



Seas off Foula  
Potential Special Protection Area  
(offshore and inshore)

Draft Conservation Objectives and Advice on  
Operations

Draft Advice under Regulation 18 of The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended), and Regulation 33 of The Conservation (Natural Habitats &c.) Regulations 1994 (as amended in Scotland).

Version 10.0

## Summary

The draft Conservation Objectives and Advice on Operations for Seas off Foula potential Special Protection Area (pSPA) is based on information in the [Site Selection Document Seas off Foula pSPA](#). The site covers both inshore (within 12 nautical miles of coast) and offshore (beyond 12 nautical miles of coast) where Scottish Natural Heritage (SNH) and the Joint Nature Conservation Committee (JNCC) have respective advisory responsibilities. The draft advice is site- and feature- specific, and has been developed using the best-available scientific information and expert interpretation as at May 2014. The draft advice provided here will be subject to change as our knowledge about the site, its features and the impacts of human activities improve. 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 great skua *Stercorarius skua*, Atlantic puffin *Fratercula arctica*, Arctic skua *Stercorarius parasiticus*, common guillemot *Uria aalge* and northern fulmar *Fulmarus glacialis* in the Seas off Foula pSPA, to maintain their local populations (subject to natural change). This will require assessment and may require management of 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 e.g. recruitment of prey species from supporting habitats.

To fulfil the Conservation Objectives for the features and their supporting habitat, the relevant<sup>1</sup> and competent<sup>2</sup> authorities for this area should consider human activities within their remit which might affect the site and the Conservation Objectives of the site as described.

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<sup>1</sup> 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.

<sup>2</sup> 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 Seas off Foula potential Special Protection Area (pSPA) is being proposed by the UK Government under the Birds Directive (2009/147/EC). If classified, the Seas off Foula pSPA would be subject to full protection under the Birds Directive (which along with the Habitats Directive comprises the 'Nature Directives' ).

This document presents a first draft of the advice required under Regulation 18<sup>3</sup> of The Offshore Marine Conservation (Natural Habitats & c.) Regulations 2007 (as amended), hereafter referred to as the 'Offshore Regulations', for the Seas off Foula pSPA. Supporting information is also provided for transparency and to aid in 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 JNCCs responsibilities under the Offshore Regulations, see [Regulation 18](#).

The Seas off Foula pSPA, although primarily (56%) in offshore waters (between 12 and 200 nautical miles from the coast), overlaps inshore Scottish territorial waters (between 0 and 12 nautical miles from the coast) (44%). It is therefore subject to requirements under Regulation 33<sup>4</sup> of The Conservation (Natural Habitats &c.) Regulations 1994 (as amended in Scotland) hereafter referred to as the 'Conservation Regulations'. The Conservation Regulations transpose the Nature Directives into law on land and in territorial waters of Scotland (out to 12 nautical miles from the coast). For more information on requirements under the Conservation Regulations, see [Regulation 33](#).

This document fulfils requirements both of Regulation 18 of the Offshore Regulations, and Regulation 33 of the Conservation Regulations.

The Habitats Regulations encompass both the Offshore Regulations and the Conservation Regulations.

## 1.2 Responsibilities under other conservation designations

Other designations within or adjacent to the Seas off Foula pSPA are:

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<sup>3</sup> 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.

<sup>4</sup> Regulation 33(2) requires Scottish Natural Heritage to advise relevant authorities on the Conservation Objectives and operations which may cause deterioration of natural habitats or the habitats of species, or disturbance of species for which the sites have been designated, for inshore European protected sites in Scotland.

## **Foula SPA (with extension) designated for:**

Birds Directive Annex I species during breeding season

- Arctic tern *Sterna paradisaea*,
- Leach's storm petrel *Oceanodroma leucorhoa* and
- red-throated diver *Gavia stellata*

Regularly occurring migratory species during breeding season

- great skua *Stercorarius skua*,
- common guillemot *Uria aalge*,
- Atlantic puffin *Fratercula arctica*, and
- European shag *Phalacrocorax aristotelis*.

The obligations of relevant<sup>5</sup>, and other competent<sup>6</sup> authorities and organisations under such designations and legislation are not affected by the draft 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 schemes and monitoring programmes may be developed as they 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 Directives.

'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 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. 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 and SNH will advise on a case-by-case basis.

Following an appropriate assessment, competent authorities are required to ascertain the effect 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,

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<sup>6</sup> A competent authority is any Minister, government department, public or statutory undertaker, public body of any description or person holding a public office.

complex of habitats and/or the levels of populations of the species for which it was classified (Institute of Ecology and Environmental Management 2010).

#### **1.4 Advice on Operations**

This draft advice identifies those operations that may cause damage or deterioration of the qualifying species for which the site has been classified, or of their supporting habitats. The 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 includes operations that may not currently be occurring in the Seas off Foula pSPA. The second section, advice on existing operations, lists only operations that best-available evidence indicates are currently occurring in the Seas off Foula 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 draft 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.

The draft 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 Seas off Foula pSPA

### 2.1 Background to Conservation Objectives

This section sets out the Conservation Objectives for the Seas off Foula pSPA. These have been developed by JNCC and agreed with SNH and the Scottish Government. The Conservation Objectives are designed to ensure that the obligations of the Birds and Habitats Directives can be met; that is, there should be no deterioration or significant disturbance of the qualifying features or to the habitat upon which they rely. This will ensure that the site contributes to achieving the aims of the Wild Birds Directive (2009/147/EC), by maintaining or adapting (restoring) the population of the species at a level that corresponds in particular to ecological, scientific and cultural requirements, while taking account of economic and recreational requirements.

The Conservation Objectives include both a general statement; the overall objective, and where appropriate details of the specific attributes of the site that are important, either as an attribute of the qualifying feature or of a supporting habitat. Specific attributes are only listed where it is felt that site specific management can have an effect on the qualifying features.

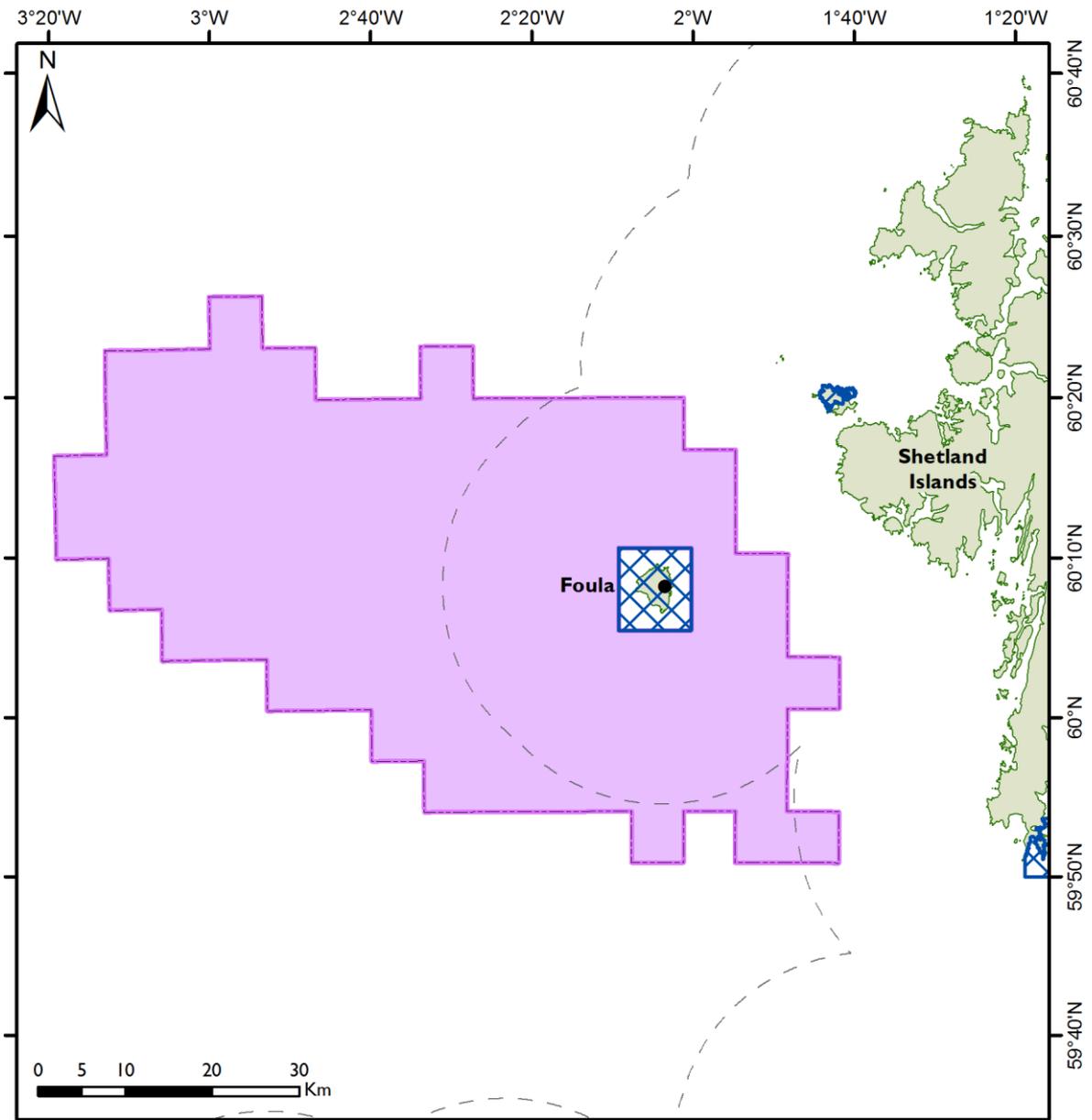
Broad non-site specific pressures may also act to affect the overall status of qualifying features of the Seas off Foula pSPA, but such effects are not restricted to specific SPA sites. Thus, where attributes of a qualifying feature or supporting habitats are best dealt with through broader measures and not site-specific measures, they are not referred to in this document. Climate change is an example of a pressure that is likely to affect many seabirds and their supporting features (for example through changes in prey distributions), but cannot be dealt with at a specific site.

### 2.2 Seas off Foula pSPA Conservation Objectives

The qualifying species of the Seas off Foula pSPA are:

- Atlantic puffin *Fratercula arctica* (breeding)
- Arctic skua *Stercorarius parasiticus* (breeding)
- common guillemot *Uria aalge* (breeding and winter)
- great skua *Stercorarius skua* (breeding and winter)
- Northern fulmar *Fulmarus glacialis* (breeding and winter)

Figure 1 shows the site boundary (details on how this was identified in [Site Selection Document Seas off Foula](#))



Proposed Special Protection Area (pSPA)
  Territorial seas adjacent to Scotland (12NM limit)

Existing Special Protection Areas

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**Figure 1.** Boundary of Seas off Foula pSPA.

The Conservation Objectives for the Seas off Foula 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.**

Explanatory notes are provided below. Supplementary advice on the conservation objectives for Seas off Foula 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.

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

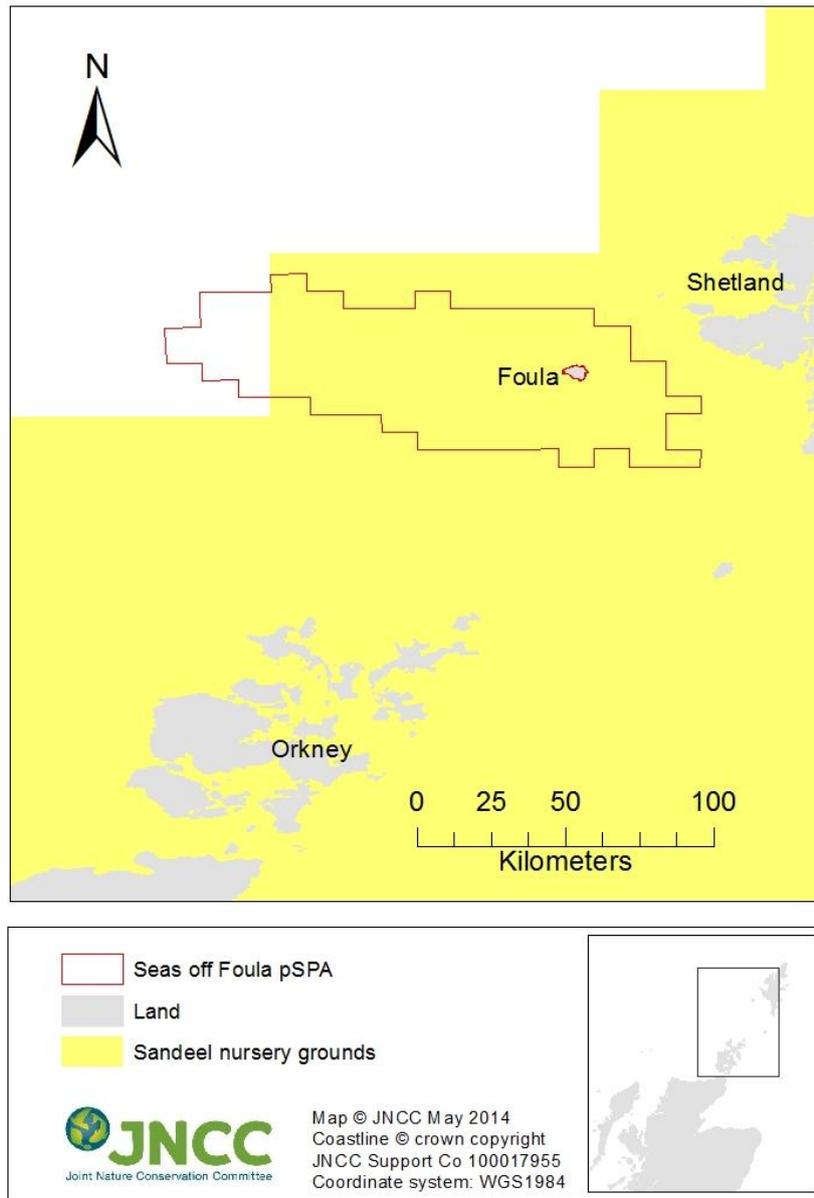
**Table 1.** Supplementary advice on the conservation objective for qualifying species of Seas off Foula pSPA during the breeding season.

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 great skua and seabird assemblage, see <a href="#">Kober <i>et al.</i> 2010</a> and <a href="#">2012</a> .
B. Maintain the habitats and food resources	<p>Shoaling pelagic fish (primarily but not exclusively sandeels) form most of the diet of the species at this site (see Appendix I); both chick and adult diet. A basic requirement is that such prey continues to be available to the birds.</p> <p>Sandeels are the dominant mid-trophic pelagic fish prey in the North Sea, and around Shetland no other high-lipid prey fishes are thought to occur in sufficient densities to support successful breeding of seabirds (Furness and Tasker 2000)</p> <p>Abundance of sandeels has been linked with breeding success of various seabird species. For example, breeding productivity was positively related to sandeel larval biomass with a 1-year lag, for four seabird species (Frederiksen <i>et al.</i> 2006). Seabirds at many colonies in Shetland experienced a series of poor breeding seasons during the 1980s, shown to be associated with poor recruitment of sandeels (Wright and Bailey 1993).</p> <p>Sandeels are thought to be susceptible to changes in sea</p>

	<p>temperatures (Arnott and Ruxton 2002). In the face of climate change, it is important that alternative source availability is also maintained, or at least not compromised by human activities.</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).</p> <p>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). See Figure 2 for nursery ground distribution (representative of adult distribution) on and around Seas off Foula. Note that it is thought that the source of sandeels around FOula and Shetland seas is sandeel spawning grounds around Orkney, and so management there may be relevant in order to meet this objective (see appendix I for more details).</p>
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**Table A2.** Supplementary advice on the conservation objective for qualifying species of Seas off Foula pSPA during the winter.

<b>Objective</b>	<b>Additional evidence (site and species specific where possible)</b>
A. Avoidance of significant mortality, injury and disturbance	An area as outlined in Figure 1 has been identified as an aggregation hotspot for great skua and seabird assemblage, see <a href="#">Kober <i>et al.</i> 2010</a> and <a href="#">2012</a> .
B. Maintaining the availability of key prey species within the site in the long term	<p>Shoaling pelagic fish (primarily but not exclusively sandeels) form most of the diet of the species at this site (see Appendix I); A basic requirement is that such prey continues to be available to the birds.</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).</p> <p>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). See Figure 2 for nursery ground distribution (representative of adult distribution) around Seas off Foula.</p>



**Figure 2.** Sandeel nursery grounds. (Ellis *et al.* 2012).

Further detail to support the supplementary information is provided in Appendix I.

## 3 Advice on Operations

### 3.1 Advice on potential operations

The draft advice covers a range of different activities and developments that could occur in the marine environment, but is not exhaustive. By stating which activities and associated pressures to which the features are considered to be moderately or highly sensitive, the draft advice presented here focuses on where we consider there could be a greater risk in terms of achieving the Conservation Objectives for the site if these activities were to occur in or near the pSPA in the future. This 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 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 sensitivity of bird features to various pressures and activities is provided in a [Sensitivity Assessment for Bird Features database](#). This database provides an assessment of species specific seabird sensitivity to anthropogenic activities that can occur in the marine environment. Similar assessments for supporting features are provided in [FEAST](#), a Scottish Government sensitivity database tool that acts as a starting point for identifying potential management requirements for Nature Conservation Marine Protected Areas (MPAs), which include sandeels as a feature. These databases together represent the state of knowledge as to sensitivity of features to pressures and the activities that exert pressures. They represent the state of knowledge at the time of writing and should be updated as knowledge increases and improves. This draft advice along with the supporting databases should be used by authorities to inform the management of any activity that has an impact on a site's features or its supporting features.

The greatest direct threats to great skua, northern fulmar, Atlantic puffin and common guillemot from human activities are likely to be energy production and extraction of living resources (fishing) activities. However, all may be sensitive to some pressures exerted by the following types of activity;

- renewable energy developments: wind, wave and tidal.
- marine hydrocarbon energy developments,
- fishing activities
- disturbance from activities such as shipping and recreational boating/yachting.
- military activities
- possibly industrial and agricultural liquid discharges and to waste disposal from munitions, but little is known and this is not assessed due to lack of evidence.

No assessments of sensitivity of Arctic skua to activities or pressures are available. In the absence of this information this document has used the ecology of Arctic skua as a basis for judgments on which activities might pose the greatest threat to this species at this site. The greatest direct threat to Arctic skua is energy production, It is possible that Arctic skua are sensitive to industrial and agricultural liquid discharges and to waste disposal from

munitions, but little is known. Given that in Scotland Arctic skuas chase mainly smaller seabirds such as auks, terns and Kittiwakes and steal sandeels and other small fish from them (Lloyd *et al* 1991), it is also possible that activities which pose a threat to these species may indirectly affect Arctic skua.

Extraction of living resources also appears to be the biggest potential threat to sandeel populations, which are listed as a prey resource in the Conservation Objectives. Other types of activity might threaten sandeel populations, such as extraction of non-living resources (e.g. aggregates), production of living resources, waste management, coastal management, defence, transport and recreation. The main pressures that sandeels are sensitive to, which are exerted by these activities, are extraction (in the case of fishing activities) and changes to the seabed such as abrasion, sedimentation, siltation and change to another seabed type.

Should any of the human activities listed above occur within or near the site we advise relevant competent authorities that these should be assessed and managed appropriately to ensure site integrity is maintained. The next section looks at which of the potentially damaging activities are occurring at present or are planned to occur within the pSPA, to highlight where short-term management effort should be focused.

### **3.2 Advice on existing operations**

This section provides a draft of the advice on activities that might impact the species and which are occurring within the pSPA at present. It does not go into detail about the level of exposure to associated pressures and therefore the level of impact that might be expected on the species. Detailed information on current exposure levels held by relevant authorities responsible for management should be used, along with sensitivity assessments provided in [Sensitivity Assessment for Bird Features database](#) and [FEAST](#), to inform the management of any activity which might impact upon the sites integrity.

This section should therefore be considered as only the starting point for discussions about management 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 or SNH may provide or any assessment that may be required for 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 relevant activity. This draft 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 are mentioned in this section. These activities are thought to have potential to impact on the qualifying species, given possible sensitivities to some of the pressures exerted by these activities, and should be assessed by the relevant Competent Authority and managed appropriately.

There are oil and gas licensed blocks, and existing oil and gas wells, in the western extent of the pSPA. Oil and gas wells and other infrastructure have the potential to create pressures that either directly have an impact on the birds or which alter the habitat and affect the birds

via supporting features (such as extraction of substratum or physical change to another seabed type, which are pressures on sandeels). There are telecommunications cables going through the pSPA; Activities related to repair or maintenance may need to be considered. There are Royal Yachting Association cruising routes going through the pSPA. There are military practicing areas outwith but close to the boundary of the pSPA, and pressures from this activity to which the features are sensitive (such as noise related pressures) may travel into the pSPA. There is shipping of hazardous cargos through the pSPA, and consequences of any accidents/spills would need to be considered.

There is fishing activity within the Seas off Foula pSPA, with both mobile and static gear types. This includes some level of trawling, traps, nets and lines fishing types, to which the features may be sensitive.

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## 6. Appendix I Supporting information

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

Species	Supporting information
Arctic skua	Breeding success of Arctic skua is correlated with sandeel biomass at Foula (Fredericksen <i>et al.</i> 2007). A positive correlation between sandeel availability and Arctic skua chick growth was observed at Foula between 1974 and 1994, with the Arctic skuas able to switch between foraging directly for sandeels and kleptoparasitising sandeels from other seabird species as required (Phillips <i>et al.</i> 1996).
Atlantic puffin	In most years almost all the fish brought to Foula by puffins are sandeels (Furness 1982). This appears to be the only published information on puffin diet at Foula, though at Fair Isle (60km to SE), puffin feed predominantly on sandeels (e.g. Shaw <i>et al.</i> 2002).
common guillemot	In most years almost all the fish brought to Foula by guillemots are sandeels (Furness 1982). This appears to be the only published information on puffin diet at Foula, though at Fair Isle (60km to SE), guillemot feed predominantly on sandeels (e.g. Shaw <i>et al.</i> 2002). The main prey item delivered to guillemot chicks on Shetland during 2007 to 212 sandeels (Heubeck and Mellor 2013).  Käkelä <i>et al.</i> (2007) used fatty acid signatures to show that the fish diet of common guillemots breeding on Foula is pelagic in origin, as opposed to demersal, probably very largely young sandeels <i>Ammodytes marinus</i> .
great skua	Great skuas feed chicks with high proportions of sandeels (up to 59.7% of chick regurgitates in Foula were sandeel, Phillips <i>et al.</i> 1997), as well as eating some directly (up to 19.8% of pellets, Phillips <i>et al.</i> 1997).  Previous population growth in great skuas has been attributed to abundance of sandeels in waters surrounding breeding colonies (Furness and Hislop 1981). Productivity of great skuas was highest in the years with the highest proportion of sandeel feed to chicks (Phillips <i>et al.</i> 1997).  It should be noted that great skua are known to kleptoparasitise other seabird species as well as catching fish prey species directly <sup>7</sup> (Furness 1987), and to prey directly upon other seabird species (Votier <i>et al.</i> 2003). The supporting prey species and attributes remain the same, as they support the seabird species which great skua prey upon and kleptoparasitise.  Votier <i>et al.</i> (2004) show that reduced availability of discards is linked to prey switching in great skua, as is reduced availability of sandeels. Given reduction/removal of fisheries discards as a food source, increased availability of sandeel prey might act to reduce the degree to which kleptoparasitism and preying upon seabirds replaces fisheries discards in great skua diet.
northern fulmar	Previous studies have shown prominence of sandeel consumption by breeding Fulmars around Shetland, but decreasing during the 1990s with fisheries discards becoming a larger part of their diet (Furness and Todd 1984, Hamer <i>et al.</i> 1997, Phillips <i>et al.</i> 1999). The assumption is that low sandeel availability leads to higher proportions of other fish, including discards (Hamer <i>et al.</i> 1997). Sandeels are still important with 37% of regurgitates containing sandeels and higher proportions during incubation and early

<sup>7</sup> Natural change in this instance would include changes resulting from stopping the practice of discarding by commercial fisheries. Discarding is not a natural food source for great skuas or fulmar.

chick rearing (Phillips <i>et al.</i> 1999)
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Due to the relative scarcity of alternative highly-calorific small pelagic fish species around the Shetland seas, most small seabirds rely on sandeels whilst some larger species rely in part on fisheries discards, or kleptoparasitism, during the breeding season (Furness 2007; Phillips *et al.* 1996; Cury *et al.* 2011). There are five species of sandeel in the North Sea but historical commercial landings were dominated by lesser sandeel (*Ammodytes marinus*). Although little sandeel fishing persists today, there is no reason to assume that interest in a sandeel fishery may not be present in the future. Sandeels are highly resident and non-migratory, with large-scale dispersal only possible during the larval phase and this to a limited extent (Proctor *et al.* 1998; Christensen *et al.* 2008; Christensen *et al.* 2009, van Deurs 2010). Although sandeels may be susceptible to localised depletion there is some evidence to suggest that recruitment of sandeels in Shetland waters is dependent upon movement in currents of larval sandeels from spawning stocks around Orkney (Wright 1996). Due to the reliance of many of the qualifying seabird species on locally available sandeels in the Seas off Foula pSPA, the maintenance of both sandeel habitat and associated populations, and of source stock populations around Orkney, is important in order to ensure the ability of the site to support the qualifying species in the long term, and applies to objective B in particular.

## Document version control

Version	Date	Amendments made	Includes comments from
0.1	21/02/14	First draft	
0.2	27/02/14	Rethinking the kind of attributes to include in objectives and how to present and phrase objectives.	Comments from JNCC (including Offshore Industries Advice team) and from SNH
1.0	28/02/14	Minor changes in phrasing, titling and clarification.	High level QA and comments JNCC internal
1.1	23/04/14	Redrafted legislative wording, and revised approach to advice on activities and sensitivities.	MPA sub-group
1.2	29/04/14	Removed legal text to appendix/generic document, further revised wording, revised objectives and advice sections.	JNCC internal comments
2.0	01/05/14	Tweaking to objectives to include reference to climate change and discards, improving wording in relation to directives.	JNCC internal comments (including Species Advice Team and European Team)
2.1	19/05/14	Rewording to ensure consistency with JNCCs conservation objective framework which is being finalised in parallel with this document. Also addresses comments from Rebecca Oliver and MPA subgroup.	MPA sub-group
3.0	28/05/14	Includes assemblage feature.	JNCC internal comments
4.0	30/05/14	Rewording of attributes and species specific explanatory notes, final check and tidy.	JNCC internal comments

5.0	11/06/14	Rewording of one attribute. Completion of conservation advice section.	MPA sub-group, 30/05/2014; JNCC internal QA, high level QA and Directors QA 20/06/2014
6.0	20/06/2014	Version to Marine Scotland 2014 for Indicative Suite	
7.0	29/05/2015	Reworded conservation objective 1.	Discussions with Offshore Industries Advice Team re interpretation.
8.0	27/05/2016	Revision of conservation objectives	Extensive internal discussion within Offshore Industries Advice Team, with Conservation Advice team, with SNH and MS. Developing ideas on how to make the objectives as clear and easy to interpret as possible.
8.1	17/06/2016	Revision of conservation objectives	Feedback from MSS and SNH, further discussion within JNCC.
9.0	23/06/2016	Revision of conservation objectives	Final version including alignment with SNH objectives for consistency.
10.0	30/06/2016	Update of advice on operations section to align with Management Options paper.	