

## MEITHEAL TRÁ NA RINNE TEO.

# STAGE ONE APPROPRIATE ASSESSMENT SCREENING REPORT AND STAGE TWO REMEDIAL NATURA IMPACT STATEMENT FOR EXTENSION OF OYSTER PLANT, DUNGARVAN BAY, CO. WATERFORD

OCTOBER 2019



# STAGE ONE APPROPRIATE ASSESSMENT SCREENING REPORT AND STAGE TWO REMEDIAL NATURA IMPACT STATEMENT FOR DEVELOPMENT WORKS AT OYSTER PLANT, DUNGARVAN BAY, CO. WATERFORD

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**Abstract:** This document comprises the Stage One Screening Report and Stage Two Natura Impact Statement for development works at the oyster processing plant (Meitheal Trá na Rinne/ Waterford Oysters) in An Rinn, Dungarvan, Co. Waterford. Appropriate Assessment is required under Article 6 (3) of the Habitats Directive for any project or plan that may give rise to significant effects on a Natura 2000 site.

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## 1 INTRODUCTION

Fehily Timoney & Company (FT) has been engaged by Meitheal Trá na Rinne Teo to prepare an application for substitute consent for the development works located at the premises of Meitheal Trá na Rinne Teo at Ring, Dungarvan, Co Waterford. An Appropriate Assessment Screening Report and Natura Impact Statement has been prepared in respect of the application, as required by Article 6 of Council Directive 92/43/EEC (Habitats Directive).

Additional information has been provided in this amended report in respect of the substitute consent application to allow the Planning Authority to assess possible implications of works associated with this development for European sites.

In compliance with the provisions of Article 6 of the Habitats Directive, as implemented by Part XAB of the Planning and Development Act 2000, as amended, in circumstances where a proposed plan or project is likely to have a significant effect on a European (Natura 2000) site, either individually or in combination with other plans or projects, an Appropriate Assessment (AA) must be undertaken by the competent authority, of the implications for the site in view of the site's conservation objectives.

European sites comprise both Special Protection Areas (SPAs) for birds and Special Areas of Conservation (SACs) for habitats and species. The Habitats Directive formed a basis for the designation of SACs. Similarly, SPAs are legislated for under the Birds Directive (Council Directive 79/409/EEC on the Conservation of Wild Birds). In general terms, European sites are considered to be of exceptional importance in terms of rare, endangered or vulnerable habitats and species within the European Community.

Article 6 of the Habitats Directive envisages a two-stage process, which is implemented in some detail by the provisions of sections 177U and 177V of the Planning and Development Act. Screening for appropriate assessment in accordance with section 177U is the first stage of the AA process (Stage One), in which the possibility of there being a significant effect on a European site is considered. Plans or projects that have no appreciable effect on a European site are thereby excluded, or screened out, at this stage of the process. Where screening concludes that there is the potential for significant effects, then it is necessary to carry out an AA (Stage Two) for the purposes of Article 6(3), and a Natura Impact Statement (NIS) is produced. The NIS, which forms the basis of the AA, considers the impact of a project or plan on the integrity of a European site and on its conservation objectives, and where necessary, draws up mitigation measures to avoid/minimise negative impacts.

The competent authority, in this case An Bord Pleanála, in carrying out an AA, is required to make an examination, analysis, evaluation, findings, conclusions and a final determination as to whether or not the proposed development would adversely affect the integrity of the relevant European site in view of its conservation objectives.

This report comprises of the Stage One Screening Report (in Section 3) and Stage Two Natura Impact Statement (in Section 4) to evaluate the potential impact(s) of the development works at the Oyster Plant Facility in Dungarvan Bay, Co. Waterford on the European sites located within a 15 km radius:

- Dungarvan Harbour SPA (Site Code 004032) is located adjacent to the existing rock revetment. It is also connected hydrologically via the licensed discharge into the Maoil an Chronaigh stream, which flows into Dungarvan Harbour SPA c. 35m downstream of the plant.
- Helvick Head to Ballyquin SPA (Site Code 004192) is located approximately 1.1 km southeast of the existing developments.
- Helvick Head SAC (Site Code 000665) is located approximately 1.4 km southeast of the existing developments.
- Blackwater River (Cork/Waterford) SAC (Site Code 002170) is located approximately 5.5 km southwest of the existing developments.
- Glendine Wood SAC (Site Code 002324) is located approximately 7.2 km north of the existing developments.
- Mid-Waterford Coast SPA (Site Code 004193) is located approximately 8 km northeast of the existing developments.

- Comeragh Mountains SAC (Site Code 001952) is located approximately 14 km north of the existing developments.
- Ardmore Head SAC (Site Code 002123) is located approximately 14.3 km southwest of the existing developments.

\* At present many SACs in Ireland are currently 'candidate' SACs, and referred to as cSACs. The relevant Statutory Instruments for the cSACs in Ireland have not yet been made, however, these "candidate" sites must still be afforded the same level of protection as if they were SACs as designated in accordance with the EU Habitats Directive.

## 1.1 Legislative Requirements

The requirements for an AA are set out in the Habitats Directive 92/43/EEC. Articles 6(3) and 6(4) of this Directive state:

*6(3) Any plan or project not directly connected with or necessary to the management of the site (Natura 2000 sites) 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 sites 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 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.*

The statutory agency responsible for European sites is the National Parks and Wildlife Service (NPWS) of the Department of Culture, Heritage and the Gaeltacht (DCHG). In 2010 the 'Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities, Department of the Environment, Heritage and Local Government' was amended (DoEHLG, 2010). This guidance document was prepared jointly by the NPWS and Planning Divisions of DoEHLG (now DAHG), with input from local authorities. Previously, the European Commission (EC, 2001) issued a guidance document. This guidance document has been updated in the recently published European Commission (2018) "Managing Natura 2000 sites the provisions of Article 6 of the 'Habitats' Directive 92/43/EEC". This Appropriate Assessment Screening Report and Natura Impact Statement has been prepared in accordance with the relevant Irish and European Commission Guidance.

### 1.1.1 Regulatory Context

In 1997, the Habitats Directive was transposed into Irish National Law by the European Communities (Natural Habitats) Regulations, SI 94/1997 (as amended by S.I. 233/1998 & S.I. 378/2005). The European Communities (Birds and Natural Habitats) Regulations, 2011 (S.I. 477/2011) revoked the 1997 Regulations (and amendments) as well as the European Communities (Birds and Natural Habitats) (Control of Recreational Activities) Regulations 2010. The purpose of the 2011 Regulations was to address transposition failures identified in the Court of Justice of the European Union (CJEU) judgements. Following additional amendments in 2013 (S.I. 499/2013) and 2015 (S.I. 355/2015) the regulations are now cited as the European Communities (Birds and Natural Habitats) Regulations 2011 to 2015.

The Regulations have been prepared to address several judgments of the CJEU against Ireland, notably cases C-418/04 (*Commission v Ireland*) and C-183/05 (*Commission v Ireland*), in respect of failure to transpose elements of the Birds Directive and the Habitats Directive into Irish law.

## 1.2 Development Description

### 1.2.1 Background

Meitheal Trá na Rinne Teo is a sale, marketing, grading and packaging facility for oyster producers operating in Dungarvan Bay. The company was incorporated in 1990 to provide consolidated services to the growing local oyster industry. The permitted oyster processing plant was granted consent on the 15<sup>th</sup> of January 1992 and consisted a building of approximately 250 square meters, a forecourt, yard and parking area, a pumping chamber with associated pipe and power line and associated works.

A covered area was created through the erection of a roof/canopy on the southern side of the facility in 1997. A rock revetment was put in place to the north of the facility in 2003 to prevent the lower yard from coastal erosion processes.

The industry has changed over the past 28 years and Meitheal Trá na Rinne have adapted to new market dynamics where a quality product is the output focus. As a result of these trends in the oyster industry, an extension to the facility at Ring was constructed in October 2016 to improve the quality of the products produced by the oyster processing plant. It is important to note that the extension was constructed to facilitate the activities required to produce a higher quality product, rather than due to an intensification in processing activities and gross output.

The figures included in table 1.1 below show that the annual output from the plant has in fact decreased from a peak of c. 6-700 tonnes in 2008-2009 to between c. 350-500 tonnes in recent years.

**Table 1-1: Yearly MTR Sales Figures 2006 - 2017**

Year	Sales Figures (Tonnes)
2006	514
2007	520
2008	694
2009	662
2010	597
2011	450
2012	382
2013	471
2014	445
2015	418
2016	345
2017	519

### 1.2.2 Development Included in Substitute Consent Application

The substitute consent application is for development works at the oyster processing facility which were necessary to facilitate the long-established operation of the permitted facility (PL ref. 92/20 dated 01/01/1992 from Waterford County Council).

### Covered Area

A canopy/open ended structure for storage and to facilitate the sheltered loading/unloading of produce was constructed on the southern side of the permitted building in 1997. This area is approximately 171 square meters. The height of this structure is 5m, matching the height of the consented development.

### Rock Revetment

Since its use in the early 1990s, the lower yard to the north of the facility has been slowly eroding due to coastal processes and severe storms. Considering the importance of the yard to the local oyster industry, emergency protective works were carried out in 2002/2003 to protect the area from erosion. These works proved to be insufficient, therefore further emergency rock armour was put in place in 2007 following severe storms. Maintenance and upgrade works to the rock armour was again carried out in 2009 following further severe storms. The rock armour has been successful to date in protecting the yard from erosion. The rock revetment measures approximately 80m in length, covering approximately 70m of shoreline. The area of the revetment is approximately 280sqm.

### Storage, Packing and Purification Area

A storage, packing and purification structure was constructed at the northern elevation of the permitted structure. The structure measures 130 square metres and has a height of 6.9 meters at its highest point. Located on the northern elevation of the facility, the extension was built within the facility's yard, previously used for storage. The development is designed to house a large tank for the storage of oysters in seawater for purification purposes. This is an entirely natural process in which the oysters filter feed in the tanks in clean seawater for 2-4 days making them suitable for retail sale or restaurant use.

The area is also used for clean packaging and clean storage of materials for sanitary reasons. The packaging takes place by hand and utilises poly boxes which are stored on an elevated platform to remove the packaging products from ground level for sanitary reasons.

The height of the building accommodates a hoist required to lift oysters in and out of the purification tank at up to 5 meters. The development includes sea water intake from the permitted water pump. Discharge from the development is seawater only which is discharged to the nearby Maoil an Chronaigh stream at Móta, under licence (WPW/01/92).

The material used for the development consist of Kingspan cladding panels fixed to steel beams on the roof and to steel columns as per engineer's specifications. The roof includes translucent roof panels for natural light.

### 1.2.3 Overview of Plant Including Main Activities

The day-to-day activities at the plant include grading, washing, and packaging of oysters harvested from trellises located on the sand flats of Dungarvan Bay. Loading and unloading of produce is carried out in the covered area on the southern side of the facility. The packaged product is then collected by lorries for distribution.

Seawater for washing oysters is abstracted from Dungarvan Bay, and the resultant effluent is discharged into the Maoil an Chronaigh stream; the plant is licensed by Waterford City and County Council to discharge effluent arising from the process of washing oysters to this stream.

Sewage waste is discharged separately into the public sewerage system; storm water is required to be discharged separately to the stream, with run-off from yards and other surfaces used by vehicles required to be channelled through silt, oil, and grease traps before discharge to the stream.

Since its use in the early 1990s, the lower yard to the north of the facility has been slowly eroding due to coastal processes and severe storms. Considering the importance of the yard to the local oyster industry, emergency protective works were carried out in 2002/2003 and to date these works, comprising construction and maintenance of the rock revetment, have been successful in protecting the yard from erosion. The yard currently in use as an equipment storage area by third party oyster farmers.

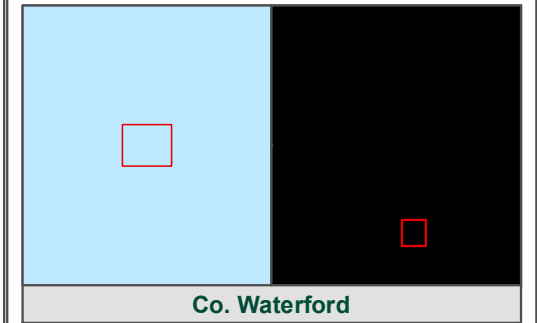


**Figure 1-1: Site Location Map**

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Site Location



**Legend**

- Oyster Plant

**Figure Title**  
Site Location

**Figure No.** 1.1

**Project**  
AA for Extension of Oyster Plant

**Client**  
Waterford Oysters

**Scale** 1:25,000 **Page Size** A3

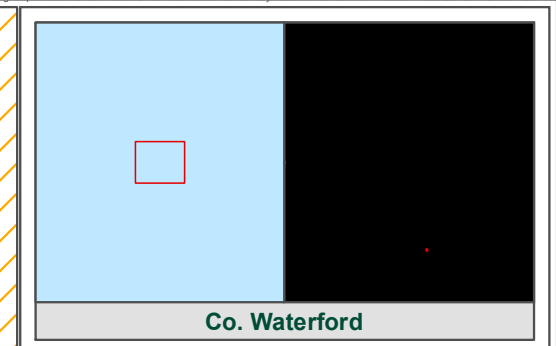
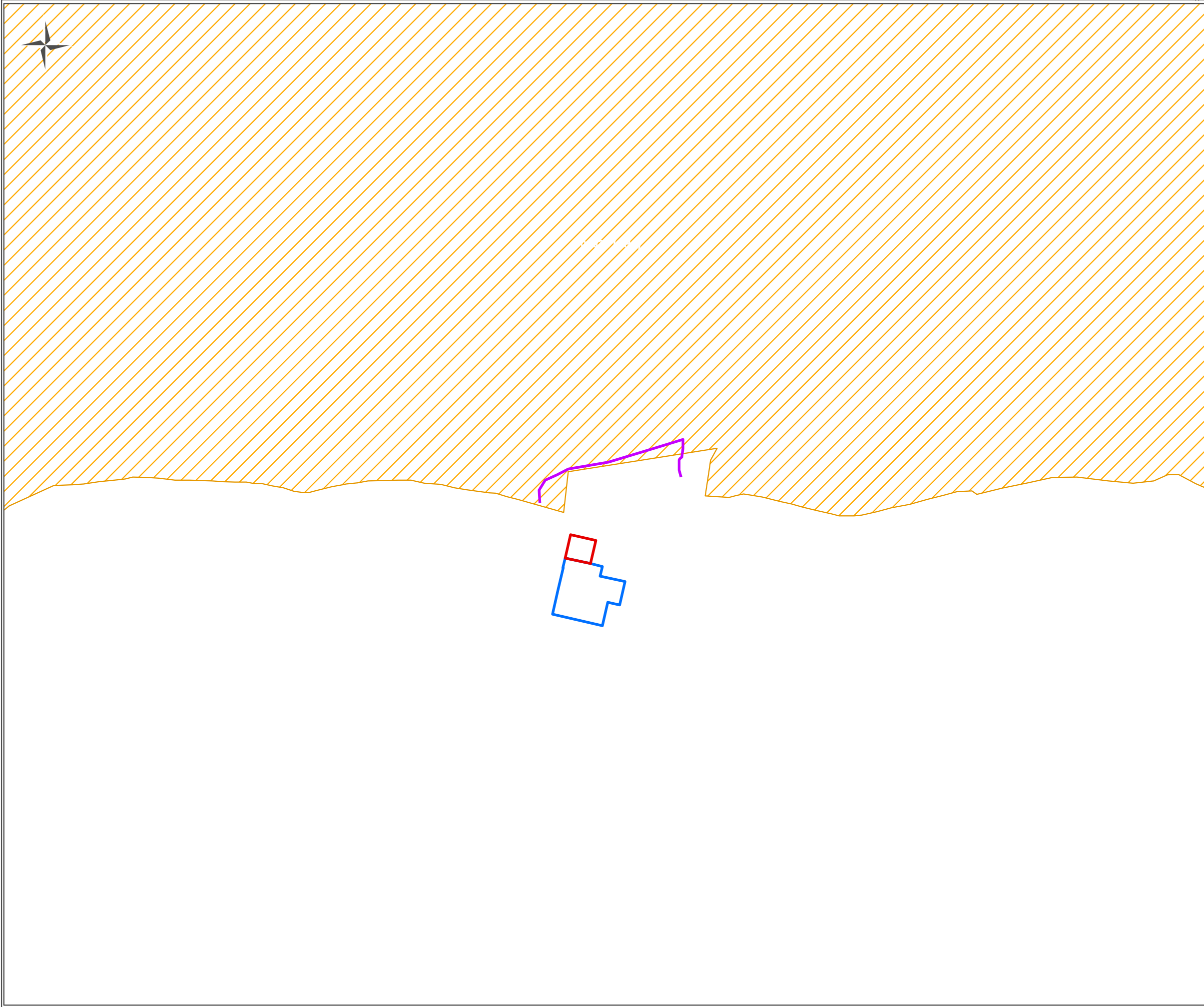
**Revision** A **Date** 26/06/2018

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**Figure 1-2: Site Layout**

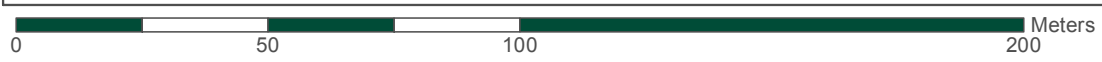
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- Legend**
- Revetment Extent
  - Oyster Plant Building*
  - Existing Building
  - Extension
  - Special Protection Area

<b>Figure Title</b>	Site Layout		
<b>Figure No.</b>	1.2		
<b>Project</b>	AA for Extension of Oyster Plant		
<b>Client</b>	Waterford Oysters		
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## 2 METHODOLOGY

### 2.1 Appropriate Assessment Methodology

The Habitats Directive promotes a hierarchy of avoidance, mitigation and compensatory measures to be addressed in the AA process. Firstly, a project should aim to avoid any negative impacts on European sites by identifying possible impacts early in the project and should design the project in order to avoid such impacts.

There are four stages in an AA, as outlined in the European Commission Guidance document (2001). The following is a summary of these steps.

- Stage One - Screening: This stage examines the likely effects of a project either alone or in combination with other projects upon a European Site and considers whether it can be objectively concluded that these effects will not be significant.
- Stage Two - Appropriate Assessment: In this stage, the impact of the project on the integrity of the European site is considered with respect to the conservation objectives of the site and to its structure and function. Mitigation measures should be applied to the point where no adverse impacts on the site(s) remain.
- Stage Three - Assessment of Alternative Solutions: Should the Appropriate Assessment determine that adverse impacts are likely upon a European site, this stage examines alternative ways of implementing the project that, where possible, avoid these adverse impacts.
- Stage Four - Assessment where no alternative solutions exist and where adverse impacts remain: Where imperative reasons of overriding public interest (IROPI) exist, an assessment to consider whether compensatory measures will or will not effectively offset the damage to the Natura site will be necessary. European case law highlights that consideration must be given to alternatives outside the project area in carrying out the IROPI test. It is a rigorous test which projects are generally considered unlikely to pass.

In the preparation of this assessment therefore regard has been given to the Habitats Directive and the European Communities (Birds and Natural Habitats) Regulations 2011, and with reference to the relevant guidance, in particular:

- *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*, European Commission 2001.
- *Managing Natura 2000 Sites: The Provisions of Article 6 of the 'Habitats Directive' 92/43/EEC*, European Commission, 2000.
- *Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities*. National Parks and Wildlife Service, Department of the Environment, Heritage and Local Government, Dublin 2010.
- European Commission (2018). Managing Natura 2000 sites. The provisions of Article 6 of the Habitats Directive 92/43/EEC. Brussels, 21.11.2018 C(2018) 7621 final.

#### 2.1.1 Impact Assessment

The first step in the screening process is to develop a list of European sites potentially affected by the proposed development. Each European site is reviewed to establish whether or not the proposed development is likely to have a significant effect on the integrity of the site, as defined by its structure and function, and its conservation objectives.

The qualifying interests of each European site are identified and the potential threats are summarised into the following categories for the screening process, and described within the screening matrix as follows:

- Direct impacts refer to habitat loss or fragmentation arising from land-take requirements for development or agricultural purposes. Direct impacts can be as a result of a change in land use or management, such as the removal of agricultural practices that prevent scrub encroachment.

- Indirect and secondary impacts do not have a straight-line route between cause and effect, and it is potentially more challenging to ensure that all the possible indirect impacts of the plan (or project) – in combination with other plans and projects - have been established.

These can arise when a development alters the hydrology of a catchment area, which in turn affects the movement of groundwater to a site, and the qualifying interests that rely on the maintenance of water levels. Deterioration in water quality can occur as both an indirect or direct consequence of development, which in turn changes the aquatic environment and reduces its capacity to support certain plants and animals. The introduction of invasive species can also be defined as an indirect impact, which results in increased movement of vectors (humans, fauna, surface water), and consequently the transfer of alien species from one area to another.

- Disturbance to fauna can arise directly through the loss of habitat (e.g. bat roosts) or indirectly through noise, vibration and increased activity associated with construction and operation.

## 2.2 Desktop Study

In order to complete the Screening for Appropriate Assessment certain information on the existing environment is required. A desk study was carried out to collate available information on the site's natural environment. This comprised a review of the following publications, data and datasets:

- Waterford County Development Plan 2011 – 2017 (as extended)
- County Waterford Local Biodiversity Action Plan 2008 - 2013
- Waterford County Council Planning Enquiry System
- National Parks and Wildlife Service (NPWS) website and metadata available ([www.npws.ie](http://www.npws.ie))
- OSI Aerial photography and 1:50,000 mapping
- National Biodiversity Data Centre (NBDC) (on-line map-viewer)
- Environmental Protection Agency (EPA) water quality data

## 2.3 Field Assessment

The following describes the individual field surveys carried out for the ecological appraisal of the existing environment of the project.

Ecological surveys were carried out on the 18<sup>th</sup> of January 2018 and the 3<sup>rd</sup> of December 2018 by FT at the site of the existing storage, packing and purification building and the surrounding area; these are detailed in table 2.1 below.

The purpose of these ecology surveys was:

- To identify the different habitat types present onsite;
- To identify flora and fauna onsite; and
- To assess the impact of the proposed project on the ecology of the site and surrounding areas.

**Table 2-1: Field Assessment Details**

Date	Weather Conditions	Survey Type
18/01/18	Dry, light breeze, cold, overcast	Ecological site walkover, habitat and I-WeBs bird count.
03/12/18	Dry, light breeze, cold, sunny	Updated ecological site walkover, habitat and I-WeBs bird count.

## 3 STAGE ONE - SCREENING REPORT

### 3.1 Brief Description of the Existing Site

The existing oyster processing plant is situated along the southern shoreline of Dungarvan Bay, in the townland of Moat, Dungarvan, Co. Waterford. The extension to the plant was constructed within an existing yard forming part of the processing plant, to provide clean storage for packaging products, shelter for purification activities, and a packing area separate from rougher grading operations.

The day-to-day activities at the plant include grading, washing, and packaging of oysters harvested from trellises located on the sand flats of Dungarvan bay. Loading and unloading of produce is carried out in the covered area on the southern side of the facility. The packaged product is then collected by lorries for distribution.

Seawater is abstracted from Dungarvan Bay for washing oysters (the oysters feed in tanks of clean seawater for 2-4 days), and the resultant effluent is discharged into the Maoil an Chronaigh stream; the plant is licensed by Waterford County Council to discharge effluent arising from the process of washing oysters to this stream (Licence WPW/01/92).

Sewage waste is discharged separately into the public sewerage system; storm water is required to be discharged separately to the stream, with run-off from yards and other surfaces used by vehicles required to be channelled through silt, oil, and grease traps before discharge to the stream.

A lower yard along the shoreline to the north of the plant has been in use as part of the business since the early 1990's. A rock revetment was constructed in 2003 to protect the yard and repaired/upgraded in 2007 and 2009. It is currently in use as an equipment storage area by third party oyster farmers.

The area surrounding the plant is both rural, and also maritime in character, with pasture being the dominant land use inland to the south and west. To the north, part of the tidal area of Dungarvan bay is used for oyster farming, with a number of trellises located on sand flats in the sheltered interior of the bay. The residential element of surrounding land use is also significant, with the villages of Ring and Ballynagaul to the south and east, and one-off and linear housing development being common throughout the surrounding area.

Three European sites lie in relatively close proximity; Dungarvan Bay SPA (004032) is located adjacent to the site area; Helvick Head to Ballyquin SPA (004192) is located c.1.1 km to the south-east, and Helvick Head SAC (000665) c.1.4 km to the south-east.

The plant is connected hydrologically to Dungarvan Bay SPA (004032) via Maoil an Chronaigh stream; the plant is licensed to discharge water arising from the process of washing oysters to this stream.

### 3.2 Location of SPA Boundary in Relation to Processing Plant

The location of the boundary of Dungarvan Bay SPA (004032) in relation to the processing plant, and in particular the rock revetment has been a point of discussion since the initiation of the designation process, with Meitheal Trá na Rinne (MTR) arguing against its inclusion in the SPA from early on, since it is a man-made area used by local oyster farmers for aquaculture activities, rather than forming part of the natural habitats important to the bird species for which the SPA is designated.

The lower yard borders the Dungarvan Bay SPA which was designated in 1994 and further expanded to include the lower yard and foreshore within its boundary in 2011. The inclusion of the yard/revetment within Dungarvan Bay SPA was formally appealed on 7<sup>th</sup> of September 2011, on a number of grounds including a short notice period, lack of adequate data, lack of conservation objectives supporting inclusion of the area in the SPA; and that the revetment does not constitute habitat for designated species. The revetment is located on the upper shoreline

A decision to exclude the area from the SPA was communicated on 22<sup>nd</sup> June 2016, stating that the area constituted a clearly identifiable practical boundary, and should not have been included in the first instance (decision letter included in Appendix 3). A roughly rectangular area of the SPA was removed from the area occupied by the yard / revetment.

Comparison of satellite imagery with the SPA boundary using GIS software indicates however that a portion of this yard / revetment remains within the SPA; this appears to indicate that the SPA boundary was re-drawn inaccurately, either through human error, or failure to use more up to date satellite imagery as a base map; this inconsistency has been acknowledged by Waterford City and County Council in correspondence.

The location of this area in or outside the SPA boundary is of central concern to the current analysis, since the substitute consent application incorporates the rock revetment. The history of this area in terms of its relationship with the processing plant and SPA boundary is extremely important for this analysis.

### 3.3 Results of the Ecological Survey

A site walkover was carried out on the 18<sup>th</sup> of January 2018 with an updated site walkover undertaken on the 3<sup>rd</sup> of December 2018. The revetment is located on the upper shoreline of the bay. To the east is a 4-5m wide concrete. The land to the west are classified as a being mixed sediment shores (LS5) according to Fossitt (2000) comprised of sediments of different grades, including pebbles, gravel with little to no sand and no exposed mud. There is little vegetation noted within the habitat type apart for desiccated focus sp. This habitat type is considered to be the same as the habitat within the footprint of the revetment. Approximately 1 -2 m further down the shoreline, the substrate grades into sand and then mudflat. This mudflat habitat is considered to be higher value foraging habitat for bird species of conservation interest within the SPA. No mudflat habitat is considered to have been located within the footprint of the revetment. The upper shoreline can offer some potential roosting habitat for bird species of conservation interest within the SPA however more isolated areas would be considered more optimal and the close proximity of the revetment to the slip would mean that the area could be subject to some local disturbance.

Nine coastal bird species were recorded during the survey on the 18<sup>th</sup> of January 2018. These species are listed in the table below. Of the nine species six are species of qualifying interest within the Dungarvan Harbour SPA namely Bar-tailed Godwit, Curlew, Light-bellied Brent Geese, Oystercatcher, Redshank and Turnstone. Relatively low numbers of these species were recorded during the survey however numbers locally are likely to fluctuate. All of these species were recorded foraging within the mudflats further down the shoreline from the existing revetment.

On 3<sup>rd</sup> of December 2018, seven coastal bird species were recorded. These are listed in the table below. Of the seven species, five are of qualifying interest within the Dungarvan Harbour SPA namely Bar-tailed Godwit, Curlew, Light-bellied Brent Geese, Oystercatcher and Turnstone. Relatively low numbers of these species were recorded during the survey however numbers locally are likely to fluctuate. As with the first survey, all of these species were recorded foraging within the mudflats further down the shoreline from the existing revetment.

The bird species recorded within the mudflats north of the revetment during the survey are presented in Table 3-1 below.

**Table 3-1: Bird Species Recorded on Mudflats North of Revetment**

Common Name	Species Name	Number recorded on 18/01 /18	Number recorded on 03/12/18
Bar-tailed Godwit	<i>Limosa lapponica</i>	4	2
Common Gull	<i>Larus canus</i>	1	0
Curlew	<i>Numenius arquata</i>	4	1
Herring Gull	<i>Larus argentatus</i>	7	>50
Lesser Black-backed Gull	<i>Larus fuscus</i>	3	2
Light-bellied Brent Geese	<i>Branta bernicla hrota</i>	5	2
Oystercatcher	<i>Haematopus ostralegus</i>	6	8
Redshank	<i>Tringa totanus</i>	5	0
Turnstone	<i>Arenaria interpres</i>	6	2



### 3.4 Sites of National Importance within 10km

There are 4 pNHAs within 10 km of the existing developments. The closest is Dungarvan Harbour pNHA (000663), within which the rock revetment is located. This site overlaps, in places, with Dungarvan bay SPA. Helvick Head pNHA (000665) is also designated as an SAC.

The pNHAs, along with their site codes are listed below. The full site synopses are available on [www.npws.ie](http://www.npws.ie).

- Barrow River Estuary pNHA (000698)
- Helvick Head pNHA (000665) (also an SAC)
- Dungarvan Harbour pNHA (000663)
- Ballyvoyle Head to Tramore pNHA (001693)

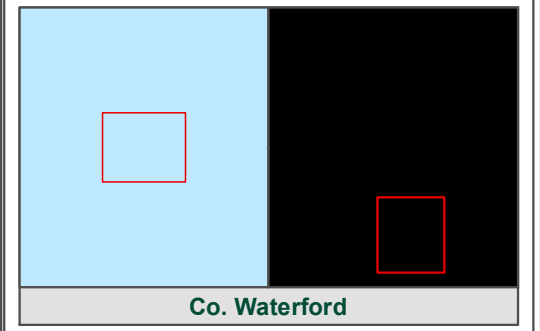
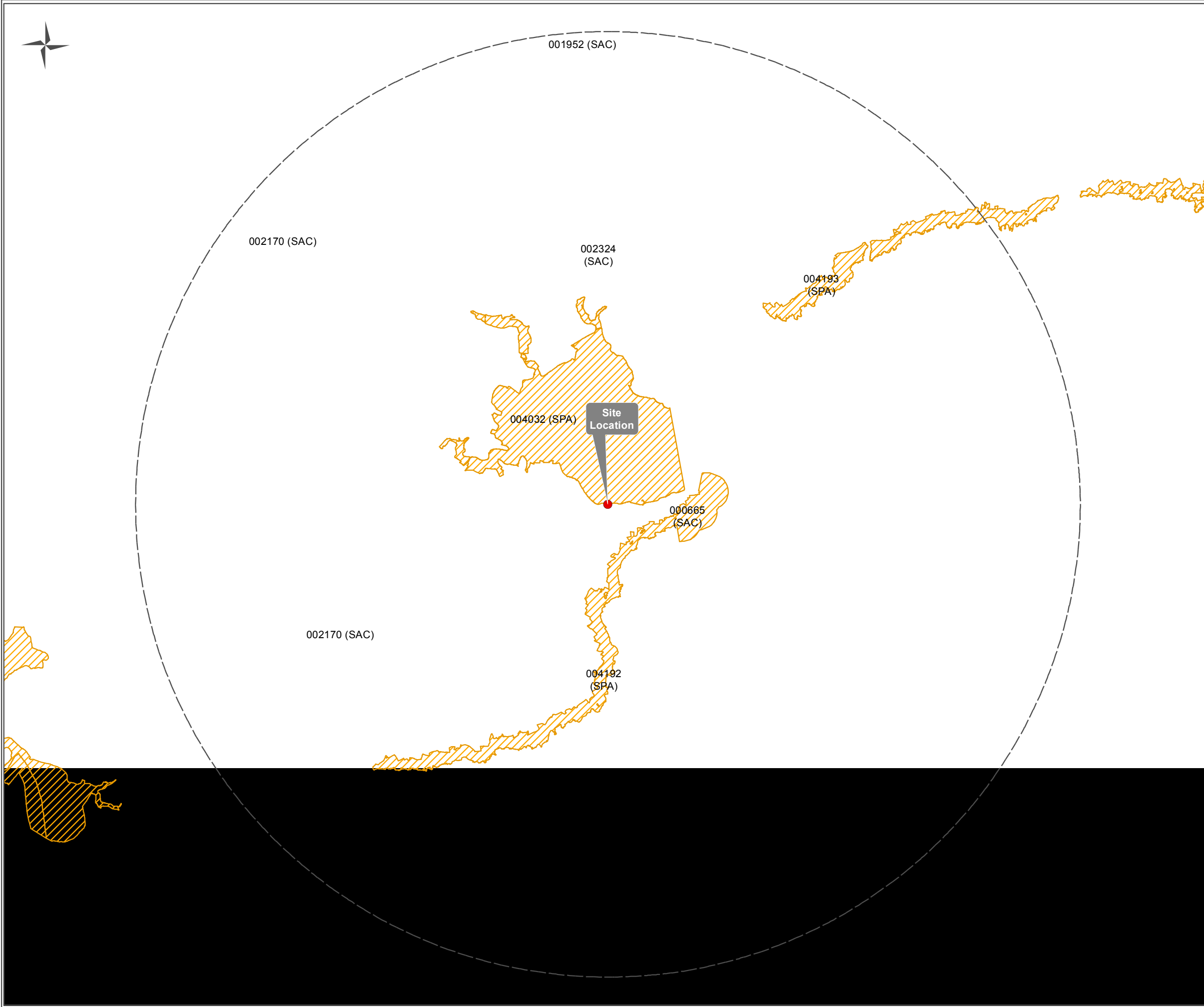
### 3.5 Overview of European sites within 15 km of the Development

- Dungarvan Harbour SPA (Site Code 004032) is located adjacent to the existing rock revetment. It is also connected hydrologically via the licensed discharge into the Maoil an Chronaigh stream, which flows into Dungarvan Harbour SPA c. 35m downstream of the plant.
- Helvick Head to Ballyquin SPA (Site Code 004192) is located approximately 1.1 km southeast of the existing developments.
- Helvick Head cSAC (Site Code 000665) is located approximately 1.4 km southeast of the existing developments.
- Blackwater River (Cork/Waterford) cSAC (Site Code 002170) is located approximately 5.5 km southwest of the existing developments.
- Glendine Wood cSAC (Site Code 002324) is located approximately 7.2 km north of the existing developments.
- Mid-Waterford Coast SPA (Site Code 004193) is located approximately 8 km northeast of the existing developments.
- Comeragh Mountains cSAC (Site Code 001952) is located approximately 14 km north of the existing developments.
- Ardmore Head cSAC (Site Code 002123) is located approximately 14.3 km southwest of the existing developments.

*Full site synopses are included in Appendix 2 of this document.*

**Figure 3-1: Location of European Sites within 15km of site**

[S:\GIS Internal\2018\P1360\P1360\\_Fig3-1\\_EuropeanProtectedSitesWithin15km\\_A3.PDF](S:\GIS Internal\2018\P1360\P1360_Fig3-1_EuropeanProtectedSitesWithin15km_A3.PDF)



**Legend**

- Oyster Plant
  - 15km Distance from Oyster Plant
  - Special Protection Area (SPA)
  - Special Area of Conservation (SAC)
- Site Code, Site Name, Distance (km)*
- 004032, Dungarvan Harbour, 9 metres
  - 004192, Helvick Head to Ballyquin, 1.1
  - 004193, Mid-Waterford Coast, 8.0
  - 000665, Helvick Head, 1.4
  - 001952, Comeragh Mountains, 14.0
  - 002123, Ardmore Head, 14.3
  - 002170, Blackwater River, 5.5
  - 002324, Glendine Wood, 7.2

**Figure Title**  
European Protected Sites within 15km of the Development

**Figure No.** 3.1

**Project**  
AA for Extension of Oyster Plant

**Client**  
Waterford Oysters

**Scale** 1:120,000 **Page Size** A3

**Revision** A **Date** 17/07/2018

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Table 3-2: Characteristics of European Sites and Distances from the development

Designated Site	Qualifying Interests	Conservation Objectives	Threats	Distance from Existing Developments
Dungarvan Harbour SPA (Site Code 004032)	<ul style="list-style-type: none"> <li>Great Crested Grebe (<i>Podiceps cristatus</i>) [A005]</li> <li>Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046]</li> <li>Shelduck (<i>Tadorna tadorna</i>) [A048]</li> <li>Red-breasted Merganser (<i>Mergus serrator</i>) [A069]</li> <li>Oystercatcher (<i>Haematopus ostralegus</i>) [A130]</li> <li>Golden Plover (<i>Pluvialis apricaria</i>) [A140]</li> <li>Grey Plover (<i>Pluvialis squatarola</i>) [A141]</li> <li>Lapwing (<i>Vanellus vanellus</i>) [A142]</li> <li>Knot (<i>Calidris canutus</i>) [A143]</li> <li>Dunlin (<i>Calidris alpina</i>) [A149]</li> <li>Black-tailed Godwit (<i>Limosa limosa</i>) [A156]</li> <li>Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157]</li> <li>Curlew (<i>Numenius arquata</i>) [A160]</li> <li>Redshank (<i>Tringa totanus</i>) [A162]</li> <li>Turnstone (<i>Arenaria interpres</i>) [A169]</li> <li>Wetland and Waterbirds [A999]</li> </ul>	To maintain or restore the favourable conservation condition of the bird species, assemblages, and wetland habitats listed as Special Conservation Interests for the SPA	G01.02 walking, horse-riding and non-motorised vehicles (medium) (inside) F01 Marine and Freshwater Aquaculture (medium) (inside) A08 Fertilisation (medium) (outside) F02.03 Leisure fishing (low) (inside) E01 Urbanised areas, human habitation (high) (outside)	Adjacent to the existing rock revetment.  c. 35m in-stream distance along Maoil an Chronaigh stream between plant and SPA.
Helvick Head to Ballyquin SPA (Site Code 004192)	<ul style="list-style-type: none"> <li>Cormorant (<i>Phalacrocorax carbo</i>) [A017]</li> <li>Peregrine (<i>Falco peregrinus</i>) [A103]</li> <li>Herring Gull (<i>Larus argentatus</i>) [A184]</li> <li>Kittiwake (<i>Rissa tridactyla</i>) [A188]</li> <li>Chough (<i>Pyrrhocorax pyrrhocorax</i>) [A346]</li> </ul>	To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for the SPA	K01.01 Erosion (low) (inside) I01 invasive non-native species (low) (inside) G01.03 motorised vehicles (low) (inside)	1.1 km southeast

Designated Site	Qualifying Interests	Conservation Objectives	Threats	Distance from Existing Developments
Helvick Head SAC (Site Code 000665)	<ul style="list-style-type: none"> <li>• Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]</li> <li>• European dry heaths [4030]</li> </ul>	To maintain or restore the favourable conservation condition of the Annex I habitats for which the SAC has been selected	A04 grazing (low) (inside) J01 fire and fire suppression (medium) (inside)	1.4 km southeast
Blackwater River (Cork/Waterford) SAC (Site Code 002170)	<ul style="list-style-type: none"> <li>• Estuaries [1130]</li> <li>• Mudflats and sandflats not covered by seawater at low tide [1140]</li> <li>• Perennial vegetation of stony banks [1220]</li> <li>• <i>Salicornia</i> and other annuals colonising mud and sand [1310]</li> <li>• Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>) [1330]</li> <li>• Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410]</li> <li>• Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitricho-Batrachion</i> vegetation [3260]</li> <li>• Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [91A0]</li> <li>• Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i>, <i>Alnion incanae</i>, <i>Salicion albae</i>) [91E0]</li> <li>• <i>Margaritifera margaritifera</i> (Freshwater Pearl Mussel) [1029]</li> <li>• <i>Austropotamobius pallipes</i> (White-clawed Crayfish) [1092]</li> </ul>	To maintain or restore the favourable conservation condition of the Annex I habitat(s) and Annex II species for which the SAC has been selected	A08 Fertilisation (high) (inside) J02.01 Landfill, land reclamation and drying out, general (low) (inside) B Silviculture, forestry (low) (inside) A03 mowing / cutting of grassland (high) (inside) E03.01 disposal of household / recreational facility waste (low) (inside) F02.03 Leisure fishing (medium) (inside) E01 Urbanised areas, human habitation (medium) (outside) J02.01 Landfill, land reclamation and drying out, general (medium) (outside) D01.02 roads, motorways (low) (inside) A04 grazing (high) (outside) I01 invasive non-native species (medium) (inside) K01.01 Erosion (low) (inside) C01.01 (low) (outside) G01.01 (low) (inside) A04 grazing (high) (inside)	5.5 km southwest

Designated Site	Qualifying Interests	Conservation Objectives	Threats	Distance from Existing Developments
	<ul style="list-style-type: none"> <li><i>Petromyzon marinus</i> (Sea Lamprey) [1095]</li> <li><i>Lampetra planeri</i> (Brook Lamprey) [1096]</li> <li><i>Lampetra fluviatilis</i> (River Lamprey) [1099]</li> <li><i>Alosa fallax fallax</i> (Twaite Shad) [1103]</li> <li><i>Salmo salar</i> (Salmon) [1106]</li> <li><i>Lutra lutra</i> (Otter) [1355]</li> <li><i>Trichomanes speciosum</i> (Killarney Fern) [1421]</li> </ul>		<p>G02 Sport and leisure structures (low) (outside)</p> <p>I01 invasive non-native species (medium) (outside)</p> <p>B Silviculture, forestry (medium) (outside)</p> <p>D01.04 railway lines, TGV (low) (inside)</p> <p>E02 Industrial or commercial areas (medium) (outside)</p> <p>A08 Fertilisation (high) (outside)</p>	
Glendine Wood SAC (Site Code 002324)	<ul style="list-style-type: none"> <li><i>Trichomanes speciosum</i> (Killarney Fern) [1421]</li> </ul>	To maintain or restore the favourable conservation condition of the Annex II species for which the SAC has been selected	<p>B Silviculture, forestry (medium) (inside)</p> <p>K05 Reduced fecundity/ genetic depression (medium) (inside)</p> <p>A04 Grazing (medium) (outside)</p> <p>B Silviculture, forestry (medium) (outside)</p> <p>E01.03 Dispersed habitation (medium) (outside)</p> <p>D01.02 Roads, motorways (medium) (outside)</p>	7.2 km north
Mid-Waterford Coast SPA (Site Code 004193)	<ul style="list-style-type: none"> <li>Cormorant (<i>Phalacrocorax carbo</i>) [A017]</li> <li>Peregrine (<i>Falco peregrinus</i>) [A103]</li> <li>Herring Gull (<i>Larus argentatus</i>) [A184]</li> <li>Chough (<i>Pyrrhocorax pyrrhocorax</i>) [A346]</li> </ul>	To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for the SPA	<p>A04.03 Abandonment of pastoral systems, lack of grazing (low) (inside)</p> <p>A02 Modification of cultivation practices (low) (inside)</p> <p>E04.01 Agricultural structures, buildings in the landscape (low) (outside)</p> <p>E05 Storage of materials (low) (outside)</p>	8 km northeast

Designated Site	Qualifying Interests	Conservation Objectives	Threats	Distance from Existing Developments
Comeragh Mountains SAC (Site Code 001952)	<ul style="list-style-type: none"> <li>Oligotrophic waters containing very few minerals of sandy plains (<i>Littorelletalia uniflorae</i>) [3110]</li> <li>Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitricho-Batrachion</i> vegetation [3260]</li> <li>Northern Atlantic wet heaths with <i>Erica tetralix</i> [4010]</li> <li>European dry heaths [4030]</li> <li>Alpine and Boreal heaths [4060]</li> <li>Siliceous scree of the montane to snow levels (<i>Androsacetalia alpinae</i> and <i>Galeopsietalia ladani</i>) [8110]</li> <li>Calcareous rocky slopes with chasmophytic vegetation [8210]</li> <li>Siliceous rocky slopes with chasmophytic vegetation [8220]</li> <li><i>Drepanocladus vernicosus</i> (Slender Green Feather-moss) [1393]</li> </ul>	To maintain or restore the favourable conservation condition of the Annex I habitats and Annex II species for which the SAC has been selected	<p>I01 Invasive non-native species (medium) (inside)</p> <p>A04 Grazing (medium) (outside)</p> <p>D01.02 Roads, motorways (low) (inside)</p> <p>G01.02 Walking, horse-riding and non-motorised vehicles (medium) (inside)</p> <p>E02 Industrial or commercial areas (low) (outside)</p> <p>C01.03 Peat extraction (low) (inside)</p> <p>A04 Grazing (high) (inside)</p> <p>E06 Other urbanisation, industrial and similar activities (low) (inside)</p> <p>J01 Fire and fire suppression (medium) (inside)</p> <p>B Silviculture, forestry (medium) (outside)</p> <p>K01.01 Erosion (high) (inside)</p> <p>B Silviculture, forestry (low) (inside)</p>	14 km north
Ardmore Head SAC (Site Code 002123)	<ul style="list-style-type: none"> <li>Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]</li> <li>European dry heaths [4030]</li> </ul>	To maintain or restore the favourable conservation condition of the Annex I habitats for which the SAC has been selected	<p>F02.01.02 Netting (medium) (outside)</p> <p>G05 Other human intrusions and disturbances (low) (inside)</p> <p>A04 Grazing (low) (inside)</p> <p>E01.03 Dispersed habitation (medium) (outside)</p> <p>D01.02 Roads, motorways (low) (inside)</p> <p>G01.02 Walking, horse-riding and non-motorised vehicles (medium) (inside)</p>	14.3 km southwest

Designated Site	Qualifying Interests	Conservation Objectives	Threats	Distance from Existing Developments
			J01 Fire and fire suppression (medium) (inside)	

### 3.6 Conservation Objectives

According to the Habitats Directive, the *conservation status of a natural habitat* will be taken as 'favourable' within its biogeographic range when:

- its natural range and areas 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 as defined below.

According to the Habitats Directive, the conservation status of a species means the sum of the influences acting on the species concerned that may affect the long-term distribution and abundance of its populations. The conservation status will be taken as 'favourable' within its biogeographic range 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.

The specific conservation objectives for each site are available on [www.npws.ie](http://www.npws.ie). These have been accessed for the sites listed in table 3-2 above on the 3<sup>rd</sup> of October 2019.

Site specific conservation objectives were available for the following sites:

- Dungarvan Harbour SPA (004032) published on the 16<sup>th</sup> January 2012
- Helvick Head SAC (000665) published on the 21<sup>st</sup> November 2016
- Ardmore Head SAC (002123) published on the 21<sup>st</sup> November 2016
- Blackwater River (Cork/Waterford) SAC (002170) published on the 31<sup>st</sup> July 2012

The following conservation objectives supporting document has been produced for Dungarvan Harbour SPA (Site Code 004032):

- Dungarvan Harbour SPA (004032) Conservation Objectives Supporting Document -NPWS [Version 1] – December 2011

The following conservation objectives supporting documents have been produced for Helvick Head SAC (Site Code 000665):

- Helvick Head SAC (000665) Conservation Objectives Supporting Document Coastal Habitats -NPWS [Version 1] – November 2016



The following conservation objectives supporting documents have been produced for Ardmore Head SAC (Site Code 002123):

- Ardmore Head SAC (002123) Conservation Objectives Supporting Document Coastal Habitats -NPWS [Version 1] – November 2016

The following conservation objectives supporting documents have been produced for the River Blackwater (Cork/Waterford) SAC (site code 002170):

- River Blackwater (Cork/Waterford) SAC (site code 2170) Conservation objectives supporting document- woodland habitats [Version 1] - July 2012
- Blackwater River (Cork/Waterford) SAC (site code: 2170) Conservation objectives supporting document - marine habitats [Version 1] - January 2012
- Blackwater River (Cork/Waterford) SAC (site code 2170) Conservation objectives supporting document -coastal habitats [Version 1] - February 2012

Generic conservation objectives only were available for the following sites:

- Helvick Head to Ballyquin SPA (004192) published on the 21<sup>st</sup> February 2018
- Mid-Waterford Coast SPA (004193) published on the 21<sup>st</sup> February 2018
- Glendine Wood SAC (002324) published on the 21<sup>st</sup> February 2018
- Comeragh Mountains SAC (001952) published on the 21<sup>st</sup> February 2018

A conservation management plan is in place for Ardmore Head SAC (Site Code 002123).

All conservation objectives together with other designated site information are available on <http://www.npws.ie/protectedsites>.

### 3.7 Permitted Projects in the Vicinity of the Proposed Development Site

In considering whether the proposed development, either on its own or in combination with other plans and projects has the potential to affect the conservation objectives of the designated sites within 15 km of the proposed development, previously permitted projects in the vicinity of the proposed development were considered.

A planning search covering the previous five years was carried out using the online planning enquiry system at: <http://www.waterfordcouncil.ie/departments/planning/planning-enquiries/online-planning-enquiries.htm> for the townlands overlapping the proposed development site and those abutting the same (listed below):

- Moat
- Mweelahorna
- Shanacloon
- Knockanpower Lower

The majority of permitted projects are one-off residential developments, extensions, or alterations, such as the building of new houses, extensions/alterations to existing houses, construction of garages, and upgrade of wastewater treatment units.

One larger scale residential development, consisting of the demolition of existing buildings and construction of 30 new houses including ancillary works, internal access roads, and services is conditionally permitted in the townland of Shanacloon to the south of the processing plant.

Also of note is an incomplete application by Irish Water to build two water reservoirs in the townland of Mweelahorna; this withdrawn application dates from 2016 and there has been no further application since this date.

### 3.8 Relevant European Sites and Assessment

#### 3.8.1 European Sites within 15 km of Processing Plant

The following sites (1-5) are not in close proximity to, and not linked hydrologically to the development site; in addition, sites 1-4 are designated only for habitats and/or (immobile) species which occur within their boundaries. The fact that the Blackwater River (Cork/Waterford) SAC (002170) lies within a different catchment, combined with its distance from processing plant means impacts to the mobile species for which it is designated are highly unlikely. As such, it is concluded 'beyond reasonable scientific doubt' that no impacts to these sites in terms of their qualifying interests are envisaged, and therefore they do not require further consideration in relation to the oyster plant development works. The following European sites are therefore 'Screened Out'.

1. **Helvick Head SAC (000665)**
2. **Ardmore Head SAC (002123)**
3. **Glendine Wood SAC (002324)**
4. **Comeragh Mountains SAC (001952)**
5. **Blackwater River (Cork/Waterford) SAC (002170)**

The development site is located adjacent and connected hydrologically to **Dungarvan Harbour SPA (004032)**. The fact that **Helvick Head to Ballyquin SPA (004192)** and **Mid-Waterford Coast SPA (004193)** are designated for mobile species whose range is likely to overlap the development site and Dungarvan Harbour SPA means these European sites also require further consideration.

Therefore, these European Sites are therefore given further consideration below in Table 3.3 and Appendix 1 Finding of no Significant Effects Report.

### 3.9 Screening Assessment Criteria

Throughout this section the line items in *italics* refer to suggested instructions for information to be contained in a screening assessment, and in an appropriate assessment from the guidance document '*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*', (European Commission, 2001). The standard 'Screening Matrix' and 'Finding of No Significant Effects Report Matrix' in Annex 2 of this guidance document are also followed.

**Table 3-3: Assessment of the Potential Impact of the Proposed Project either Alone or in Combination with Other Plans or Projects on Natura 2000 Sites**

Assessment Criteria	
<p>Describe the individual elements of the project (either alone or in combination with other plans or projects) likely to give rise to impacts on the Natura 2000 sites.</p>	<p>The individual elements of the development that could give rise to impacts on Natura 2000 sites are:</p> <ul style="list-style-type: none"> <li>• Potential disturbance to the qualifying interests of Dungarvan Harbour SPA (004032) as a result of the rock revetment.</li> <li>• Potential for sediment or contaminants to enter Dungarvan Harbour SPA during the construction of the rock revetment.</li> </ul>
<p>Describe any likely direct, indirect or secondary impacts of the project (either alone or in combination with other plans or projects) on the Natura 2000 site by virtue of:</p> <ul style="list-style-type: none"> <li>▪ Size and scale;</li> <li>▪ Land-take;</li> <li>▪ Distance from Natura 2000 site or key features of the site;</li> <li>▪ Resource requirements;</li> <li>▪ Emissions;</li> <li>▪ Excavation requirements;</li> <li>▪ Transportation requirements;</li> <li>▪ Duration of construction, operation etc.;</li> <li>▪ Other.</li> </ul>	<p><b>Predicted Impacts:</b> <i>There is the potential for impacts to the ornithological interests of Dungarvan Harbour SPA.</i></p> <p>The categories within which potential impacts to SPA designated species and habitats fall are: potential for direct loss of feeding habitat; potential for disturbance, potential for direct health impacts due to emissions, and potential for indirect impacts to feeding and/or breeding habitats via emissions.</p> <p>Of primary concern are the sandflats, mudflats, littoral areas, and waters of Dungarvan Bay, which designated species for Dungarvan Harbour SPA (004032) would use for foraging and/or breeding in various combinations.</p> <p>With regard to Helvick Head to Ballyquin SPA (004192) and Mid-Waterford Coast SPA (004193) designated species, these areas could also be important to cormorant, herring gull, and kittiwake, but are unlikely to be used regularly by peregrine falcon and chough.</p> <p>There is some potential for chough to forage in fields surrounding the plant, however this species favours less intensively farmed grassland with a short sward, and as such the agricultural fields surrounding the plant are unlikely to be of value to this species.</p> <p>Peregrine falcon may hunt in the vicinity of the plant, but their prey species would occur over a wide territory, and therefore would not be significantly impacted by any localised activities at the plant.</p> <p>As such, no impacts are envisaged to either chough and/or peregrine falcon.</p> <p>The potential for impacts to the remainder of species for which all three SPAs are designated requires further consideration.</p> <p>No direct loss of feeding habitat for any of these species could occur as a result of the development works as both the canopy and extension are located within pre-existing yards surrounding the plant and the rock revetment is located outside the SPA on the upper shoreline in an area devoid of vegetation, with no mud and little to no sand. These habitat types are considered unsuitable for foraging and breeding purposes with more favourable habitats, namely mudflats, located in the surrounding area.</p> <p>There would be the potential for disturbance during the construction phase of developmental works in particular for the rock revetment. This structure is located adjacent to Dungarvan Harbour SPA. Construction works involved the delivering and placement of locally sourced rocks along the upper shoreline. Machinery used included a dumper trailer to deliver the rocks and a JCB to carefully place the rocks along the upper shoreline.</p>

Assessment Criteria	
	<p>Construction works lasted less than a week, during which construction machinery would have had to briefly enter the SPA (the current boundary) to facilitate the safe construction of the structure. It is important to note that the area of the SPA entered by the construction machinery was not included within the designated site until 2011. Nonetheless the impact will be considered in the assessment.</p> <p>Therefore, during these works there was also the potential for release of pollutants and / or sediments into Dungarvan Harbour which may adversely impact foraging habitat and prey availability.</p> <p>Once constructed the rock revetment requires little to no maintenance. Therefore, due to the nature of the operational phase no impact is envisaged.</p> <p>There would be limited potential for disturbance during construction of the canopy and the extension, however this would not be significantly greater than the low levels which would occur currently during the normal operations at the plant.</p> <p>Erection of the canopy was undertaken over a short time frame and once constructed this structure requires minimal maintenance. The use of prefabricated materials for the extension reduces construction time (approximately 1 month) and also reduces the levels of activity and resources required to erect a structure. These factors would further reduce the potential for disturbance.</p> <p>Operational phase disturbance is likewise not considered likely to be increased significantly above the levels which would occur normally during normal plant operation. As demonstrated in table 1.1, yearly sales figures have in fact fallen from a peak of c. 600-700 tonnes in 2008-2009 to between c. 350-500 tonnes in recent years.</p> <p>The new washing area is not an intensification of activities or production levels at the plant, but rather an upgrade to facilitate more modern processing resulting in a higher quality product.</p> <p>In terms of emissions, impacts during construction were considered unlikely due to the use of prefabricated materials, which would minimise the use of concrete, generation of sediment, and use of plant machinery and resultant potential for contaminant spillages.</p> <p>Further, the requirement for silt, oil, and grease traps to intercept storm water runoff from yards used by lorries as specified in the plant's discharge licence (WPW/01/92) would reduce the likelihood of any potential emissions reaching Dungarvan Harbour SPA.</p> <p>Similarly, for operational phase emissions impacts of the extension, the relatively benign nature of the effluent (oyster wastewater), the fact that emissions are constrained to remain within established parameters (no change in the emissions exiting the plant will occur), and the large dilution factor provided by the waters of Dungarvan Bay, mean that no significant negative impacts in this regard are envisaged.</p> <p>No impacts to Helvick Head to Ballyquin SPA (004192) and Mid-Waterford Coast SPA (004193) are envisaged due to the development works given the distance separating the sites, the scale and nature of the works and the availability of more favourable habitat along the coastline.</p>

Assessment Criteria	
	<p>However due to proximity of the rock revetment to Dungarvan Harbour SPA, there was the potential for impacts on the ornithological interests of this European site and this must be further considered in a Stage Two NIS.</p> <p><b>Size and scale, land-take and distance from Natura 2000 sites</b></p> <p><b>Predicted Impacts:</b> <i>No significant impact envisaged.</i></p> <p>While Dungarvan Harbour SPA (004032) is located adjacent to the development works and while sections of the revetment are located within the SPA, their inclusion appears to be due to a mapping error, since the edge of this area has been recognised as a clearly identifiable practical boundary by the NPWS.</p> <p>It is important to note that it was agreed that the rock revetment would be removed from the SPA boundary and that it should not have been included in the SPA in the first instance.</p> <p>Therefore, although mapping software may include the rock revetment within the SPA, it has been acknowledged that this should not be the case and therefore no land-take will occur from Dungarvan Harbour SPA (004032).</p> <p><b>Resource requirements and Excavation requirements</b></p> <p><b>Predicted Impacts:</b> <i>None</i></p> <p>There was no resource requirements or excavation requirements from any European site as a result of the development works.</p> <p><b>Emissions</b></p> <p><b>Predicted Impacts:</b> <i>Indirect impacts on the water quality of Dungarvan Harbour.</i></p> <p>There was the potential for indirect impact on water quality during the construction of the rock revetment due to release of sediments or run-off into Dungarvan Harbour. This will be considered further in the Natura Impact Statement.</p> <p>Impacts during construction of the canopy are considered to have been unlikely due to scale and nature of the development. Impacts during construction of the extension are also considered to have been unlikely due to the use of prefabricated materials, which would minimise the use of concrete, generation of sediment, and use of plant machinery, its location within an existing yard, and resultant potential for contaminant spillages.</p> <p>The requirement for silt, oil, and grease traps to intercept storm water runoff from yards used by lorries as specified in the plant's discharge licence (WPW/01/92) would further reduce the likelihood of any potential emissions reaching Dungarvan Harbour SPA.</p> <p>Similarly, for operational phase emissions impacts of the extension, the relatively benign nature of the effluent (oyster wastewater), the fact that emissions are constrained to remain within established parameters (no change in the emissions exiting the plant will occur), and the large dilution factor provided by the waters of Dungarvan Bay, mean that no significant negative impacts in this regard are envisaged.</p>

Assessment Criteria	
	<p><b>Transportation requirements</b></p> <p><b>Predicted Impacts:</b> <i>Potential impacts to Dungarvan Harbour SPA during the construction phase of the rock revetment.</i></p> <p>The machinery used during construction of the rock revetment, had to, at times enter existing boundary of Dungarvan Harbour SPA to ensure the safe delivery of materials and to facilitate the construction of the revetment. It is important to note that the area of the SPA entered by the construction machinery was not included within the designated site until 2011. Nonetheless this will be considered further in the Natura Impact Statement.</p> <p><b>Duration of Construction and Operation</b></p> <p><b>Predicted Impacts:</b> <i>Potential impacts to Dungarvan Harbour SPA during the construction phase of the rock revetment.</i></p> <p>The duration of construction for the rock revetment was less than one week with maintenance works occurring over a similar timeframe. Construction of the rock revetment involved placing locally sourced rocks along the upper shoreline to protect the lower storage yard from coastal erosion.</p> <p>The majority of works were undertaken adjacent to the SPA. Construction machinery had to at times enter the SPA, however at the time of the works this area was not designated as an SPA. Nonetheless there was the potential for significant impacts on the ornithological interests of the SPA. In addition, there was the potential for release of sediments or contaminants from the construction process. This will be considered further in the Natura Impact Statement.</p> <p>The construction phase for the canopy and the extension were both short term, approximately 1 month for the extension. No impacts are envisaged to have occurred on any European sites during the construction phase of these developments.</p> <p>The duration of the operational phase for all elements of the development works will be in perpetuity. No impacts are envisaged on any of the European sites considered during the operational period of the developments.</p> <p><b>Cumulative Impacts</b></p> <p><b>Predicted Impacts:</b> <i>None</i></p> <p>While the permitted residential development to the south of the plant could potentially contribute to a cumulative impact on water quality in the absence of adequate wastewater treatment infrastructure, the requirement for proper treatment infrastructure or connection of the development to public wastewater treatment infrastructure means this is unlikely.</p> <p>An Appropriate Assessment was prepared by Aktins in 2014 to assess the potential impact on Dungarvan Harbour SPA as a result of aquaculture activities (Atkin, 2014). This conclusion statement for this Appropriate Assessment was updated in 2016. All existing and proposed aquaculture activity in Dungarvan Harbour involves oyster cultivation using bags and trestles in the intertidal zone.</p>

Assessment Criteria	
	<p>The licenced sites and application areas are all in a single contiguous block on the Whitehouse Bank. The intertidal oyster cultivation activity in Dungarvan Harbour began in the mid-1080s. There are in excess of 200 hectares licensed within the Harbour. The conclusion of the Appropriate Assessment was that with the inclusion of a monitoring programme and implementation of mitigation measures that aquaculture activities would not result in a significant effect on Dungarvan Harbour SPA. The existing developments shall not add to this potential impact.</p>
<p>Describe any likely changes to the site arising as a result of:</p> <ul style="list-style-type: none"> <li>▪ Reduction of habitat area;</li> <li>▪ Disturbance of key species;</li> <li>▪ Habitat or species fragmentation;</li> <li>▪ Reduction in species density;</li> <li>▪ Changes in key indicators of conservation value;</li> <li>▪ Climate change.</li> </ul>	<p><b>Predicted Impacts:</b> <i>Potential impact to birds of qualifying interest to Dungarvan Harbour SPA.</i></p> <p>There is no direct or indirect reduction in habitat area or habitat fragmentation within any European site as a result of the developmental works.</p> <p>There is the potential for an impact via disturbance of key species or reduction of key species as a result of the developmental works.</p> <p>There is the potential for changes in key indicators of conservation value due to the developmental works.</p>
<p>Describe any likely impacts on the Natura 2000 (European) site as a whole in terms of:</p> <ul style="list-style-type: none"> <li>▪ Interference with the key relationships that define the structure of the site;</li> <li>▪ Interference with key relationships that define the function of the site.</li> </ul>	<p>The potential for impacts on the key relationships that define the structure or function of any European site is considered further in the Nature Impact Statement.</p>
<p>Provide indicators of significance as a result of the identification of effects set out above in terms of:</p> <ul style="list-style-type: none"> <li>▪ loss,</li> <li>▪ fragmentation,</li> <li>▪ disruption,</li> <li>▪ disturbance,</li> <li>▪ change to key elements of the site (e.g. water quality etc.).</li> </ul>	<p>The potential impacts on Dungarvan Harbour SPA is considered further in the Natura Impact Statement.</p>
<p>Describe from the above those elements of the project or plan, or combination of elements, where the above</p>	<p>The potential impact on Dungarvan Harbour SPA is considered further in the Natura Impact Statement.</p>

Assessment Criteria	
<i>impacts are likely to be significant or where the scale of magnitude of impacts is not known.</i>	

### 3.10 Stage One Screening Conclusion

it is concluded 'beyond reasonable scientific doubt' that no direct, indirect or cumulative significant impacts are envisaged to seven of the eight European sites within 15km of the development site. The following list of seven European sites have been 'screened out' within the Stage One Appropriate Assessment Screening Report and do not require further study within a Stage Two Natura Impact Statement:

- Helvick Head SAC (000665)
- Ardmore Head SAC (002123)
- Glendine Wood SAC (002324)
- Comeragh Mountains SAC (001952)
- Blackwater River (Cork/Waterford) SAC (002170)
- Helvick Head to Ballyquin SPA (004192)
- Mid-Waterford Coast SPA (004193)

The potential for significant impacts to the qualifying interests of the following European site will be considered further within a Stage Two Natura Impact Statement:

- Dungarvan Harbour SPA (Site Code 004032).



## 4 STAGE TWO: NATURA IMPACT STATEMENT

This section addresses the possibility of there being significant effects on one European site which was identified during the Stage One screening process (Section 3) as follows:

- Dungarvan Harbour SPA (004032)

### 4.1 Assessment of the Effects of the Project or Plan on the Integrity of European Sites

*'Describe the elements of the project or plan (alone or in combination with other projects or plans) that are likely to give rise to significant effects on the site (from screening assessment)'.*

The rock revetment has the potential to have significant effects on the Dungarvan Harbour SPA related to ornithological disturbance.

The revetment was constructed 16 years ago to protect the yard area from coastal erosion processes. Currently the area behind the revetment is in use for storage by third party oyster farmers. The initial inclusion of the revetment within the SPA boundary was contested and it was subsequently agreed that the revetment would be removed from within the SPA boundary. Updated mapping shows the rock revetment within the SPA boundary although it was agreed with the NPWS that this would be removed. This inaccuracy in mapping has since been acknowledged by the Local Authority.

The revetment was built along the upper shore in an area with minimal, if any, sand, and devoid of vegetation and mud. This habitat type, identified as mixed sediment shores (LS5), would have been considered low value foraging habitat for the bird species for which the SPA is designated. Rather, these bird species are likely to utilise the nearby mudflats as noted during the field assessments were a total of six bird species of qualifying interest for the SPA were identified foraging along the mudflats down shore of the existing revetment.

The upper shoreline can offer some potential roosting habitat for bird species of conservation interest within the SPA however this would not have been of high value roosting or breeding habitat given the close proximity of the revetment to the slip in addition to the scale of the revetment (approximately 675m<sup>2</sup>).

No direct loss of foraging or breeding habitat for the qualifying interests of the SPA were envisaged due to the rock revetment, given that the revetment is located in low value habitat in addition to the availability of more favourable habitat along the coastline and in the surrounding landscape. Therefore, given that the favourable conservation conditions of wetland and waterbirds [A999] is defined exclusively in terms of habitat area, no impact is possible on this qualifying interest of the Dungarvan Harbour SPA.

There is potential for indirect effects via ornithological disturbance. It is possible that during construction of the rock revetment there was some temporary and localised disturbance to the ornithological interests of the SPA due to increased activity at the site. However, given the short timeframe (less than one week) of the works it is not considered that any disturbance would be significant. In addition, following completion of the works the bird species would have returned to area as evidenced by the site surveys.

Construction of the rock revetment had the potential to result in the release of sediments or run-off into Dungarvan Harbour SPA. This in turn could have affected foraging habitat and prey availability for the qualifying interests of Dungarvan Harbour SPA. However, no pollution incidents involving construction machinery, i.e. the dumper trailer or JCB, were recorded during the works. This is particularly important as at certain instances during the construction works, the machinery would have had to enter the current boundary of Dungarvan Harbour SPA to safely place the rocks in the revetment.

Due to the scale of the development, the nature of the habitats within the SPA i.e. habitat created due to natural deposition of sediment within river systems namely 'Mudflats' and the dilution factor within the Dungarvan Bay, it is considered highly unlikely that construction of the rock revetment would result in significant impacts on Dungarvan Harbour SPA.

Further the Appropriate Assessment prepared by Aktins on the effects of aquaculture activities on Dungarvan Harbour SPA concluded that the risk posed by aquaculture activities to the qualifying interests of the Dungarvan Harbour SPA were low. As aquaculture is an ongoing process and is more intrusive than the development works associated with this application, no significant impacts are considered likely.

Erection of the canopy over the yard to the south of the facility to create a covered area was a short-term process necessary to provide shelter for the workers during loading and unloading of produce and for additional storage space. Due to the nature of this development, the distance separating the development from the SPA and drainage system in place in at the facility, it is considered highly unlikely that it would result in significant impacts to Dungarvan Harbour SPA.

The extension to the facility was required to ensure production of a higher quality product rather than to upscale output. As demonstrated in Table 1-1 there has been a reduction in the overall output in recent years and the low levels of activity at the plant are not likely to have increased following the development of the extension. Further it is considered likely that the bird species of the Dungarvan Harbour SPA have become habituated to the activity levels at the plant.

Processing at the facility involves washing of oysters in seawater and is devoid of any chemicals or potentially harmful substances. The resulting effluent is discharged to Maoil an Chronaigh stream which is hydraulically connected to Dungarvan Harbour SPA. Run-off from the surfaces and buildings must pass through silt, oil, and grease traps before discharge to the stream. Sewage is discharged separately into the public sewage system. Therefore, no significant impact is envisaged.

Overall, it is considered that the construction of the canopy and extension would not adversely impact or undermine the conservation objectives associated with Dungarvan Harbour SPA and therefore no significant impacts are envisaged.

## 4.2 Dungarvan Harbour SPA

The qualifying interests for Dungarvan Harbour SPA are described below.

### Great Crested Grebe (*Podiceps cristatus*) [A005]

This waterbird is a resident in Ireland, with numbers increasing in winter due to immigrating birds. Great Crested Grebes are the largest species of grebe and have a distinctive body shape - long slender neck, long low body and dagger-like bill. Their diet consists predominantly of fish and can be supplemented with aquatic invertebrates.

This species is of medium conservation concern (amber-listed) due to its localised wintering population. There are 13 sites across the country that regularly support nationally important numbers of Great Crested Grebes over the winter with the highest numbers of breeding pairs found on loughs in Counties Cavan, Armagh and Monaghan.

### Light-bellied Brent Goose (*Branta bernicla hrota*) [A046]

A winter migrant from high-Artic Canada, this population winters almost entirely in Ireland, with small numbers in parts of the UK and France. Their diet consists predominately of eel-grass which grows on muddy estuaries.

This species is of medium conservation concern (amber-listed) as the majority winter at less than ten sites. Highest numbers are seen in Strangford Lough in Northern Ireland. They are also found at other estuarine sites including Lough Foyle and Tralee Bay County Kerry and Dublin Bay in County Dublin.

### Shelduck (*Tadorna tadorna*) [A048]

This medium sized goose-like duck is a resident in Ireland, with numbers increasing in winter due to immigrating birds. Chief prey for Shelduck is *Hydrobia ulvae* which is present in the majority of estuaries.

They breed in open areas along seashores, larger lakes and rivers and have an almost entirely coastal distribution during the winter. This species is of medium conservation concern (amber-listed) due to its localised wintering population

Red-breasted Merganser (*Mergus serrator*) [A069]

Red-breasted Merganser is a resident in Ireland with winter visitors also arriving from the continent. Their diet consists predominantly of fish such as small cod, hake and plaice. They winter exclusively in brackish and marine waters particularly in shallow protected estuaries, bays and lagoons. This species is not considered threatened in Ireland (green-listed).

Oystercatcher (*Haematopus ostralegus*) [A130]

This species is a resident along Irish coastlines with winter visitors coming from Iceland and the Faeroes. The Oystercatcher is a large black and white wading bird with a long, orange-red bill and reddish-pink legs. Their main food resource includes larger invertebrates, particularly cockles and mussels. This species is of medium conservation concern (amber-listed) as Ireland hosts internationally important numbers during the winter.

Golden Plover (*Pluvialis apricaria*) [A140]

This species is a summer visitor from France (though some may remain in Ireland year-round) and a winter visitor from Iceland. They are smaller than the Grey Plover with narrower more pointed wings. Their distribution is widespread throughout Ireland in winter, occupying inland and coastal habitats. This species is of high conservation concern (red-listed) in Ireland due to a large decline in the breeding population.

Grey Plover (*Pluvialis squatarola*) [A141]

This winter visitors arrives in Ireland towards the end of July and stays until April. Grey Plover is larger than Golden Plover with a bulky body, large head and heavy bill. Their distribution in Ireland is exclusively coastal and are found mostly along eastern and southern coasts, usually on large muddy estuaries. This species is of medium conservation concern (amber-listed) as the majority winter at less than ten sites.

Lapwing (*Vanellus vanellus*) [A142]

This distinct black and white wader occurs in Ireland in greatest numbers between September and April. They feed on a variety of soil and surface-living invertebrates, particularly small arthropods and earthworms. They also feed at night, possibly to avoid kleptoparasitic attacks by Black-headed Gulls.

Wintering distribution in Ireland is widespread. Large flocks regularly recorded in a variety of habitats, including most of the major wetlands, pasture and rough land adjacent to bogs. This species is of high conservation concern (red-listed) in Ireland and is considered vulnerable at a European level.

Knot (*Calidris canutus*) [A143]

This short-legged plump wader is a winter visitor to Ireland. Their distribution in Ireland is exclusively coastal with their preferred habitat comprising estuarine sites with extensive areas of muddy sand. Knot feed predominately on bivalve mussels and crustaceans and breed at low density often close to the coast. This species is of high conservation concern (red-listed) in Ireland due to concerns over declines in the global population.

Dunlin (*Calidris alpina*) [A149]

Dunlin are one of the smaller waders and our most abundant one in winter. They are commonly found along Ireland's coast especially on tidal mudflats and estuaries where they feed on small invertebrates. This species is of medium conservation concern (amber-listed) due to its localised wintering population.

Black-tailed Godwit (*Limosa limosa*) [A156]

Winter visitor from Iceland. Black-tailed Godwit are visual and tactile feeders with a diet comprising bivalves, polychaete worms and shore crabs. They can be found in a variety of habitats both inland and coastal. This species is of medium conservation concern (amber-listed) due to its localised wintering population.

Bar-tailed Godwit (*Limosa lapponica*) [A157]

Winter visitor to coastal estuaries from October to April. Similar in appearance to a Black-tailed Godwit. They feed along the tidal edge or in shallow water. This species is of medium conservation concern (amber-listed) due to its localised wintering population.

Curlew (*Numenius arquata*) [A160]

Curlew is a winter visitor to wetland throughout Ireland. They are the largest wader in Ireland with very distinctive long legs, neck and decurved bill. They feed mostly on invertebrates, particularly ragworms, molluscs and crabs. Winters in a variety of wetland habitats (coastal and inland) and other good feeding areas including damp fields. This species is of high conservation concern (red-listed) in Ireland due to its small and declining breeding population.

Redshank (*Tringa totanus*) [A162]

Redshank visit Ireland in winter from Iceland with highest number occurring in early autumn. This common wader of wetlands is found throughout the country though mainly in coastal estuaries. Its most distinctive feature is its bright red legs. Redshank feed predominately along muddy river channels and estuaries. This species is of high conservation concern (red-listed) in Ireland due to its small and declining breeding population.

Turnstone (*Arenaria interpres*) [A169]

Turnstone come to Ireland in winter and can be found all around the Irish coast. They are about the size of a Starling with a stock build and short orange legs. This species is not considered threatened in Ireland (green-listed).

Wetland and Waterbirds [A999]

Ireland is located along the east Atlantic flyway for waterbirds that breed in more northerly latitudes. It is our mild and wet winters that make the wetlands of Ireland such an important resource for over three-quarters of a million of these waterbirds each year.

Over 50 species of waterbird migrate here either on passage to or from more southerly resorts or to spend the entire winter in Ireland. They seek out the relatively undisturbed wetland areas for ice-free feeding conditions and for safe roosting opportunities. In some circumstances significant proportions of the biogeographic populations of waterbird overwinter here (e.g. Light-bellied Brent Goose, Black-tailed Godwit, Whooper Swan, Greenland White-fronted Goose and Ringed Plover).

**Table 4-1: I-Webs Data for the SCI's at Dungarvan Harbour SPA from winter 2006/07 to 2015/16 (Birdwatch Ireland data)**

SPECIES	1% NATIONAL	1% INTERNATIONAL	2006 /07	2007 /08	2008 /09	2009 /10	2010 /11	2011 /12	2012 /13	2013 /14	2014 /15	2015 /16	MEAN
Light-bellied Brent Goose	360	400	728	1451	1767	1867	1110	1516	1749	1143	1062	1018	1298
Shelduck	120	3000	333	419	314	269	399	341	297	337	348	231	311
Red-breasted Merganser	20	1700	17	31	40	32	31	38	40	46	81	40	49
Oystercatcher	690	8200	780	1248	1055	827	1011	697	835	1047	889	937	881
Golden Plover	1200	9300	4100	5000	2030	8990	692	15	1497	3450	3250	5371	2717
Grey Plover	30	2500	406	543	399	410	243	189	285	220	173	200	213
Lapwing	1100	20000	1246	1692	2345	1768	1564	829	751	2414	1322	1368	1337
Knot	280	4500	478	770	890	729	551	370	604	203	689	540	481
Black-tailed Godwit	190	610	155	832	1248	1458	1648	677	842	520	1386	1136	912
Bar-tailed Godwit	150	1200	834	1242	621	1023	1000	962	996	1151	1127	1321	1111
Curlew	350	8400	481	412	502	659	763	447	391	861	564	591	571
Redshank	300	3900	1206	1015	1339	1023	802	604	958	1126	1042	697	885
Turnstone	95	1400	138	207	272	149	300	106	264	217	247	199	207

### 4.3 The Conservation Objectives of the European Sites

*'Set out the conservation objectives of the site'.*

Dungarvan Harbour SPA is of special conservation importance for its non-breeding populations of Light-bellied Brent Goose, Shelduck, Red-breasted Merganser, Great Crested Grebe, Oystercatcher, Golden Plover, Grey Plover, Lapwing, Knot, Dunlin, Black-tailed Godwit, Bar-tailed Godwit, Curlew, Redshank and Turnstone.

In addition, the wetland habitats located within Dungarvan Harbour SPA have been identified to be of conservation importance for non-breeding (wintering) migratory waterbirds. Therefore, the wetland habitats, along with the aforementioned bird species, are considered to be a Special Conservation Interest (SCI) - (NPWS, 2012).

The conservation objectives of the European site concerned are to maintain favourable conservation status of the key species / SCIs for which the site has been designated. These are laid out in Table 4-2 below.

Conservation Objectives for Dungarvan Harbour SPA, based on the principles of favourable conservation status, are described below.

**Objective 1:** To maintain the favourable conservation condition of the waterbird Special Conservation Interest species listed for Dungarvan Harbour SPA.

This objective is defined by the following attributes and targets:

- To be favourable, the long term population trend for each waterbird Special Conservation Interest species should be stable or increasing. Waterbird populations are deemed to be unfavourable when they have declined by 25% or more, as assessed by the most recent population trend analysis.
- To be favourable, there should be no significant decrease in the numbers or range (distribution) of areas used by the waterbird species of Special Conservation Interest, other than that occurring from natural patterns of variation.

**Objective 2:** To maintain the favourable conservation condition of the wetland habitat at Dungarvan Harbour SPA as a resource for the regularly-occurring migratory waterbirds that utilise it.

This objective is defined by the following attributes and targets:

- To be favourable the permanent area occupied by the wetland habitat should be stable and not significantly less than the area of 2,219 ha, other than that occurring from natural patterns of variation.

**Table 4-2: Key Species / SCIs for the European Site Potentially Impacted by the Development**

Designated Site	Conservation Objectives
Dungarvan Harbour SPA (004032)	<p>Objective: To <b>maintain</b> the favourable conservation condition of the Annex I bird species and wetland habitat for which the SPA has been selected:</p> <ul style="list-style-type: none"> <li>• Great Crested Grebe (<i>Podiceps cristatus</i>) [A005]</li> <li>• Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046]</li> <li>• Shelduck (<i>Tadorna tadorna</i>) [A048]</li> <li>• Red-breasted Merganser (<i>Mergus serrator</i>) [A069]</li> <li>• Oystercatcher (<i>Haematopus ostralegus</i>) [A130]</li> <li>• Golden Plover (<i>Pluvialis apricaria</i>) [A140]</li> <li>• Grey Plover (<i>Pluvialis squatarola</i>) [A141]</li> <li>• Lapwing (<i>Vanellus vanellus</i>) [A142]</li> <li>• Knot (<i>Calidris canutus</i>) [A143]</li> <li>• Black-tailed Godwit (<i>Limosa limosa</i>) [A156]</li> <li>• Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157]</li> <li>• Curlew (<i>Numenius arquata</i>) [A160]</li> <li>• Redshank (<i>Tringa tetanus</i>) [A162]</li> <li>• Turnstone (<i>Arenaria interpres</i>) [A169]</li> <li>• Wetland and Waterbirds [A999]</li> </ul>

#### 4.4 Potential Impacts on Key Species and Key Habitats

'Describe how the project or plan will affect key species and key habitats. Acknowledge uncertainties and any gaps in information'.

No direct impacts are envisaged on the Dungarvan Harbour SPA. The majority of works were located outside the SPA boundary, even though mapping still incorrectly includes the rock revetment within the SPA. Construction machinery had to briefly enter the existing boundary of the SPA for very short timeframes to ensure the safe construction of the revetment. However at the time of the works, the SPA boundary did not extend to include the area where construction machinery was operating.

As the favourable conservation conditions of wetland and waterbirds [A999] is defined solely in terms of habitat area no impact is possible on this SCI.

There is the potential, albeit low, for indirect impacts via disturbance to the ornithological interests of the SPA. While the extension or canopy would not result in indirect impacts, the rock revetment has the potential for ornithological disturbance.

Potential disturbance impacts include increased activity levels during construction of the rock revetment from noise, vibration and anthropogenic elements. Additionally, during construction works there is the potential for release of sediments or contaminants which may enter Dungarvan Harbour SPA and impact on foraging habitat and prey availability within the Harbour.

### 4.5 Potential Impacts on the Integrity of the European Sites

*'Describe how the integrity of the site (determined by structure and function and conservation objectives) is likely to be affected by the project and plan (e.g. loss of habitat, disturbance, disruption, chemical changes, hydrological changes and geological changes etc.). Acknowledge uncertainties and any gaps in information'.*

The integrity of the Dungarvan Harbour SPA could be indirectly affected by the development through a potential impact on the ornithological interests of the SPA. Disturbance may occur which could in turn lead to reduced numbers, reduced range or reduced breeding success of the species for which the SPA is designated.

Although considered highly unlikely the potential ornithological disturbance associated with the development works is acknowledged and mitigation will be presented to avoid possible impacts.

### 4.6 Mitigation Measures

*'Describe what mitigation measures are to be introduced to avoid or reduce the adverse effects on the integrity of the site. Acknowledge uncertainties and any gaps in information'*

- List measures to be introduced
- Explain how the measures will avoid the adverse effects on the integrity of the site
- Explain how the measures will reduce the adverse effects on the integrity of the site
- Provide evidence of how they will be implemented and by whom.

As the construction of the elements of the project considered in this document has been completed the mitigation measures outlined below include measures in place currently to reduce potential impacts and remedial measures to be implemented.

The measures will reduce or avoid potential adverse effects on the integrity of the above site, having regard to the sites' conservation objectives. The mitigation measures are listed on Table 4-3, along with information on when they will be implemented, how the measures will avoid or reduce adverse impacts on the European sites, who will implement the measures and the degree of confidence in their successful implementation.

**Table 4-3: Mitigation Measures**

Mitigation Measure	How Measure Will Avoid/Reduce Adverse Effects	Implementation of Mitigation Measure and Likely Success	Monitoring scheme to prevent mitigation failure
Effluent / storm water run-off will continue to be discharged in accordance with the facility's licence (WPW/01/92).	This measure reduces the risk of contaminated run - off/pollutants entering Dungarvan Harbour SPA.	Implemented by the Client.  High probability of success.	A suitably qualified person has been appointed by the Client to ensure compliance with the facility's discharge licence.
Emergency response procedures will be put in place at the facility. All personnel working at the facility will be trained in pollution incident control response.	This measure will reduce the risk of significant impacts on Dungarvan Harbour SPA.	Will be implemented by the Client.  High probability of success.	A suitably qualified person will be appointed by the Client to ensure effective operation of pollution incident control response at the facility.



Mitigation Measure	How Measure Will Avoid/Reduce Adverse Effects	Implementation of Mitigation Measure and Likely Success	Monitoring scheme to prevent mitigation failure
Emergency response procedures will ensure that appropriate information will be available on site outlining the spillage response procedure and a contingency plan to contain pollutants (oil, fuels and any other chemicals).			
All personnel working at the facility will be given a toolbox talk and informed of the ornithological interests at Dungarvan Harbour SPA.	This measure will reduce the risk of disturbance to bird species and wetland habitats of Dungarvan Harbour SPA.	Will be implemented by the Client.  High probability of success.	A suitably qualified person will be appointed by the Client to inform staff of the conservation importance of Dungarvan Harbour.

### 4.7 Efficacy of Proposed Mitigation Measures

*Provide evidence of the degree of confidence in the likely success of the mitigation measures*

Mitigation measures were devised in consideration of the following guidelines:

- CIRIA Environmental Good Practice on Site;
- UK Pollution Prevention Guidelines (PPG):
  - PPG1: Understanding your environmental responsibilities – good environmental practice;
  - PPG3: Pollution Prevention Guidelines;
  - PPG5: Works in, near or liable to affect Watercourses;
  - PPG21: Pollution Incident Response Planning; and,
  - PPG22: Dealing with Spills

### 4.8 Avoiding Mitigation Failure

*Explain how any mitigation failure will be addressed*

All personnel working at the facility will be trained in pollution incident control response. Emergency response procedures will ensure that appropriate information will be available on site outlining the spillage response procedure and a contingency plan to contain pollutants (oil, fuels and any other chemicals).

### 4.9 Conclusion

In summary, whilst it has been acknowledged that there is the potential for the development works, to have significant indirect impacts on one European site due to proximity, it is concluded beyond reasonable scientific doubt that there was no significant impact to any European sites during the construction phase and it is not envisaged that there will be a significant impact during operational phase of the project.

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# Appendix 1

## Finding of No Significant Effects Report



## Finding of No Significant Effects Report

<p><i>Name and location of the Natura 2000 sites</i></p>	<ul style="list-style-type: none"> <li>• Dungarvan Harbour SPA (Site Code 004032) is located adjacent to the existing rock revetment. It is also connected hydrologically via the licensed discharge into the Maoil an Chronaigh stream, which flows into Dungarvan Harbour SPA c. 35m downstream of the plant.</li> <li>• Helvick Head to Ballyquin SPA (Site Code 004192) is located approximately 1.1 km southeast of the existing developments.</li> <li>• Helvick Head cSAC (Site Code 000665) is located approximately 1.4 km southeast of the existing developments.</li> <li>• Blackwater River (Cork/Waterford) cSAC (Site Code 002170) is located approximately 5.5 km southwest of the existing developments.</li> <li>• Glendine Wood cSAC (Site Code 002324) is located approximately 7.2 km north of the existing developments.</li> <li>• Mid-Waterford Coast SPA (Site Code 004193) is located approximately 8 km northeast of the existing developments.</li> <li>• Comeragh Mountains cSAC (Site Code 001952) is located approximately 14 km north of the existing developments.</li> <li>• Ardmore Head cSAC (Site Code 002123) is located approximately 14.3 km southwest of the existing developments.</li> </ul>
<p><i>Description of the project or plan</i></p>	<p>The existing canopy/open ended structure for storage and to facilitate the sheltered loading/unloading of produce was constructed on the southern side of the permitted building in 1997. This area is approximately 171 square meters. The height of this structure is 5m, matching the height of the consented development.</p> <p>The existing rock revetment was constructed in 2003 in the upper shoreline to protect a lower yard, used by for storage purposes, by oyster farmers from coastal erosion. It was repaired/upgraded in 2007 and again in 2009 following severe storms. The lower yard borders the Dungarvan Bay SPA which was designated in 1994 and further expanded to include the lower yard and foreshore within its boundary in 2011. On foot of an oral hearing in 2012, the Designated Areas Appeals Advisory Board recommended the area be "excluded from the SPA as the rock armour constituted a practical boundary and was clearly identifiable".</p>

**Finding of No Significant Effects Report**

	<p>The existing extension comprises the following:</p> <p>A storage, packing and purification building with an area of 130 sqm and a height of 6951mm. Located on the northern elevation of the facility, the extension was built within the facility's yard, previously used for storage. The development is designed to house a large tank utilised to store oysters in seawater for purification purposes. This is an entirely natural process in which the oysters filter feed in the tanks in clean seawater for 2-4 days making them suitable for retail sale or restaurant use.</p>
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<p><i>Is the Project or Plan directly connected with or necessary to the management of the site (provide details)?</i></p>	<p>No.</p>
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<p><i>Are there other projects or plans that together with the project of plan being assessed could affect the site (provide details)?</i></p>	<p>No.</p> <p>While the permitted residential development to the south of the plant could potentially contribute to a cumulative impact on water quality in the absence of adequate wastewater treatment infrastructure, the requirement for proper treatment infrastructure or connection of the development to public wastewater treatment infrastructure means this is unlikely.</p>
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**The Assessment of Significant Effects**

<p><i>Describe how the project or plan (alone or in combination) is likely to affect the Natura 2000 site.</i></p>	<p><b>Predicted Impacts:</b> <i>Potential impact in relation to ornithological disturbance as a result of the rock revetment.</i></p> <p>The rock revetment has the potential, albeit low, to have significant effects on the Dungarvan Harbour SPA related to ornithological disturbance.</p> <p>The revetment was constructed 15 years ago to protect the yard area, currently in use for storage by third party oyster farms, from coastal erosion processes. The initial inclusion of the revetment within the SPA boundary was contested and it was subsequently agreed that the revetment would be removed from within the SPA boundary. Updated mapping shows the rock revetment within the SPA boundary although it was agreed with the NPWS that this would be removed. This inaccuracy in mapping has since been acknowledged by the Local Authority.</p> <p>The revetment was built along the upper shore in an area with minimal, if any, sand, and devoid of vegetation and mud. This habitat type, identified as mixed sediment shores (LS5), would have been considered low value foraging habitat for the bird species for which the SPA is designated.</p>
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## Finding of No Significant Effects Report

Rather, these bird species are likely to utilise the nearby mudflats as evidenced by the field assessments during which six bird species of qualifying interest for the SPA were identified foraging along the mudflats.

The upper shoreline can offer some potential roosting habitat for bird species of conservation interest within the SPA however this would not have been of high value roosting or breeding habitat given the close proximity of the revetment to the slip in addition to the scale of the revetment (approximately 675m<sup>2</sup>).

No direct loss of foraging or breeding habitat for the qualifying interests of the SPA are envisaged due to the rock revetment, given that the revetment is located in low value habitat in addition to the availability of more favourable habitat along the coastline and in the surrounding landscape. Therefore, given that the favourable conservation conditions of wetland and waterbirds [A999] is defined exclusively in terms of habitat area no impact is possible on this qualifying interest of the Dungarvan Harbour SPA.

There is potential for indirect effects via ornithological disturbance. It is possible that during construction of the rock revetment there was some temporary and localised disturbance to the ornithological interests of the SPA due to increased activity at the site. However, given the short timeframe (less than one week) of the works it is not considered that any disturbance would be significant. In addition, following completion of the works the bird species would have returned to area as evidenced by the site surveys.

Construction of the rock revetment has the potential to result in the release of sediments or run-off into Dungarvan Harbour SPA. This in turn could affect foraging habitat and prey availability for the qualifying interest of Dungarvan Harbour SPA. However, no pollution incidents involving construction machinery, i.e. the dumper trailer or JCB, were recorded during the works. This is particularly important as at certain instances during the construction works, the machinery would have had to enter current boundary of Dungarvan Harbour SPA to safely place the rocks in the revetment. At the time of the works the boundary of the SPA did not extend to encompass the area where construction machinery was operating.

The potential for significant impacts exists and therefore it was necessary to further evaluate these impacts at stage 2 Appropriate Assessment.

**Finding of No Significant Effects Report**

<p><i>Explain why these effects are not considered significant</i></p>	<p>Due to the scale of the development, the nature of the habitats within the SPA i.e. habitat created due to natural deposition of sediment within river systems namely 'Mudflats' and the dilution factor within the Dungarvan Bay, it is considered highly unlikely that developments resulted in significant impacts on Dungarvan Harbour SPA.</p> <p>As the construction of the elements of the project considered in this document has been completed the mitigation measures outlined in the text are measures currently in place to reduce potential impacts and remedial measures that will further prevent potential impacts during the operational phase of the project.</p>
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<b>Name of Agency or Body Consulted</b>	<b>Summary of Response</b>
<p>National Parks and Wildlife Service (via SPA appeal process) (determination communicated on 22<sup>nd</sup> June 2016)</p>	<p>Area under appeal should have been excluded from SPA as the rock armour constituted a practical boundary and was clearly identifiable.</p>

**Data Collected to Carry out the Assessment**

<i>Who carried out the assessment</i>	<i>Sources of Data</i>	<i>Level of assessment completed</i>	<i>Where can the full results of the assessment be accessed and viewed</i>
<p>This evaluation was completed by Fehily Timoney and Company</p>	<ul style="list-style-type: none"> <li>Information on the designated nature conservation sites within 15 km of the study area was obtained from the NPWS website and metadata available online from the NPWS mapping system (<a href="http://webgis.npws.ie/npwsviewer/">http://webgis.npws.ie/npwsviewer/</a>).</li> <li>Information on the waterbody catchments in the development area was obtained from the Water Framework Directive Water Mapping Information System <a href="http://www.wfdireland.ie/maps.html">www.wfdireland.ie/maps.html</a></li> <li>OSI Aerial photography and 1:50000 mapping.               <ul style="list-style-type: none"> <li>Waterford County Council online planning database <a href="http://www.waterfordcouncil.ie/departments/planning/planning-enquiries/online-planning-enquiries.htm">http://www.waterfordcouncil.ie/departments/planning/planning-enquiries/online-planning-enquiries.htm</a></li> </ul> </li> <li>Data collected during site visits on the 18<sup>th</sup> of January 2018 and 3<sup>rd</sup> of December 2018.</li> </ul>	<p>Natura Impact Statement</p>	<p>An Bord Pleanála</p>



# Appendix 2

NPWS Site Synopses for the Natura 2000 Sites within  
15 km of the Proposed Development





**Site Name: Helvick Head SAC**

**Site Code: 000665**

Helvick Head is situated on the southern side of Dungarvan Harbour in Co. Waterford. It forms the eastern extremity of a broad Old Red Sandstone ridge which extends as far west as Cork City, and is the most northern of the (Hercynian) parallel folds in the rocks of the south-west of Ireland. The beds of rock dip quite steeply at this point so that the cliffs, which rise to about 60 m, are formed of a series of semi-vertical ribs with small gullies between them, especially at the eastern end. The site extends from Helvick Head south-westward to include Muggort's Bay and comprises sea cliffs, cliff top vegetation and an area of marine waters off Helvick Head.

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

[1230] Vegetated Sea Cliffs [4030] Dry Heath
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The cliff top supports coastal heath of a type characteristic of shallow soils on acid rocks. Western Gorse (*Ulex gallii*), Bell Heather (*Erica cinerea*) and Heather (*Calluna vulgaris*) are the most common species. Associated species include Wood Sage (*Teucrium scorodonia*), Sheep's-bit (*Jasione montana*), Devil's-bit Scabious (*Succisa pratensis*), Slender St. John's-wort (*Hypericum pulchrum*), Mouse-ear Hawkweed (*Hieracium pilosella*), Heath Bedstraw (*Galium saxatile*), English Stonecrop (*Sedum anglicum*), Common Dog-violet (*Viola riviniana*), Goldenrod (*Solidago virgaurea*), Burnet Rose (*Rosa pimpinellifolia*) and a variety of bryophyte and lichen species. Common grass species are Common Bent (*Agrostis capillaris*) and Sweet Vernal-grass (*Anthoxanthum odoratum*). The presence of Wild Madder (*Rubia peregrina*) is indicative of the southern location of the site.

Where heath has returned to formerly-reclaimed fields, Gorse (*Ulex europaeus*), Bracken (*Pteridium aquilinum*) and Bramble (*Rubus fruticosus* agg.) occur more commonly. Coastal grassland with Red Fescue (*Festuca rubra*), Creeping Bent (*A. stolonifera*), Yarrow (*Achillea millefolium*), Buck's-horn Plantain (*Plantago coronopus*), Daisy (*Bellis perennis*), Sea Mayweed (*Matricaria maritima*), Common Sorrel (*Rumex acetosa*), Wild Carrot (*Daucus carota*), Thrift (*Armeria maritima*) and Kidney Vetch (*Anthyllis vulneraria*), amongst others, also occurs in places on the cliff top, where heath has not developed.

Sea cliffs are particularly well developed at the eastern end of the site and are well vegetated with Thrift, Ivy (*Hedera helix*), Common Scurvygrass (*Cochlearia officinalis*), Sea Campion (*Silene vulgaris* subsp. *maritima*), Rock Sea-spurrey (*Spergularia rupicola*), Buck's-horn Plantain, lichens, and a variety of other species.

Helvick Head has important breeding seabird populations. A census in 1999 recorded the following: Fulmar 42 pairs, Shag 6 pairs, Herring Gull 44 pairs, Great Black-backed Gull 2 pairs, Kittiwake 934 pairs, Guillemot 990 individuals and Razorbill 41 individuals. In April 1998, 10 individual Black Guillemots were recorded. The population of Kittiwakes is of national importance. The site also supports Chough, a species listed on Annex I of the E.U. Birds Directive. The low heath vegetation on the cliff tops provides good foraging habitat for Chough and in 1992 a breeding pair was recorded, as well as three flock birds. Another Annex I species, Peregrine, also occurs at the site. Raven breed on the cliffs and there is a cliff-nesting colony of House Martins. Other species which breed within the site include Rock Pipit and Stonechat. The seabird colony at Helvick Head has been monitored at intervals since the Operation Seafarer project in 1969/70. In addition, more detailed population studies have been carried out on the Kittiwake colony.

Helvick Head is a site of considerable conservation importance, including good examples of coastal dry heath and vegetated sea cliffs, both habitats that are listed on Annex I of the E.U. Habitats Directive. It is also of high ornithological importance, with one seabird species having a population of national importance. The presence of breeding Chough and Peregrine is also of note.

**Site Name: Comeragh Mountains SAC**

**Site Code: 001952**

The Comeragh Mountains are situated approximately 11 km south-west of Carrick-on-Suir in Co. Waterford. They consist of a plateau of Old Red Sandstone with its edges deeply scarred by recent glaciation. Corries and deep valleys are cut into the eastern and western sides leaving a central ridge with a width reduced to 270 m at its narrowest point. The rocks, which are horizontally-bedded, stand out as a series of terraces around these corries, which often house small mountain lakes such as Coumshingaun, the Sgilloge Loughs, the Coum Iarthar Loughs and Crotty's Lough.

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

- [3110] Oligotrophic Waters containing very few minerals
- [3260] Floating River Vegetation
- [4010] Wet Heath
- [4030] Dry Heath
- [4060] Alpine and Subalpine Heaths
- [8110] Siliceous Scree
- [8210] Calcareous Rocky Slopes
- [8220] Siliceous Rocky Slopes
- [1393] Slender Green Feather-moss (*Drepanocladus vernicosus*)

The central plateau of the Comeragh Mountains is at an altitude of about 700 m and supports areas of blanket bog. The peat is up to 2 m deep in places and is rich in cottongrasses (*Eriophorum angustifolium* and *E. vaginatum*), Deergrass (*Scirpus cespitosus*), Heather (*Calluna vulgaris*), Crowberry (*Empetrum nigrum*) and mosses (*Sphagnum* spp., *Polytrichum* spp.). North of Coummahon, the blanket bog has suffered from erosion, in many places down to the underlying bedrock. Eroding channels, hummocks and flats of loose peat are also present.

Dry heath is found at this site in a number of forms. A form dominated by Heather is found on rocky terrain at the south of the site, and is considered good quality dry heath. At the east and south-east of the site the vegetation is found in mosaic with Bracken (*Pteridium aquilinum*), upland grassland (grasses such as *Agrostis* spp. and *Festuca* spp. are common) and Gorse (*Ulex europaeus*). Here the habitat is sometimes associated with moraines, an interesting and uncommon feature. However, the Heather element is much reduced in this area due to sheep grazing pressure.

Grassland and heath also occur at the west of the site, but grassland is more common here and is probably encroaching due to over-grazing.

A form of wet heath which is dominated by Deergrass, in association with Heath Rush (*Juncus squarrosus*), Mat-grass (*Nardus stricta*), Bell Heather, Bilberry, Tormentil and wood-rushes (*Luzula* spp.) occurs in mosaic with eroding blanket peat.

Alpine heath has been documented as occurring in the corries associated with the Sgilloge and Coumshingaun Loughs, and species records indicate a diverse flora. The habitat occurs in patches in mosaic with the vegetation of siliceous rocks and screes, narrow calcareous rock bands, upland grassland and other heath types on the cliffs. The cliff flora contains many mountain species, including several for which this is their only station in Waterford. St. Patrick's-cabbage (*Saxifraga spathularis*) grows at Coumshingaun, where there are also records for uncommon species such as Mossy Saxifrage (*Saxifraga hypnoides*), Dwarf Willow (*Salix herbacea*), Cowberry (*Vaccinium vitis-idaea*), Roseroot (*Rhodiola rosea*) and the ferns, *Hymenophyllum wilsonii* and *Cystopteris fragilis*. The mountain/rocky slope flora also includes a number of rare and threatened bryophyte species including *Antitrichia curtipendula*, *Grimmia muehlenbeckii*, *Tortella bambergeri*, *Cynodontium bruntonii*, *Plagiothecium platyphyllum* and *Sphagnum skyense*.

Coumshingaun Lough, which is located on the eastern slope, is an excellent example of an ultra-oligotrophic lake. Unlike most corrie lakes the water is exceptionally clear. It contains a stonewort, *Nitella flexilis*, and also Bog Pondweed (*Potamogeton polygonifolius*), but only down to the relatively shallow depth of 5 m. Slender Green Feather-moss (*Drepanocladus vernicosus*), a species listed on Annex II off the E.U. Habitats Directive, has been recorded at Sgilloge Loughs and two other localities in the mountains.

Water-crowfoots (*Ranunculus* spp.) are known to occur in at least some of the many upland rivers in this site, and particularly those to the east. There is an unusual and interesting chemistry associated with the rivers which exit the corrie lakes.

Peregrine, a species listed on Annex I of the E.U. Birds Directive, breeds within the site, as does Raven. Hen Harrier, also listed on this Annex, is found on the site, as is Irish Hare, a Red Data Book species. Arctic Char has been recorded from the Comeragh Lakes, though not since 1930. This species is listed in the Red Data Book as threatened in Ireland.

The integrity of the remaining areas of blanket bog and the general habitat diversity of the site are under threat from land use pressures such as grazing, burning, afforestation and leisure activities.

This large site has a diverse range of habitats, including blanket bog, heath, upland grassland, scree, exposed rock, lakes and streams. The blanket bog represents the south-eastern extremity of the range of this habitat type in Ireland. There are many

corries, most of which have associated oligotrophic lakes. Overall this site is of considerable conservation importance.

**Site Name: Ardmore Head SAC**

**Site Code: 002123**

This site is situated on a small headland to the east of the village of Ardmore on the west Waterford coastline. The site consists of sea cliffs and associated coastal habitats. The cliffs, which form part of the Ardmore Syncline, are of moderate height (up to 40 m), continuous and precipitous. They are also well indented, and have numerous small ledges which support breeding seabirds. The aspect of the cliffs is mostly east and south facing, but there is a small section facing north.

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

[1230] Vegetated Sea Cliffs [4030] Dry Heath
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Cliff vegetation consists of sea-spurrey (*Spergularia* spp.), Sea Campion (*Silene vulgaris* subsp. *maritima*), Thrift (*Armeria maritima*), Buck's-horn Plantain (*Plantago coronopus*) and scurvygrass (*Cochlearia* spp.). Other flora includes Sea Beet (*Beta vulgaris* subsp. *maritima*), Yarrow (*Achillea millefolium*) and Wild Carrot (*Daucus carota*). In places below the cliffs there are boulder and some shingle shorelines. Small rocky islets, which are continuously washed over, also occur. An area of open marine water is included within the site, partly to give some protection to the seabirds which nest on the ledges above.

The dominant habitat within the site is dry coastal heath (which is best viewed west of Ram's Head). Species present include an abundance of Heather (*Calluna vulgaris*), with Bell Heather (*Erica cinerea*), Western Gorse (*Ulex gallii*), Wood Sage (*Teucrium scorodonia*) and bent grasses (*Agrostis* spp.). In the eastern part of the site, the heath is dominated by Burnet Rose (*Rosa pimpinellifolia*) and grasses. The heath merges into the cliff vegetation but also into dry grassland, especially at Ardmore Head. Here the grassland vegetation is dominated by Cocksfoot (*Dactylis glomerata*), bent grasses, Bramble (*Rubus fruticosus* agg.), Common Knapweed (*Centaurea nigra*) and Wild Thyme (*Thymus praecox*).

At the north of the site are small patches of scrub with species such as Hawthorn (*Crataegus monogyna*), Sycamore (*Acer pseudoplatanus*), Bramble and Bracken (*Pteridium aquilinum*). The understorey consists of Ramsons (*Allium ursinum*), Wild Celery (*Apium graveolens*) and Common Nettle (*Urtica dioica*).

Six species of seabirds were recorded breeding on the ledges during a survey from 1985 to 1987. The most numerous bird is the Kittiwake. This species has declined somewhat in recent years (1989-1993), though approximately 800 pairs still nest, a population of national importance. Other species include Fulmar (38 pairs), Shag (6 pairs), Herring Gull (78 pairs), Great Black-backed Gull (2 pairs), Razorbill (7 individuals) and Guillemot (6 individuals). The site is noted for the presence of Chough, with 1-2 pairs recorded. Chough is listed under Annex I of the E.U. Birds Directive.

Land use at the site consists of tourism/recreational activities. A path is located along the cliff for much of the site. In addition there is St. Declan's holy well and old ruined church at the north of the site. The grass around the church is mown regularly. Drift net fishing is carried out in the sea surrounding the site.

Although small, this site is of conservation value as it displays good examples of the type of sea cliff and dry heath characteristic of the south coast. Both of these habitats are listed on Annex I of the E.U. Habitats Directive. The breeding seabirds and Chough add to the ecological interest.





**Site Name: Blackwater River (Cork/Waterford) SAC**

**Site Code: 002170**

The River Blackwater is one of the largest rivers in Ireland, draining a major part of Co. Cork and five ranges of mountains. In times of heavy rainfall the levels can fluctuate widely by more than 12 feet on the gauge at Careysville. The peaty nature of the terrain in the upper reaches and of some of the tributaries gives the water a pronounced dark colour. The site consists of the freshwater stretches of the River Blackwater as far upstream as Ballydesmond, the tidal stretches as far as Youghal Harbour and many tributaries, the larger of which include the Licky, Bride, Flesk, Chimneyfield, Finisk, Araglin, Awbeg (Buttevant), Clyda, Glen, Allow, Dalua, Brogeen, Rathcool, Finnow, Owentaraglin and Awnaskirtaun. The portions of the Blackwater and its tributaries that fall within this SAC flow through the counties of Kerry, Cork, Limerick, Tipperary and Waterford. Nearby towns include Rathmore, Millstreet, Kanturk, Banteer, Mallow, Buttevant, Doneraile, Castletownroche, Fermoy, Ballyduff, Rathcormac, Tallow, Lismore, Cappoquin and Youghal.

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

- [1130] Estuaries
- [1140] Tidal Mudflats and Sandflats
- [1220] Perennial Vegetation of Stony Banks
- [1310] *Salicornia* Mud
- [1330] Atlantic Salt Meadows
- [1410] Mediterranean Salt Meadows
- [3260] Floating River Vegetation
- [91A0] Old Oak Woodlands
- [91E0] Alluvial Forests\*
- [1029] Freshwater Pearl Mussel (*Margaritifera margaritifera*)
- [1092] White-clawed Crayfish (*Austropotamobius pallipes*)
- [1095] Sea Lamprey (*Petromyzon marinus*)
- [1096] Brook Lamprey (*Lampetra planeri*)
- [1099] River Lamprey (*Lampetra fluviatilis*)
- [1103] Twaite Shad (*Alosa fallax*)
- [1106] Atlantic Salmon (*Salmo salar*)
- [1355] Otter (*Lutra lutra*)
- [1421] Killarney Fern (*Trichomanes speciosum*)

The Blackwater rises in boggy land in east Kerry, where Namurian grits and shales build the low heather-covered plateaux. Near Kanturk the plateaux enclose a basin of productive Coal Measures. On leaving the Namurian rocks the Blackwater turns eastwards along the northern slopes of the Boggeragh Mountains before entering the narrow limestone strike vale at Mallow. The valley deepens as first the Nagles Mountains and then the Knockmealdowns impinge upon it. Interesting geological features along this stretch of the Blackwater Valley include limestone cliffs and caves near the villages and small towns of Killavullen and Ballyhooly; the Killavullen caves contain fossil material from the end of the glacial period. The associated basic soils in this area support the growth of plant communities which are rare in Cork because in general the county's rocks are acidic. At Cappoquin the river suddenly turns south and cuts through high ridges of Old Red Sandstone. The Araglin valley is predominantly underlain by sandstone, with limestone occurring in the lower reaches near Fermoy.

Wet woodlands are found where river embankments have broken down and channel edges are subject to daily inundation. This is particularly evident in the steep-sided valley of the River Bride, between Cappoquin and Youghal. The river side of the embankments was often used for willow growing in the past (most recently at Cappoquin) so that the channel is lined by narrow woods of White and Almond-leaved Willow (*Salix alba* and *S. triandra*), with isolated Crack Willow (*S. fragilis*) and Osier (*S. viminalis*). Rusty Willow (*S. cinerea* subsp. *oleifolia*) spreads naturally into the sites and occasionally, as at Villierstown on the Blackwater and Sapperton on the Bride, forms woods with a distinctive mix of woodland and marsh plants, including Gypsywort (*Lycopus europaeus*), Guelder-rose (*Viburnum opulus*), Bittersweet (*Solanum dulcamara*) and various mosses and algae. These wet woodlands form one of the most extensive tracts of the wet woodland habitat in the country.

A small stand of Yew (*Taxus baccata*) woodland occurs within the site. This is on a limestone ridge at Dromana, near Villierstown. While there are some patches of the wood with a canopy of Yew and some very old trees, the quality is generally poor due to the dominance of non-native and invasive species such as Sycamore (*Acer pseudoplatanus*), Beech (*Fagus sylvatica*) and Douglas Fir (*Pseudotsuga menziesii*). However, it does have the potential to develop into a Yew dominated stand in the long term and the site should continue to be monitored.

Marshes and reedbeds cover most of the flat areas beside the rivers and often occur in mosaic with the wet woodland. Common Reed (*Phragmites australis*) is ubiquitous and is harvested for thatching. There is also much Marsh-marigold (*Caltha palustris*) and, at the edges of the reeds, the Greater and Lesser Pond-sedge (*Carex riparia* and *C. acutiformis*). Hemlock Water-dropwort (*Oenanthe crocata*), Wild Angelica (*Angelica sylvestris*), Reed Canary-grass (*Phalaris arundinacea*), Meadowsweet (*Filipendula ulmaria*), Common Nettle (*Urtica dioica*), Purple Loosestrife (*Lythrum salicaria*), Common Valerian (*Valeriana officinalis*), Water Mint (*Mentha aquatica*) and Water Forget-me-not (*Myosotis scorpioides*) are all also found.

At Banteer there are a number of hollows in the sediments of the floodplain where subsidence and subterranean drainage have created isolated wetlands, sunk below the level of the surrounding fields. The water rises and falls in these holes depending on the water table and several different communities have developed on the acidic or neutral sediments. Many of the ponds are ringed with Rusty Willow, rooted in the mineral soils but sometimes collapsed into the water. Beneath the densest stands are woodland herbs like Yellow Pimpernel (*Lysimachia nemorum*), with locally abundant Common Water-starwort (*Callitriche stagnalis*) and Marsh Ragwort (*Senecio aquaticus*). One of the depressions has Silver Birch (*Betula pendula*), Ash (*Fraxinus excelsior*), Crab Apple (*Malus sylvestris*) and a little Pedunculate Oak (*Quercus robur*) in addition to the willows.

Floating river vegetation is found along much of the freshwater stretches within the site. The species list is quite extensive, with species such as water-crowfoots, including Pond Water-crowfoot (*Ranunculus peltatus*), Canadian Pondweed (*Elodea canadensis*), pondweed species, including Broad-leaved Pondweed (*Potamogeton natans*), water-milfoil species (*Myriophyllum* spp.), Common Club-rush (*Scirpus lacustris*), water-starwort species (*Callitriche* spp.), Lesser Water-parsnip (*Berula erecta*) particularly on the Awbeg, Water-cress (*Nasturtium officinale*), Hemlock Water-dropwort, Fine-leaved Water-dropwort (*O. aquatica*), Common Duckweed (*Lemna minor*), Yellow Water-lily (*Nuphar lutea*), Unbranched Bur-reed (*Sparganium emersum*) and the moss *Fontinalis antipyretica* all occurring.

The grasslands adjacent to the rivers of the site are generally heavily improved, although liable to flooding in many places. However, fields of more species-rich wet grassland with species such as Yellow Iris (*Iris pseudacorus*), Meadowsweet, Meadow Buttercup (*Ranunculus acris*) and rushes (*Juncus* spp.) occur occasionally. Extensive fields of wet grassland also occur at Annagh Bog on the Awbeg. These fields are dominated by Tufted Hair-grass (*Deschampsia cespitosa*) and rushes.

The Blackwater Valley has a number of dry woodlands; these have mostly been managed by the estates in which they occur, frequently with the introduction of Beech and a few conifers, and sometimes of the invasive species Rhododendron (*Rhododendron ponticum*) and Cherry Laurel (*Prunus laurocerasus*). Oak woodland is well developed on sandstone about Ballinatray, with the acid oak woodland community of Holly (*Ilex aquifolium*), Bilberry (*Vaccinium myrtillus*), Great Wood-rush (*Luzula sylvatica*) and the ferns *Dryopteris affinis* and *D. aemula* occurring in one place. Irish Spurge (*Euphorbia hyberna*) continues eastwards on acid rocks from its headquarters to the west, but there are also many plants of richer soils, for example Wood Violet (*Viola reichenbachiana*), Goldilocks Buttercup (*Ranunculus auricomus*), Broad-leaved Helleborine (*Epipactis helleborine*) and Red Campion (*Silene dioica*). Oak woodland is also found in Rincrew, Carrigane, Glendine, Newport and Dromana. The spread of Rhododendron is locally a problem, as is over-grazing. A few limestone rocks stand over the river in places showing traces of a less acidic woodland type with Ash, False Brome (*Brachypodium sylvaticum*) and Early-purple Orchid (*Orchis mascula*).

In the vicinity of Lismore, two deep valleys cut in Old Red Sandstone join to form the Owenashad River before flowing into the Blackwater at Lismore. These valleys retain something close to their original cover of oak with Downy Birch (*Betula pubescens*), Holly and Hazel (*Corylus avellana*) also occurring. There has been much planting of Beech (as well as some of coniferous species) among the oak on the shallower slopes and here both Rhododendron and Cherry Laurel have invaded the woodland.

The oak wood community in the Lismore and Glenmore valleys is of the classic upland type, in which some Rowan (*Sorbus aucuparia*) and Downy Birch occur. Honeysuckle (*Lonicera periclymenum*) and Ivy (*Hedera helix*) cover many of the trees while Great Wood-rush, Bluebell (*Hyacinthoides non-scripta*), Wood-sorrel (*Oxalis acetosella*) and, locally, Bilberry dominate the ground flora. Ferns present on the site include Hard Fern (*Blechnum spicant*), Male Fern (*Dryopteris filix-mas*), the buckler-ferns *D. dilatata* and *D. aemula*, and Lady Fern (*Athyrium filix-femina*). There are many mosses present and large species such as *Rhytidiadelphus* spp., *Polytrichum formosum*, *Mnium hornum* and *Dicranum* spp. are noticeable. The lichen flora is important and includes 'old forest' species which imply a continuity of woodland here since ancient times. Tree Lungwort (*Lobaria* spp.) is the most conspicuous and is widespread.

The Araglin valley consists predominantly of broadleaved woodland. Oak and Beech are joined by Hazel, Wild Cherry (*Prunus avium*) and Goat Willow (*Salix caprea*). The ground flora is relatively rich, with Pignut (*Conopodium majus*), Ramsons (*Allium ursinum*), Garlic Mustard (*Alliaria petiolata*) and Wild Strawberry (*Fragaria vesca*). The presence of Ivy Broomrape (*Orobanche hederæ*), a local species within Ireland, suggests that the woodland, along with its attendant Ivy, is long established.

Along the lower reaches of the Awbeg River, the valley sides are generally cloaked with mixed deciduous woodland of estate origin. The dominant species is Beech, although a range of other species are also present, e.g. Sycamore, Ash and Horse-chestnut (*Aesculus hippocastanum*). In places the alien invasive species Cherry Laurel dominates the understorey. Parts of the woodlands are more semi-natural in composition, being dominated by Ash, with Hawthorn (*Crataegus monogyna*) and Spindle (*Euonymus europæa*) also present. However, the most natural areas of woodland appear to be the wet areas dominated by Alder and willows (*Salix* spp.). The ground flora of the dry woodland areas features species such as Pignut, Wood Avens (*Geum urbanum*), Ivy and Soft Shield-fern (*Polystichum setiferum*), while the ground flora of the wet woodland areas contains characteristic species such as Remote Sedge (*Carex remota*) and Opposite-leaved Golden-saxifrage (*Chrysosplenium oppositifolium*).

In places along the upper Bride, scrubby, semi-natural deciduous woodland of willow, oak and Rowan occurs, with abundant Great Wood-rush in the ground flora.

The Bunaglanna River passes down a very steep valley, flowing in a north-south direction to meet the Bride River. It flows through blanket bog to heath and then scattered woodland. The higher levels of moisture here enable a vigorous moss and

fern community to flourish, along with a well-developed epiphyte community on the tree trunks and branches.

At Banteer a type of wetland occurs near the railway line which offers a complete contrast to the others. Old turf banks are colonised by Royal Fern (*Osmunda regalis*) and Eared Willow (*Salix aurita*), and between them there is a sheet of Bottle Sedge (*Carex rostrata*), Marsh Cinquefoil (*Potentilla palustris*), Bogbean (*Menyanthes trifoliata*), Marsh St. John's-wort (*Hypericum elodes*) and the mosses *Sphagnum auriculatum* and *Aulacomnium palustre*. The cover is a scraw (i.e. floating vegetation) with characteristic species like Marsh Willowherb (*Epilobium palustre*) and Early Marsh-orchid (*Dactylorhiza incarnata*).

The soil high up the Lismore valleys and in rocky places is poor in nutrients but it becomes richer where streams enter and also along the valley bottoms. In such sites Wood Speedwell (*Veronica montana*), Wood Anemone (*Anemone nemorosa*), Enchanter's-nightshade (*Circaea lutetiana*), Barren Strawberry (*Potentilla sterilis*) and shield-fern (*Polystichum* sp.) occur. There is some Ramsons, Three-nerved Sandwort (*Moehringia trinervia*) and Early-purple Orchid (*Orchis mascula*) locally, with Opposite-leaved Golden-saxifrage, Meadowsweet and Bugle (*Ajuga reptans*) in wet places. A stand of Hazel woodland at the base of the Glenakeeffe valley shows this community well.

The area has been subject to much tree felling in the recent past and re-sprouting stumps have given rise to areas of bushy Hazel, Holly, Rusty Willow and Downy Birch. The ground in the clearings is heathy with Heather (*Calluna vulgaris*), Slender St John's-wort (*Hypericum pulchrum*) and the occasional Broom (*Cytisus scoparius*) occurring.

The estuary and the habitats within and associated with it form a large component of the site. Very extensive areas of intertidal flats, comprised of substrates ranging from fine, silty mud to coarse sand with pebbles/stones are present. The main expanses occur at the southern end of the site, with the best examples at Kinsalebeg in Co. Waterford, and between Youghal and the main bridge north of it across the river in Co. Cork. Other areas occur along the tributaries of the Licky in east Co. Waterford, and Glendine, Newport, Bride and Killahaly Rivers in Waterford west of the Blackwater. There are also large tracts along the Tourig River in Co. Cork. There are narrow bands of intertidal flats along the main river as far north as Camphire Island. Patches of green filamentous algae (*Ulva* sp. and *Enteromorpha* sp.) occur in places, while furoid algae are common on the more stony flats, even as high upstream as Glenassy or Coneen.

The area of saltmarsh within the site is small. The best examples occur at the mouths of the tributaries and in the townlands of Foxhole and Blackbog. Those found are generally characteristic of Atlantic salt meadows. The species list at Foxhole consists of Common Saltmarsh-grass (*Puccinellia maritima*), small amounts of Greater Sea-spurrey (*Spergularia media*), glasswort (*Salicornia* sp.), Sea Arrowgrass (*Triglochin maritima*), Annual Sea-blite (*Suaeda maritima*) and Sea Purslane (*Halimione*

*portulacoides*) - the latter a very recent coloniser. Some Sea Aster (*Aster tripolium*) occurs, generally with Creeping Bent (*Agrostis stolonifera*). Sea Couch (*Elymus pycnanthus*) and small isolated clumps of Sea Club-rush (*Scirpus maritimus*) are also seen. On the Tourig River additional saltmarsh species found include sea-lavenders (*Limonium* spp.), Thrift (*Armeria maritima*), Red Fescue (*Festuca rubra*), Common Scurvygrass (*Cochlearia officinalis*) and Sea Plantain (*Plantago maritima*). Oraches (*Atriplex* spp.) are found on channel edges. Species such as Saltmarsh Rush (*Juncus gerardi*) and Sea Rush (*J. maritimus*) are found in places in this site also, and are indicative of Mediterranean salt meadows. Areas of *Salicornia* mud are found at the eastern side of the townland of Foxbole above Youghal, at Blackbog, along the Tourig and Kinsalebeg estuaries.

The shingle spit at Ferrypoint supports a good example of perennial vegetation of stony banks. The spit is composed of small stones and cobbles and has a well developed and diverse flora. At the lowest part, Sea Beet (*Beta vulgaris* subsp. *maritima*), Curled Dock (*Rumex crispus*) and Yellow Horned-poppy (*Glaucium flavum*) occur, while at a slightly higher level Sea Mayweed (*Matricaria maritima*), Cleavers (*Galium aparine*), Rock Samphire (*Crithmum maritimum*), Sea Sandwort (*Honkenya peploides*), Spear-leaved Orache (*Atriplex prostrata*) and Babington's Orache (*A. glabriuscula*). Other species present include Sea Rocket (*Cakile maritima*), Herb-Robert (*Geranium robertianum*), Red Fescue and Kidney Vetch (*Anthyllis vulneraria*). The top of the spit is more vegetated and supports lichens and bryophytes, including *Tortula ruraliformis* and *Rhytidiadelphus squarrosus*.

The site supports several Red Data Book plant species, i.e. Starved Wood-sedge (*Carex depauperata*), Killarney Fern (*Trichomanes speciosum*), Pennyroyal (*Mentha pulegium*), Bird's-nest Orchid (*Neottia nidus-avis*), Golden Dock (*Rumex maritimus*) and Bird Cherry (*Prunus padus*). The first three of these are also protected under the Flora (Protection) Order, 2015, while the Killarney Fern is also listed on Annex II of the E.U. Habitats Directive. The following plants, relatively rare nationally, are also found within the site: Toothwort (*Lathraea squamaria*) - associated with woodlands on the Awbeg and Blackwater; Summer Snowflake (*Leucojum aestivum*) and Flowering Rush (*Butomus umbellatus*) on the Blackwater; Common Calamint (*Calamintha ascendens*), Red Champion, Sand Leek (*Allium scorodoprasum*) and Wood Club-rush (*Scirpus sylvaticus*) on the Awbeg.

The site is also important for the presence of several E.U. Habitats Directive Annex II animal species, including Sea Lamprey (*Petromyzon marinus*), Brook Lamprey (*Lampetra planeri*), River Lamprey (*L. fluviatilis*), Twaites Shad (*Alosa fallax fallax*), Freshwater Pearl Mussel (*Margaritifera margaritifera*), Otter (*Lutra lutra*) and Salmon (*Salmo salar*). The Awbeg supports a population of White-clawed Crayfish (*Austropotamobius pallipes*). This threatened species has been recorded from a number of locations and its remains are also frequently found in Otter spraints, particularly in the lower reaches of the river. The freshwater stretches of the Blackwater and Bride Rivers are designated salmonid rivers. The Blackwater is noted for its enormous run of salmon over the years. The river is characterised by significant pools, streams, glides, and generally, a good push of water coming through except in

very low water. Spring salmon fishing can be carried out as far upstream as Fermoy and is highly regarded especially at Careysville. The Bride, main Blackwater upstream of Fermoy, and some of the tributaries are more associated with grilse fishing.

The site supports many of the mammal species occurring in Ireland. Those which are listed in the Irish Red Data Book include Pine Marten, Badger and Irish Hare. The bat species Natterer's Bat, Daubenton's Bat, Whiskered Bat, Brown Long-eared Bat and Pipistrelle, can be seen feeding along the river, roosting under the old bridges and in old buildings.

Common Frog, a Red Data Book species that is also legally protected (Wildlife Act, 1976), occurs throughout the site. The rare bush cricket *Metrioptera roselii* (Order Orthoptera) has been recorded in the reed/willow vegetation of the river embankment on the Lower Blackwater River. The Swan Mussel (*Anodonta cygnea*), a scarce species nationally, occurs at a few sites along the freshwater stretches of the Blackwater.

Several bird species listed on Annex I of the E.U. Birds Directive are found on the site. Some use it as a staging area, others are vagrants, while others use it more regularly. Internationally important numbers of Whooper Swan (average peak 174, 1994/95-95/96) and nationally important numbers Bewick's Swan (average peak 5, 1996/97-2000/01) use the Blackwater Callows. Golden Plover occur in regionally important numbers on the Blackwater estuary (average peak 885, 1984/85-86/87) and on the River Bride (absolute maximum 2,141, 1994/95). Staging Terns visit the site annually, with >300 Sandwich Tern and >200 Arctic/Common Tern (average peak 1974-1994). The site also supports populations of the following: Red Throated Diver, Great Northern Diver, Barnacle Goose, Ruff, Wood Sandpiper and Greenland White-fronted Goose. Three breeding territories for Peregrine Falcon are known along the Blackwater Valley. This, the Awbeg and the Bride River are also thought to support at least 30 pairs of Kingfisher. Little Egret breed at the site (12 pairs in 1997, 19 pairs in 1998).

The site holds important numbers of wintering waterfowl. Both the Blackwater Callows and the Blackwater Estuary Special Protection Areas (SPAs) hold internationally important numbers of Black-tailed Godwit (average peak 847, 1994/95-95/96 on the callows, average peak 845, 1974/75-93/94 in the estuary). The Blackwater Callows also hold Wigeon (average peak 2,752), Teal (average peak 1,316), Mallard (average peak 427), Shoveler (average peak 28), Lapwing (average peak 880), Curlew (average peak 416) and Black-headed Gull (average peak 396) (counts from 1994/95-95/96). Numbers of birds using the Blackwater Estuary, given as the mean of the highest monthly maxima over 20 years (1974-94), are Shelduck (137 +10 breeding pairs), Wigeon (780), Teal (280), Mallard (320 + 10 breeding pairs), Goldeneye (11-97), Oystercatcher (340), Ringed Plover (50 + 4 breeding pairs), Grey Plover (36), Lapwing (1,680), Knot (150), Dunlin (2,293), Snipe (272), Black-tailed Godwit (845), Bar-tailed Godwit (130), Curlew (920), Redshank (340), Turnstone (130), Black-headed Gull (4,000) and Lesser Black-backed Gull (172). The greatest

numbers (75%) of the wintering waterfowl of the estuary are located in the Kinsalebeg area on the east of the estuary in Co. Waterford. The remainder are concentrated along the Tourig estuary on the Co. Cork side.

The river and river margins also support many Heron, non-breeding Cormorant and Mute Swan (average peak 53, 1994/95-95/96 in the Blackwater Callows). Heron occurs all along the Bride and Blackwater Rivers: 2 or 3 pairs at Dromana Rock; approximately 25 pairs in the woodland opposite; 8 pairs at Ardsallagh Wood and around 20 pairs at Rincrew Wood have been recorded. Some of these are quite large and significant heronries. Significant numbers of Cormorant are found north of the bridge at Youghal and there are some important roosts present at Ardsallagh Wood, downstream of Strancally Castle and at the mouth of the Newport River. Of note are the high numbers of wintering Pochard (e.g. 275 individuals in 1997) found at Ballyhay quarry on the Awbeg, the best site for Pochard in Co. Cork.

Other important species found within the site include Long-eared Owl, which occurs all along the Blackwater River, and Barn Owl, a Red Data Book species, which is found in some old buildings and in Castlehyde, west of Fermoy. Reed Warbler, a scarce breeding species in Ireland, was found for the first time in the site in 1998 at two locations. It is not known whether or not this species breeds on the site, although it breeds nearby to the south of Youghal. Dipper occurs on the rivers.

Land use at the site is mainly centred on agricultural activities. The banks of much of the site and the callows, which extend almost from Fermoy to Cappoquin, are dominated by improved grasslands which are drained and heavily fertilised. These areas are grazed and used for silage production. Slurry is spread over much of this area. Arable crops are also grown. The spreading of slurry and fertiliser poses a threat to the water quality of this salmonid river and to the populations of E.U. Habitats Directive Annex II animal species within it. Many of the woodlands along the rivers belong to old estates and support many non-native species. Little active woodland management occurs. Fishing is a main tourist attraction along stretches of the Blackwater and its tributaries, and there are a number of angler associations, some with a number of beats. Fishing stands and styles have been erected in places. Both commercial and leisure fishing takes place on the rivers. Other recreational activities such as boating, golfing and walking are also popular. Water skiing is carried out at Villierstown. Parts of Doneraile Park and Anne's Grove are included in the site: both areas are primarily managed for amenity purposes. There is some hunting of game birds and Mink within the site. Ballyhay quarry is still actively quarried for sand and gravel. Several industrial developments, which discharge into the river, border the site.

The main threats to the site and current damaging activities include high inputs of nutrients into the river system from agricultural run-off and several sewage plants, dredging of the upper reaches of the Awbeg, over-grazing within the woodland areas, and invasion by non-native species, for example Rhododendron and Cherry Laurel.



Overall, the River Blackwater is of considerable conservation significance for the occurrence of good examples of habitats and populations of plant and animal species that are listed on Annexes I and II of the E.U. Habitats Directive respectively. Furthermore it is of high conservation value for the populations of bird species that use it. Two Special Protection Areas, designated under the E.U. Birds Directive, are also located within the site - Blackwater Callows and Blackwater Estuary. Additionally, the importance of the site is enhanced by the presence of a suite of uncommon plant species.



**Site Name: Glendine Wood SAC**

**Site Code: 002324**

Glendine Wood lies 3-4 km north-east of Dungarvan, Co. Waterford and consists of a steep-sided, narrow ravine cut through a low ridge of Old Red Sandstone by the Glendine River. Woodland covers the valley sides and the land to the east and west of the mouth of the ravine.

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

[1421] Killarney Fern ( <i>Trichomanes speciosum</i> )
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The vegetation of the ravine at Glendine Wood is of Ash (*Fraxinus excelsior*)/Hazel (*Corylus avellana*) woodland, with scattered Wych Elm (*Ulmus glabra*) and a little Sycamore (*Acer pseudoplatanus*). The field layer is rich and varied, with ferns forming a distinctive feature, and includes species such as Male-fern (*Dryopteris filix-mas*), Ivy (*Hedera helix*), Honeysuckle (*Lonicera periclymenum*), Wood-sorrel (*Oxalis acetosella*), Wood Speedwell (*Veronica montana*), Enchanter's-nightshade (*Circaea lutetiana*), Wavy Bitter-cress (*Cardamine flexuosa*), Wood Avens (*Geum urbanum*), Meadowsweet (*Filipendula ulmaria*), Herb-Robert (*Geranium robertianum*), Great Wood-rush (*Luzula sylvatica*), Golden-saxifrage (*Chrysosplenium oppositifolium*), Hart's-tongue (*Phyllitis scolopendrium*), Soft Shield-fern (*Polystichum setiferum*), Bramble (*Rubus fruticosus* agg.), Holly (*Ilex aquifolium*), Remote Sedge (*Carex remota*) and False Brome (*Brachypodium sylvaticum*), amongst others. The bryophyte flora is species-rich and luxuriant. Above the ravine the woodland is dominated by dense stands of the introduced and invasive species Cherry Laurel (*Prunus laurocerasus*). The adjacent woodland is of mixed oak (*Quercus* sp.) and Ash, with some conifers.

The rare and Annex II-listed species Killarney Fern (*Trichomanes speciosum*) is found at this site. It is found in large numbers here, and forms a very important population in the national, and international, context. This species is also protected under the Flora (Protection) Order, 1999.

The woodland supports a population of badgers, a Red Data Book species. Dipper, a bird associated with clean, fast flowing rivers, also occurs within the site.

To safeguard the site it is important that any adjacent or upstream developments do not interfere with the site or its hydrology.

## SITE SYNOPSIS

**SITE NAME: DUNGARVAN HARBOUR SPA**

**SITE CODE: 004032**

Dungarvan Harbour SPA is located in south-west Co. Waterford and lies at the eastern end of the former valley of the River Blackwater - this river now turns south at Cappoquin, vacating its original course. The site includes Dungarvan Harbour as far east as Ballynacourty Point and west to include the tidal sections of the River Brickey. Three rivers flow into Dungarvan Harbour - the Colligan River, which runs south from the Comeragh Mountains, enters the bay by Dungarvan town, the River Brickey, which flows into the harbour from the west, and the Glendine River which enters from the north. The absence of a large river entering the site means that the bay is essentially a marine habitat, although it dries out at low tide to give extensive mud and sand flats. The inner bay is extremely sheltered, being almost closed off by the linear Cunnigar spit to the east.

Limestone underlies most of the area though this is only exposed as flat rocks at Ballynacourty. Elsewhere, saltmarsh, glacial drift and sand form the shore with a narrow stony beach occurring in places. The most natural areas of saltmarsh occur at Kilminnin on the north shore and west of the Cunnigar in the south. In several places the saltmarshes that were reclaimed in the past have been flooded again and are reverting to their natural vegetation. There is an abundance of Sea Rush (*Juncus maritimus*) in such places, often mixed with grasses, and with Common Reed (*Phragmites australis*) or Sea Club-rush (*Scirpus maritimus*) occurring in the drains.

The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: Great Crested Grebe, Light-bellied Brent Goose, Shelduck, Red-breasted Merganser, Oystercatcher, Golden Plover, Grey Plover, Lapwing, Knot, Dunlin, Black-tailed Godwit, Bar-tailed Godwit, Curlew, Redshank and Turnstone. The site is also of special conservation interest for holding an assemblage of over 20,000 wintering waterbirds. The E.U. Birds Directive pays particular attention to wetlands, and as these form part of this SPA, the site and its associated waterbirds are of special conservation interest for Wetland & Waterbirds.

A major part of the ecological importance of Dungarvan Harbour is the wintering waterbirds which are present in large numbers. The site is of international importance because it regularly supports an assemblage of over 20,000 wintering waterbirds. Furthermore, both Light-bellied Brent Goose (723) and Black-tailed Godwit (779) occur here in internationally important numbers (all counts given are mean peaks for the five year period 1995/96-1999/2000). A further thirteen species occur here in nationally important numbers - Great Crested Grebe (53), Shelduck (538), Red-breasted Merganser (52), Oystercatcher (767), Golden Plover (4,980), Grey Plover (444), Lapwing (3,233), Knot (698), Dunlin (4,984), Bar-tailed Godwit (1,068), Curlew (766), Redshank (731) and Turnstone (177). Little Egret, a species which has recently colonised Ireland, also occurs at this site.

Dungarvan Harbour SPA is an important site for wintering waterfowl, providing good quality feeding areas and roost sites for an excellent diversity of waterfowl species. The site is of high conservation importance, for supporting internationally important populations of Light-bellied Brent Goose and Black-tailed Godwit and because it regularly supports in excess of 20,000 wintering waterbirds. In addition, it holds nationally important populations of a further thirteen species, including Golden Plover and Bar-tailed Godwit, two species that are listed on Annex I of the E.U. Birds Directive. Dungarvan Harbour is a Ramsar Convention site.

## SITE SYNOPSIS

**SITE NAME: HELVICK HEAD TO BALLYQUIN SPA**

**SITE CODE: 004192**

Helvick Head to Ballyquin SPA is a linear site situated on the south-west coast of Co. Waterford. It includes the sea cliffs and land adjacent to the cliff edge between Helvick Head in the east and Ballyquin townland in the south-west. The high water mark forms the seaward boundary, except around Helvick Head where the adjacent sea area to a distance of 500 m from the cliff base is included.

The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: Chough, Peregrine, Cormorant, Herring Gull and Kittiwake.

The site supports a nationally important population of breeding Chough, a Red Data Book species that is listed on Annex I of the E.U. Birds Directive; 11 breeding pairs were recorded from the site in the 1992 survey and 11 pairs in the 2002/03 survey. The low heath and agricultural farmland on the cliff tops provides good foraging habitat for this species. The site is also of importance for its Peregrine population (5 pairs in 2002).

In addition, the site has important breeding seabird populations, centered around Helvick Head. Nationally important populations of Cormorant (65 pairs), Herring Gull (117 pairs) and Kittiwake (1,037 pairs) occur, as well as smaller populations of other breeding seabirds: Razorbill (28 pairs), Fulmar (135 pairs), Shag (6 pairs), Guillemot (664 pairs), Great Black-backed Gull (8 pairs) and Black Guillemot (10 individuals) – all seabird data from 1999. Raven breed on the cliffs and there is a cliff-nesting colony of House Martins. Other species which breed within the site include Rock Pipit and Stonechat. The seabird colony at Helvick Head has been monitored at intervals since the Operation Seafarer project in 1969/70. In addition, more detailed population studies have been carried out on the Kittiwake colony.

The Helvick Head to Ballyquin SPA is an important site for Chough and Peregrine, both species that are listed on Annex I of the E.U. Birds Directive. It also supports a range of breeding seabirds, including populations of Cormorant, Herring Gull and Kittiwake of national importance.

20.1.2015

## **SITE SYNOPSIS**

**SITE NAME: MID-WATERFORD COAST SPA**

**SITE CODE: 004193**

The Mid-Waterford Coast SPA encompasses the areas of high coast and sea cliffs in Co. Waterford between Newtown Cove to the east and Ballyvoyle to the west. The site includes the sea cliffs and the land adjacent to the cliff edge. The high water mark forms the seaward boundary. The site is underlain by Devonian sandstones, siltstones, mudstones and conglomerates as well as a variety of volcanic rocks of Ordovician age. Sea cliffs are the predominant habitat of the site; these occur along its length and are generally well-vegetated by a suite of typical sea cliff species. Above the cliffs areas of heath, improved grassland, unimproved wet and dry grassland, and woodland occur.

The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: Chough, Peregrine, Cormorant and Herring Gull.

The site supports an internationally important population of breeding Chough, a Red Data Book species that is listed on Annex I of the E.U. Birds Directive; 24 breeding pairs were recorded from the site in the 1992 survey and 20 pairs in the 2002/03 survey. In addition, five flocks totalling 59 birds were noted in the 1992 survey and a flock of 24 birds in the 2002/03 survey. Along this coast flocks occur between Annestown and Stradbally.

The site supports a nationally important Peregrine population (10 pairs in 2002). The site also holds nationally important populations of Cormorant (79 pairs) and Herring Gull (147 pairs), as well as smaller populations of other breeding seabirds: Fulmar (246 pairs), Shag (14 pairs), Guillemot (27 pairs), Razorbill (4 pairs) and Black Guillemot (15 individuals) – all seabird data from 1999-2000.

The Mid-Waterford Coast SPA is an important site for Chough and Peregrine, both species that are listed on Annex I of the E.U. Birds Directive. It also supports a range of breeding seabirds, including nationally important populations of Cormorant and Herring Gull.

# Appendix 3

## SPA Appeal Decision Letter



NPWS Ref: 00003135/004032  
*(please quote in all relevant correspondence)*

Clíona Mhic Ghiolla Chuda  
Rúnaí  
Meitheal Trá na Rinne Teo  
An Rinn  
Dúngharbhán  
Co Phortláirge

22nd June 2016

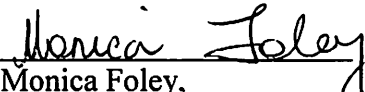
A chara

I refer further to your formal appeal against the inclusion of lands within the Dungarvan Harbour Special Protection Area (SPA) site code 004032.

The Designated Areas Appeals Advisory Board met to consider this appeal. Following an assessment of the scientific evidence, the Board made a recommendation that the area under appeal should have been excluded from the SPA as the rock armour constituted a practical boundary and was clearly identifiable.

I now enclose a revised map of the area.

Yours sincerely

  
Monica Foley,  
Peatland Issues and Land Designation.

*National Parks and Wildlife Service, 7 Ely Place, Dublin 2.*  
*Tel: (01) 888 3264                      Email: objections@ahg.gov.ie*