



APPROPRIATE ASSESSMENT NATURA IMPACT STATEMENT

Proposed Application for the construction of a composting toilet within the
Lower Lighthouse Complex, Skellig Michael, Co. Kerry

Prepared on behalf of the Office of Public Works

by

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Introduction and Project Rationale

1.1 Introduction

Envirico have been commissioned by Office of Public Works (OPW) to provide ecological consultancy services for the proposed development of OPW Workers Toilet, Skellig Michael, Co. Kerry. A full description of the proposed works is detailed in Section 4.3.

In accordance with the EC Habitats Directive 92/43/EEC (hereafter 'The Habitats Directive') a Screening for Appropriate Assessment (AA) must be undertaken for all projects and/or plans to assess whether there is potential for Likely Significant Effects (LSEs) from the project or plan on European sites (Natura 2000 sites); comprising Special Areas of Conservation (SACs) and Special Protection Areas (SPAs). The proposed development site is located within the island of Skellig Michael, Co. Kerry, with the immediate surrounds typically made up of a lighthouse complex, workers huts and coastal habitats. No surface water environments are within the project boundary. A location map is presented in Figure 1.

1.2 Project Rationale

The proposed development consists of the construction of a composting toilet facility within the lower lighthouse compound. External pipe works associated with old oil tanks are to be removed and 2.8m of the existing bund wall is to be demolished. The complete structure will have a total footprint of 2.76m x 2.7m. This includes the external stairs. The toilets are necessary to provide adequate sanitary conditions for the seasonal workers on Skellig Michael.

1.3 Statement of Authority

This NIS Report has been prepared by Maurice O Connor, Environmental Consultant. Maurice holds BSc (Hons) degree in Wildlife Biology from Institute of Technology Tralee and an MSc in Ecological Assessment from National University of Ireland Cork (UCC). Maurice is an experienced ecological consultant with over 7 years' professional experience in Ireland, working independently and as an employee within consultancy. He has strong generalist ecological field skills in terrestrial and riparian environments and through his experience can demonstrate undertaking a range of ecological surveys including habitat, invasive and protected species survey, delivering initial site appraisals and identification of ecological constraints to inform Ecological Impact Assessments (EclIA) and AA. Maurice has undertaken ecological assessments and surveys on a variety of project types (e.g. road schemes, waste, water, energy and housing) involving survey, mitigation and enhancement. During his time as an environmental consultant, Maurice has completed numerous AA assessments for both plans and projects.

2. The Appropriate Assessment Process

2.1 Legislative Context for Appropriate Assessment

Legislation 42 of the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. 437 of 2011) (as amended) transposes Article 6 of the Habitats Directive (92/43/EEC) into Irish law. The regulations require that where a public authority wishes to progress a project (which is not directly connected with or necessary to the management of the site as a European Site), a screening for Appropriate Assessment (AA) of the project must be carried out by the public authority to assess, in view of best scientific knowledge and in view of the conservation objectives of the site, if that project, individually or in combination with other plans or projects is likely to have a significant effect on the European site. AA screening is required under Article 6(3) of European Union Council Directive 92/43/EEC (also known as the Habitats Directive), section 177U of the Planning and Development Act 2000 to 2018 and amendments (Amendment of Part XAB (appropriate assessment)).

In accordance with the requirements of the Habitats Directive (92/43/EEC) and the Birds Directive (2009/147/EC), Member States have identified a network of sites of conservation importance, hosting habitats and/or species identified in the Directives as needing to be either maintained at or returned to favourable conservation status. These sites are known as the Natura 2000 network and in Ireland, Natura 2000 sites comprise areas designated as Special Areas of Conservation (SACs), candidate Special Areas of Conservation (cSACs), Special Protection Areas (SPAs) and candidate Special Protection Areas (cSPAs).

These Directives require that where a project is likely to have a significant effect on a Natura 2000 Site, while not directly connected with or necessary to the nature conservation management of the site, it shall be subject to 'Appropriate Assessment' to identify any implications for the site in view of the site's conservation objectives. Specifically, Article 6(3) of the Habitats Directive states:

“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”.

Article 6(4) states:

“If, in spite of a negative assessment of the implications for the [Natura 2000] 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, Member States 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.”

This screening for Appropriate Assessment has been carried out in accordance with the following European Commission Guidance:

EC (2000 & 2018) ‘Managing Natura 2000 Sites: The Provisions of Article 6 of the ‘Habitats’ Directive 92/43/EEC’;

EC (2001) ‘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’;

NPWS, DEHLG (2009 & 2010). ‘Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities’

European Commission (2006). ‘Nature and Biodiversity Cases: Ruling of the European Court of Justice’.

2.2 Stages in Screening and Appropriate Assessment

Screening for Appropriate Assessment (AA) is one of four distinct stages of the appropriate assessment process, as outlined in the European Commission Guidance document (2001). Within these stages the potential of significant impacts/effects upon a Natura 2000 site will be assessed and detailed. The four stages of an AA are summarised below. Article 6(3) of the Habitats Directive, which details this assessment process, is implemented into law in Ireland through the provisions of Sections 177U and 177V of the ‘Planning and Development Act 2000 to 2018’.

All potential effects between activities associated with the proposed development and the ecological components of European sites must be considered. This includes potential effects on mobile species notably, birds, mammals, invertebrates, and migratory fish.

If the prospect of LSEs occurring cannot be excluded on the basis of objective information, the project is taken forward to the next stage of the process, Appropriate Assessment. At Screening, the burden of evidence is to show, on the basis of objective information, and beyond reasonable scientific doubt, that the project will have no LSEs on a European site. If the effect may be significant, or is not known, it would trigger the need for Appropriate Assessment. The entire process can be broken down into four stages (EC, 2001), as outlined below:

Stage 1 - Screening: Screening for an AA, in relation to the construction, management/operation and decommissioning of a specific proposed plan or project, shall be completed in order to assess whether

said development, either individually or in combination with others, is likely to have a significant effect upon Natura 2000 sites locally, regionally or nationally, in view of these site's conservation objectives.

Stage 2 - Appropriate Assessment: The competent authority detailing the AA shall, under Article 6(3) and Section 177V of the 'Planning and Development Act 2000 to 2018', make a decision as to whether or not the proposed development would affect or impact upon the integrity of a Natura 2000 site. Where there are adverse effects on site integrity identified, mitigation measures are proposed, as appropriate, to avoid adverse effects, and as such a Natura Impact Statement is then required. For projects, the AA process is documented within a Natura Impact Statement (NIS). This is provided to the competent authority by the applicant, to facilitate an informed assessment of the project.

Stage 3 - Assessment of Alternative Solutions: If following AA, including proposal of mitigation, adverse effects on site integrity remain, or uncertainty remains, an Assessment of Alternatives is required. This process examines alternative ways of achieving the objectives of the project or plan that avoid adverse impacts on the integrity of the European site.

Stage 4 - Assessment where no alternative solutions exist: Where alternative solutions, locations, etc. are absent, or if such solutions are likely to have increased levels of impact upon Natura 2000 sites, the competent authority must establish whether or not the plan or project can be considered as necessary for Imperative Reasons of overriding public interest (IROPI).

2.3 The Likely Significant Effect test

Screening is underpinned by an interpretation of Likely Significant Effect (LSE), as this interpretation provides the benchmark for a finding of likely effects. Any assessment of significance must satisfy the principles that underpin a satisfactory determination for LSE with regard to the accumulation of impacts and an understanding of the nature, probability and severity of potential impacts. The terms 'likely' and 'significance' have been defined variously by governments and through the courts. The following sections seek to provide clarification on the current interpretation of these key terms as determined by recent guidance and case law.

2.3.1 An interpretation of 'likely'

European case law has established that the benchmark requirement of 'likely' should not be regarded as a measure of probability in the context of an AA. Rather, a LSE finding is an acknowledgment that the risk of a significant effect occurring exists. This approach is consistent with the findings in the Waddenzee judgement, which found that "if it cannot be excluded, on the basis of objective information, that it will have a significant effect on that site" then a LSE finding is appropriate.

More recently, this position was upheld in the European Court of Justice (ECJ) in Case C-258/11 (Sweetman v An Bord Pleanála (Ireland)), where the judgment interprets “likely” to mean “may”; “the test is set at a lower level” and “there is no need to establish such an effect; it is merely necessary to determine that there may be such an effect”. In cases where there is a determination that there is no significant effect, the Waddenzee judgment establishes that there must remain “no reasonable scientific doubt as to the absence of such effects.”

2.3.2 An interpretation of ‘significant’

It was clarified in the ECJ Case C-127/02 (the Waddenzee judgment) that the measure of significance should be made against the ecological objectives for which the site was designated: “where a plan or project is likely to undermine the site’s conservation objectives, it must be considered likely to have a significant effect on that site”.

The proposed works are not directly connected with or necessary to the management of any European site therefore Screening for AA is required. This involves the following:

- Proposed development description
- European site(s) identification, qualifying interests and conservation objectives
- Ecology baseline conditions within and in close proximity to proposed development
- Assessment of likely effects
- Screening conclusion.

3. Screening Methodology

3.1 Desktop review

An ecological desk review was undertaken on the 22nd of November 2021 in order to assess the potential impacts of the proposed project, as detailed in Section 4.1 of this document. The purpose of this review is to collate available data and information relating to the site and relevant Natura 2000 sites. Within this review, sources, publications, and datasets that were consulted included.

- Aerial photography and 1:50000 mapping
- National Parks and Wildlife Service (NPWS)
- Details and qualifying interests of European sites

3.1.1 Zone of Influence (Zoi)

DHLGH Guidance states that screening for Appropriate Assessment should be carried out for any European site within the likely Zone of Influence of a plan or project. For projects, the guidance recommends that the Zone of Influence must be evaluated on a case-by-case basis regarding the nature, size and location of the project, and the sensitivities of the ecological receptors, and the potential for in combination effects. Projects have the potential to impact on European sites beyond the confines of the individual sites themselves.

The Zone of Influence of a project is the area in which qualifying interests are present which are sensitive to the ecological impacts that may be caused by the activities associated with the project. The zone of influence will therefore vary relative to the scale of the impact and relative to the ecology of the sensitive receptor.

The potential Zone of Influence is defined as:

- Areas directly within the land take for the proposed development
- Areas which will be temporarily affected
- Areas likely to be impacted by hydrological disruption
- Areas where there is a risk of pollution and disturbance (e.g. noise)

To establish the zone of influence, nationally available data on protected habitats and species was mapped using GIS. This data was interrogated for any physical, hydrological, or ecological connectivity to the activities associated with the proposed toilet construction works.

The desk-based assessment of available records of protected species and habitats included the following sources:

- Conservation Status Assessment Reports [1] (CSARs), Backing Documents and Maps prepared in accordance with Article 17 of the Habitats Directive
- Published and unpublished NPWS reports on protected habitats and species including Irish Wildlife Manual reports, Species Action Plans, and Conservation Management Plans
- Existing relevant mapping and databases e.g. waterbody status, species and habitat distribution etc. (sourced from the Environmental Protection Agency - <http://gis.epa.ie/>, the National Biodiversity Data Centre - <http://maps.biodiversityireland.ie> and the National Parks and Wildlife Services - <http://www.npws.ie/mapsanddata/>)

3.1.2 European Sites within Zone of Influence

The Skelligs SPA (004007) is the only Natura 2000 site within the Zone of Influence, this being the area within which there is potential for impacts from the project works. Further Natura 2000 sites within a 15km radius are detailed in Table 1 below. These sites have been assessed for ecological connectivity with the project. Owing to small scale of the project, the remote island nature of the site and lack of connectivity there is no potential for likely significant effect.

Table 1 Natura 2000 sites within 15km

Natura 2000 Site	Site Code	Distance from Works (Km)
Valencia Harbour/Portmagee Channel SAC	002262	14
Puffin Island SPA	004003	11
Skelligs SPA	004007	0
Iveragh Peninsula SPA	004154	13

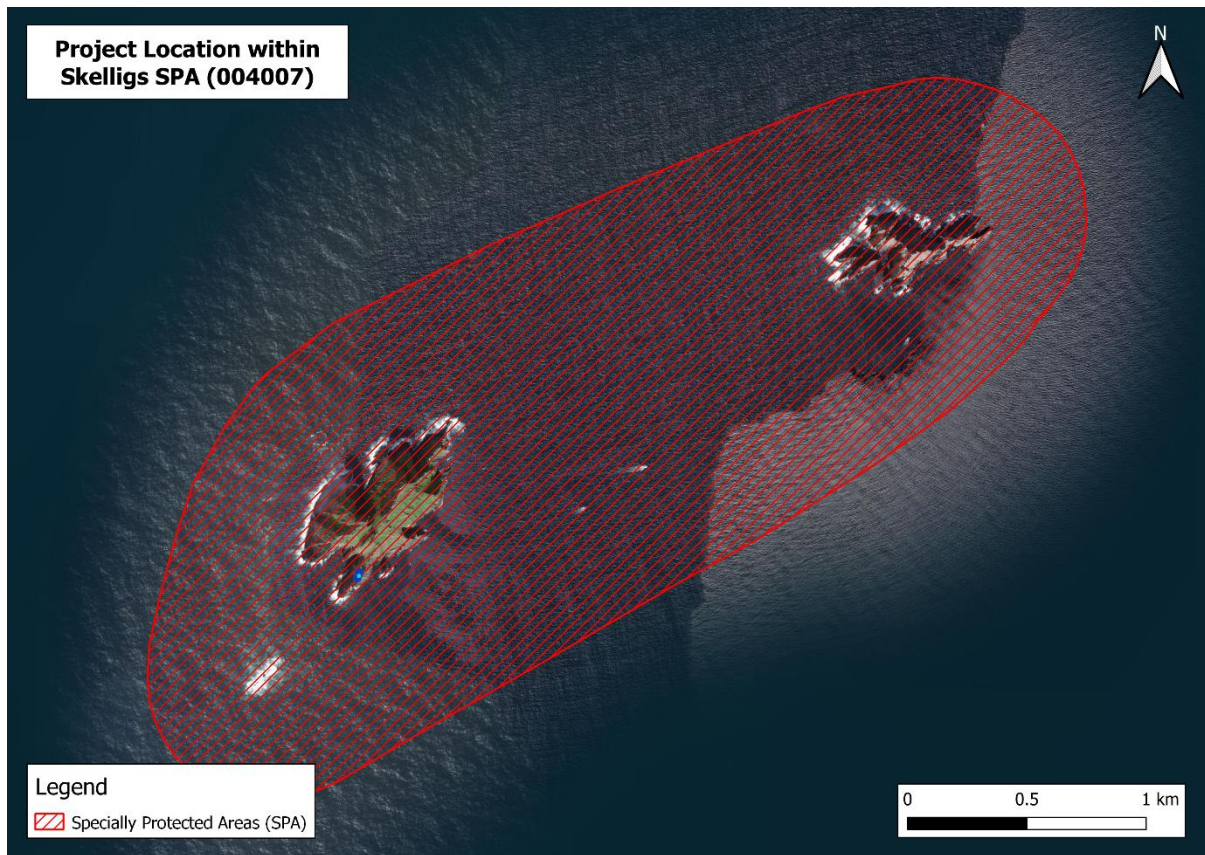


Figure 1: Location of the proposed development within Skelligs SPA (004007)

Qualifying features of the Skelligs SPA (004007) are displayed in Table 2 below.

Table 2 Skelligs SPA (004007) Special Conservation Interests (SCIs)

Special Conservation Interests of Skelligs SPA	Species Code
Fulmar (<i>Fulmarus glacialis</i>)	[A009]
Manx Shearwater (<i>Puffinus puffinus</i>)	[A013]
Storm Petrel (<i>Hydrobates pelagicus</i>)	[A014]
Gannet (<i>Morus bassanus</i>)	[A016]
Kittiwake (<i>Rissa tridactyla</i>)	[A188]
Guillemot (<i>Uria aalge</i>)	[A199]
Puffin (<i>Fratercula arctica</i>)	[A204]

The site comprises Great Skellig and Little Skellig islands. These highly exposed and isolated islands, which are separated by a distance of 3 km, are located in the Atlantic some 14 km and 11 km (respectively) off the County Kerry mainland. The geology of the islands is of Old Red Sandstone, with a little slate and veins of white quartzite. Both islands are precipitous rocky sea stacks, Great Skellig rising to 218 m and Little Skellig to 134 m. Great Skellig supports a sparse maritime flora on shallow soils. Common plant species include Thrift (*Armeria maritima*), Sea Campion (*Silene maritima*) and Rock Sea-spurrey (*Spergularia rupicola*), with patches of Red Fescue (*Festuca rubra*), Dock (*Rumex sp.*)

and Sea Mayweed (*Matricaria maritima*) occurring frequently. Its lichen flora is notable for the number of rarities that occur, including several species not recorded elsewhere in Ireland. Little Skellig is largely unvegetated, due both to the low soil cover and to the effect that the nesting birds have on the vegetation. However, Sea Mayweed occurs on ledges that are too small for Gannets, and Tree Mallow (*Lavatera arborea*), a local species in Ireland, has been recorded. The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: Fulmar, Manx Shearwater, Storm Petrel, Gannet, Kittiwake, Guillemot and Puffin. It is also of special conservation interest for holding an assemblage of over 20,000 breeding seabirds. The Skelligs comprise one of the most important seabird colonies in the country for populations and species diversity. Great Skellig has an internationally important population of Storm Petrel (9,994 pairs in 2002), with birds nesting both in the stonework associated with the monastic settlement and in natural crevices amongst the scree and rock. Little Skellig is best known for its long established and internationally important Gannet colony, with 29,683 pairs in the last full census in 2004. This is by far the largest colony in Ireland and one of the largest in the world. Great Skellig also has one of the largest Puffin colonies in the country, with 6,000 pairs estimated in 2002. Other seabird species which occur on the islands in nationally important numbers are as follows: Fulmar (830 pairs), Manx Shearwater (902 pairs), Kittiwake (1,035 pairs) and Guillemot (1,652 pairs) – all data from 2002. Razorbill (283 pairs - five year mean between 1998 and 2002) occur but below the threshold of national importance. Great Skellig is a traditional site for Chough, though the relatively small size of the island supports only one nesting pair. Peregrine has also nested in some years. The breeding seabirds on the Skelligs have been fairly well documented over the years, with references to the Gannets dating back to the 1700s. Owing to the high importance of the islands for birds, each has been designated a Statutory Nature Reserve. In addition, the non-governmental organisation, Bird Watch Ireland, holds a long-term lease on Little Skellig. This site is one of the top five seabird sites in the country and is of international importance on account of both the assemblage of over 10,000 pairs of breeding seabirds and the individual populations of Storm Petrel and Gannet. The site also holds nationally important populations of a further five species of breeding seabird. Also of note is the regular presence of three species, Storm Petrel, Chough and Peregrine, which are listed on Annex I of the E.U. Birds Directive.

4 Screening for Appropriate Assessment

4.1 Description of Project

The proposed development consists of the construction of a composting toilet facility within the lower lighthouse compound on Skellig Michael. Existing oil tanks and associated external pipe work are to be removed and 2.8m of the existing bund wall is to be demolished. The complete structure will have a total footprint of 2.76m x 2.7m. This includes the external stairs.

4.2 Description of project location

Skellig Michael is an island off southwest Ireland in the Atlantic Ocean. It lies approximately 12km off the Iveragh Peninsula in Co. Kerry. The island forms part of the Skelligs SPA and is a World Heritage being home to an Early Christian settlement with well-preserved access steps, a monastery, a remote hermitage and other monastic structures. The island's isolation has helped to preserve and protect these monastic remains (DHLGH & OPW, 2020)

4.3 Baseline Characterisation

4.3.1 Overview of Baseline Data

The site of the proposed works is located in the lower lighthouse compound, Skellig Michael within the Skelligs SPA (004007). This island is a World Heritage Site and Statutory Nature Reserve which is subject to regular tourist footfall as well as maintenance works teams throughout the summer season. Data which informs this report was gathered in summer 2021 from mid-May to October.

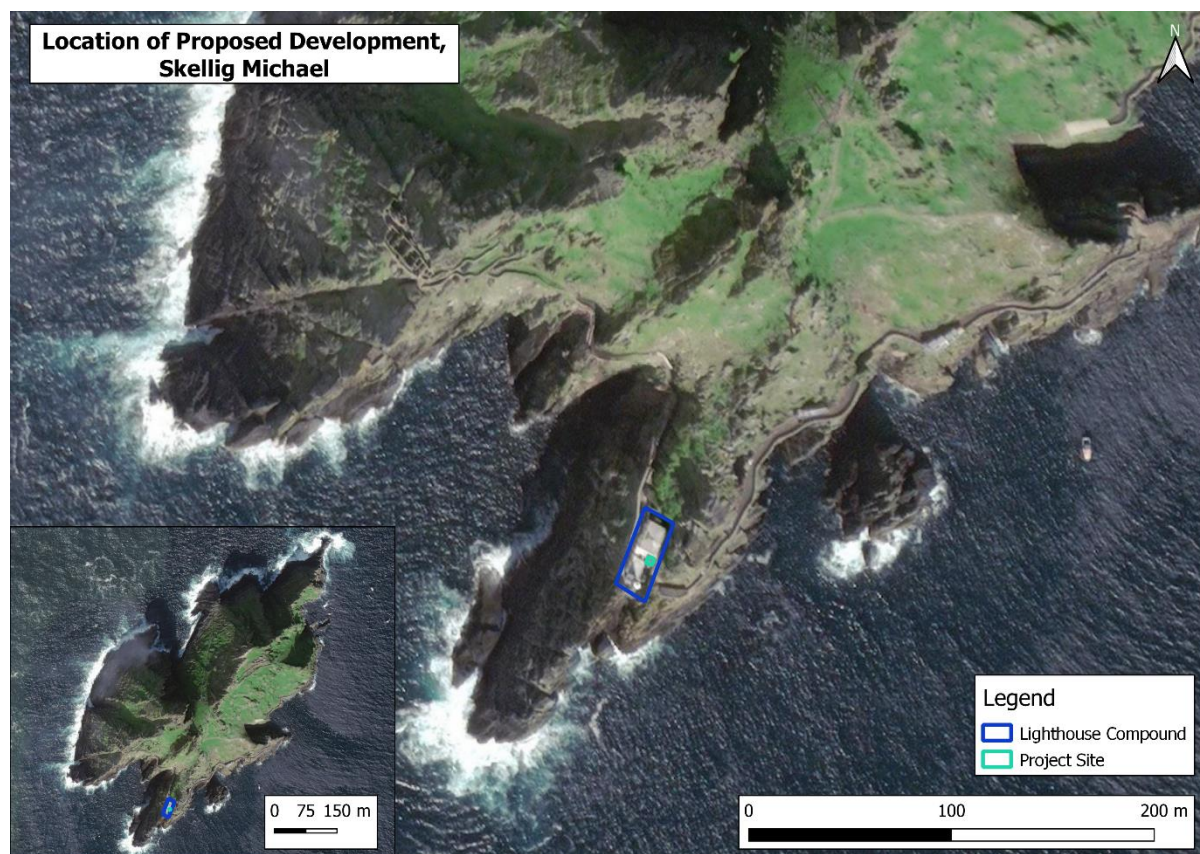


Figure 2: Location of the proposed development

4.3.2 Habitats

Rocky Sea Cliffs CS1

Rocky cliffs of varying heights surround the island. The bases of these cliffs tend to be smoother where erosion is evident and exposed bed shows signs of past collapses. The upper sections comprise of more ledges and crevices. Vegetation has built up in several areas and is usually dominated by Sea Campion or Thrift, in less exposed areas the vegetation varies and grasses such as Red Fescue and Yorkshire Fog are found. These cliffs provide nesting habitat for several bird species listed on the Skelligs SPA (004007) conservation objectives: Fulmar (*Fulmaris glacialis*), Kittiwake (*Rissa tridactyla*), Guillemot (*Uria aalge*) and Puffin (*Fratercula arctica*).

Stonewalls and Other Stonework BL1

Old stone walls and stairways of an ancient monastic settlement are found across the site and these provide nesting habitat for several bird species listed on the Skelligs SPA (004007) conservation objectives. The primary protected species associated with this type of habitat which is listed on the conservation objectives of the site is the Storm Petrel (*Hydrobates pelagicus*).

Buildings and artificial surfaces BL3

Buildings on the island consist of workers huts and associated storage buildings, a helipad, lighthouse and associated outbuildings and a public composting toilet. These structures provide an important habitat for lichens and bryophytes on the island.

Sea Walls Piers and Jetties CC1

This habitat comprises of the landing pier which is located at Blind Man's Cove.

Open Marine Water MW1

Open marine water completely surrounds the island and is important for a variety of marine species.

Sea Inlets and Bays MW2

There are several naturally occurring inlets and bays located around the island including the lading at the North Steps, Seals Cove and Blind Man's Cove.

4.3.3 Mammals

An assessment of the likely presence of protected and notable mammal and aquatic species, listed on Annexes II, IV and V of the Habitats Directive and under the Wildlife Act 1976-2012 was undertaken. Records of terrestrial mammals were searched for through The National Biodiversity Data Centre (NBDC) and the most recent records taken from ecological survey work carried out on the island from May to October 2021 and are listed in Table 3 below.

Table 3: Mammals recorded on/from the site

Species (Common name)	Species (Scientific name)	Date recorded	Designation
Common Pipistrelle	<i>Pipistrellus pipistrellus</i>	31-Aug-2021	Protected Species: EU Habitats Directive Protected Species: EU Habitats Directive >> Annex IV Protected Species: Wildlife Acts
Soprano Pipistrelle	<i>Pipistrellus pygmaeus</i>	04-Sept-2021	Protected Species: EU Habitats Directive Protected Species: EU Habitats Directive >> Annex IV Protected Species: Wildlife Acts
Nathusius' Pipistrelle	<i>Pipistrellus nathusii</i>	03-Sept-2021	Protected Species: EU Habitats Directive Protected Species: EU Habitats Directive >> Annex IV Protected Species: Wildlife Acts
Leisler's Bat	<i>Nyctalus leisleri</i>	04-Sept-2021	Protected Species: EU Habitats Directive Protected Species: EU Habitats Directive >> Annex IV Protected Species: Wildlife Acts
Grey Seal	<i>Halichoerus grypus</i>	23-Aug-2021	Protected Species: EU Habitats Directive Protected Species: EU Habitats Directive >> Annex II Protected Species: EU Habitats Directive >> Annex V Protected Species: Wildlife Acts

Bottlenose Dolphin	<i>Tursiops truncatus</i>	23-Jun-2021	Protected Species: EU Habitats Directive Protected Species: EU Habitats Directive >> Annex II Protected Species: EU Habitats Directive >> Annex IV Protected Species: Wildlife Acts
Common Dolphin	<i>Delphinus delphis</i>	23-Aug-2021	Protected Species: EU Habitats Directive Protected Species: EU Habitats Directive >> Annex IV Protected Species: Wildlife Acts
Risso's Dolphin	<i>Grampus griseus</i>	23-Aug-2021	Protected Species: EU Habitats Directive Protected Species: EU Habitats Directive >> Annex IV Protected Species: Wildlife Acts
Harbour Porpoise	<i>Phocoena phocoena</i>	23-Aug-2021	Protected Species: EU Habitats Directive Protected Species: EU Habitats Directive >> Annex II Protected Species: EU Habitats Directive >> Annex IV Protected Species: Wildlife Acts Threatened Species: OSPAR Convention
Fin Whale	<i>Balaenoptera physalus</i>	04-Aug-2021	Protected Species: EU Habitats Directive Protected Species: EU Habitats Directive >> Annex IV Protected Species: Wildlife Acts
Humpback Whale	<i>Megaptera novaeangliae</i>	20-Jul-2021	Protected Species: EU Habitats Directive Protected Species: EU Habitats Directive >> Annex IV Protected Species: Wildlife Acts
Minke Whale	<i>Balenoptera acutorostrata</i>	10-Aug-2021	Protected Species: EU Habitats Directive Protected Species: EU Habitats Directive >> Annex IV Protected Species: Wildlife Acts
European Rabbit	<i>Oryctolagus cuniculus</i>	11-Oct-2021	Invasive Species: Invasive Species Invasive Species: Invasive Species >> Medium Impact Invasive Species
House Mouse	<i>Mus musculus</i>	11-Oct-2021	Invasive Species: Invasive Species Invasive Species: Invasive Species >> High Impact Invasive Species

4.3.4 Avifauna

Skellig Michael is the larger of two islands in The Skelligs SPA. During the course of Ecological survey work carried out from May to October 2021 by Envirico ecologist Brian Power, the following avifauna were recorded on or from the island. Special conservation interests (SCIs) of the Skelligs SPA are highlighted in bold.

Table 4: Birds recorded on/from the site

Species (Common name)	Species (Scientific name)	First Date Recorded	Confirmed Breeding
Fulmar	<i>Fulmarus glacialis</i>	18-May-21	Y
Manx Shearwater	<i>Puffinus puffinus</i>	18-May-21	Y
Storm Petrel	<i>Hydrobates pelagicus</i>	18-May-21	Y
Gannet	<i>Morus bassana</i>	18-May-21	Y
Kittiwake	<i>Rissa tridactyla</i>	18-May-21	Y
Puffin	<i>Fratercula arctica</i>	18-May-21	Y
Guillemot	<i>Uria aalge</i>	18-May-21	Y
Shag	<i>Phalacrocorax aristotelis</i>	18-May-21	Y
Peregrine	<i>Falco peregrinus</i>	18-May-21	Y
Herring Gull	<i>Larus argentatus</i>	18-May-21	Y
Great Black-backed Gull	<i>Larus marinus</i>	18-May-21	Y
Lesser Black-backed Gull	<i>Larus fuscus</i>	18-May-21	Y
Razorbill	<i>Alca torda</i>	18-May-21	Y
Rock Pipit	<i>Anthus petrosus</i>	18-May-21	Y
Wheatear	<i>Oenanthe oenanthe</i>	21-May-21	Y
Chough	<i>Pyrrhocorax pyrrhocorax</i>	18-May-21	Y
Hooded Crow	<i>Corvus cornix</i>	01-Jun-21	Y
Raven	<i>Corvus corvax</i>	18-May-21	Y
Cory's Shearwater	<i>Calonectris borealis</i>	02-Jun-21	N
Oystercatcher	<i>Haematopus ostralegus</i>	22-May-21	N
Pomarine Skua	<i>Stercorarius pomarinus</i>	19-May-21	N
Feral Pigeon	<i>Columba livia domestica</i>	01-Jun-21	N
Barn Swallow	<i>Hirundo rustica</i>	28-May-21	N
House Martin	<i>Delichon urbicum</i>	01-Jun-21	N
Meadow Pipit	<i>Anthus pratensis</i>	19-May-21	N
Pied Wagtail	<i>Motacilla alba yarrellii</i>	18-May-21	N
Willow Warbler	<i>Phylloscopus trochilus</i>	28-May-21	N
Chiffchaff	<i>Phylloscopus collybita</i>	30-May-21	N
Sooty Shearwater	<i>Ardenna grisea</i>	20-Jun-21	N
Collared Dove	<i>Streptopelia decaocto</i>	22-Jun-21	N

Rose Coloured Starling	<i>Pastor roseus</i>	24-Jun-21	N
Cormorant	<i>Phalacrocorax carbo</i>	08-Jul-21	N
Swift	<i>Apus apus</i>	17-Jul-21	N
Starling	<i>Sturnus vulgaris</i>	18-Jul-21	N
Balearic Shearwater	<i>Puffinus mauretanicus</i>	19-Jul-21	N
Leach's Petrel	<i>Hydrobates leucorhous</i>	19-Jul-21	N
Great Shearwater	<i>Ardenna gravis</i>	05-Aug-21	N
Turnstone	<i>Arenaria interpres</i>	06-Aug-21	N
Purple Sandpiper	<i>Calidris maritima</i>	06-Aug-21	N
Great Skua	<i>Stercorarius skua</i>	10-Aug-21	N
Curlew	<i>Numenius arquata</i>	10-Aug-21	N
Long-tailed Skua	<i>Stercorarius longicaudus</i>	10-Aug-21	N
Arctic tern	<i>Sterna paradisaea</i>	18-Aug-21	N
Artic Skua	<i>Stercorarius parasiticus</i>	15-Sep-21	N
Pied Flycatcher	<i>Ficedula hypoleuca</i>	30-Aug-21	N
Sedge Warbler	<i>Acrocephalus schoenobaenus</i>	30-Aug-21	N
Robin	<i>Erithacus rubecula</i>	30-Aug-21	N
Spotted Flycatcher	<i>Musciapa striata</i>	30-Aug-21	N
Snow Bunting	<i>Plectrophenax nivalis</i>	11-Oct-21	N
Kestrel	<i>Falco tinnunculus</i>	14-Sep-21	N

4.3.5 Invasive Species

Two species listed on the Non-native species Risk Assessment for Ireland were observed on the island. House Mouse (*Mus musculus*) is listed on the High-Risk category (with a score of 20/25) and was recorded regularly over summer 2021. European Rabbit (*Oryctolagus cuniculus*) is listed on the Medium Risk Category (with a score of 16/25) was also recorded regularly on the island.

4.3.6 Aquatic Environment

There were no freshwater aquatic features within the confines of, or adjacent to the site. The marine water environment is characterised by Figures 3 and 4 below. The Southwestern Atlantic Seaboard (HAs 21;22) is the coastal water body adjacent to the site and within the Skelligs SPA (004007). Water Framework Directive status of this coastal water body is as of yet unassigned. This water body is deemed Not at Risk by the EPA.

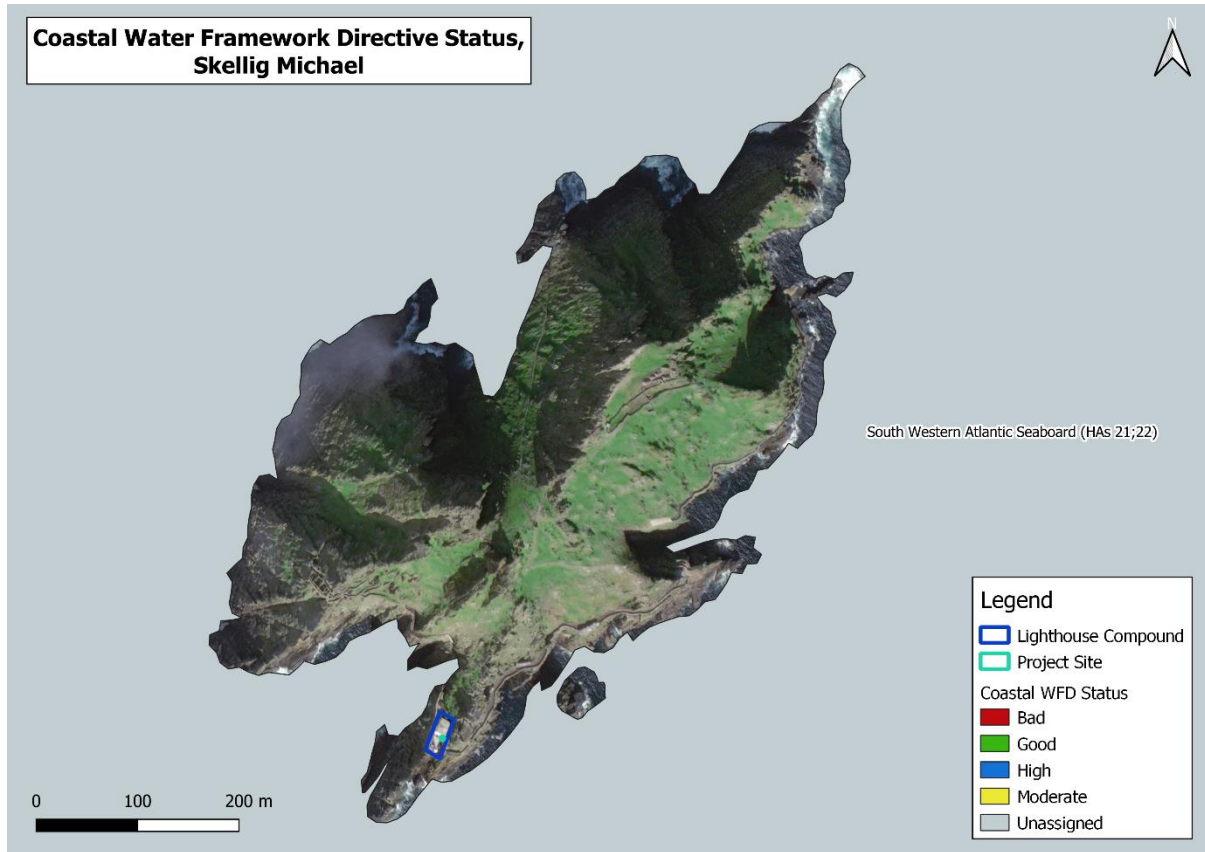


Figure 3: Coastal Water Framework Directive Status

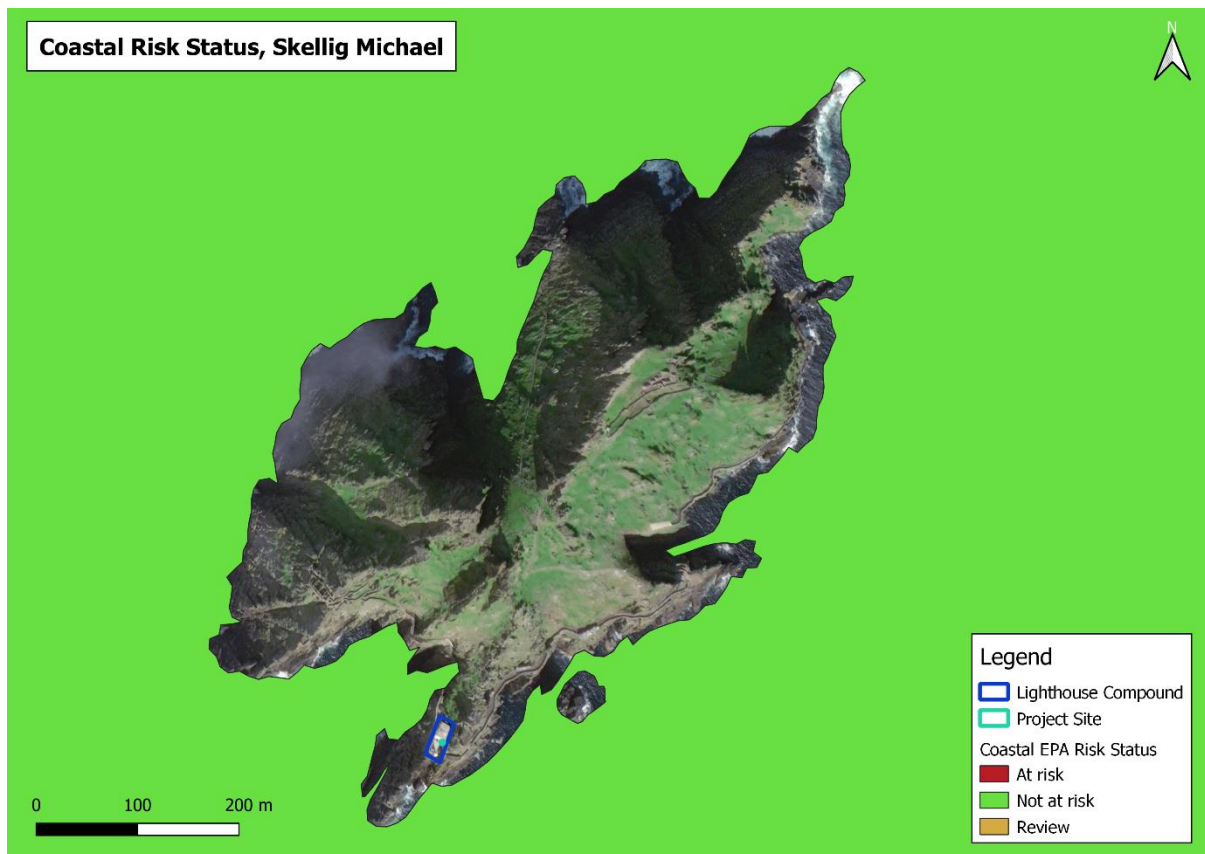


Figure 4: Risk Status of Coastal Waterbodies

4.4 Identification of European Sites

The site of the proposed works is within the boundary of the Skelligs SPA (004007), which is located approximately 12km from the mainland. There are three other Natura 2000 sites within a 15km radius. However, these are not considered to be within the Zone of Influence owing to the isolated nature of the site and a lack of connectivity.

4.5 Assessment of Potential Likely Significant Effects

Based on the project description as set out in Section 4.1 and the Zone of Influence of the project, using professional judgement and published guidance, potential effects can be identified. Table 5 focuses on the potential effects that could occur during the construction and operational phase of the proposed project.

Table 5: Potential Likely Significant Effects (LSEs)

Potential LSEs	Description of Effect	ZoI - likely area over which effect could occur
Construction		
Noise and vibration/unfamiliar visual stimuli (e.g. machinery/people)	Potential for noise from demolition and construction works	Owing to the small scale of the project it is not envisaged this will have any impact on the special conservation interests of the SPA
Spread of Invasive Species	Potential for invasive mammal numbers to increase with materials for construction.	Owing to best practice measures in place for the site this should have no impact on the island in terms of invasive species.
Operational		
Pollution Events	Pollution from spillage of sewage waste from the composting toilet unit disturbing protected bird life nesting in the area	Solid waste will be stored in a sealed unit which will be emptied and disposed of offsite. Leachate will be disposed of offsite.
Given the proposals, nature and scale of the proposed development there is potential for Likely Significant Effects on Skelligs SPA (004007)		

4.5.1 Potential In-combination Effects

- AA Screening must identify all aspects of the project which would have Likely Significant Effects on a European site, either alone (as identified in Table 5) or in-combination with other aspects of the same project and/or with other plans or projects. Two types of in-combination effects should be considered. Intra-project effects are the combined effects of different types of impact within the proposed project, for example the combined effects of disturbance and changes to water quality. Inter-project impacts are combined impacts from different projects and those resulting from the proposal, for example, a similar operation in close proximity. Inter-project in-

combination effects are considered to be those that may arise from the project in-combination with other plans and projects that are completed, as well as those proposed and consented but not yet built and operational. Plans or projects that are proposed (but not yet approved) should also be considered in this context (EC, 2002). A search for relevant plans and projects within the ZOI was undertaken for assessment of in-combination impacts, the source listed below were searched:

- Kerry County Council
- An Bord Pleanála

Owing to the isolated nature of the site and the absence of any other projects in the area there is no potential for in-combination effects.

4.6 Screening Conclusion

Following examination of the proposed project, including the nature and location of works, it has been concluded that there is potential for Likely Significant Effects to occur for:

Skelligs SPA 004007

The proposed project has the potential to impact on the SCIs of the Skelligs SPA. In the absence of mitigation, impacts could be significant. This Screening for AA has established that the proposed project has the potential to undermine the conservation objectives for the site, either alone, or in combination with other plans or projects. Therefore, an Appropriate Assessment (AA) of the proposed project is required. Further assessment of the potential impacts on the SPA will be required through the preparation of a NIS (Natura Impact Statement).

5 Information for Appropriate Assessment

5.1 General Ecology of the Area

The proposed project site is located within the Skelligs SPA (004007). No Annex I species were recorded within the boundary of the proposed works area. Seven species of bird are listed as SCIs for the Skelligs SPA, six of which nest on Skellig Michael. A complete list of these species can be found in Table 2. Fulmar and Puffin nest on ledges in close proximity to the proposed works with Storm Petrel, Kittiwake and Guillemot nesting nearby. No Manx Shearwater nests are known from the immediate area.

Habitats and flora within the proposed development site were classified using the Heritage Council's Guide to Habitats in Ireland (Fossitt, 2000). Within each habitat, dominant and abundant plant species and indicator species were recorded. Habitats recorded within the proposed development site comprised the following;

- Rocky Sea Cliffs (CS1)
- Stone Walls and other stonework (BL1)
- Buildings and Artificial Surfaces (BL3)
- Sea walls, Piers and Jetties (CC1)
- Open Marine Water (MW1)
- Sea inlets and bays (MW2)

A search of the National Biodiversity Data Centre (NBDC) database identified no Annex IV (Habitats Directive) species. This search identified the presence of two invasive species on the Island, house mouse and European rabbit.

Four species of bat were recorded on the island between the 28th of August and 5th of September 2021 (see Table 3). No suitable roost habitat is located within the proposed project area.

5.2. European Sites Taken to Stage 2 AA (Skelligs SPA (004007))

The proposed project site is within the Skelligs SPA (004007). The Skelligs SPA lies in the Atlantic Ocean and is comprised of Skellig Michael, Little Skellig and some of the surrounding marine area.

The geology of the island consists of primarily red conglomerate, sandstone and mudstone. The SCIs for the site are listed in Table 2 and discussed in detail in section 5.3.

5.3 Special Conservation Interests Potentially Impacted by the Proposed Development

5.3.1 Fulmar (*Fulmarus glacialis*)

Fulmars are a member of the tubenose family that nest on cliffs and ledges around Ireland and other coastal areas in the North Atlantic. The majority of Irish birds are found in the west of the country (Mitchell et al., 2004). Fulmars are on the Amber List of Birds of Conservation Concern, Ireland (BoCCI) 2020-2026 (Gilbert, et al., 2021). Work on Scottish colonies suggests that breeding begins in mid-May, with chicks subsequently fledging in late August (Edwards et al., 2013). Work on Skellig Michael during the 2021 season suggests this pattern is similar on the island (B Power 2021, personal communication).

5.3.2 Puffin (*Fratercula arctica*)

Puffins are one of three species of Auk breeding on Skellig Michael, and are found well distributed throughout the North Atlantic (Mitchell, et al., 2004). They are typically a burrow nesting species of seabird (Finney, et al., 2001). The breeding period typically begins in late April/May when a single egg is laid with at least some eggs hatched by mid-May (Taylor, et al., 2012). Estimates of the fledging period vary from 36 to 83 days (DEHLG, 2015; Taylor, et al., 2012; Finney, et al., 2001). Work on Skellig Michael during 2021 suggests this pattern is similar on the island (B Power 2021, personal communication). They are on the Red List of Birds of Conservation Concern, Ireland (BoCCI) 2020-2026 (Gilbert, et al., 2021).

5.3.3 Storm Petrel (*Hydrobates pelagicus*)

Storm petrel are a small pelagic species of seabird found throughout the North Atlantic (Mitchell, et al., 2004). In Ireland the breeding population is mainly associated with islands off the west coast. The breeding period typically commences in May/June (DEHLG, 2015), with the majority of eggs laid in late June (Ratcliffe, et al., 1998). Hatching typically occurs between mid-July and mid-Aug with average departure dates on Skokholm Island in Wales, ranging from 6th September – 20th October (Davies, 1957). However, the species has a highly variable phenology. They are on the Amber List of Birds of Conservation Concern, Ireland (BoCCI) 2020-2026 (Gilbert, et al., 2021).

5.3.4 Kittiwake (*Rissa tridactyla*)

Kittiwakes are a species of gull found throughout the Northern Hemisphere. They are often a colonial nesting species (Mitchell, et al., 2004). The breeding season typically begins within the first two weeks of May (Mitchell, et al., 2004; Taylor, et al., 2012), although sometimes as early as January or February (DEHLG, 2015). Fledging occurs between five and seven weeks (Vincenzi & Mangel, 2013). Work on the island during the 2021 season showed Kittiwakes following this pattern (B Power 2021, personal communication). Skellig Michael holds nationally important numbers of kittiwake. Data collected under the National Seabird Monitoring Programme over the period 2013 – 2018 estimated the

breeding population of kittiwake on Skellig Michael to comprise 789 apparently occupied nests (Cummins et al., 2019) Kittiwakes are on the Red List of Birds of Conservation Concern, Ireland (BoCCI) 2020-2026 (Gilbert, et al., 2021).

5.3.5 Guillemot (*Uria aalge*)

Guillemots are a species of auk that nest on outer sea cliffs of the island. In Ireland their distribution is scattered around the coast with Dublin, Wexford and Clare holding large colonies (Mitchell, et al., 2004). Guillemots are on the Amber List of Birds of Conservation Concern, Ireland (BoCCI) 2020-2026. The breeding season usually commences in late March/April with young typically leave the nest sometime between mid-June and mid-July where they continue to develop at sea (Birkhead, et al., 2012; Taylor, et al., 2012).

5.3.6 Manx Shearwater (*Puffinus puffinus*)

Manx shearwaters are medium-sized pelagic seabirds found throughout the North Atlantic. Ireland holds high breeding numbers of the species with Britain and Ireland have the majority of the global breeding population (Mitchell, et al., 2004). Manx Shearwater are on the Amber List of Birds of Conservation Concern, Ireland (BoCCI) 2020-2026. Populations in Ireland have a localised breeding distribution (Gilbert, et al., 2021), with the majority of the population found on islands mainly off the coast of counties Kerry and Galway (Mitchell, et al., 2004).

Table 6 Assessment of Significance Skelligs SPA (004007)

Special Conservation Interest (SCI)	Potential for Likely Significant Effect	Rationale
Fulmar [A009]	Yes	<ul style="list-style-type: none"> While no Fulmar nesting habitat is found within the proposed works, they are however found on cliffs and ledges nearby. There is potential for sound disturbance within the vicinity of the proposed works during the removal of the section of bunded wall. Fulmars have been known to become trapped within the confines of the bund post fledging. Removal of tanks and opening a section of the wall will have a positive impact on this.
Manx Shearwater [A013]	Yes	<ul style="list-style-type: none"> Manx Shearwaters do not utilise any nesting habitat within the proposed works Manx shearwaters have been known to become trapped within

		<p>the confines of the bund during periods of bad weather and post fledging. Removal of tanks and opening a section of the wall will have a positive impact on this.</p>
Storm Petrel [A014]	Yes	<ul style="list-style-type: none"> • Storm Petrels do not utilise any nesting habitat within the proposed works. They are however known to utilise the old lighthouse wall and may utilise open ground above the proposed site. • During the construction phase there is potential for sound disturbance within the vicinity of the proposed works during the removal of the section of bunded wall. This may overlap with Storm Petrel breeding season.
Gannet [A016]	No	<ul style="list-style-type: none"> • Gannets do not utilise Skellig Michael as a breeding or roosting site. Therefore, no significant effects are envisaged as a result of the proposed works
Kittiwake [A188]	No	<ul style="list-style-type: none"> • Kittiwakes do not utilise any nesting habitat within the proposed works. • It is not envisaged that sound will impact Kittiwakes owing to distance from the proposed site
Guillemot [A199]	No	<ul style="list-style-type: none"> • Guillemots do not utilise any nesting habitat within the proposed works • It is not envisaged that sound will impact Guillemots owing to topography of the island and distance from the proposed site
Puffin [A204]	Yes	<ul style="list-style-type: none"> • Puffins do not utilise any nesting habitat within the proposed works. They are however known to utilise the old lighthouse wall and utilise open ground above the proposed site. • During the construction phase there is potential for sound disturbance within the vicinity of the proposed works during the removal of the section of bunded wall. This may overlap with Puffin breeding season.

5.5 Appraisal for Potential Impacts on Skelligs SPA (004007)

The conservation objectives for the Skelligs SPA are listed as generic. The following attributes and targets used to assess the species are taken from the conservation objectives taken from a suitably similar SPA, the Saltee Islands SPA (004002). There are no such attributes available for Manx Shearwater and Storm Petrel and therefore these attributes have been taken from Puffin, listed in the Saltee Islands SPA (004002), which is a species with similar burrow nesting habits.

Table 7 Appraisal for potential impacts on Fulmar [A009]

Attribute	Target	Assessment of Likely Significant Effect	Mitigation
Breeding population abundance: apparently occupied sites (AOSs)	No significant decline	No likely significant effect envisaged.	N/A
Productivity rate	No significant decline	No likely significant effect envisaged.	N/A
Distribution: breeding colonies	No significant decline	No likely significant effect envisaged.	N/A
Prey biomass available	No significant decline	No likely significant effect envisaged.	N/A
Barriers to connectivity	No significant increase	No likely significant effect envisaged.	N/A
Disturbance at the breeding site	No significant increase	Potential for noise pollution causing disturbance to nesting birds in close proximity to the site of the proposed works.	Yes See section 6.
Disturbance at marine areas immediately adjacent to the colony	No significant increase	No likely significant effect envisaged.	N/A

Table 8 Appraisal for potential impacts on Manx Shearwater [A013]

Attribute	Target	Assessment of Likely Significant Effect	Mitigation
Breeding population abundance: apparently occupied burrow (AOBs)	No significant decline	No likely significant effect envisaged.	N/A
Productivity rate	No significant decline	No likely significant effect envisaged.	N/A
Distribution: breeding colonies	No significant decline	No likely significant effect envisaged.	N/A
Prey biomass available	No significant decline	No likely significant effect envisaged.	N/A
Barriers to connectivity	No significant increase	No likely significant effect envisaged.	N/A
Disturbance at the breeding site	No significant increase	No likely significant effect envisaged.	N/A
Disturbance at marine areas immediately adjacent to the colony	No significant increase	No likely significant effect envisaged.	N/A
Occurrence of Mammalian Predators	Absent or under control	Increase in cargo and equipment boat trips to and from the island.	Yes See section 6

Table 9 Appraisal for potential impacts on Storm Petrel [A014]

Attribute	Target	Assessment of Likely Significant Effect	Mitigation
Breeding population abundance: apparently occupied sites (AOSs)	No significant decline	No likely significant effect envisaged.	N/A
Productivity rate	No significant decline	No likely significant effect envisaged.	N/A
Distribution: breeding colonies	No significant decline	No likely significant effect envisaged.	N/A
Prey biomass available	No significant decline	No likely significant effect envisaged.	N/A
Barriers to connectivity	No significant increase	No likely significant effect envisaged.	N/A

Disturbance at the breeding site	No significant increase	Potential for noise pollution causing disturbance to nesting birds in close proximity to the site of the proposed works.	Yes See section 6.
Disturbance at marine areas immediately adjacent to the colony	No significant increase	No likely significant effect envisaged.	N/A
Occurrence of Mammalian Predators	Absent or under control	Increase in cargo and equipment boat trips to and from the island.	Yes See section 6

Table 10 Appraisal for potential impacts on Gannet [A016]

Attribute	Target	Assessment of Likely Significant Effect	Mitigation
Breeding population abundance: apparently occupied nests (AONs)	No significant decline	No likely significant effect envisaged.	N/A
Productivity rate	No significant decline	No likely significant effect envisaged.	N/A
Distribution: breeding colonies	No significant decline	No likely significant effect envisaged.	N/A
Prey biomass available	No significant decline	No likely significant effect envisaged.	N/A
Barriers to connectivity	No significant increase	No likely significant effect envisaged.	N/A
Disturbance at the breeding site	No significant increase	No likely significant effect envisaged.	N/A
Disturbance at marine areas immediately adjacent to the colony	No significant increase	No likely significant effect envisaged.	N/A

Table 11 Appraisal for potential impacts on Kittiwake [A188]

Attribute	Target	Assessment of Likely Significant Effect	Mitigation
Breeding population abundance: apparently occupied nests (AONs)	No significant decline	No likely significant effect envisaged.	N/A
Productivity rate	No significant decline	No likely significant effect envisaged.	N/A
Distribution: breeding colonies	No significant decline	No likely significant effect envisaged.	N/A
Prey biomass available	No significant decline	No likely significant effect envisaged.	N/A
Barriers to connectivity	No significant increase	No likely significant effect envisaged.	N/A
Disturbance at the breeding site	No significant increase	No likely significant effect envisaged.	N/A

Table 12 Appraisal for potential impacts on Guillemot [A199]

Attribute	Target	Assessment of Likely Significant Effect	Mitigation
Breeding population abundance: individual adult	No significant decline	No likely significant effect envisaged.	N/A
Productivity rate	No significant decline	No likely significant effect envisaged.	N/A
Distribution: breeding colonies	No significant decline	No likely significant effect envisaged.	N/A
Prey biomass available	No significant decline	No likely significant effect envisaged.	N/A
Barriers to connectivity	No significant increase	No likely significant effect envisaged.	N/A
Disturbance at the breeding site	No significant increase	No likely significant effect envisaged.	N/A
Disturbance at marine areas immediately adjacent to the colony	No significant increase	No likely significant effect envisaged.	N/A

Table 13 Appraisal for potential impacts on Puffin [A204]

Attribute	Target	Assessment of Likely Significant Effect	Mitigation
Breeding population abundance: apparently occupied burrows (AOBs)	No significant decline	No likely significant effect envisaged.	N/A
Productivity rate	No significant decline	No likely significant effect envisaged.	N/A
Distribution: breeding colonies	No significant decline	No likely significant effect envisaged.	N/A
Prey biomass available	No significant decline	No likely significant effect envisaged.	N/A
Barriers to connectivity	No significant increase	No likely significant effect envisaged.	N/A
Disturbance at the breeding site	No significant increase	Potential for noise pollution causing disturbance to nesting birds in close proximity to the site of the proposed works.	Yes See section 6.
Disturbance at marine areas immediately adjacent to the colony	No significant increase	No likely significant effect envisaged.	N/A
Occurrence of Mammalian Predators	Absent or under control	Increase in cargo and equipment boat trips to and from the island.	Yes See section 6

6. Mitigation of Risks

6.1 Ecological Clerk of Works

A qualified Ecological Clerk of Works will be appointed to oversee the proposed works.

- The OPW and DHLGH will meet with the ECoW at the commencement of the works to discuss and agree all details of the proposed works.
- The ECoW will conduct a pre-works survey of the general area surrounding the proposed works site to establish the presence of SCIs in the area and will submit a report to OPW on completion of the works which will be forwarded to the DHLGH and NPWS for comment.

6.2 Timing of Works

If possible, works should be conducted in September. Works later in the season will reduce the likelihood of interference with breeding SCIs.

6.3 Construction Phase

During the construction phase of the proposed works the following measures are proposed in order to avoid or reduce any potential disturbance of breeding birds in the footprint of the site of works.

- Manual methods and light hand tools should be employed as much as possible for all works to minimise noise.
- If use of heavy-duty mechanical equipment is required, this should be completed in a staggered manner to ensure birds are able to return to the nest frequently throughout the day.
- Erection of any scaffolding or anchors outside of the area of the proposed works will be discussed and overseen by the ECoW to avoid potential disturbance to SCIs and habitat.
- All construction phase waste materials are to be removed from the island in a controlled manner and disposed of at an appropriately licensed facility.
- No construction materials or equipment are to be left propped against wall habitats adjacent to the site in order to avoid blocking potential nesting habitat. These should be stored in a designated secure area.

6.4 Biosecurity

In order to avoid the risk of accidentally introducing of mammalian predators to the island, all equipment and materials necessary for the proposed works are to be securely stored on the mainland. These are to be checked rigorously prior to departure for the island for signs of infestation. Table 14 sets out the biosecurity protocols to be followed.

Table 14 Biosecurity Measures

Implementation time	Prevention measure
Prior to departure from mainland/another island	<ul style="list-style-type: none"> ▪ All equipment and cargo should be visually inspected for the presence of or any signs of rodent stowaways, these include but not limited to gnawing, droppings, nest material. ▪ Where possible - empty, check and repack items into storage containers. This is especially important when items are stored for extended periods. ▪ Where possible - any food items should be stored in clean, sealed rodent-proof containers. ▪ Inform all passengers of the associated risks of incursion
In transit	<ul style="list-style-type: none"> ▪ If an invasive species e.g., rodent is found onboard do not continue the journey. Return to the point of origin and ensure the vessel is free of invasive species before subsequent departures. ▪ Do not throw the individual(s) overboard. ▪ Report the incident to inform further biosecurity planning/measures. ▪ Ensure a bait station is on-board ▪ Ensure information on biosecurity is available to all people on the vessel
On site	<ul style="list-style-type: none"> ▪ Be vigilant ▪ Maintain permanent monitoring and bait stations on the landing sites of each island. ▪ Maintain securely stored incursion response pack on each island. ▪ Ensure the quays/piers/landing sites are as clean as possible ▪ Dispose of waste correctly and preferably remove it from the island as soon as possible ▪ Report any signs of invasive species to the relevant person(s) and document any evidence to inform further biosecurity planning/measures ▪ Do not deliberately release any non-native species on the islands
Returning to mainland	<ul style="list-style-type: none"> ▪ Do not leave food or waste near the quay/pier/marina or storage areas. ▪ Maintain bait stations at the quay or equipment storage area

6.5 Operational Phase

The toilet system for the proposed works is a composting setup. There is to be no disposal of solid waste or leachate on the island.

- The toilet is to be checked regularly to ensure all systems are functioning correctly.
- Leachate is to be removed by pumping into suitable and secure waste containers.
- Removed wastes are to be stored in fully sealed plastic containers for removal from the island via boat. These waste containers are to be secured adequately during transport to the boat and on the boat to reduce risk of accidental spillage.
- All waste is to be disposed of at suitably licensed facilities on the mainland.

7. In Combination Effect

The Kerry County Development plan identifies Skellig Michael as a UNESCO World Heritage site and highlights the need for protection of such sites.

A number of on-going projects were in place during the 2021 season including the establishment of public toilets and archaeological works at the Old Lighthouse.

The OPW is also running a longer-term conservation project on the old Lighthouse Road. Phase 1 and 2 of this project are now complete. Phase 3 of the project was due to commence in 2019 and Ministerial consent was granted for Phase 4 of this project by the DHLGH. Work for these phases has and will centre on varying degrees of remedial work on the sea wall. It is not envisaged that the site of the proposed works will have any in combination effects with these ongoing works.

7.1 Tourism

The average yearly visitor numbers to the island in the period 2009-2018 was 13,228 (Sceilg Mhichíl World Heritage Site Management Plan 2020–30). The typical tourist season runs from May until the end of September. However, there is no visitor access to the lighthouse complex so it is not envisaged that there will be an impact from a combination of tourism and the proposed works.

8. Conclusion

A study to inform an Appropriate Assessment has been undertaken to assess the nature of potential environmental effects that may result from works in the lower lighthouse complex Skellig Michael Co. Kerry. These works aim to improve toilet facilities for workers on the island. Following the identification of Likely Significant Effects at AA Screening, consideration was given as to whether those impacts could result in adverse effects on the integrity of the Skelligs SPA (004007). AA Screening showed potential pathways for Likely Significant Effects with respect to the SCIs of the SPA. Pathways that could not be discounted at AA Screening related to noise pollution effects on the SCIs.

This report examined the potential for changes in the baseline conditions as a result of the proposed development in more detail against the conservation objectives for Skelligs SPA, using the best available baseline information, and in view of the mitigation measures proposed to mitigate the potential for adverse effects.

In conclusion, based on the best available scientific information and professional judgement, it is considered that there will be no adverse effects on the integrity of Skelligs SPA due to the size and scale of the proposed works. On the application of the mitigation, only very weak source-receptor pathways exist that could undermine the structure or ecological functioning of the site or the conservation objectives that define the favourable status of the SCI features. No supporting habitats, such as those used for breeding or commuting, or food sources would be functionally reduced.

On the basis of these weak pathways and on review of other plans and projects that could contribute to effects, significant adverse in-combination effects with other plans and projects are also not considered likely to occur. Therefore, no reasonable scientific doubt remains as to the absence of effects on the integrity of Skelligs SPA.

Table 15 Integrity of the Site in Relation to Residual Impacts

Conservation objectives: does the plan or project have the potential to:		Y/ N
Cause delays in progress towards achieving the conservations objectives of the site?		N
Interrupt progress towards achieving the conservation objectives for the site?		N
Disrupt those factors that help to maintain the favourable conditions of the site?		N
Interfere with the balance, distribution and density of key species that are the indicators of the Favourable condition of the site?		N
Other objectives: does the plan or project have the potential to:		
Cause changes to the vital defining aspects (e.g. nutrient balance) that determine how the site functions as a habitat or ecosystem?		N
Change the dynamics of the relationships (between, for example, soil and water or plants and animals) that define the structure and/or function of the site?		N
Interfere with the predicted or expected natural changes to the site (such as water dynamics or chemical composition)?		N
Reduce the area of key habitats?		N
Reduce the population of key species?		N
Change the balance between key species?		N
Reduce the diversity of the site?		N
Result in disturbances that could affect population size or density or the balance between key Species?		N
Result in fragmentation?		N
Result in loss or reduction of key features (e.g. open wall habitat, burrow nesting habitat, etc.)?		N

9. References

DEHLG, 2015. Skellig Michael Draft Report, Dublin, Ireland: Dept. of Environment, Heritage and Local Government.

DEHLG, 2009. Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities. Department of Environment, Heritage and Local Government.

Davies, P., 1957. The Breeding of the Storm Petrel. *British Birds*, Volume 50, pp. 85-101, 371-383. de Paor, L., 1955. A Survey of Sceilg Mhichíl. *The Journal of the Royal Society of Antiquaries of Ireland*, 85(2), pp. 174-187.

European Commission (2000a). Managing Natura 2000 sites: The Provisions of Article 6 of the Habitat's Directive 92/43/EEC.

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

European Commission (2001). Assessment of Plans and Proposed Schemes Significantly Affecting Natura 2000 sites: Methodological Guidance on the Provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC

European Commission (2002). 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. Office for Official Publications of the European Communities, Luxembourg.

Edwards, E. W. J. et al., 2013. Tracking a northern fulmar from a Scottish nesting site to the CharlieGibbs Fracture Zone: Evidence of linkage between coastal breeding seabirds and Mid-Atlantic Ridge feeding sites. *Deep-Sea Research II*, Volume 98, pp. 438-444.

Finney, S. K., Wanless, S., Harris, M. P. & Monaghan, P., 2001. The impact of gulls on puffin reproductive performance: an experimental test of two management strategies. *Biological Conservation*, Volume 98, pp. 159-165.

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

Gilbert G, Stanbury A and Lewis L (2021), "Birds of Conservation Concern in Ireland 2020 –2026". *Irish Birds* 9: 523—544

Kelly, J., O'Flynn, C., and Maguire, C. 2013. Risk analysis and prioritisation for invasive and non-native species in Ireland and Northern Ireland. A report prepared for the Northern Ireland Environment Agency and National Parks and Wildlife Service as part of Invasive Species Ireland

P. Ian Mitchell, Stephen F. Newton, Norman Ratcliffe and Timothy E. Dunn (Eds.). 2004. Seabird Populations of Britain and Ireland: results of the Seabird 2000 census (1998-2002). Published by T and A.D. Poyser, London.

NPWS, 2011. Conservation Objectives: Saltee Islands SAC 000707 and Saltee Islands SPA 004002. Version 1.0. , Dublin, Ireland: National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

NPWS, 2004. Skelligs SPA (Site Code: 004007) Site Synopsis, Dublin, Ireland: National Parks and Wildlife Service.

Appendix 1: Site Photographs.



01 Existing Oil Tanks were removed during 2021 Season



02 Existing Oil Tanks were removed during 2021 Season

All Oil tanks have since been removed

Remove Part of existing bund walls

All associated external pipework have been removed



03 View from Lower Lighthouse Roof



04 Existing Oil Tanks were removed during 2021 Season

Oil tanks have been removed



01
014 View of proposed workers toilet Location & bund walls



02
014 Proposed Location for workers Toilet

All Oil tanks have been removed

All associated external pipework have been removed



03
014 Aerial view from Lower Lighthouse Roof

Oil tanks have been removed



04
014 Oil tanks also removed behind second bund wall enclosure



01
015 View of existing drain vent and pipework

Unnecessary pipework has since been removed along with the Oil tanks



02
015 Existing pipework and Oil tanks removed during 2021 Season

Architectural Services	Principal Architect	Design Team	Drawing Revisions	Drawing Title	Project Title
OPW Head Office, Trim, Co. Meath. Telephone: (046) 942 6000 LoCall: 1890 213414 Website: www.opw.ie	DARAN O'CONNOR, PRINCIPAL ARCHITECT, DIRECTOR OF ARCHITECTURAL SERVICES	Tara Sweeney MSc - Assistant Principal Architect Eoghan McCormick - Senior Architect Báithrhuac Ó Muir - Architect Eithán Meese - Graduate Architect	REV DESCRIPTION A B C D	Site Photographs 01/01 01/02 01/03 01/04	Skellig Michael - Lower Lighthouse Lower Lighthouse Workers Toilet PROJECT NO. STATUS NUMBER REV. CONSENT 015