, as defined by 20 attributes and targets. To restore the favourable conservation condition of Blanket bogs (*if active) in Dunragh Loughs/ Pettigo Plateau SAC, as defined by 19 attributes and targets.

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European site	Distance and direction from project	Selection feature	Conservation Objectives
River Finn SAC [002301]	13.7km NE straight-line distance, no hydrological link	<ul style="list-style-type: none"> Oligotrophic waters containing very few minerals of sandy plains (<i>Littorelletea uniflorae</i>) [3110] Northern Atlantic wet heaths with <i>Erica tetralix</i> [4010] Blanket bogs (*if active bog) [7130] Transition mires and quaking bogs [7140] <i>Salmo salar</i> (Salmon) [1106] <i>Lutra lutra</i> (otter) [1355] 	<ul style="list-style-type: none"> To restore the favourable conservation condition of Oligotrophic waters in River Finn SAC, as defined by 18 attributes and targets. To restore the favourable conservation condition of Northern Atlantic wet heaths in River Finn SAC, as defined by 20 attributes and targets. To restore the favourable conservation condition of Blanket bogs (*if active) in River Finn SAC, as defined by 19 attributes and targets. To restore the favourable conservation condition of transition mires and quaking bogs in River Finn SAC, as defined by 13 attributes and targets. To maintain the favourable conservation condition of salmon in River Finn SAC, as defined by 6 attributes and targets. To maintain the favourable conservation condition of otter in River Finn SAC, as defined by 7 attributes and targets.
Lough Eske and Ardnamona Wood SAC [000163]	11.6km N straight-line distance, no hydrological link	<ul style="list-style-type: none"> Oligotrophic waters containing very few minerals of sandy plains (<i>Littorelletea uniflorae</i>) [3110] Petrifying springs with tufa formation (<i>Cratoneurion</i>) [7220] Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [91A0] <i>Margaritifera margaritifera</i> (Freshwater Pearl Mussel) [1029] <i>Salmo salar</i> (Salmon) [1106] <i>Trichomanes speciosum</i> (Killarney Fern) [1421] 	<ul style="list-style-type: none"> To restore the favourable conservation condition of Oligotrophic waters containing very few minerals in Lough Eske and Ardnamona Wood SAC, as defined by 18 attributes and targets. To maintain the favourable conservation condition of petrifying springs Lough Eske and Ardnamona Wood SAC, as defined by 9 attributes and targets. To maintain the favourable conservation condition of old sessile oak woods in Lough Eske and Ardnamona Wood SAC, as defined by 13 attributes and targets. To restore the favourable conservation condition of freshwater pearl mussel in Lough Eske and Ardnamona Wood SAC, as defined by 13 attributes and targets. To restore the favourable conservation condition of salmon in Lough Eske and Ardnamona Wood SAC, as defined by 6 attributes and targets. To maintain the favourable conservation condition of Killarney Fern in Lough Eske and Ardnamona Wood SAC, as defined by 16 attributes and targets.
Donegal Bay (Murvagh) SAC [000133]	5.6km N straight-line distance and 12.7km by closest hydrological connection	<ul style="list-style-type: none"> Mudflats and sandflats not covered by seawater at low tide [1140] Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130] Dunes with <i>Salix repens</i> ssp. <i>Argenta</i> (<i>Salicion arenariae</i>) [2170] Humid dune slacks [2190] <i>Phoca vitulina</i> (Harbour Seal) [1365] 	<ul style="list-style-type: none"> To maintain the favourable conservation condition of mudflats and sandflats not covered by seawater at low tide in Donegal Bay (Murvagh) SAC, as defined by 2 attributes and targets. To maintain the favourable conservation condition of harbour seal in Donegal Bay (Murvagh) SAC, as defined by 5 attributes and targets. To restore the favourable conservation condition of fixed coastal dunes with herbaceous vegetation in Donegal Bay (Murvagh) SAC, as defined by 9 attributes and targets.

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European site	Distance and direction from project	Selection feature	Conservation Objectives
			To restore the favourable conservation condition of humid dune slacks in Donegal Bay (Murvagh) SAC, as defined by 11 attributes and targets.
Durnesh Lough SAC [000138]	5km NW straight-line distance, 5km via hydrological link	<ul style="list-style-type: none"> Coastal lagoons [1150] Molinia meadows on calcareous, peaty or clayey silt-laden soils (Molinion caeruleae) [6410] 	<ul style="list-style-type: none"> To restore the favourable conservation condition of coastal lagoons in Durnesh Lough SAC, as defined by 12 attributes and targets. To restore the favourable conservation condition of Molinia meadows in Durnesh Lough SAC, as defined by 10 attributes and targets.
Pettigoe Plateau SAC (UK) [0016607]	5.8km SE straight-line distance, no hydrological link	<ul style="list-style-type: none"> Active blanket bog European dry heaths Natural dystrophic lakes and pools Northern Atlantic wet heaths with <i>Erica tetralix</i> Oligotrophic to mesotrophic standing waters with vegetation of the <i>Littorelletea uniflorae</i> and/or of the <i>Isoeto-Nanojuncetea</i>. 	<ul style="list-style-type: none"> To maintain the favourable conservation condition of active blanket bog in Pettigoe Plateau SAC, as defined by 15 attributes and targets. To maintain the favourable conservation condition of European dry heaths in Pettigoe Plateau SAC, as defined by 18 attributes and targets. To maintain the favourable conservation condition of Natural dystrophic lakes and pools in Pettigoe Plateau SAC, as defined by 8 attributes and targets. To maintain the favourable conservation condition of Northern Atlantic wet heaths in Pettigoe Plateau SAC, as defined by 15 attributes and targets. To maintain the favourable conservation condition of Oligotrophic to mesotrophic standing water in Pettigoe Plateau SAC, as defined by 7 attributes and targets.
Lough Melvin SAC (UK) [0030047]	13.1km S straight-line distance, no hydrological link	<ul style="list-style-type: none"> Oligotrophic to mesotrophic standing waters with vegetation of the <i>Littorelletea uniflorae</i> and/ or <i>Isoeto-Nanojuncetea</i>. Molinia meadows on calcareous, peaty or clayey -silt-laden soils (<i>Molinion caeruleae</i>) Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles Atlantic salmon <i>Salmo salar</i> 	<ul style="list-style-type: none"> To maintain the favourable conservation condition of Oligotrophic to mesotrophic standing waters in Lough Melvin SAC, as defined by 7 attributes and targets. To maintain the favourable conservation condition of Molinia meadows on calcareous, peaty or clayey -silt-laden soils in Lough Melvin SAC, as defined by 15 attributes and targets. To maintain the favourable conservation condition of Old sessile oak woods in Lough Melvin SAC, as defined by 22 attributes and targets. To maintain the favourable conservation condition of Atlantic salmon in Lough Melvin SAC, as defined by 6 attributes and targets.
Lough Derg (Donegal) SPA [SPA 004057]	14.1km NE straight-line distance, no hydrological link	<ul style="list-style-type: none"> Lesser Black-backed Gull (<i>Larus fuscus</i>) [A183] Herring Gull (<i>Larus argentatus</i>) [A184] 	<ul style="list-style-type: none"> To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA.

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European site	Distance and direction from project	Selection feature	Conservation Objectives
Pettigo Plateau Nature Reserve SPA [SPA 004099]	10.1km NE straight-line distance, no hydrological link	<ul style="list-style-type: none"> Greenland White-fronted Goose (<i>Anser albifrons flavirostris</i>) [A395] 	<ul style="list-style-type: none"> To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA
Durnesh Lough SPA [004145]	5km NW straight-line distance, 5km via hydrological link	<ul style="list-style-type: none"> Whooper Swan (<i>Cygnus cygnus</i>) [A0383] Greenland White-fronted Goose (<i>Anser albifrons flavirostris</i>) [A395] 	<ul style="list-style-type: none"> To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA
Donegal Bay SPA [SPA 004151]	5.6km N straight-line distance and 7.4km by closest hydrological connection	<ul style="list-style-type: none"> Great Northern Diver (<i>Gavia immer</i>) [A003] Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046] Common Scoter (<i>Melanitta nigra</i>) [A065] Sanderling (<i>Calidris alba</i>) [A144] Wetland and Waterbirds [A999] 	<ul style="list-style-type: none"> To maintain the favourable conservation condition of great northern diver in Donegal Bay SPA, as defined by 2 attributes and targets. To maintain the favourable conservation condition of light bellied brent goose in Donegal Bay SPA, as defined by 2 attributes and targets. To maintain the favourable conservation condition of common scoter in Donegal Bay SPA, as defined by 2 attributes and targets. To maintain the favourable conservation condition of sanderling in Donegal Bay SPA, as defined by 2 attributes and targets. To maintain the favourable conservation condition of the wetland habitat in Donegal Bay SPA as a resource for the regularly occurring migratory waterbirds that utilise it, as defined by 1 attribute and target.
Pettigoe Plateau SPA (UK) [9020051]	5.8km SE straight-line distance, no hydrological link	<ul style="list-style-type: none"> Golden Plover (<i>Pluvialis Apricaria</i>) 	<ul style="list-style-type: none"> To maintain in favourable condition golden plover in Pettigoe Plateau SPA, as defined by 2 attributes and targets.
Pettigo Plateau Ramsar Site Site no: 334	10.1km NE straight-line distance, no hydrological link	<ul style="list-style-type: none"> Pettigo Plateau. 31/07/86; Donegal; 900 ha; 54°37'N 007°57'W. Council of Europe Biogenetic Reserve; Nature Reserve. An excellent example of highland blanket bog, a nationally rare bog type, covering low hills and broad basins and containing numerous nutrient poor and acidic lakes and pools. The site is a traditional feeding and roosting site for a wintering flock of the globally vulnerable goose <i>Anser albifrons flavirostris</i> and a breeding site for <i>Pluvialis apricaria</i>. Summer sheep grazing is controlled. Ramsar site no. 334. 	<ul style="list-style-type: none">

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European site	Distance and direction from project	Selection feature	Conservation Objectives
Pettigoe Plateau Ramsar site (UK) [UK12019]	5.8km SE straight-line distance, no hydrological link	<ul style="list-style-type: none"> • Pettigoe Plateau situated in Fermanagh in the West of Northern Ireland to the north of Lower Lough Erne. The site qualifies under Criterion 1a of the Ramsar Convention by being a particularly good representative example of blanket bog. The site also qualifies under criterion 2a supporting an important assemblage of vulnerable and endangered Irish Red Data Book bird species. The site regularly supports nationally important numbers of breeding golden plover. The site is also used by breeding hen harrier. In addition the site is also notable for Greenland white fronted goose. 	

4.3.1 Water Quality and Habitat Deterioration

An unnamed stream located along the western boundary of the site and down-gradient of the proposed development site, flows in a north, north-western direction before disappearing underground and eventually discharges to Durnesh Lough SAC 5km downstream of the proposed development. Remote sites such as Ballintra SAC, Lough Golagh and Breesy Hill SAC, Donegal Bay (Murvagh) SAC, Dunmuckrum Turloughs SAC, Lough Melvin SAC, Tamur Bog SAC, Dunragh Loughs/ Pettigo Plateau SAC, River Finn SAC, Lough Eske and Ardnamona Wood SAC, Pettigoe Plateau (UK) SAC, Lough Melvin (UK) SAC, Lough Derg (Donegal) SPA, Pettigo Plateau Nature Reserve SPA, Pettigoe Plateau (UK) SPA, Pettigoe Plateau Ramsar site (UK) and Pettigo Plateau Ramsar Site (ROI), with no hydrological connection to the site of the proposed project are discounted from further consideration. Essentially, they are 'screened out' at this preliminary stage as there is no pathway of potential effect.

At construction stage, earthworks operations will be carried out in order to install the series of proposed wetlands and leachate treatment plant. The topography of the site indicates that surface water will flow towards to localised unnamed stream located at the north western corner of the proposed project site.

A number of European sites are downstream of the stream from this point, as outlined above. During construction stage, there is a possibility that suspended sediments and/or contaminants may escape from the site of the proposed project.

Durnesh Lough SAC, Durnesh Lough SPA and Donegal Bay SPA are hydrologically linked to the application site via the stream with an impact pathway ranging from 5km to 7.4km in length.

There is potential for source(s) of pollution (i.e. demolition/ construction related sediments, or accidental release of concretes and hydrocarbons) via surface runoff discharging into the stream.

4.3.1.1 Closest European Sites

The hydrological connection from the proposed project to the European sites; Durnesh Lough SAC and Durnesh Lough SPA are the closest downstream European sites (approximately 5km downstream) via the unnamed stream which discharges to Durnesh Lough.

At construction stage, if a small quantity of pollutant substances were to be washed into the stream over a short period of time, due to the dilution factor of the stream the substances would quickly be diluted to *de minimis* or background levels by the time they reach the nearest designated site (Durnesh Lough SAC and Durnesh Lough SPA).

Conservation objectives for Durnesh Lough SAC do not state pollution or water quality effects as a threat to conservation objectives, the site is designated for its coastal lagoons and *Molinia* meadows on calcareous, peaty or clayey silt laden soils (*Molinion caeruleae*). As the *Molinia* meadow component of the site is terrestrial habitat there is no likely pathway for hydrological effects. However, the SAC is the closest designated site downstream of the proposed project and in the absence of mitigation construction related pollutants such as suspended sediments, concrete, oil and other contaminants could be washed into the drainage systems/ stream around the proposed project during periods of heavy prolonged rainfall. It is therefore, possible that pollution incidents in substantial quantities could potentially alter the vegetative/ herbaceous composition and water quality of the site and therefore negatively impact upon the conservation objectives of the sites coastal lagoons.

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On this basis, in the absence of mitigation measures to prevent construction related pollutants entering the unnamed stream, the potential for likely significant effects on Durnesh Lough SAC **cannot be excluded** at the screening stage of the appraisal.

Construction of the proposed development will involve the use of plant machinery as well as the associated temporary storage of construction materials, oils, fuels and chemicals. There is potential for accidental spillage or release of fuel, oil and other dangerous substances which could be washed into receiving waterbodies of the stream located at the northwest corner of the site.

Site specific conservation objectives have not been published for Durnesh Lough SPA. A generic conservation objective was published on 23 March 2021, and that is to maintain or restore the favourable conservation condition Greenland White-fronted Goose and Whooper Swan. Looking then at site specific conservation objectives for Greenland White-fronted Goose and Whooper Swan we can take Lough Swilly SPA as an example.

There the conservation objective is also to maintain the favourable conservation condition of Greenland White-fronted Goose and Whooper Swan in that SPA, but this time the favourable conservation condition is defined by two attributes and corresponding targets:

<u>Attribute</u>	<u>Measure</u>	<u>Target</u>
<ul style="list-style-type: none"> • Population trend 	<ul style="list-style-type: none"> • Percentage change 	<ul style="list-style-type: none"> • Long term population trend stable or increasing
<ul style="list-style-type: none"> • Distribution 	<ul style="list-style-type: none"> • Range, timing and intensity of use of areas by waterbirds 	<ul style="list-style-type: none"> • No significant decrease in the range, timing or intensity of areas used by waterbird species, other than that occurring from natural patterns of variation

The SPA supporting document states that the population of this species should be stable or increasing, and that a waterbird population is deemed to be unfavourable when it has declined by 25% or more, as assessed by the most recent population trend analysis. It goes on to say that for distribution, the range (or timing or intensity of use) of areas within the SPA used by the species should not significantly decrease, other than that occurring from natural patterns of variation.

Conservation objectives for Durnesh Lough SPA do not state pollution or water quality effects as a threat to conservation objectives. At Ballynacarrick, the stream eventually disappears underground and discharges to Durnesh Lough 5km from the proposed development site. The stream forms part of the Ballymagrorty Scotch sub-basin which has a catchment area of 19km². It's likely that any temporary pollution event or increase in suspended sediments entering the stream over 5km upstream of Durnesh Lough SPA will be subject to mixing and dilution from other sources of water that feed into this groundwater network. Temporary siltation or accidental pollution over 5km upstream of the proposed development will have no effect whatsoever on the population trend or distribution of the waterbird assemblage in Durnesh Lough SPA.

However, the SPA provides an important foraging area for overwintering wildfowl and waders. In the event substantial quantities of polluting substances were to migrate from the Site of the Proposed Development via onsite drainage and the stream, during periods of prolonged rainfall. The increased sedimentation and pollutants could potentially alter the vegetative/herbaceous composition and negatively impact upon the conservation objectives of the site.

The potential for likely significant effects on Durnesh Lough SPA **cannot be excluded** at the screening stage of the appraisal, even in the absence of mitigation measures.

Donegal Bay SPA is located immediately adjacent Durnesh Lough SAC and SPA. The lough is separated from the sea by a barrier composed partly of drumlins and high sand dunes. However, there is an artificial channel and pipe running under the sand dunes which allows water to drain from the lake and sea water to enter on springtides and during storms. Therefore, a hydrological link from the proposed development to Donegal Bay SPA (via Durnesh Lough) has been established.

Site specific conservation objectives for Donegal Bay SPA published 17 May 2012 are as follows; to maintain the favourable conservation condition of bird species; Great Northern Diver, Light bellied Brent Goose, Common Scoter and Sanderling in the SPA and maintain the favourable conservation condition of the wetland habitat at the SPA as a resource for regularly occurring migratory waterbirds that utilise it. Looking then at site specific conservation objectives for waterbird assemblage mentioned above the favourable conservation condition is defined by two attributes and corresponding targets:

<u>Attribute</u>	<u>Measure</u>	<u>Target</u>
<ul style="list-style-type: none"> • Population trend 	<ul style="list-style-type: none"> • Percentage change 	<ul style="list-style-type: none"> • Long term population trend stable or increasing
<ul style="list-style-type: none"> • Distribution 	<ul style="list-style-type: none"> • Range, timing and intensity of use of areas by waterbirds 	<ul style="list-style-type: none"> • No significant decrease in the range, timing or intensity of areas used by waterbird species, other than that occurring from natural patterns of variation

The SPA supporting document states that the population of this species should be stable or increasing, and that a waterbird population is deemed to be unfavourable when it has declined by 25% or more, as assessed by the most recent population trend analysis. It goes on to say that for distribution, the range (or timing or intensity of use) of areas within the SPA used by the species should not significantly decrease, other than that occurring from natural patterns of variation.

Conservation objectives for Donegal Bay SPA do not state pollution or water quality effects as a threat to conservation objectives. Any temporary pollution event or increase in suspended sediments entering the stream and drainage network over 5km upstream of Donegal Bay SPA will result in a significant amount of mixing and dilution within the water column over the course of the downstream journey to the closest European site. Temporary siltation or accidental pollution over 5km upstream of Donegal Bay SPA will have no effect whatsoever on the population trend or distribution of the waterbird assemblage in Donegal Bay SPA. In the event substantial quantities of polluting substances were to migrate from the Site of the Proposed Development via onsite drainage and the stream, during periods of prolonged rainfall. The increased sedimentation and pollutants would remain trapped within the lough due to the presence of the artificial outfall which only allows movement of water from the lough to the sea and vice versa during springtides and storms. In addition, to this the diluting factor of the large waterbody of the lough substances would be diluted and degraded to de minimis levels by the time it would reach Donegal Bay SPA.

The potential for likely significant effects on Donegal Bay SPA **can be excluded** at the screening stage of the appraisal, even in the absence of mitigation measures.

4.3.2 Noise and Disturbance

4.3.2.1 Aerial Noise

Construction of the proposed integrated wetlands, will involve the use of plant and machinery, installation of compounds, leachate plant and associated access roads. The noise generated by machinery and plant activities are by analysis, ordinary occurrences in proximity to working agricultural land, landfill site and nearby quarries.

The site of the proposed project is not contained within any European site. Donegal Bay SPA, Durnesh Lough SPA, Pettigo Plateau Nature Reserve, Lough Derg Donegal SPA and Pettigo Plateau (UK) SPA are all located more than 5km from the site of the proposed project. Any construction noise generated during construction will attenuate to background levels long before reaching the nearest SPA site. The construction activities are by any analysis, ordinary occurrences within a farmland setting on the fringes of a regional town. It is considered that appreciable risks of disturbance to or displacement of feature species populations of any European site are negligible. There is no possibility of a significant effect upon the conservation objectives of any European site designed for waterfowl as a consequence of aerial noise emissions or visible plant and operatives.

On this basis it is considered that the proposed project does not have the potential to give rise to likely significant airborne noise related disturbance effects upon the SPAs considered in this appraisal. Likely significant effects **can be excluded** at the screening stage of appraisal and in the absence of mitigation for:

- Donegal Bay SPA;
- Durnesh Lough SPA
- Pettigo Plateau Nature Reserve SPA
- Lough Derg (Donegal) SPA; and
- Pettigo Plateau (UK) SPA.

5 CONCLUSION OF THE STAGE 1 SCREENING APPRAISAL

The stage one screening appraisal has concluded that:

- The proposed project is not directly connected with or necessary to the management of any European site;
- In the absence of mitigation measures, likely significant effects on water quality and habitat deterioration **cannot be excluded** for Durnesh Lough SAC and Durnesh Lough SPA;

All other likely significant effects can be excluded at the screening stage of appraisal.

Having regard to the methodology employed and the findings of the screening stage assessment, it has been concluded that a Stage 2 appraisal of the implications of the proposed project is required.

6 STAGE 2 APPRAISAL FOR APPROPRAITE ASSESSMENT

6.1 Adverse Effects on the Integrity of European sites

The European Commission’s 2018 Notice (EC, 2019) advises that the purpose of the appropriate assessment is to assess the implications of the plan or project in respect of the site’s COs, either individually or in combination with other plans or projects. The conclusions should enable the competent authorities to ascertain whether the plan or project will adversely affect the integrity of the site concerned. The focus of the appropriate assessment is therefore specifically on the species and/or the habitats for which the European site is designated.

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 (EC, 2019).

EC (2019) also emphasises the importance of using the best scientific knowledge when carrying out the appropriate assessment in order to enable the competent authorities to conclude with certainty that there will be no adverse effects on the integrity of the site. This guidance notes that it is at the time of adoption of the decision authorising implementation of the project that there must be no reasonable scientific doubt remaining as to the absence of adverse effects on the integrity of the site in question.

The judgement of the Court of Justice of the European Union (CJEU) confirmed in its ruling in Case C-258/11 that ‘Article 6(3) of the Habitats Directive must be interpreted as meaning that a plan or project not directly connected with or necessary to the management of a site will adversely affect the integrity of that site if it is liable to prevent the lasting preservation of the constitutive characteristics of the site that are connected to the presence of a priority natural habitat whose conservation was the objective justifying the designation of the site in the list of SCIs, in accordance with the directive. The precautionary principle should be applied for the purposes of that appraisal’. EC (2019) advises that the logic of such an interpretation would also be relevant to non-priority habitat types and to habitats of species.

As regards the meaning of ‘integrity’, this clearly relates to ecological integrity. This can be considered as a quality or condition of being whole or complete. In a dynamic ecological context, it can also be considered as having the sense of resilience and ability to evolve in ways that are favourable to conservation.

EC (2019) notes that if the competent authority considers the mitigation measures are sufficient to avoid the adverse effects on site integrity identified in the appropriate assessment, they will become an integral part of the specification of the final plan or project or may be listed as a condition for project approval.

EC (2021) notes that an appropriate assessment must be sufficiently detailed and substantiated to demonstrate the absence of adverse effects, in light of the best existing scientific knowledge in the field.

In summary, an appropriate assessment involves the following steps:

- collecting information on the project and on the Natura 2000 site concerned;
- assessing the implications of the plan or project in view the site's conservation objectives, individually or in combination with other plans or projects;
- ascertaining whether the plan or project can have adverse effects on the integrity of the site;
- considering mitigation measures (including their monitoring).

The onus is on demonstrating the absence of adverse effects rather than their presence, reflecting the precautionary principle. It follows that the appropriate assessment must be sufficiently detailed and reasoned to demonstrate the absence of adverse effects, in light of the best scientific knowledge in the field.

6.2 European Sites

Section 177V of the 2000 Act requires inter alia that an appropriate assessment carried out by the competent authority shall include a determination under Article 6(3) of the Habitats Directive as to whether or not a proposed development would adversely affect the integrity of a European site and an appropriate assessment shall be carried out by the competent authority where it has made a determination under section 177U(4) that an appropriate assessment is required, before consent is given for the proposed development.

The appropriate assessment must have regard to:

- The manner in which the plan or project is proposed to be carried out; or
- Any conditions or restriction subject to which it proposed that the consent, permission or other authorisation should be given.

Table 5.1 sets out the Conservation Objectives of Durnesh Lough SAC and Durnesh Lough SPA.

Table 5.2: Conservation Objectives of the Durnesh Lough SAC & SPA

European site	Selection feature	Conservation Objectives
Durnesh Lough SAC [000138]	<ul style="list-style-type: none"> • Coastal lagoons [1150] • Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae) [6410] 	<ul style="list-style-type: none"> • To restore the favourable conservation condition of coastal lagoons in Durnesh Lough SAC, as defined by 12 attributes and targets. • To restore the favourable conservation condition of Molinia meadows in Durnesh Lough SAC, as defined by 10 attributes and targets.
Durnesh Lough SPA [004145]	<ul style="list-style-type: none"> • Whooper Swan (Cygnus cygnus) [A038] • Greenland White-fronted Goose (Anser albifrons flavirostris) [A395] 	<ul style="list-style-type: none"> • To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA

6.3 Likely Significant Effects identified in the Stage 1 Appraisal

6.3.1 Suspended Sediments and Pollution

The stage 1 screening appraisal identified suspended sediments and pollution resulting in water quality and habitat deterioration as a potential impact pathway which could result in adverse effects on Durnesh Lough SAC and Durnesh Lough SPA.

According to the Conservation Objectives for the Durnesh Lough SAC and Durnesh Lough SPA pollution or water quality effects is not a main threat/issue to conservation objectives. However, as the unnamed stream is hydrologically linked to Durnesh Lough it is the closest designated site downstream of the proposed development, in the absence of mitigation construction related pollutants such as suspended sediments, concrete, oil and other contaminants to be washed into the existing storm drain during periods of heavy and prolonged rainfall. Its therefore possible that pollution incidents in substantial quantities could potentially alter the vegetative/herbaceous composition of the site and therefore negatively impact upon the conservation objectives for the site.

Durnesh Lough SAC is less than 15km downstream. The Natura 2000 Standard Data Form for Durnesh Lough SAC lists threats, pressures and activities with impacts on the site or site features' include *dispersed habitation, hunting, fertilisation, outdoor sports and leisure activities, recreational activities* do not state pollution or water quality effects as a threat to conservation objectives,

Durnesh Lough SPA is less than 15km downstream. The Natura 2000 Standard Data Form for Durnesh Lough SPA lists threats, pressures and activities with impacts on the site or site features' include *discharges, walking, horse-riding and non-motorised vehicles, eutrophication (natural) and fertilisation*.

It is considered that mitigation measures must be prescribed to prevent adverse water quality and habitat deterioration effects as a result of the release of suspended sediments or polluting substances.

6.4 Mitigation Measures

6.4.1 Pollution Prevention

The following mitigation measures will be implemented to prevent pollutants entering the stream and associated drainage network reaching the Durnesh Lough SAC and Durnesh Lough SPA site downstream of the Site of the Proposed Development:

- Works shall be undertaken in dry weather conditions only.
- No pollutants, including sediments will be allowed to enter the watercourses during construction operations, this will be prevented by civil engineering methods (i.e. formation of drainage channels) and installation of silt fencing;
- No excavation works will be conducted within 10m of drainage ditches or adjacent waterbodies on site;
- Any wet concrete required for the development works will be pre-mixed off site and transported in dedicated lorries.
- No washing or cleaning of concrete equipment or vehicles will be conducted on the site.

Water Pumping

- If pumping of water is required onsite, this will be done by pumping water over hardstanding or vegetated area, through terram and/or through installed silt fencing. These methods will slow the water flow and filter any potential silt from the water.
- The requirement for water pumping will be planned in advance (as far as is practicable) and a permit to pump procedure will be in place to ensure that water pumping is controlled.

Storage of fuels and hazardous material

- The Contractor shall comply with the requirements of the Water Pollutions Act of 1977, Public Health Acts and Fisheries Act;
- The Contractor shall ensure that no harmful materials shall be deposited into nearby watercourses, including drainage pipes, on or adjacent to the site.
- Any bulk or fuel storage tank should be properly bunded with a bund capacity of at least 110% of that fuel tank.
- Machinery used will be refuelled at a distance greater than 100metres of any watercourse and no fuel, oils etc. will be stored onsite.
- Storage of any oils, fuels, chemicals or hydraulic fluids will be undertaken in accordance with current best practice for oil storage guidelines (Enterprise Ireland, BPGCS005) on an impervious base within a bund and appropriately secured.
- Fuels, lubricants and hydraulic fluids for equipment used on the site, as well as any solvents, oils, and paints will be carefully handled to avoid spillage, properly secured against unauthorised access or vandalism, and provided with spill containment according to codes of practice.
- No storage of plant or construction materials will occur within 50m of watercourses;
- No construction or aggregate materials will be stockpiled along the works footprint or adjacent to the drainage ditches and waterbodies associated with the works;

Spill response plans and pollution control measures

- A spill kit will be available onsite and accessible to all to control pollution incidents. These spill kits contain absorbent granules and methods of disposal of materials and used kit. These kits will be located at appropriate points around the Site which are considered to be at a higher risk of pollution (e.g. refuelling area and next to fuel tanks). Further spill kits and supplies will be located in the stores and within the Site, where replacements for used kits will be found.
- Spill kits will need to be regularly inspected and immediately replaced if used;
- Toolbox talks will be communicated to Site staff and contractors so that they are fully informed of refuelling procedures.

Emergency response plan

- An emergency pollution response plan (EPRP) will be developed by the Principal contractor and include location of the spill response kits, details of the site drainage infrastructure and how spillages are to be prevented from entering the drainage network; and incident notification procedures.
- The EPRP will incorporate the contents of this oCEMP and contain as a minimum:
 - Location of all spill kits;
 - Details of site drainage infrastructure and how spillages are to be prevented from entering this network and residue removed from site;
- An assessment of excavation and earthworks likely to cause silty run-off and the mechanisms required to mitigate this risk;

- Neighbour notification procedures;
 - Incident notification procedures and responsibilities;
 - Staff notification and briefing and site induction procedures for environmental issues; and,
 - Contact details for all Regulatory Authorities and relevant Emergency Services to be contacted in the event of a pollution incident.
-
- Site staff will be trained in mitigating impacts to the environment, resulting from a pollution incident.
 - Pollution control equipment will be available in high-risk areas and will be checked on a weekly basis to ensure the equipment is available and re-stocked if used.
 - Work will be stopped in the vicinity of any spill and the discharge stopped at source (i.e. turn plant off). Containment equipment will be deployed in the form of spill kits/booms/sandbags/granules/straw bales/terram, depending on the type of pollution discharged. The Site Manager and Project Manager will be notified immediately and used pollution control equipment will be disposed of in accordance with EPA guidance and legislation. In the event of a severe pollution incident EPA Emergency pollution Hotline 0800 80 70 60 will be contacted within 30 minutes of the incident occurring.
 - Toolbox talks will be communicated to site staff and contractors so that they are fully informed of Dealing with Environmental Incidents.
 - In addition, it shall be the Principal Contractor’s responsibility to prepare and report at regular progress meetings and actions taken to adhere to the CEMP, any incidents or near misses since the last progress meeting, regulatory involvement and any mitigation action taken if required.

With the implementation of these mitigation measures, the risk of suspended sediments and pollution will not imperil the conservation objectives of Durnesh Lough SAC and Durnesh Lough SPA. Construction and operation of the proposed development will not adversely affect the integrity of Durnesh Lough SAC and Durnesh Lough SPA site and no reasonable scientific doubt remains as to the absence of such effects.

6.5 In-combination with other Plans and Projects

Article 6(3) of the Habitats Directive requires that in-combination effects with other plans or projects are considered. On this basis, a range of other projects were considered in terms of their potential to have in-combination effects when considered alongside the proposed integrated wetlands as set out below in Table 6.2.

Table 6.3: In-combination impacts with other plans, programmes and projects.

Planning ref	Location	Description	Status
1550819	Bradlieve, Ballintra, Donegal po, County Donegal	Construction of an eco-tourism development consisting of a communal facility building to service six tented yurt holiday accommodations, and one temporary cabin dwelling, ten car parking spaces, access road, 2 no. septic tanks treated through a reed bed and wetland system and all associated site works	• Application finalised 22/09/2015
1250652	Ballymagroarty Barr of	A ten year planning permission for development consisting of a wind	• Refused 31/07/2013

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Planning ref	Location	Description	Status
	Ballynacarrick, Derries and Tievebrack, Ballintra	energy project comprising seven wind turbine, access tracks, a fenced electrical transformer station comprising a single storey control building and substation, an anemometer mast, a borrow pit and all associated site works, above and below ground. each wind turbine will have an overall maximum dimension of 135 metres, comprising a tower 84.5 - 90 metres high, with a diameter of about 4 metres at the base, to which three blades of 45- 50.5 metres length will be attached	

The projects listed in Table 6.2 were investigated on the Donegal Planning Register portal. Ecology reports were reviewed where available, and the consultation response of relevant agencies and departments, the professional planning report and the decision notice and attached conditions of the planning authority were inspected.

When the effects of the proposed project are considered in combination, there is no additive pathway for significant cumulative or in-combination effects which can be considered to contribute towards adversely affecting the qualifying interests or conservation objectives, or indeed the integrity of those European sites being assessed.

7 CONCLUSION OF THE APPRAISALS FOR APPROPRIATE ASSESSMENT

This report has been prepared by RPS on behalf of Donegal County Council. The purpose of the report is to document evaluation and analysis comprising a Stage 1 screening appraisal and a Stage 2 appraisal for appropriate assessment that RPS has conducted on behalf of the Council.

The report was prepared having regard to relevant legislation and methodological guidance outlined in Section 2.

A Stage 1 screening appraisal is documented in Section 4 of this report to determine whether or not Likely Significant Effects on any European site can be excluded.

The outcome of the Stage 1 screening appraisal was that the possibility of likely significant effects in relation to suspended sediments and pollution **could not be excluded** for the Durnesh Lough SAC and Durnesh Lough SPA site could not be excluded in the absence of mitigation measures and in the absence of best practice measures intended to avoid or reduce harmful effects on those European sites.

The potential for all other likely significant effects on the Durnesh Lough SAC and Durnesh Lough SPA site and the remaining sites considered in the stage one appraisal **could be excluded**, even in the absence of mitigation measures. For the avoidance of doubt, those sites are:

- Donegal Bay SPA
- Pettigo Plateau Nature Reserve SPA
- Lough Derg (Donegal) SPA; and
- Pettigoe Plateau (UK) SPA.

The conservation objectives of the sites concerned were evaluated and analysed as part of a Stage 2 appraisal for appropriate assessment, and mitigation measures were applied to avoid or reduce the harmful effects of the project on the European sites.

The Stage 2 appraisal has concluded that no adverse effect upon the integrity of any European site will arise as a result of the Proposed Development alone or in-combination with other projects, with the application of mitigation measures, and no reasonable scientific doubt remains as to the absence of such effects.

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