Seas off St Kilda

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 8.0

Summary

The draft Conservation Objectives and Advice on Operations for Seas off St Kilda potential Special Protection Area (pSPA) is based on information in the Site Selection Document Seas off St Kilda pSPA. The site covers both inshore areas (within 12 nautical miles of coast) and offshore areas (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 advice provided here will be subject to change as our knowledge about the site, its features and the impacts of human activities improve. The drafted 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, Atlantic puffin *Fratercula arctica*, common guillemot *Uria aalge*, European storm-petrel *Hydrobates pelagicus*, northern fulmar *Fulmarus glacialis* and northern gannet *Morus bassanus* in the Seas off St Kilda pSPA**,** to maintain their populations at healthy levels. This will require assessment and may require management of human activities likely to affect the populations within the site whether they are occurring within the site or in the vicinity, including activities likely to have an adverse impact on the listed features within the site, or 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[1] and competent[2] authorities for this area are advised to manage human activities within their remit which might affect the site and the Conservation Objectives of the site as described.

[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.

Contents

1 Introduction

1.1 Background

The Seas off St Kilda marine potential Special Protection Area (pSPA) is being proposed by the UK Government under the Birds Directive (2009/147/EC). If classified, the Seas off St Kilda 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 of The Offshore Marine Conservation (Natural Habitats & c.) Regulations 2007 (as amended), (hereafter referred to as the 'Offshore Regulations'), for the Seas off St Kilda pSPA. Supporting information is also provided, to aid the interpretation of the advice and to present the evidence base to aid transparency. The Offshore Regulations transpose the Nature Directives into law for UK offshore waters (from 12-200 nautical miles from the coast or the UK Continental Shelf). For more information on JNCCs responsibilities under the Offshore Regulations, see the Regulation 18.

The Seas off St Kilda pSPA, although primarily in offshore waters (99% of the area is between 12 and 200 nautical miles from the coast), overlaps inshore Scottish territorial waters (1% of the area is between 0 and 12 nautical miles from the coast). It is therefore subject to requirements under the Regulation 33[3] 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 St Kilda marine pSPA are:

[3] Regulation 33(2) gives Scottish Natural Heritage a statutory responsibility to advise other 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 European protected sites (SACs and SPAs) in Scotland.

St Kilda SPA (with extension), designated for:

Birds Directive Annex I species during breeding season

- Leach's storm petrel *Oceanodroma leucorhoa* and
- European storm petrel *Hydrobates pelagicus*

Regularly occurring migratory species during breeding season

- northern gannet *Morus bassanus*
- great skua *Stercorarius skua* and
- Atlantic puffin *Fratercula arctica*

A seabird assemblage of international importance, including razorbill *Alca torda*, common guillemot *Uria aalge*, black-legged kittiwake *Rissa tridactyla*, Manx shearwater *Puffinus puffinus*, northern fulmar *Fulmarus glacialis*, Atlantic puffin *Fratercula arctica*, great skua *Catharacta skua*, northern gannet *Morus bassanus*, Leach's storm-petrel *Oceanodroma leucorhoa*, European storm-petrel *Hydrobates pelagicus*.

St Kilda SAC, designated for Annex I habitats:

- Reefs
- Vegetated sea cliffs of the Atlantic and Baltic Coasts
- Submerges or partially submerged sea caves

The obligations of relevant[4], and other competent[5] 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 Directive.

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).

[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.

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, 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 drafted 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 which might have an adverse impact on 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 St Kilda pSPA. The second section, advice on existing operations, lists only operations that best-available evidence indicates are currently occurring in the Seas off St Kilda 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, either directly or via impacts on supporting habitats and processes and functions. The drafted 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.

This drafted 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 site.

2 Conservation Objectives for the Seas off St Kilda pSPA

2.1 Background to Conservation Objectives

This section sets out the Conservation Objectives for the Seas off St Kilda 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 integrity of the site is maintained or restored as appropriate, and that the site contributes to achieving the aims of the Birds Directive, 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; specific attributes of the site that are important, either as an attribute of the qualifying feature or of a supporting habitat. Specific attributes are listed only where it is felt that site specific management can have an effect on the qualifying features.

It should be borne in mind that general measures will also act to affect overall status of qualifying features of SPAs but such effects are not restricted to specific SPA sites. Where attributes of a qualifying feature or supporting habitats are best dealt with only with general measures and not site-specific measures, they are not referred to in this document. Climate change is an example of a pressure which is likely to affect many seabirds and their supporting features (for example through changes in prey distributions), but cannot be addressed through site-specific measures.

2.2 Seas off St Kilda pSPA Conservation Objectives

The qualifying features of the Seas off St Kilda marine pSPA are:

- northern gannet *Morus bassanus* (breeding)
- northern fulmar *Fulmarus glacialis* (breeding),
- European storm-petrel *Hydrobates pelagicus* (breeding),
- common guillemot *Uria aalge* (breeding), and
- Atlantic puffin *Fratercula arctica* (breeding).

Figure 1 shows the site boundary (details on how this was identified can be found in Site Selection Document Seas off St Kilda)

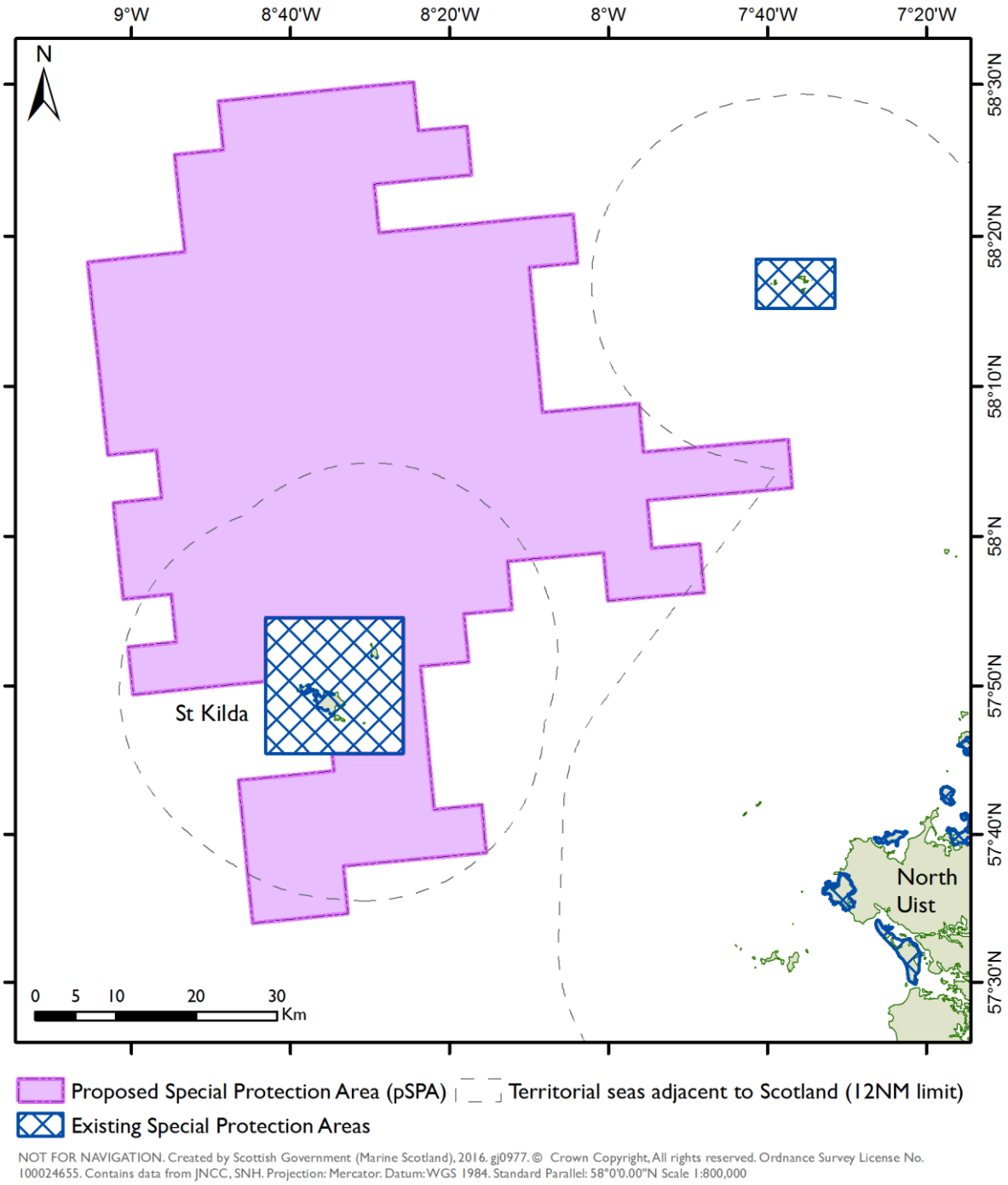

Figure 1. Location of boundary of the Seas off St Kilda pSPA in relation to existing SPAs.

The Conservation Objectives for the Seas off Kilda 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 Kilda 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 objectives for qualifying species of Seas off Kilda pSPA.

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 northern gannet and seabird assemblage during the breeding season, see Kober *et al.* 2010 and 2012.
B. Maintain the habitats and food resources	A variety of fish species has been shown to comprise significant parts of the diet of the seabird species at this site, with the partial exception of European storm petrel (see references in Appendix). 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. For the other qualifying features, no single fish species appears to dominate, reflecting the relatively diverse and probably temporally variable prey populations at this site. In addition, apart from sandeels, no clear prey habitat requirements are evident. In order to maintain suitable prey species within the site it may be necessary to consider management both within and out-with the site given the wide ranging nature of many of the possible prey species.

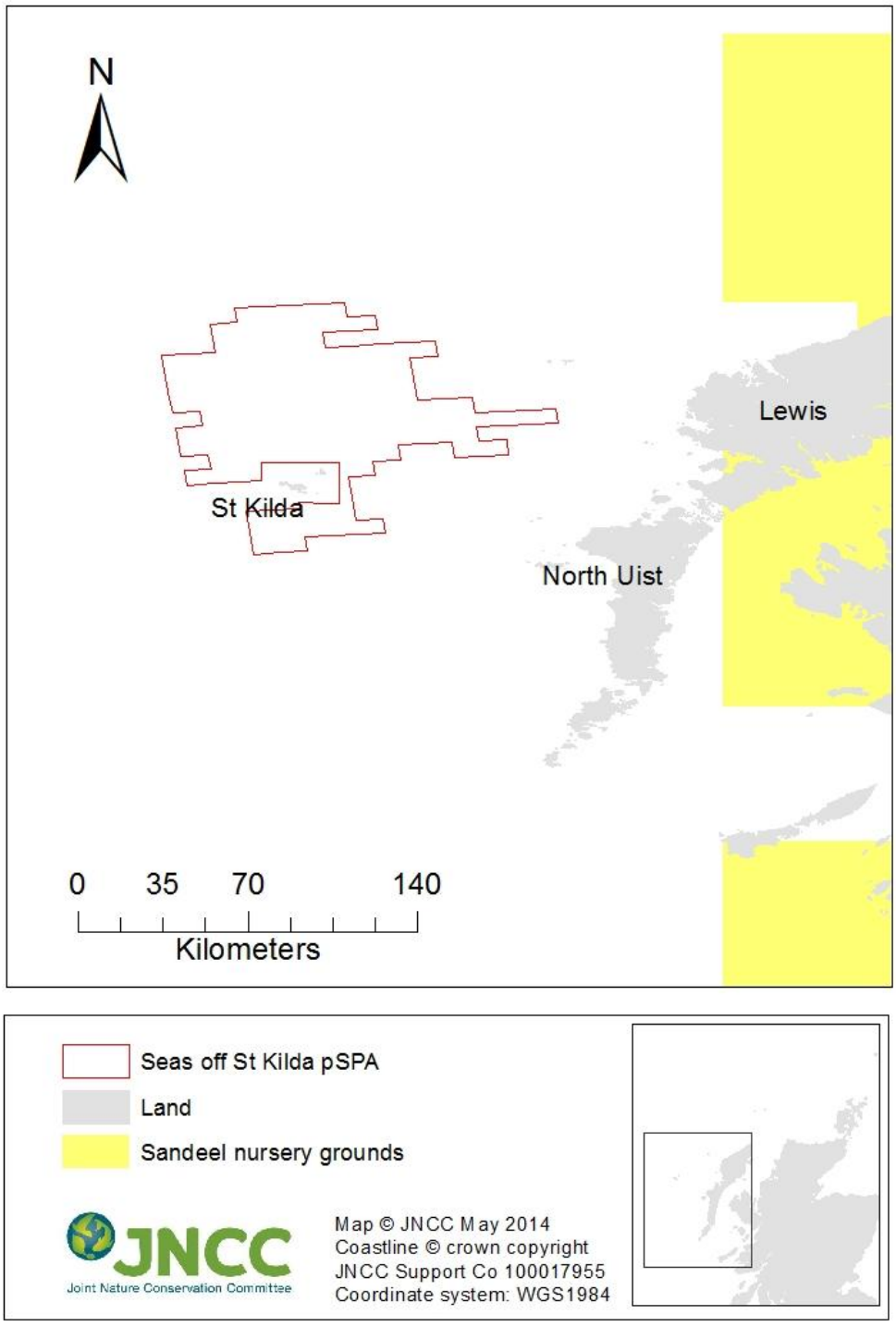

Figure 2. Sandeel nursery grounds. (Ellis *et al.* 2012).

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 pSPA. 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 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 which 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 northern gannet, northern fulmar, common guillemot and Atlantic puffin are 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 European storm-petrel or any other petrel species to activities or pressures are available, and there is little evidence to help with assessments of what they might be sensitive to. Thus we cannot say anything at this stage about where we consider there could be a greater risk.

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 draft 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 SPA.

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 advice is drafted 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 discussed 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 Royal Yachting Association cruising routes going through the pSPA. There are military practice areas which overlap with 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 St Kilda pSPA, with both mobile and static gear types. This occurs largely, but not exclusively, in the northern extent of the site. This includes some level of trawling, traps, nets and lines fishing types, to which the features may be sensitive.

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Appendix 1: Evidence for diet and habitat use of seabird features at Seas of St Kilda pSPA.

Species	Evidence
northern fulmar	Away from the Northern Isles, Fulmars have a more mixed diet with less preference for/reliance on sandeels. At St Kilda, 71% of regurgitates consisted of pelagic zooplankton (Furness and Todd 1984), perhaps as a result of St Kilda's proximity to the shelf break and deep oceanic water. A later study (Hamer *et al.* 1997) found that fulmar chick diet on St Kilda was mostly small juvenile fish, in contrast to those on Foula, where fish offal from fishing boats predominated.
common guillemot	Halley *et al.* (1995) showed, in a sample of 10 adult guillemots shot at sea in the waters immediately adjacent to St Kilda in June, that most fed on gadoids (apparently Norway pout *Trisopterus esmarkiii)* with no sandeels present. However, a sample of guillemots shot in shallower waters between St Kilda and Uist, fed largely on sandeels, and these individuals were thought to be breeding at St Kilda. The authors conclude that there may be an energetic trade-off for St Kilda guillemots – either feed locally on low-energy gadoid or travel further for high energy sandeels. Caution should however be applied due to their relatively small samples over a limited time period. More recently, guillemot chick diet has been studied on St Kilda (Money 2006, 2007, 2008; Prior 2011), which shows annual variation: in 2011 sandeels were present in between 45% of samples, clupeids were present in 32% and gadoids in 14%, with 'small silvery fish' (likely to be rockling) comprising 9%. In 2008 sandeels were dominant, also gadoid and clupeid were present, but rockling relatively scarce in the sample. In 2007, diet was fairly evenly split between juvenile rockling, sandeels and gadoid, and the indigestible pipefish. In 2006 pipefish predominated, which was thought to be a result of shortages of preferred food, causing chick starvation, also noted in puffins that year.
Atlantic puffin	Harris and Hislop (1978) studied the diet of young puffins on St Kilda and Isle of May. In some years puffins on St Kilda fed their young on whiting but in these years chicks fledged at lower weights than in years when young were fed on sprats. It is suggested that puffins on St Kilda were sometimes short of the best prey species compared to those on the Isle of May and were then forced to feed their young on sub-optimal food. Harris and Wanless (2011), Money (2006) and M. Parsons (JNCC, pers. comm.) show that juvenile rockling (various species) may at times be abundant in puffin chick diet at St Kilda (and other colonies), in addition to sandeels and other species. However, although the energy density of rockling is high, their small size makes them an inefficient food source (Harris and Wanless 2011).
European storm petrel	No site-specific information exists for St Kilda but generic evidence is likely to apply.

	Storm petrels are pelagic feeders, commonly taking zooplankton (Prince and Morgan 1987), comprising Ichthyoplankton (Linton 1978), many of which are deep-water species that rarely occur inshore (D'Elbee and Hemery 1997). Copepods, Amphipods, Euphausids and Cephalopods also feature (Cramp and Simmons 1977). Intertidal invertebrates are also taken in summer at night (D'Elbee and Hemery 1997), the authors suggested this dual foraging pattern - inshore at night and offshore during day - optimises enery intake and reduces overall predation risk. Pelagic fish such as herring *Clupea harengus* and sprat *Sprattus sprattus* (Scott 1970; Cramp and Simmons 1977), and Cephalopoda are taken (Bierman and Voous 1950). Fish scraps and offal from fishing boats is also an element of the diet (Cramp and Simmons 1977; M.Parsons, JNCC, pers. comm.). Stone *et al*. (1995) undertook a study of the water depth associations of seabirds at sea, finding that European storm petrel (and northern fulmar) were present in deepest waters, out to the shelf edge and into the deep sea. European storm petrels occurred primarily in waters >50m, with a peak in the outer shelf area (100-200m).
northern gannet	No site-specific information. Studies from elsewhere indicate larger shoaling pelagic fish such as mackerel, herring, gadoid and sandeel are taken (Wanless 1984, Martin 1989, Lewis 2002 ,). Fisheries discards have been shown to form a significant element of diet (Käkelä *et al* 2007; Votier *et al.* 2010)

Document version control

Version	Date	Amendments made	Includes comments from
0.1	21/05/14	First draft	
1.0	28/5/14	Attribute table and summary of supporting evidence included.	
2.0	29/5/14	Minor edits.	Internal JNCC comments (including Conservation Advice)
3.0	30/5/14	Addition of Advice on Operations.	
4.0	11/06/14	Rewording of one attribute. Completion of conservation advice section.	MPA sub-group, 30/05/2014; High level internal QA and Directors level QA (20/06/2014)
5.0	20/06/2014	Submission to Marine Scotland 2014 for indicative suite	
6.0	29/05/2015	Rewording of conservation objective 1	Internal JNCC discussions with Offshore Industries Advice re interpretation
7.0	23/06/2016	Rewording of conservation objectives.	Discussions internally and with SNH and MS. In line with revisions made to Seas off Foula conservation objectives.
8.0	30/06/2016	Update advice on operations based on most recent management options paper.	