

**SECTION D. RISK ASSESSMENT
(SEE VOLUMES II & III)**

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SECTION D: RISK ASSESSMENT

For sites which have been assigned risk category Class A (High Risk) or Class B (Moderate Risk) during the Tier 1 assessment, a full risk assessment (Tier 1, 2 and 3) must be carried out. Class C (Low Risk) sites must have, as a minimum, Tier 1 and exploratory Tier 2 assessments. All sections of the risk assessment must be included as part of this application, including any part of the Tier 1 assessment carried out using the EPA Section 22 Register risk assessment tool at www.epa.ie/uwsr.

For all sites, a proposal detailing necessary measures for remediation, risk attenuation and site restoration must be provided, and must as a minimum contain the following information:

- Details of all necessary measures proposed, including a statement of the impact of the remediation measures. Proposed measures must clearly address all risks identified in the revised Conceptual Site Model for the site. This should also include details of alternative measures considered and reasons for rejection of same, where applicable.
- Schedule for completion of the proposed necessary measures, including a timeframe for the submission of a validation report.
- Details of any ongoing or long-term monitoring or assessment programme which may be required to evaluate and ensure the effectiveness of the necessary measures as carried out.

Two copies of the risk assessment shall be submitted. The risk assessment shall also be provided on two CD-ROMs in searchable PDF format.

The Risk Assessment should be submitted as **Attachment D.1**.

Attachment D.1 consists of the following 2 reports:

- *Tier 2 Site Investigation & Risk Assessment of Former Shore Road Landfill, Clifden, County Galway, Report, 16th May, 2014;* and
- *Tier 3 Further Site Investigation & Updated Risk Assessment of Former Shore Road Landfill, Clifden, County Galway, Report, 24th March, 2021.*

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SECTION E. APPROPRIATE ASSESSMENT

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SECTION E: APPROPRIATE ASSESSMENT

In addition to the foregoing, all sites (whether low, moderate, or high risk) should be subject to screening for Appropriate Assessment in accordance with the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477 of 2011). The results of any such screening should be submitted as part of this application. The screening should demonstrate whether the project is/is not likely, whether individually or in combination with other plans or projects, to have significant effects on any European Site or sites as defined in Regulation 2(1) of the Habitats Regulations (S.I. No. 477 of 2011) having regard to best scientific knowledge and its conservation objectives. Where, based on the Stage 1 screening, it is considered that an appropriate assessment *is not* required, a reasoned response should be provided.

Where screening has determined that an appropriate assessment *is* required, an appropriate assessment in accordance with Article 6(3) of the Habitats Directive (92/43/EEC) should be completed and a copy of the Natura Impact Statement submitted as part of this application. The assessment should consider the following impacts on any European Site(s):

1. The impact of the existing landfill on European sites;
2. The cumulative effects of the project combined with other plans or projects that might impact on the European site or sites;
3. An assessment of the implications of the project for the European site in view of the European site's conservation objectives;
4. The objectives of proposed remediation measures regarding existing impacts identified in item 1;
5. The impact on the European site of any physical works carried out at the closed landfill as part of the remediation plan;
6. Details of any mitigation measures proposed at or in relation to the European site, including timeframes for the implementation and monitoring of the measures; and
7. Natura Impact Statement conclusion statement. The statement should conclude whether the project will or will not adversely affect the integrity of the European site(s) having regard to its conservation objectives.

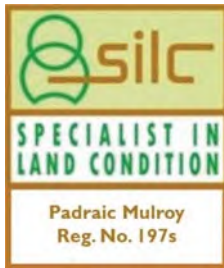
While the appropriate assessment is subject to a separate report (the Natura Impact Statement), it should be carried out in tandem with the overall risk assessment. This is to ensure that a holistic approach is undertaken, whereby all relevant appropriate assessment and risk assessment parameters are addressed and to ensure that the remediation measures proposed address all risks identified.

Please refer to the guidance document '*Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities*', issued in 2009 by the Department of the Environment, Heritage and Local Government, and revised in 2010 regarding this assessment. This document is available at: http://www.npws.ie/publications/archive/NPWS_2009_AA_Guidance.pdf.

Two copies of the screening report and, where relevant, the Natura Impact Statement shall be submitted. The screening report/Natura Impact Statement shall also be provided on two CD-ROMs in searchable PDF format (no larger than 50MB for each electronic file).

The Appropriate Assessment (screening and, where relevant, Natura Impact Statement) should be submitted as **Attachment E.1.**

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environmental



**TIER 2 SITE INVESTIGATION & RISK ASSESSMENT
OF
FORMER SHORE ROAD LANDFILL**

AA SCREENING REPORT

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16TH May 2014

DOCUMENT ISSUE STATUS

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PROJECT MANAGER	Padraic Mulroy	<i>Padraic Mulroy</i>	16/05/14
CLIENT	Tom Dunworth, Galway C.C.		

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TABLE OF CONTENTS

1	INTRODUCTION	1
2	LEGISLATIVE BACKGROUND	1
3	SCREENING	2
2.1	Description of Existing Site.....	2
2.2	Surrounding Property.....	3
2.3	Natura 2000 Sites.....	3
4	ASSESSMENT OF LIKELY EFFECTS	5
5	SCREENING CONCLUSION AND STATEMENT	5

LIST OF FIGURES

(PLEASE SEE MAIN REPORT FOR FIGURES 1-6)

FIGURE NO.	FIGURE DESCRIPTION	SIZE	SCALE
1	Site Location & Proximity of SACs, pNHAs & SPAs	A3	1:20,000
2	Site Location & Proximity of SAC No. 002031, The Twelve Bens/Garaun Complex	A3	1:5,000
3	Site Location & Surrounding Property	A3	1:1,250
4	Site Layout & Topographical Survey	A3	1:500
5	Site Investigation Trialpit Locations	A3	1:500
6	Conceptual Site Model	A3	1:1,250

LIST OF ANNEXES

ANNEX NO.	ANNEX DESCRIPTION
1	<ul style="list-style-type: none"> Site Synopsis SAC No. 002031 Qualifying Interests for Twelve Bens/ Garaun Complex

1 INTRODUCTION

As part of the Tier 2 Site Investigation and Risk Assessment (GQRA) an Appropriate Assessment Screen is required for the former Shore Road Landfill (see Figures 1, 2 & 3). This is required as part of the application to the EPA for the Certificate of Registration. The purpose of this assessment is to ascertain whether the development complies with the Department of Environment, Heritage and Local Government 2009 publication, 'Appropriate Assessment of Plans and Projects in Ireland, Guidance for Planning Authorities.'

This report has been carried out in accordance with the Department of Environment, Heritage and Local Government 2009 publication, 'Appropriate Assessment of Plans and Projects in Ireland, Guidance for Planning Authorities' and European Commission Guidance Document '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 (European Commission, 2001).

2 LEGISLATIVE BACKGROUND

The Habitats Directive (Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora) provides legal protection for habitats and species of European importance. The main aim of this Directive is to 'contribute towards ensuring biodiversity through the conservation of natural habitats and of wild fauna and flora in the European territory of the Member States to which the Treaty applies'. In order to meet the aims of the Directive, actions must be designed to maintain or restore, at favourable conservation status, natural habitats and species of wild fauna and flora of Community interest (Habitats Directive).

Under the Habitats Directive, Special Areas of Conservation (SAC) or candidate Special Areas of Conservation (cSAC) have been selected as important examples of habitat types listed in Annex I, and the habitats of certain species listed in Annex II of the Habitats Directive. SACs (including cSACs) together with Special Protection Areas (SPAs) (including proposed SPAs) make up a network of European sites called the Natura 2000 network. SPAs are designated under the Council Directive on the Conservation of Wild Birds (79/409/EEC), otherwise known as the 'Birds Directive'.

Appropriate Assessment is required under the Habitats Directive for any plan or project likely to have a significant effect on a Natura 2000 site. Article 6, paragraphs 3 and 4 of the Directive state:

'6(3) - Any plan or project not directly connected with or necessary to the management of the site (Natura 2000 site) but likely to have 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.'

3 SCREENING

Screening involves the following:

1. Description of the plan/project including details of the local site or plan area characteristics;
2. Identification of relevant Natura 2000 sites, and compilation of information on their qualifying interests and conservation objectives;
3. Assessment of likely effects (direct, indirect and cumulative) through the completion of a desk study or field survey; and
4. Screening statement including conclusions.

2.1 Description of Existing Site

The former Shore Road landfill site is located on the southern side of the Shore Road adjacent to the shore of Cliften Bay and is approximately 0.99 hectares (i.e. 9,900m²) in area (see Figures 2 & 3). A council owned helipad has been built on the south western periphery of the the site. The site was wet under foot during the site investigation with rushes the predominant vegetation on site. A public handball alley is located on the north-western corner of the site. A public basketball court and adjacent playground is located on the western boundary of the site. A sailing club boat storage yard and slipway is located on the south-western corner of the site. A helicopter landing pad is located immediately adjacent to the south-western corner of the site. This is accessed by an access road. A pumping station is located besides this access road

According to Galway C.C., the former municipal landfill at Shore Road, Clifden, County Galway, was in operation between the years of 1920s and the late 1960s. It is understood that the site was capped and a football field was constructed in the 1970s. However, the football pitch became disused due to water logging. The site is currently disused and has been left fallow since that time. During this 40-50

year period, as there are no records, it is not clear how many tonnes of mixed waste including domestic, commercial and construction & demolition (i.e. C & D) were deposited on site by the people of Clifden and/or the local authority. The total site area is 0.98 hectares (ha). However, the results of the site investigation indicate that an area of just 2,325m² was used for the deposition of waste i.e. domestic, commercial and construction & demolition (i.e. C & D). Taking an average waste depth of 4.5m, a total volume of waste is calculated at 10,500m³ (see Figures 4 & 5). A review of historical 25-inch mapping indicates that the southern 2/3 of the site is located on land that was formerly a part of the estuary i.e. it is reclaimed land.

2.2 Surrounding Property

The site is located in a residential area with 4 residences located within 50m of the site's boundary (see Figure 3). Two of these residences are located approximately 10m to the north of the site's northern boundary, across the Shore Road. Another residence is located to the northwest of the site. This house is approximately 35m from the site boundary. Another residence is located further along the Shore road 50m to the east of the site. Further housing exists just outside the 50 meter boundary, with a cluster of properties to the northeast, and a row of houses along the quay to the southwest of the site. The Cliften town hall, a public building, is located 36 meters northeast of the sites northern boundary. As stated previously, a number of public amenities are located along the sites western boundary, including a handball alley, basketball court and public playground. A boat storage yard owned by the local sailing club is located on the southwestern boundary of the site, adjacent to the shore (see Figure 3).

2.3 Natura 2000 Sites

The Shore Road site is located in the vicinity of a number of Natura 2000 designated protected sites, including Special Areas of Conservation (SAC), Special Protected Areas (SPA) and proposed Natural Heritage Areas (pNHA). These are the West Connect coast, Slyn Head peninsula, the Conemarra Bog complex and The Twelve Bens/ Garaun complex.

The Twelve Bens/ Garaun Complex is the closest protected site to Shore Road landfill site, located approximately 266m to the southeast of the site's eastern boundary (see Figures 1 & 2). This is protected as:

- A Special Area of Conservation (SAC) No. 002031; and
- A proposed Natural Heritage Area (pNHA) No. 002031.

The Site Synopsis and the Qualifying Interests for The Twelve Bens/ Garaun Complex are located in Annex 1. The overarching Conservation Objective for The Twelve Bens/ Garaun Complex Special Protection Area is to ensure the maintenance of the habitats and species for which the SAC has been selected at favourable conservation status.

The Conservation Objectives for The Twelve Bens/ Garaun Complex can be summarised as follows:

Objective 1: To maintain the Annex I habitats for which the SAC has been selected at favourable conservation status.

To be favourable the following habitat must remain intact and at their current percentage:

- Blanket bogs (active) (26% area of the site);
- Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*) (6% area of the site);
- Siliceous rocky slopes with chasmophytic vegetation (5% area of the site);
- Calcareous rocky slopes with chasmophytic vegetation (3% area of the site);
- Siliceous scree of the montane to snow levels (*Androsacetalia alpinae* and *Galeopsietalia ladani*) (1% area of the site);
- Alpine and Boreal heaths (2% area of the site);
- Old Oak Woods with *Ilex* and *Blechnum* in the British Isles (1% area of the site);
- Depressions on peat substrates of the *Rhynchosporion* (1% area of the site).

Objective 2: To maintain the Annex II species for which the SAC has been selected at favourable conservation status.

To be favourable the following habitat must remain intact only.

- Slender Naiad;
- Otter;
- Freshwater Pearlmussel;
- Salmon.

Objective 3: To maintain the extent, species richness and biodiversity of the entire site.

Objective 4: To establish effective liaison and co-operation with landowners, legal users and relevant authorities.

4 ASSESSMENT OF LIKELY EFFECTS

A review of the proposed development indicates that there will not be:

- Any impact on an Annex I habitat;
- Any reduction in the area of a Natura 2000 site;
- Direct or indirect damage to the physical quality of the environment in the Natura 2000 site;
- Serious or ongoing disturbance to species or habitats for which Natura 2000 is selected;
- Direct or indirect damage to the size, characteristics or reproductive ability of populations on the Natura 2000 site; and
- Interference with mitigation measures put in place for other plans/projects.

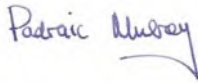
5 SCREENING CONCLUSION AND STATEMENT

The findings and conclusions of the screening process are as follows:

1. *No potential for significant effects/AA is not required*

Screening established that there is **no potential for significant effects** and the project/plan can proceed as proposed. However, no changes may be made after this as this will invalidate the findings of the screening.

Yours sincerely,



Padraic Mulroy

BSc., MSc., MIPSS, MIEI, C.Sci., SiLC, GSAS-CGP

Managing Director

Mulroy Environmental

MULROY ENVIRONMENTAL SERVICE CONSTRAINTS

1. This report and the Environmental Site Assessment carried out in connection with the report (together the "Services") were compiled and carried out for Galway County Council (the "client") in accordance with the terms of a contract, Proposal PRP214.05.04.2013, between Mulroy Environmental and the "client" dated 6th April 2013. The Services were performed by Mulroy Environmental with the skill and care ordinarily exercised by a reasonable Environmental consultant at the time the Services were performed. Further, and in particular, the Services were performed by Mulroy Environmental taking into account the limits of the scope of works required by the client, the time scale involved and the resources, including financial and manpower resources, agreed between Mulroy Environmental and the client.
2. Other than that expressly contained in paragraph 1 above, Mulroy Environmental provides no other representation or warranty whether express or implied, in relation to the Services.
3. Unless otherwise agreed the Services were performed by Mulroy Environmental exclusively for the purposes of the client. Mulroy Environmental is not aware of any interest of or reliance by any party other than the client in or on the Services. Unless expressly provided in writing, Mulroy Environmental does not authorise, consent or condone any party other than the client relying upon the Services. Should this report or any part of this report, or otherwise details of the Services or any part of the Services be made known to any such party, and such party relies thereon that party does so wholly at its own and sole risk and Mulroy Environmental disclaims any liability to such parties. Any such party would be well advised to seek independent advice from a competent environmental consultant and/or lawyer.
4. It is Mulroy Environmental understanding that this report is to be used for the purpose described in the introduction to the report. That purpose was a significant factor in determining the scope and level of the Services. Should the purpose for which the report is used, or the proposed use of the site change, this report may no longer be valid and any further use of or reliance upon the report in those circumstances by the client without Mulroy Environmental be requested to review the report after the date hereof, Mulroy Environmental shall be entitled to additional payment at the then existing rates or such other terms as agreed between Mulroy Environmental and the client.
5. The passage of time may result in changes in site conditions, regulatory or other legal provisions, technology or economic conditions which could render the report inaccurate or unreliable. The information and conclusions contained in this report should not be relied upon in the future without the written advice of Mulroy Environmental. In the absence of such written advice of Mulroy Environmental, reliance on the report in the future shall be at the client's own and sole risk. Should Mulroy Environmental be requested to review the report in the future, Mulroy Environmental shall be entitled to additional payment at the then existing rate or such other terms as may be agreed between Mulroy Environmental and the client.
6. The observations and conclusions described in this report are based solely upon the Services which were provided pursuant to the agreement between the client and Mulroy Environmental. Mulroy Environmental has not performed any observations, investigations, studies or testing not specifically set out or required by the contract between the client and Mulroy Environmental. Mulroy Environmental is

not liable for the existence of any condition, the discovery of which would require performance of services not otherwise contained in the Services. For the avoidance of doubt, unless otherwise expressly referred to in the introduction to this report, Mulroy Environmental did not seek to evaluate the presence on or off the site of asbestos, electromagnetic fields, lead paint, heavy metals, radon gas or other radioactive or hazardous materials.

7. The Services are based upon Mulroy Environmental's observations of existing physical conditions at the Site gained from a walk-over survey of the site together with Mulroy Environmental's interpretation of information including documentation, obtained from third parties and from the client on the history and usage of the site. The Services are also based on information and/or analysis provided by independent testing and information services or laboratories upon which Mulroy Environmental was reasonably entitled to rely. The Services clearly are limited by the accuracy of the information, including documentation, reviewed by Mulroy Environmental and the observations possible at the time of the walk-over survey. Further Mulroy Environmental was not authorised and did not attempt to independently verify the accuracy or completeness of information, documentation or materials received from the client or third parties, including laboratories and information services, during the performance of the Services. Mulroy Environmental is not liable for any inaccurate information or conclusions, the discovery of which inaccuracies required the doing of any act including the gathering of any information which was not reasonably available to Mulroy Environmental and including the doing of any independent investigation of the information provided to Mulroy Environmental save as otherwise provided in the terms of the contract between the client and Mulroy Environmental.

8. The environmental monitoring aspects of the Services is a limited sampling of the site at pre-determined borehole and soil vapour locations based on the operational configuration of the site. The conclusions given in this report are based on information gathered at the specific test locations and can only be extrapolated to an undefined limited area around those locations. The extent of the limited area depends on the soil and groundwater conditions, together with the position of any current structures and underground facilities and natural and other activities on site. In addition chemical analysis was carried out for a limited number of parameters [as stipulated in the contract between the client and Mulroy Environmental] [based on an understanding of the available operational and historical information,] and it should not be inferred that other chemical species are not present.

9. Any site drawing(s) provided in this report is (are) not meant to be an accurate base plan, but is (are) used to present the general relative locations of features

ANNEX 1

- SITE SYNOPSIS SAC NO. 002031
- QUALIFYING INTERESTS FOR TWELVE BENS/
GARAUN COMPLEX

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SITE SYNOPSIS

SITE NAME: THE TWELVE BENS/GARRAUN COMPLEX

SITE CODE: 002031

This is an extensive site situated in the north-west of Connemara, dominated by mountainous terrain. The site is bounded to the south by the Connemara Bog Complex, to the east by the Maumturk Mountains and to the north by Killary Harbour. Included within the site are the Twelve Bens mountain range, the mountains to the north of Kylemore (Doughruagh, Garraun and Benchoona), rivers including the Ballynahinch and Owenglin systems and an area of coastal heath and machair near Glassilaun. The site also includes some extensive tracts of lowland blanket bog which are continuous with the mountains. Most of the mountain summits reach a height in excess of 500 m, the highest being Ben Baun in the Twelve Bens which reaches 730 m. The site includes a large portion of the Connemara National Park and a Statutory Nature Reserve at Derryclare Wood.

Geologically, the site can be divided into two distinct parts. The Twelve Bens are composed of resistant quartzite with schists in the valleys while the mountains north of Kylemore are composed of gneiss and various types of sandstones and mudstones. There are also areas of gabbro (Doughruagh and Currywongaun), mica schist (Muckanaght) and marble outcrops (south of Kylemore Lough). The main soil type within the site is peat.

The site is a candidate SAC selected for active blanket bog a priority habitat on Annex I of the E.U. Habitats Directive. The site is also selected as a candidate SAC for, alpine heath, calcareous rocky siliceous rocky and siliceous scree vegetation, lowland oligotrophic lakes, Rhynchosporion and old Oak woodlands all habitats listed on Annex I of the E.U. Habitats Directive. The site is also selected for the following species listed on Annex II of the same directive - Freshwater Pearl Mussel, Atlantic Salmon, Otter and the plant Slender Naiad.

The predominant vegetation type on the site is upland blanket bog/heath dominated by Heather (*Calluna vulgaris*), Deergrass (*Scirpus cespitosus*), Cross-leaved Heath (*Erica cinerea*) and the mosses *Racomitrium lanuginosum* and *Sphagnum capillifolium*). In places this vegetation can be rich in liverwort species such as *Adelanthus lindenbergianus* and *Bazzania pearsonii*. This unusual type of species-rich dwarf shrub heath is almost confined to the mountains of the west of Ireland and Scotland and is particularly well developed in the Twelve Bens. Close to the mountain summits this blanket bog/heath is often very thin with a high proportion of outcropping bedrock.

Another important and widespread habitat is lowland blanket bog dominated by Purple Moor-grass (*Molinia caerulea*), Black Bog-rush (*Schoenus nigricans*), Cross-leaved Heath and the liverwort *Pleurozia purpurea*. These areas of lowland blanket bog usually occur in the valleys between the mountains, e.g. the Gleninagh Valley.

Rhynchosporion vegetation is well represented around pools, in wet hollows and in quaking and flush areas associated with the lowland blanket bog. White Beak-sedge (*Rhynchospora alba*) occurs in association with such species as Bog Cotton (*Eriophorum angustifolium*), Bogbean (*Menyanthes trifoliata*), Black Bog-rush (*Schoenus nigricans*), and a range of bog mosses, including *Sphagnum auriculatum* and *S. cuspidatum*.

The site contains a large range of other habitats, including upland grassland dominated by Sheep's Fescue (*Festuca ovina*) and Mat-grass (*Nardus stricta*), Sessile Oak (*Quercus petraea*) woodland, scree, oligotrophic (nutrient-poor) lakes, rivers, reedbeds, freshwater marshes, coastal heath, machair, sand dune and salt marsh.

A number of rare, Red Data Book plant species are found within the site: Alpine Saw-wort (*Saussurea alpina*), Holly Fern (*Polystichum lonchitis*), Purple Saxifrage (*Saxifraga oppositifolia*), and the legally protected (Flora Protection Order, 1999) Parsley Fern (*Cryptogramma crispa*). These are generally confined to mountain cliffs above 400 m, where a number of other scarce plant species, for example, Alpine Meadow-rue (*Thalictrum alpinum*), are also found. Other Red Data Book species have also been recorded from the site: Marsh Clubmoss (*Lycopodiella inundata*), Corncockle (*Agrostemma githago*) and the legally protected Heath Cudweed (*Omalotheca sylvatica*). The latter two species have not been recorded from the site in recent years. St. Dabeoc's Heath (*Daboecia cantabrica*), a species which in Ireland is restricted to Connemara and south Mayo, occurs commonly within the site.

The suite of lowland lakes that encircle the mountains represent some of the finest oligotrophic lakes in the country and two rare, Red Data Book plant species, Slender Naiad (*Najas flexilis*) and Pillwort (*Pillularia globulifera*) occur. Slender Naiad is rare in Europe and is listed on Annex II of the EU Habitats Directive.

The site contains several small areas of Sessile Oak woodland, a habitat which is particularly rare in Connemara. The best examples on the site of this habitat are found at Kylemore and on the north shore of Derryclare Lough. Derryclare Wood, a Statutory Nature Reserve, has been particularly well studied. It is composed mostly of Sessile Oak, with some Rowan (*Sorbus aucuparia*), Downy Birch (*Betula pubescens*) and occasional Ash (*Fraxinus excelsior*) forming the canopy layer. There is a well-developed lichen and fungus flora present. The fungal parasite, *Hemigrapha astericus*, a native of Australia and South America, was first recorded in the northern hemisphere from this wood. The Kylemore woods, though heavily infested by Rhododendron (*Rhododendron ponticum*), still retain a diverse flora and support interesting communities of mosses and liverworts, including such species as *Radula voluta*, *Lejeunea holtii*, *L. hibernica*, *L. flava* subsp. *moorei*, *Cephalozia hibernica*, *Teleranea nematodes*, *Campylopus setifolius*, *Oxystegus hibernicus*, *Grimmia hartmanii* and *G. funalis*.

Irish Hare, Otter, Freshwater Pearl-mussel and Common Frog have been recorded from the site. These species are protected under the 1976 Wildlife Act. The Owenglin River and Ballynahinch system supports an important population of Salmon and salmon nursery grounds. Arctic Charr, a species listed in the Irish Red

Data Book as threatened in Ireland, has been recorded from Lough Inagh, Kylemore Lough, Lough Muck and Lough Fee.

Birdlife reported from the site includes Raven, Wheatear, Stonechat, Meadow Pipit, Red Grouse, a declining species of Heather moorland, Snipe, Curlew, Woodcock, Hooded Crow, Twite, Ring Ouzel (the latter two both Irish Red Data Book species) and the EU Birds Directive Annex I species, Peregrine, Merlin, Golden Plover and Chough. The site provides excellent habitat for Peregrine and this species has traditionally bred at several locations within it.

The upland vegetation of the site is most threatened by overstocking with sheep and by afforestation with coniferous species.

The Twelve Bens/Garraun Complex includes a wide variety of habitat types, eight of which are listed on Annex I of the EU Habitats Directive, and populations of many rare or scarce plant and animal species. It is one of the largest and most varied sites of conservation interest in Ireland.

6.10.2006

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NATURA 2000
STANDARD DATA FORM

FOR SPECIAL PROTECTION AREAS (SPA)

FOR SITES ELIGIBLE FOR IDENTIFICATION AS SITES OF
COMMUNITY IMPORTANCE (SCI)

AND

FOR SPECIAL AREAS OF CONSERVATION (SAC)

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1. SITE IDENTIFICATION

<i>1.1. TYPE</i>	<i>1.2. SITE CODE</i>	<i>1.3. COMPILATION DATE</i>	<i>1.4. UPDATE</i>
B	IE0002031	199511	

1.5. RELATION WITH OTHER NATURA 2000 SITES:**1.6. RESPONDENT(S):**

National Parks & Wildlife Service of the Department of the Environment, Heritage and Local Government. 7 Ely Place, Dublin 2, Ireland.

1.7. SITE NAME:

The Twelve Bens/Garraun Complex

1.8. SITE INDICATION AND DESIGNATION/CLASSIFICATION DATES:**DATE SITE PROPOSED AS ELIGIBLE AS SCI:**

199805

DATE CONFIRMED AS SCI:**DATE SITE CLASSIFIED AS SPA:****DATE SITE DESIGNATED AS SAC:**

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2. SITE LOCATION

2.1. SITE CENTRE LOCATION

LONGITUDE

W 9 52 45

W/E (Greenwich)

LATITUDE

53 32 18

2.2. AREA (HA):

16170.08

2.3. SITE LENGTH (KM):

2.4. ALTITUDE (M):

MINIMUM

0

MAXIMUM

730

MEAN

350

2.5. ADMINISTRATIVE REGION:

NUTS CODE

IE013

REGION NAME

West

% COVER

99

Marine area not covered by a NUTS-region

2.6. BIOGEOGRAPHIC REGION:

Alpine

Atlantic

Boreal

Continental

Macaronesian

Mediterranean

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3. ECOLOGICAL INFORMATION

3.1. HABITAT types present on the site and assessment for them:

ANNEX I HABITAT TYPES:

CODE	%COVER	REPRESENTATIVITY	RELATIVE SURFACE	CONSERVATION STATUS	GLOBAL ASSESSMENT
7130	44	B	B	C	C
3110	6	A	B	A	A
8220	2	A	B	A	A
7150	1	A	C	B	A
91A0	1	A	B	B	A
4060	1	B	B	B	B
8110	1	A	B	A	A
8210	1	A	B	A	A

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3.2. SPECIES

covered by Article 4 of Directive 79/409/EEC

and

listed in Annex II of Directive 92/43/EEC

and

site assessment for them

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3.2.a. BIRDS listed on Annex I of Council directive 79/409/EEC

CODE	NAME	POPULATION			SITE ASSESSMENT		
		Resident	Migratory		Population	Conservation	Isolation
		Breed	Winter	Stage			
A103	Falco peregrinus	3	p		C	A	C

3.2.b. Regularly occurring Migratory Birds not listed on Annex I of Council directive 79/409/EEC

3.2.c. MAMMALS listed on Annex II of Council directive 92/43/EEC

CODE	NAME	POPULATION			SITE ASSESSMENT		
		Resident	Migratory		Population	Conservation	Isolation
		Breed	Winter	Stage			
1355	Lutra lutra	p			C	A	C

3.2.d. AMPHIBIANS and REPTILES listed on Annex II of Council directive 92/43/EEC

CODE	NAME	POPULATION			SITE ASSESSMENT		
		Resident	Migratory		Population	Conservation	Isolation
1833	Najas flexilis	P		B	A	C	F

3.2.e. FISHES listed on Annex II of Council directive 92/43/EEC

CODE	NAME	POPULATION			SITE ASSESSMENT		
		Resident	Migratory		Population	Conservation	Isolation
		Breed	Winter	Stage			
1106	Salmo salar	C			C	B	C

3.2.f. INVERTEBRATES listed on Annex II of Council directive 92/43/EEC

CODE	NAME	POPULATION			SITE ASSESSMENT		
		Resident	Migratory		Population	Conservation	Isolation
		Breed	Winter	Stage			
1029	Margaritifera margaritifera	P			B	B	B

3.2.g. PLANTS listed on Annex II of Council directive 92/43/EEC

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3.3. Other Important Species of Flora and Fauna

GROUP	SCIENTIFIC NAME	POPULATION	MOTIVATION
B M A R F I P			
P	Pilularia globulifera	P	A
P	Saussurea alpina	P	A
P	Omalotheca sylvatica	P	A
P	Cryptogramma crispa	R	A
P	Agrostemma githago	P	A
P	Lycopodiella inundata	P	A
P	Polystichum lonchitis	P	A
I	Stethophyma grossum	P	D
I	Conops vesicularis	P	D
I	Epistrophe nitidicollis	P	D
I	Ctenophora atrata	P	D
F	Salvelinus alpinus	P	A
A	Rana temporaria	P	A
M	Lepus timidus hibernicus	P	A
A	Rana temporaria	P	C
M	Lepus timidus hibernicus	P	B
M	Lepus timidus hibernicus	P	C

(B = Birds, M = Mammals, A = Amphibians, R = Reptiles, F = Fish, I = Invertebrates, P = Plants)

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4. SITE DESCRIPTION

4.1. GENERAL SITE CHARACTER:

Habitat classes	% cover
Marine areas, Sea inlets	1
Coastal sand dunes, Sand beaches, Machair	1
Inland water bodies (Standing water, Running water)	7
Bogs, Marshes, Water fringed vegetation, Fens	46
Heath, Scrub, Maquis and Garrigue, Phygrana	34
Humid grassland, Mesophile grassland	1
Broad-leaved deciduous woodland	1
Inland rocks, Scree, Sands, Permanent Snow and ice	9
Total habitat cover	100 %

Other site characteristics

An extensive area incorporating the predominantly quartzite mountains of the Twelve Bens and encompassing a range of habitat types, including blanket bog, oligotrophic lakes, heath, exposed rock and scree, acid grassland and remnants of oak woodland. The northern part of the site is bounded by coastline and includes rocky shore and small areas of sandy beach, machair, tidal river, mud flats and saltmarsh. Several river headstreams are also within the site.

4.2. QUALITY AND IMPORTANCE:

One of the largest and most varied sites of conservation interest in Ireland, including the scenically renowned Twelve Bens mountain range, which support extensive areas of blanket bog, heath and exposed rock and a range of arctic-alpine plants. Rhynchosporion vegetation is well represented in the wet areas of blanket bog. The suite of lowland lakes that encircle the mountains represent some of the finest oligotrophic lakes in the country and support several rare species such as *Pilularia globulifera* and populations of *Salvelinus alpinus*. The site also has a significant population of *Lutra lutra*, and an important population of *Salmo salar*. The site includes a large portion of the Connemara National Park and a National Nature Reserve at Derryclare Wood. Additional areas are included in the site under EU LIFE funded restoration projects.

4.3. VULNERABILITY

Large tracts of blanket bog are currently overgrazed by sheep and are vulnerable to erosion, a problem that could be accentuated by the striping of commonage which is taking place in some areas. Other threats are the further expansion of commercial afforestation on blanket bog, and the development of fish-farming in the oligotrophic lakes.

4.4. SITE DESIGNATION:

4.5. OWNERSHIP

National Parks and Wildlife Service (14%)
 Department of the Environment (9%)
 Privat : Multiple (77%)

4.6. DOCUMENTATION

Central Fisheries Board (2001). Irish Salmon Catches 2000. <http://www.cfb.ie/>: February 2001.

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Tangney, D.E. & Fairley, J.S. (1994). Otter signs and diet in Connemara National Park and its environs. Irish Naturalists' Journal 24: 434 -440.

Webb, D.A. and Scannell, M.J.P. (1983). Flora of Connemara and the Burren. Royal Dublin Society and Cambridge University Press, Cambridge.

5. SITE PROTECTION STATUS AND RELATION WITH CORINE BIOTOPES

5.1. DESIGNATION TYPES at National and Regional level:

CODE	% COVER
IE01	1
IE03	13

5.2. RELATION OF THE DESCRIBED SITE WITH OTHER SITES:

designated at National or Regional level:

TYPE CODE	SITE NAME	OVERLAP TYPE	% COVER
IE01	Derryclare Nature Reserve	+	1
IE03	Connemara National Park	*	13

designated at International level:

5.3. RELATION OF THE DESCRIBED SITE WITH CORINE BIOTOPE SITES:

CORINE SITE CODE	OVERLAP TYPE	% COVER
800000208		
800000182		
800000243		

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6. IMPACTS AND ACTIVITIES IN AND AROUND THE SITE

6.1. GENERAL IMPACTS AND ACTIVITIES AND PROPORTION OF THE SURFACE OF THE SITE AFFECTED

IMPACTS AND ACTIVITIES WITHIN the site

CODE	INTENSITY	% OF SITE	INFLUENCE
140	A B C	90	+ 0 -
200	A B C	1	+ 0 -
220	A B C	5	+ 0 -
230	A B C	10	+ 0 -
301	A B C	1	+ 0 -
311	A B C	1	+ 0 -
312	A B C	1	+ 0 -
501	A B C	1	+ 0 -
502	A B C	1	+ 0 -
622	A B C	5	+ 0 -
900	A B C	30	+ 0 -
954	A B C	1	+ 0 -

IMPACTS AND ACTIVITIES AROUND the site

CODE	INTENSITY	INFLUENCE
140	A B C	+ 0 -
161	A B C	+ 0 -
311	A B C	+ 0 -
312	A B C	+ 0 -
403	A B C	+ 0 -
502	A B C	+ 0 -
610	A B C	+ 0 -
622	A B C	+ 0 -

6.2. SITE MANAGEMENT AND PLANS

BODY RESPONSIBLE FOR THE SITE MANAGEMENT

National Parks and Wildlife Service (c. 14%)
 Private ownership (77%)
 Department of Environment (9%)

SITE MANAGEMENT AND PLANS

A management plan is being prepared.

7. MAPS OF THE SITE

- *Physical map*

- *Aerial photograph(s) included:*

8. SLIDES

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Conservation Objectives for The Twelve Bens/Garraun Complex SAC [002031]

The overall aim of the Habitats Directive is to maintain or restore the favourable conservation status of habitats and species of community interest. These habitats and species are listed in the Habitats and Birds Directives and Special Areas of Conservation and Special Protection Areas are designated to afford protection to the most vulnerable of them. These two designations are collectively known as the Natura 2000 network.

European and national legislation places a collective obligation on Ireland and its citizens to maintain habitats and species in the Natura 2000 network at favourable conservation condition. The Government and its agencies are responsible for the implementation and enforcement of regulations that will ensure the ecological integrity of these sites.

The maintenance of habitats and species within Natura 2000 sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level.

Favourable conservation status of a habitat is achieved when:

- its natural range, and area it covers within that range, are stable or increasing, and
- the specific structure and functions which 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 dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats, and
- the natural range of the species is neither being reduced nor is 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.

Objective: To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected:

- ◆ [1029] *Margaritifera margaritifera*
- ◆ [1106] *Salmo salar* (only in fresh water)
- ◆ [1355] *Lutra lutra*
- ◆ [1833] *Najas flexilis*
- ◆ [3110] Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*)
- ◆ [4060] Alpine and Boreal heaths
- ◆ [7130] Blanket bogs (* if active only)
- ◆ [7150] Depressions on peat substrates of the *Rhynchosporion*
- ◆ [8110] Siliceous scree of the montane to snow levels (*Androsacetalia alpinae* and *Galeopsietalia ladani*)
- ◆ [8210] Calcareous rocky slopes with chasmophytic vegetation
- ◆ [8220] Siliceous rocky slopes with chasmophytic vegetation
- ◆ [91A0] Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles

Citation:

NPWS (2011) Conservation objectives for The Twelve Bens/Garraun Complex SAC [002031]. Generic Version 3.0. Department of Arts, Heritage & the Gaeltacht.

For more information please go to: www.npws.ie/protectedsites/conservationmanagementplanning

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SECTION F. DECLARATION

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SECTION F: DECLARATION

Declaration

I hereby make application for a Certificate of Authorisation pursuant to the provisions of the Waste Management (Certification of Historic Unlicensed Waste Disposal and Recovery Activity) Regulations, 2008 (S.I. No. 524 of 2008).

I certify that the information given in this application is truthful, accurate and complete and the enclosed Risk Assessment is a full and complete representation of all relevant work carried out in relation to the site in question.

I give consent to the EPA to copy this application for its own use and to make it available for inspection and copying by the public, both in the form of paper files available for inspection at EPA offices and via the EPA's website.

This consent relates to this application itself and to any further information or submission, whether provided by me as Applicant, any person acting on the Applicant's behalf, or any other person.

Signed by: _____
(on behalf of the organisation)

Date: / / 2020

Print signature name: COLIN RYDER

Position in organisation: LANDFILL MANAGER

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