



Irish Sea Front Potential Special Protection Area

Draft Conservation Objectives and Advice on Operations

July 2016

Advice under Regulation 18 of The Offshore Marine Conservation (Natural Habitats,
&c.) Regulations 2007 (as amended)

Summary

The Conservation Objectives and Advice on Operations for Irish Sea potential Special Protection Area (pSPA) provided in this document are based on information in the [Departmental Brief for the Irish Sea Front pSPA](#). The site occurs entirely within UK offshore waters (beyond 12 nautical miles of coast) and thus the Joint Nature Conservation Committee (JNCC) has advisory responsibilities under The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended). The advice is site- and feature-specific, and has been developed using the best-available scientific information and expert interpretation as at March 2015. The advice provided here will be subject to change as our knowledge about the site, its features and the impacts of human activities develops over time. The Advice on Operations has been generated through a broad grading of sensitivity of features of interest ('interest features') and their supporting habitats to physical, chemical and biological pressures associated with human activity.

Management actions should enable the regularly occurring migratory species Manx shearwater (*Puffinus puffinus*) in the Irish Sea Front pSPA, to maintain its local population (subject to natural change). Detailed conservation objectives (with attributes) are provided in the document.

To fulfil the Conservation Objectives for the features and their supporting habitat for this pSPA, relevant¹ and competent² authorities should consider whether any human activities whose control is within their remit might affect the site and the Conservation Objectives of the site as described. Any human activities likely to have an adverse impact on the listed features within the site, including activities likely to affect processes on which the population is dependent as outlined in the conservation objectives in section 2 of this document, should be assessed against the conservation objectives and may require management measures to enable the features to meet their conservation objectives.

¹ Relevant authorities are those who are already involved in some form of relevant marine regulatory function and would therefore be directly involved in the management of a marine site.

² A competent authority is any Minister, government department, public or statutory undertaker, public body of any description or person holding a public office.

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1 Introduction

1.1 Background

The Irish Sea potential Special Protection Area (pSPA) is being proposed by the UK Government under the Birds Directive (2009/147/EC). If classified, the Irish Sea Front pSPA would be subject to full protection under the Birds Directive (which along with the Habitats Directive comprises the 'Nature Directives').

This document presents JNCC's advice as required under Regulation 18³ of The Offshore Marine Conservation (Natural Habitats & c.) Regulations 2007 (as amended), hereafter referred to as the 'Offshore Regulations', for the Irish Sea Front pSPA. Supporting information is also provided for transparency and to aid interpretation. The Offshore Regulations transpose the Nature Directives into law for UK offshore waters (from 12-200 nautical miles from the coast or to the limits of the UK Continental Shelf). For more information on JNCC's responsibilities under the Offshore Regulations, see [Regulation 18](#).

This document fulfils requirements of Regulation 18 of the Offshore Regulations.

1.2 Responsibilities under other conservation designations

There are no other designations within or immediately adjacent to the Irish Sea Front pSPA.

The closest other designation is the Croker Carbonate Slabs SAC.

The obligations of relevant⁴, and other competent⁵ authorities and organisations under such designations and legislation are not affected by the advice contained in this document.

1.3 The role of Conservation Objectives

Conservation Objectives (as set out in Section 2) are the starting point from which management actions and monitoring programmes may be developed and inform the scope of appropriate assessments.

The Conservation Objectives set out what needs to be achieved for the site to make the appropriate contribution to the conservation status of the features for which the site is designated and thus deliver the aims of the Birds Directive.

³ Regulation 18 requires that JNCC establish Conservation Objectives for a European offshore marine site (SACs and SPAs) and notify those objectives to the appropriate competent authorities; and advise such competent authorities of any operations which may adversely affect the integrity of the site.

⁴ Relevant authorities are those who are already involved in some form of relevant marine regulatory function and would therefore be directly involved in the management of a marine site.

⁵ A competent authority is any Minister, government department, public or statutory undertaker, public body of any description or person holding a public office.

'Competent Authorities' can use the Conservation Objectives to meet their obligations to ensure integrity of the site (more information on obligations of competent authorities is described in [Regulation 18](#)).

The Conservation Objectives for features on the site may inform the scope and nature of any 'appropriate assessment' under the Habitats Regulations of any plan or project that may affect the features of the pSPA. An appropriate assessment will also require consideration of issues specific to the individual plan or project. The scope and content of an appropriate assessment will depend upon the location, size and significance of the proposed project. JNCC will advise on a case-by-case basis.

Following an appropriate assessment, competent authorities are required to ascertain the effect of the plan or project on the integrity of the site. The integrity of the site is defined as the coherence of its ecological structure and function, across its whole area that enables it to sustain the habitat, complex of habitats and/or the levels of populations of the species for which it was classified (ODPM Circular 06/2005 Paragraph 20).

1.4 Advice on Operations

JNCC's advice identifies those operations (human activities) that may cause damage or deterioration of the qualifying species for which the site has been classified, or of their supporting habitats. Our advice is divided into two sections. The first section - advice on potential operations - lists activities that might adversely impact the features of the pSPA because the best-available evidence indicates they are moderately, or highly, sensitive to associated pressures. This advice includes operations that may not currently be occurring in the Irish Sea Front pSPA. The second section - advice on existing operations - lists only operations that the best-available evidence indicates are currently occurring in the Irish Sea Front pSPA and to which features are moderately or highly sensitive.

The list provides a basis for discussion about the nature and extent of the operations taking place that may have an impact on its interest features. The advice should also be used to help identify the extent to which existing measures of control, management and forms of use are, or can be made, consistent with the Conservation Objectives, and thereby focus the attention of relevant authorities and surveillance to areas that may need management measures.

JNCC's Advice on Operations may need to be supplemented through further discussions with the relevant authorities and any advisory groups formed for the site.

The Habitats Regulations require that where an authority concludes that a development proposal is unconnected with the nature conservation management of a Natura site and is likely to have a significant effect on that site, it must undertake an appropriate assessment of the implications for the qualifying interests for which the area has been designated.

Competent authorities are required by the Habitats Regulations to undertake a review of all consents and permissions for activities affecting the site as soon as reasonably practicable after it becomes a European Natura site.

2 Conservation Objectives for the Irish Sea Front pSPA

2.1 Background to Conservation Objectives

JNCC have developed the Conservation Objectives for the Irish Sea Front pSPA, which are described in the current section. The Conservation Objectives are designed to ensure that the obligations of the Birds and Habitats Directives can be met; that is, deterioration or significant disturbance of the qualifying features or to the habitat upon which they rely should be avoided. Meeting such obligations will ensure that the site contributes to achieving the aims of the Wild Birds Directive (2009/147/EC).

The Conservation Objectives include both a general statement in section 2.2 setting out the overall objective supplemented with advice on specific attributes which are important to ensure the site contributes appropriately to the status of the wider populations of the bird features. Table 1 lists these attributes.

2.2 Irish Sea Front pSPA Conservation Objectives

The qualifying feature of the Irish Sea Front pSPA is:

- Manx shearwater *Puffinus puffinus* (breeding)

Figure 1 shows the site boundary (details on how this was identified are set out in the Departmental Brief Irish Sea Front pSPA [\[LINK\]](#))

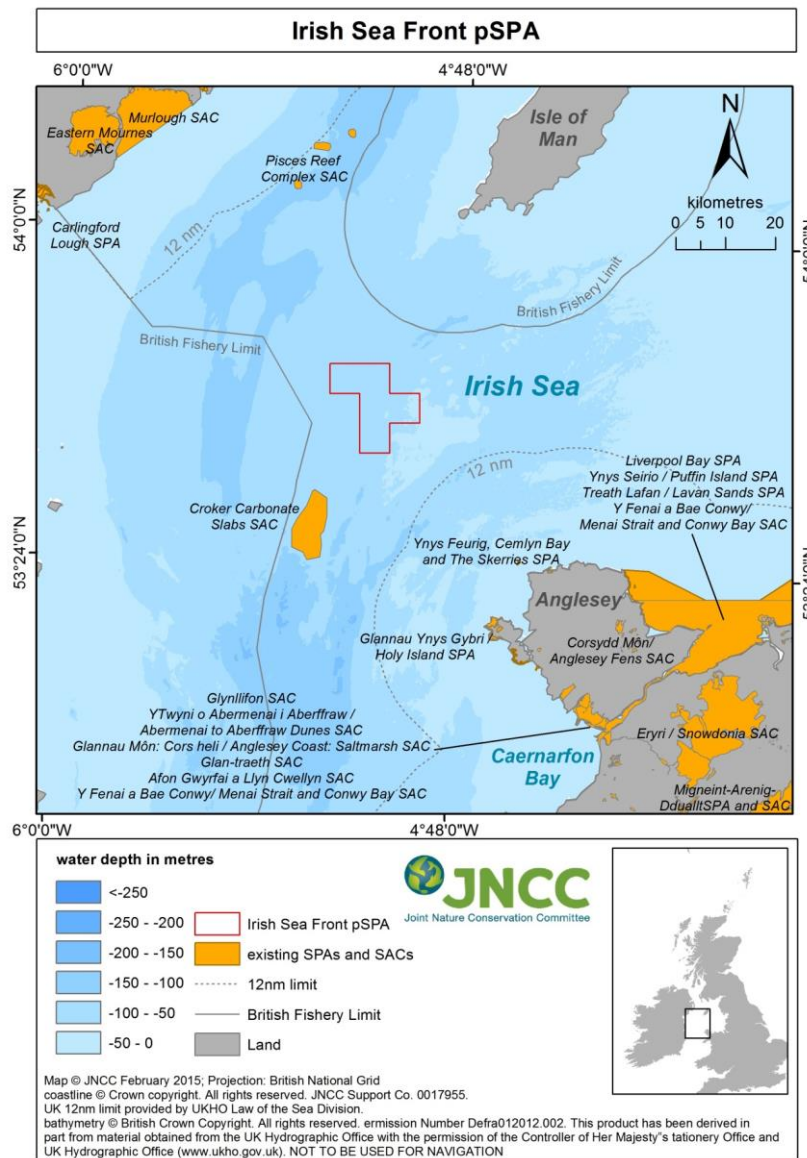


Figure 1. Boundary of Irish Sea Front pSPA.

The Conservation Objectives for the Irish Sea Front pSPA are:

Site conservation objective:

To avoid significant deterioration of the habitats of the qualifying species or significant disturbance to the qualifying species, subject to natural change, thus ensuring that the integrity of the site is maintained in the long term and makes an appropriate contribution to achieving the aims of the Birds Directive for each of the qualifying species.

This contribution would be achieved through delivering the following objectives for each of the sites qualifying features:

- A. Avoid significant mortality, injury and disturbance of the qualifying features, so that the distribution of the species and ability to use the site are maintained in the long-term;**
- B. Maintain the habitats and food resources of the qualifying features in favourable condition.**
- C. Ensure access to the site from linked breeding colonies**

Explanatory notes are provided below. Supplementary advice on the conservation objectives for Irish Sea Front pSPA provides more site-specific detail and endeavour to comply with the EU Commission's 2012 Note on setting conservation objectives.

Explanatory notes:

General

Marine bird species are exposed to a range of wider drivers of change. Some of these are natural (e.g. population fluctuations/ shifts or habitat changes resulting from natural processes) and are not a direct result of human influences. Such changes in the qualifying species' distribution and use of the site which are brought about by entirely natural drivers, directly or indirectly, are considered compatible with the site's conservation objectives.

There may also be wider ranging anthropogenic impacts driving change within the site, such as climate change or in some cases fisheries stock management, which cannot be managed effectively at site level.

- A) Avoid significant mortality, injury and disturbance of the qualifying features, so that the distribution of the species and ability to use the site are maintained in the long-term.**

The purpose of this objective is to avoid significant mortality, injury or disturbance of qualifying species that negatively affect the site on a long-term basis. This site has been selected because evidence indicates it is a hotspot for the qualifying features and important for supporting the wider populations of these species. Such an impact would also have a detrimental effect on the contribution that this site makes to the maintenance of qualifying features wider population and therefore should be avoided.

For this site "significant" is taken to mean anthropogenic mortality, injury or disturbance that affect the qualifying species distribution and use within the site such that recovery cannot be

expected or effects can be considered lasting.

All birds require energy which they obtain from food, to survive and to breed. Significant disturbance can include displacement and barrier effects on the species. Where such disturbance is brought about by human activities which affect the qualifying species' distribution and use of the site, such that their ability to survive and/or breed is compromised in the longer term, it is considered significant.

For each qualifying species, the ability to use the site should be maintained.

B) To maintain the habitats and food resources of the qualifying features in favourable condition.

The qualifying features using the site require sufficient food resource to be available. The qualifying species can eat a variety of pelagic or benthic prey and these should be maintained at a level able to support species populations. Some of these prey species have particular habitat requirements and where this is the case, the site needs to be managed to ensure the extent and quality of the habitats are sufficient to ensure the site is able to maintain these prey species in the longer term.

C) Ensure access to the site from the linked breeding areas

In order for the qualifying species to be able to continue using the site as delineated, it is important that their movements between the site and linked, but spatially disjointed, breeding colonies are unimpeded during the breeding season.

For the purposes of Habitats Regulations Appraisal (HRA) consideration of the conservation objectives may be required for plans/projects inside and outside the site.

Table 1. Supplementary advice on the conservation objective for qualifying species Irish Sea Front pSPA during the breeding season.

Objective	Additional evidence (site and species specific where possible)
A. Avoidance of significant mortality, injury and disturbance	An area as outlined in Figure 1 has been identified as an aggregation hotspot for Manx shearwater, see Kober et al. 2010 and 2012 .
B. Maintain the habitats and food resources	<p>The western Irish Sea Front (ISF) encompasses the pSPA. The ISF is a highly productive shallow sea tidal mixing front that forms seasonally from May to September. The pSPA as delineated is thought to be used by Manx Shearwater for foraging during the breeding season (which overlaps in time with the formation of the ISF).</p> <p>The high productivity within the ISF can affect availability of prey to seabirds such as shearwaters, and as such is likely to provide important and predictable foraging habitat.</p> <p>Manx shearwaters have been observed to forage mainly on small shoaling fish such as sandeels, sprat and herring and cephalopod species such as squid (Thompson 1987). There</p>

	<p>is some evidence that Manx Shearwaters from Welsh breeding colonies feed heavily on fish of the clupeid family [herrings, shads, sardines] (Brooke 1990).</p> <p>All these prey species are likely to contribute to Manx shearwater diet in this area.</p> <p>The Irish Sea Front pSPA overlaps low intensity spawning grounds for sandeel (<i>Ammodytidae</i> species) (Ellis <i>et al.</i> 2012).</p> <p>Sandeels are reliant on favourable sandy benthic habitats. Sandeels have been shown to prefer sandy seabeds with high proportion of coarse and medium sand particles (Greenstreet <i>et al.</i> 2010, Holland <i>et al.</i> 2005). Sandeels are highly resident and non-migratory, with large-scale dispersal only possible during larval phase and this is generally to a limited extent (Proctor <i>et al.</i> 1998; Christensen <i>et al.</i> 2008; Christensen <i>et al.</i> 2009, van Deurs 2010). Therefore sandeel seabed habitats in or linked to the Irish Sea Front pSPA should be conserved.</p>
C. Ensure access to the site	<p>Manx shearwaters have large foraging ranges, with a mean maximum foraging range from the colony of 330km (Thaxter <i>et al.</i> 2012). There are therefore several Manx shearwater colonies within foraging range of the Irish Sea Front pSPA (see Appendix I for more information). Although the Manx shearwaters from existing SPA colonies receive some level of protection, via the current HRA process, whilst at sea, this objective should seek to ensure that Manx shearwater can continue to access the site without being subject to significant additional energetic costs whilst commuting to/from the site from linked colonies.</p>

3 Advice on Operations

3.1 Advice on potential operations

JNCC's advice covers a range of different human activities and infrastructural developments that could occur in the marine environment, but is not exhaustive. By stating those activities and their associated pressures to which the features are considered to be sensitive, our advice focuses on where we consider there could be a risk of features not achieving their Conservation Objectives for the site should these activities occur in or near the pSPA. This current section does not attempt to cover all possible future activities or eventualities (e.g. as a result of accidents), and does not consider likely cumulative effects that could result from different types of activities being carried out simultaneously within or out with the SPA. This advice is not a prohibition, but rather indicates that some form of management measure(s) may be required or further measures where actions are already in force. It is indicative and does not remove the need for formal consultation on individual plans and projects.

An assessment of sensitivity⁶ of bird features to various pressures and activities has been undertaken (Pérez-Domínguez *et al.* 2016) and used to inform this document. The assessment represents the state of knowledge on the sensitivity of bird features to pressures (and the activities that can exert these pressures).

Manx shearwater is thought to be sensitive to the following direct pressures at sea:

- removal as a non-target species (bycatch)
- introduction of microbial pathogens
- visual disturbance
- litter
- introduction of light
- collision with static or moving objects (above and below sea surface)
- noise (above and below water)
- changes in suspended solids
- barriers to species movement.

Activities that can exert these pressures at sea include:

- Fishing activity
- Aquaculture
- Extraction of non-living resources
- Energy generation (renewable and hydrocarbon)
- Transport (shipping)
- Recreational activities
- Defence and national security
- Waste management
- Marine research
- Other man-made structures

⁶ Sensitivity is defined as a measure of tolerance (or intolerance) to changes in environmental conditions, Tillin *et al.* 2010.

Given the importance of prey availability as a supporting feature, pressures which impact on prey species are also important. Little is known about pressures to which prey species are sensitive but it is likely that removal of target (and non-target) species is an important pressure for prey species which are of commercial interest (such as some clupeids).

Any activity that can cause a pressure or pressures to which the feature may be sensitive could present a risk to the feature of not achieving the conservation objective and should be assessed against the attributes listed in table 1.

The next section looks at which of the potentially damaging activities i.e. can cause pressures to which Manx shearwater are sensitive are occurring at present or are planned to occur within or near the pSPA. This is provided, to highlight where JNCC advises that more immediate management effort be focused.

3.2 Advice on existing operations

This section provides advice on those activities that might impact the species and are known to be occurring within the pSPA at present (April 2015). Our advice does not go into detail about the level of exposure to associated pressures caused by these activities and therefore the level of impact that might be expected on the species. Detailed information on current exposure levels held by the relevant authorities responsible for management should be used to inform the management of any activity that might impact upon the site's integrity. This section should therefore be considered as the starting point for discussions about the appropriate management actions relating to the pSPA.

The comments below (at pre-classification stage) are general and should not be considered to be definitive. They are made without prejudice to any comments JNCC may provide or any assessment that may be required for individual plans or projects to be considered by a competent or relevant authority. The level of any impact will depend on the location, intensity and duration of the specific activity. Our advice is provided to assist and focus the authorities in their consideration of the management of these operations.

Only operations which are known to occur, or are planned to occur, within or overlapping the pSPA, and which are thought to cause pressures to which the species are sensitive, are discussed in this section.

Whilst the Royal Yachting Association published cruising routes for the general area around the pSPA, leisure craft are not expected to be of particular concern for the listed species. The wider area is a busy shipping area however and so potential disturbance to Manx Shearwater from commercial shipping (e.g. via noise or visual disturbance pressures) may need to be considered, depending upon the specific nature and level of such activity. There are telecommunication cables overlapping the proposed site and the maintenance activities associated with these cables may need to be considered.

There is fishing activity within the Irish Sea Front pSPA, with both mobile and static gear types: dredging, demersal trawling, pelagic trawling, seines (encircling) and set nets. The Manx Shearwater is thought to be particularly sensitive to the pressure bycatch and so may be sensitive to static and mobile fishing activities if deployed in a way which may interact with Manx shearwaters.

There may be military activity in the general vicinity of the Irish Sea Front pSPA, and dialogue with the Ministry of Defence will be necessary to ensure that any potential interactions between military activity and Manx Shearwater are adequately addressed within the MoD Environmental Protection Guidelines.

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5. Appendix I Supporting Information

Table AI.1. Species and site specific supporting information, providing additional detail to support the supplementary advice.

Species	Explanatory notes
Manx shearwater	<p>Manx shearwater have a large foraging range, with a mean maximum foraging range from the colony of 330km (Thaxter <i>et al.</i> 2012). There are therefore several UK breeding colonies within foraging range of the Irish Sea Front pSPA, including Britains two largest on the islands of Rhum and on the Pembrokeshire islands of Skokholm, Skomer and Middleholm. These represent a huge proportion of the world breeding population of Manx Shearwaters (90% breed in Britain and Ireland).</p> <p>Manx Shearwater at Welsh colonies within the vicinity of the Irish Sea Front pSPA returning to feed their chicks had eaten fish, with limited analysis of the contents of regurgitate but many clupeids were noted, of size around 15cm in length (Brooke 1990).</p> <p>Although there is very little known about what Manx Shearwaters at colonies within foraging range of the Irish Sea Front pSPA are foraging on, adult Manx Shearwater on the Isle of Rum, west Scotland (out with the foraging range of the Irish Sea Front pSPA) feed on squid and a variety of fish species including sandeels, clupeids and sprat, with the proportion of fish in the diet of adults increasing during the chick rearing period (Thompson 1987).</p> <p>The Irish Sea Front pSPA overlaps low intensity spawning grounds for sandeel (<i>Ammodytidae</i> species) (Ellis <i>et al.</i> 2012).</p> <p>The Irish Sea is thought to be a productive area for cephalopods (including squid), with Massy (1928) listing thirty-two cephalopod species in the waters around Ireland, and Collins <i>et al.</i> (1995) more recently found further species in the Irish Sea.</p> <p>Hydrographic fronts such as the Irish Sea Front are thought to indirectly attract seabirds; they bring small organisms up towards the surface, which attracts smaller fish which feed on these small organisms, which in turn attracts seabirds (Alldredge and Hamner, 1980, Camphuysen 2005). This enhances forage opportunities for higher-level consumers such as fish and marine birds.</p> <p>By promoting high prey densities and easy accessibility, oceanographic fronts can broaden the range of prey sizes taken by marine predators (Vlietstra 2005). Site-fidelity in foraging seabirds has been demonstrated for several species, and should be strongest in situations where prey availability is predictable, and where prey are unlikely to be depleted quickly (e.g. fronts).</p> <p>Rees and Jones (1982) recorded Manx shearwater at higher abundance in the vicinity of the Irish Sea Front, and Fogg <i>et al.</i> (1985) found increased activity of</p>

	seabirds over the front.
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Document version control

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1.0	26/03/15	First draft	
2.0	30/03/15	Advanced draft	Internal comments
3.0	10/03/15	Advanced draft	High level QA
4.0	18/07/16	Finalised draft	Internal comments and updates in line with other offshore pSPA conservation objectives.