Departmental brief:

Farne Islands Special Protection Area (SPA) – site amendment

Natural England

October 2015

Contents

Summary

The Farne Islands Special Protection Area (SPA) was classified in 1985. The Register Entry in the Register of European Sites consists of a copy of the Farne Islands SSSI citation, last amended in 1983, and does not specify which of the avian SSSI features are considered to be features of the SPA. The citation states the following information regarding the avian interest features of the SSSI: *'The islands provide nest sites for large numbers of kittiwakes, puffin (14,000 pairs), shag and guillemot (6,000 pairs). Significant numbers of eider (1,700 pairs) are recorded nesting mainly on Inner Farne and this island with the Brownsman carries important colonies of four species of terns (common tern 183 pairs, Arctic tern 4,000 pairs, Sandwich tern 4,000 pairs and roseate tern 13 pairs). Fulmar, cormorant, razorbill and ringed plover also breed.'* (Available from: http://publications.naturalengland.org.uk/publication/4521874151178240?category=4698884316069888).

The proposed amendment to the Farne Islands SPA aims to implement the recommendations of the 2001 SPA review (Stroud *et al.* 2001) where applicable and recommend the addition of any new qualifying features to the site. No alterations to the boundary of the SPA are proposed. As the existing citation is very old and not fit for purpose (as it is a copy of the SSSI citation that does not specify the features of the SPA), Natural England has used the latest data to update the citation into the standard template.

For some features of the SPA (breeding common tern and roseate tern) where current population levels have declined since the original classification it is considered necessary to retain the original citation values, in line with Defra policy that indicates the feature should be retained until such time as the reasons for the reduction in population can be established. Natural England therefore considers that these species should be retained on the citation of the SPA, and the level of ambition set out in the conservation objectives for the species maintained, until we have evidence to support the conclusion that declines are a result of natural processes and that the SPA is no longer suitable for these species.

This Departmental Brief sets out the scientific case for the amendment to the Farne Islands SPA. The Farne Islands SPA qualifies under Article 4 of the Birds Directive (2009/147/EC) for the following reasons (summarised in Table 1):

- The site regularly supports more than 1% of the GB populations of four species listed in Annex I of the EC Birds Directive. Therefore, the site qualifies for SPA Classification in accordance with the UK SPA selection guidelines (stage 1.1).
- The site regularly supports more than 1% of the biogeographical population of one regularly occurring migratory species not listed in Annex I of the EC Birds Directive. Therefore, the site qualifies for SPA designation in accordance with the UK SPA selection guidelines (stage 1.2).
- The site regularly supports an assemblage of more than 20,000 individual seabirds. Therefore the site qualifies for SPA designation in accordance with the UK SPA selection guidelines (stage 1.3).

Table 1 Summary of qualifying ornithological interest in the Farne Islands SPA

Feature	Count (period)	% of subspecies or population	Interest type	Selection criteria
Common tern *Sterna hirundo*	183 pairs 366 individuals (Farne Islands SPA citation 1985)[1]	1.69% of GB population (1985)[4]	Annex 1	Stage 1.1
Arctic tern *Sterna paradisaea*	2,003 pairs 4,006 individuals (2010-2014)[2]	3.78% of GB population[5]	Annex 1	Stage 1.1

Feature	Count (period)	% of subspecies or population	Interest type	Selection criteria
Roseate tern *Sterna dougallii*	13 pairs 26 individuals (Farne Islands SPA citation 1985)[1]	1.88% of GB population (1985)[6]	Annex 1	Stage 1.1
Sandwich tern *Sterna sandvicensis*	862 pairs 1,724 individuals (2010-2014)[2]	7.84% of GB population[5]	Annex 1	Stage 1.1
Common guillemot *Uria aalge*	32,875 pairs 65,751 individuals (2010-2014)[2,3]	1.72% of *aalge* biogeographic population[7]	Regularly occurring migrant	Stage 1.2

Feature	Count (period)	Selection criteria
Internationally important seabird assemblage of over 20,000 individuals	163,819 individuals 2010-2014 for all species except Atlantic puffin *Fratercula arctica* for which the average of censuses in 2008 and 2013 are used[8]. Including the 5 qualifying species listed above plus: Atlantic puffin *Fratercula arctica*, great cormorant *Phalacrocorax carbo*, European shag *Phalacrocorax aristotelis* and black-legged kittiwake *Rissa tridactyla* as main components of the assemblage.	Stage 1.3

[1] Data from: Farne Islands SPA citation (Available from: http://publications.naturalengland.org.uk/publication/4521874151178240?category=4698884316069888) as recent data contemporary data (2010-2014) reveal that these species are no longer present at the site in qualifying numbers. It is not clear whether anthropogenic influences have affected the populations at the site. Defra policy indicates that in these circumstances the feature should be retained until such time as the reasons for the reduction in population can be established.

[2] Data from: Seabird Monitoring Programme (SMP) and colony managers (pairs multiplied by 2 to arrive at breeding adults; this rule applies to all species listed within the table, with the exception of common guillemot).

[3] Common guillemots are counted as "individuals on land"; this is multiplied by a correction factor of 0.67 (Harris 1989) to translate to breeding pairs and multiplied by 2 to yield an estimate of the number of breeding adult individuals.

[4] GB breeding population (10,800 pairs) derived from data Operation Seafarer (Cramp *et al.* 1974). This is assumed to be the relevant GB breeding population at the time of classification of the existing Farne Islands SPA in 1985. Current five year peak mean (2010-2014) = 97 pairs (0.97% GB breeding population of 10,000 pairs (Musgrove *et al.* 2013)).

[5] GB breeding populations derived from Musgrove *et al*. (2013)

[6] GB breeding population (691 pairs) derived from data Operation Seafarer (Cramp *et al.* 1974). This is assumed to be the relevant GB breeding population at the time of classification of the existing Farne Islands SPA in 1985. Current five year peak mean (2010-2014) = 0 pairs.

[7] Birds breeding at the Farne Islands are assumed to belong to the nominate race of *Uria aalge aalge* in line with UK SPA and Ramsar Scientific Working Group (2014) paper*: International Population Estimates for some seabird species* in which a population midpoint estimate of 1,909,417 pairs (rounded to 3,820,000 individuals) is given.

[8] Due to the complexity and costs of Atlantic puffin burrow surveys these are not carried out yearly by all colony managers, but are surveyed as a minimum on a 5-yearly basis as part of a UK-wide puffin census. Given this constraint to the availability of population estimates for puffins, the most recent of these censuses at the Farne Islands in 2008 and 2013 have been used in our assessment.

1. Assessment against SPA selection guidelines

The UK SPA Selection Guidelines set out two stages to assist the identification of potential SPAs (Stroud *et al*. 2001). The first stage is intended to identify areas that are likely to qualify for SPA status on the basis of the numbers of birds regularly using them. The second stage further considers these areas using one or more of the judgements in Stage 2 to select the most suitable areas in number and size for SPA classification (Stroud *et al*. 2001).

1.1. Stage 1

Under stage 1 of the SPA selection guidelines (JNCC 1999), sites eligible for selection as a potential SPA must demonstrate one or more of the following:

Stage 1.1 an area is used regularly by 1% or more of the Great Britain (or in Northern Ireland, the all-Ireland) population of a species listed in Annex I of the Birds Directive (2009/147/EC) in any season;

Stage 1.2 an area is used regularly by 1% or more of the biogeographical population of a regularly occurring migratory species (other than those listed in Annex I) in any season;

Stage 1.3 an area is used regularly by over 20,000 waterbirds (waterbirds as defined by the Ramsar Convention) or 20,000 seabirds in any season

Stage 1.4 An area which meets the requirements of one or more of the Stage 2 guidelines in any season, where the application of Stage 1 guidelines 1, 2 or 3 for a species does not identify an adequate suite of most suitable sites for the conservation of that species.

The Conference of the Contracting Parties to the Ramsar Convention has defined the term 'regularly' as used in the Ramsar site selection criteria, and this definition also applies to the SPA selection guidelines (JNCC 1999). A wetland regularly supports a population of a given size if:

- the requisite number of birds is known to have occurred in two-thirds of the seasons for which adequate data are available, the total number of seasons being not less than three; or,

- the mean of the maxima of those seasons in which the site is internationally important, taken over at least five years, amounts to the required level (means based on three or four years may be based on provisional assessments only).

The Farne Islands SPA qualifies under stage 1.1 because it regularly supports greater than 1% of the GB population of four species listed in Annex I: common tern (1.69% at original classification in 1985), Arctic tern (3.78%), roseate tern (1.88% at original classification in 1985) and Sandwich tern (7.84%). In addition the site qualifies under stage 1.2 for supporting over 1% of the biogeographical population of one regularly occurring migratory bird species: common guillemot (1.72% of the *Uria aalge aalge* subspecies). The site also qualifies under stage 1.3 by regularly supporting an assemblage of over 20,000 seabirds, including Atlantic puffin, great cormorant, European shag and black-legged kittiwake as named components. The site has not been selected for any species under stage 1.4.

1.2. Stage 2

The Farne Islands SPA is assessed against Stage 2 of the SPA selection guidelines in Table 2. It should be noted that in applying the SPA selection guidelines, Stroud *et al.* (2001) note that a site which meets only one of these Stage 2 judgments is not considered any less preferable than a site which meets several of them, as the factors operate independently as indicators of the various different kinds of importance that a site may have. In fact, the SPA meets most of the Stage 2 criteria indicating the high value of the site.

Table 2 Assessment of the bird interest of the Farne Islands SPA against stage 2 of the SPA selection guidelines

Feature	Qualification	Assessment
1. Population	✓	Largest breeding Arctic tern colony in the UK[2]

size & density		3rd largest breeding Sandwich tern colony in the UK[2] 4th largest breeding common guillemot colony in the UK[2]
2. Species range	✓	Lies within the southernmost limits of Arctic tern breeding range. It is one of the most southerly sites in the UK (and only the second site in England) holding qualifying numbers of breeding common guillemots.
3. Breeding success	✓	Using the most recent available productivity data in the JNCC SMP database: Arctic tern productivity at the Farne Islands has averaged 0.74 chicks per nest between 2009 and 2013. Since 1986, Arctic tern UK annual average productivity has only risen above 0.40 chicks per pair once, in 2000, and in most years it lies below 0.30 (JNCC 2014). Productivity at the Farne Islands has exceeded 0.40 in all years from 2009 to 2013. Sandwich tern productivity at the Farne Islands was 0.15 chicks per nest in 1999 and increased to 0.56 in 2000. The long term (1986-2008) UK average is 0.66 (Cook & Robinson 2010). Productivity of common guillemots at the Farne Islands has averaged 0.82 chicks per nest between 2006 and 2010. This is above the long term (1986-2008) UK average of 0.66 checks per nest per year (Cook & Robinson 2010).
4. History of occupancy	✓	Occupied by seabirds since 17th century (Day *et al.* 1995)
5. Multi-species area	✓	Four qualifying Annex 1 species, one qualifying regularly occurring migrant and breeding seabird assemblage of which a further four species occur in nationally important numbers
6. Naturalness	n/a	No longer applicable, following ruling from the SPA and Ramsar site Working Group
7. Severe weather refuge	n/a	Not relevant to breeding species

[1] For common tern and roseate tern these rankings should only be considered indicative of the current relative importance of the SPA as they are based on comparison of the historical populations of these species at the Farne Islands SPA at the time of its original classification in 1985 and given in the SPA citation available from: http://publications.naturalengland.org.uk/publication/4521874151178240?category=4698884316069888 with the historical populations of each species at each SPA in the UK as listed in Stroud *et al.* (2001).

[2] Note that these rankings should only be considered indicative of the relative importance of the SPA as it is based on comparison of the sum of the most recent 5 year mean populations of each species at the SPA (as listed in Table 1) with the historical populations of each species at each SPA in the UK as listed in Stroud *et al.* (2001).

2. Rationale and data underpinning site classification

SPA site selection guidelines have been applied to the most up to date information for the site. However, these contemporary data reveal that at some SPA species are no longer present in qualifying numbers (either through declines or because the relevant threshold has increased). It is not clear whether anthropogenic influences have affected the populations at the site. Defra policy indicates that in these circumstances the feature should be retained until such time as the reasons for the reduction in population can be established. Natural England therefore considers that these species should be retained on the citation of the SPAs, and the level of ambition set out in the conservation objectives for the species maintained, until we have evidence to support the conclusion that declines are a result of natural processes and that the SPA is no longer suitable for this species.

2.1. Data collection

The Farne Islands SPA was classified in 1985. However, the Register Entry in the Register of European Sites consists of a copy of the Farne Islands SSSI citation, last amended in 1983, and does not specify which of the avian SSSI features are considered to be features of the SPA.

The proposed amendment to the Farne Islands SPA aims to implement the recommendations of the 2001 SPA review (Stroud *et al.* 2001) where applicable and propose the addition of any new qualifying features to the site. No alterations to the boundary of the SPA are proposed As the existing citation is very old and not fit for purpose (as it is a copy of the SSSI citation that does not specify the features of the SPA), Natural England has used the latest data to update the citation into the standard template.

All of the qualifying features of the Farne Islands SPA are breeding seabirds. Therefore, the size of each of the populations of proposed qualifying features of the re-classified site have been taken to be the most recently available from the Seabird Monitoring Programme (SMP) website (http://jncc.defra.gov.uk/smp/) i.e. within the last 5 years, unless otherwise indicated. Where possible, the dataset from the SMP has been augmented by information requested directly from colony managers.

However, for some features (breeding common tern and roseate tern) where current populations have declined since classification it is considered necessary to retain the original citation values as the basis for qualification, in line with Defra policy that indicates the feature should be retained until such time as the reasons for the reduction in population can be established.

3. Site status and boundary

The Farne Islands SPA was classified in 1985 for its populations of breeding seabirds. The Natura 2000 Standard Data Form submitted to the European Commission (JNCC 2006) defines an area of 101.86 hectares. The SPA is underpinned by the Farne Islands Site of Special Scientific Interest (SSSI).

The Register Entry in the Register of European Sites consists of a copy of the Farne Islands SSSI citation, last amended in 1983. The citation states the following information regarding the avian interest features of the SSSI:
'The islands provide nest sites for large numbers of kittiwakes, puffin (14,000 pairs), shag and guillemot (6,000 pairs). Significant numbers of eider (1,700 pairs) are recorded nesting mainly on Inner Farne and this island with the Brownsman carries important colonies of four species of terns (common tern 183 pairs, Arctic tern 4,000 pairs, Sandwich tern 4,000 pairs and roseate tern 13 pairs). Fulmar, cormorant, razorbill and ringed plover also breed.' (Available from: http://publications.naturalengland.org.uk/publication/4521874151178240?category=4698884316069888).

The original Natura 2000 Standard Data Form submitted to the European Commission (JNCC 2006) cites internationally important breeding populations of three species listed in Annex 1 of the Birds Directive i.e. common tern, Arctic tern and Sandwich tern. As they are named on the SSSI citation (appropriated as the SPA citation at the time) it is clear that the 4 Annex I species of tern are the original classified features of the site. The fact that only 3 are cited on the Natura 2000 data form implies there may have been an administrative error at the time of submission of the data form.

The subsequent SPA review (Stroud *et al.* 2001) lists: internationally important breeding populations of common tern, Arctic tern, roseate tern, Sandwich tern, common guillemot, Atlantic puffin and an assemblage of seabirds of international importance. Therefore citing breeding guillemot, Atlantic puffin and an assemblage of >20,000 seabirds as additional qualifiers of the site

at the time of the Review.

More recent count data confirm that the site regularly supports qualifying numbers of breeding Arctic tern, Sandwich tern, common guillemot and an assemblage of seabirds of international importance. It does not support an internationally important breeding population of Atlantic puffin due to changes in the biogeographic population used to assess importance. Stroud *et al.* (2001) used the total population of the subspecies *Fratercula arctica grabae* as the relevant biogeographic population to which puffins in the UK belong. However, Mitchell *et al.* (2004) note that this subspecies is now considered to be indistinct from the nominate subspecies *F.a.arctica* and present a total population for *F.a.arctica* which includes populations of both of these previously recognised subspecies. UK SPA and Ramsar Scientific Working Group (2014) presents a figure of 5,176,257 pairs for this population which is derived in line with the figures in Mitchell *et al.* (2004) by summing birds breeding in: France, Great Britain, Isle of Man and Channel Islands, All-Ireland, Faroes, all of Norway, Iceland and Russia (although excluding birds listed as *F.a.arctica* in Mitchell *et al*. (2004) and breeding in Canada, USA and Greenland). On the basis of this, the biogeographic population of Atlantic puffin used in this Departmental Brief to assess the importance of the Farne Islands SPA is the north east Atlantic biogeographic population of the subspecies *F. arctica arctica* (5,176,257 pairs). The most recent puffin count data (average of 2008 and 2013 censuses) of 38,399 pairs (76,798 breeding adults) at the Farne Islands represents 0.74% of this biogeographic population. This most recent count does represent nationally important numbers, i.e. exceeding 1% of the national population (6.62% of the GB breeding population of Atlantic puffin). It is therefore proposed that Atlantic puffin is identified as a main component of the SPA assemblage as set out in the 2001 SPA Review in line with Stage 1.3 of the SPA Selection guidelines (Stroud *et al*. 2001).

Numbers of breeding common tern nesting at the site have fallen in recent years and roseate terns have not bred on the Farne Islands since 2009. Therefore, these two species no longer occur in the SPA in numbers exceeding the qualifying threshold set out in the SPA selection guidelines (Stroud *et al.* 2001) for an Annex I species i.e. 1% of the GB population. These species remain qualifying features of the SPA.

No extensions or modifications to the boundary are proposed. The boundary of the Farne Islands SPA can be found on: http://www.magic.gov.uk/MagicMap.aspx

4. Location and habitats

The Farne Islands are a group of low-lying islands 2-6 km off the coast of Northumberland in north-east England. They form the easternmost outcroppings of the Great Whin Sill of quartz dolerite, and although some islands retain cappings of boulder clay or peaty deposits, vegetation is limited to pioneer communities. There are reefs around the islands along with submerged or partially submerged sea caves.

The soil comprises of boulder clay on Staple, Brownsman, inner Farne and the Wideopens. These islands, as a result, have a complex of deep soils. The remaining islands have a very thin soil cover. Saline/ brackish pools Vegetation is further affected by the maritime conditions and large numbers of seabirds (Stroud *et al.* 2001). Grass, principally Yorkshire fog *Holcus Lanatus*, is more abundant here than on any of the other large islands. Other major components of the flora of this island are sea campion *Silene maritima*, docks *Rumex sp.,* nettles *Urtica dioica*, Amsinckia, bugloss *Anchusa arvensis*, common orache *Atriplex patula*, and red goosefoot *Chenopodium rubrum*.

5. Assessment of ornithological interest

5.1. Survey information and summary

5.2. Annex 1 species

5.2.1. Arctic tern *Sterna paradisaea*

The breeding population of Arctic terns in Great Britain is estimated to be 53,000 pairs (Musgrove *et al*. 2013), representing at least 2.9% of the European & North Atlantic breeding population (1,800,000 pairs being the maximum estimate given in Mitchell *et al*. (2004): AEWA (2012) only give an estimate of in excess of 1,000,000 individuals for the Western Eurasian breeding population – from which a % value cannot be derived). Arctic terns have a strongly northerly distribution in the UK, with the breeding population concentrated on Shetland, Orkney and north and west Scotland (Mitchell *et al.* 2004). Apart from three large colonies in Northumberland (Coquet Island, the Farne Islands and Newton Links/Long Nanny), they are a rare breeding bird in England.

The Farne Islands SPA citation (copy of the amended 1983 SSSI citation) lists 4,000 pairs of Arctic terns. The Natura 2000 Standard Data Form (JNCC 2006) states 2,840 pairs as a 5-year mean (1993-1997) at the time representing 6.5% of the GB breeding population. The number of pairs of Arctic terns nesting at the site during a recent 5-year period (2010-2014) were – **2,199** (2010), **1,830** (2011), **1,866** (2012), **1,921** (2013), **2,198** (2014). This provides a recent 5-year mean of **2,003** breeding pairs (counted as occupied nests) representing 4,006 breeding adults (1 occupied nest = 1 pair *i.e*. no correction factor applied to counts of nests). This represents **3.78%** of the GB breeding population. This Departmental Brief proposes this new population to be the notified population of this species at the amended Farne Islands SPA.

In 2014 the main Arctic tern nesting colonies at the Farne Islands were on Inner Farne and Brownsman (National Trust *pers. comm.*).

5.2.2. Sandwich tern *Sterna sandvicensis*

The breeding population of Sandwich terns in Great Britain is estimated to be 11,000 pairs (Musgrove *et al.* 2013), representing about 19.3% of the Western Europe/West Africa breeding population (57,000 pairs derived by division by 3 of the upper estimate of 171,000 individuals: AEWA 2012). In the UK, the species is restricted to relatively few large colonies, most of which are on the east coast of Britain with a few smaller ones on the south and north-west coasts of England and in Northern Ireland. Colonies are mostly confined to coastal shingle beaches, sand dunes and offshore islets (Mitchell *et al.* 2004).

The Farne Islands SPA citation (copy of the amended 1983 SSSI citation) lists 4,000 pairs of Sandwich tern. The Natura 2000 Standard Data Form (JNCC 2006) states 2,070 pairs as a 5-year mean (1993-1997) at the time representing 14.8% of the GB breeding population. The number of pairs of Sandwich terns nesting during a recent 5-year period (2010-2014) were – **1,019** (2010), **544** (2011), **966** (2012), **824** (2013), **959** (2014). This provides a recent 5-year mean of **862** breeding pairs (counted as occupied nests) representing 1,724 breeding adults (1 occupied nest = 1 pair *i.e*. no correction factor applied to counts of nests). This represents **7.84%** of the GB breeding population. This Departmental Brief proposes this new population to be the notified population of this species at the amended Farne Islands SPA.

In 2014 all the Sandwich terns nesting at the Farne Islands were on Inner Farne (National Trust *pers. comm.*).

5.3. Regularly occurring migratory species

5.3.1. Common guillemot *Uria aalge*

The breeding population of common guillemots in Great Britain is estimated to be 880,000 pairs (1,313,433 individuals) (Musgrove *et al*. 2013), representing about 31% of the North Atlantic population (Mitchell *et al*. 2004). Breeding colonies are distributed widely around the coast of Britain, with the exception of the southeast of England from Sussex to Lincolnshire. The largest colonies of over 10,000 individuals are found from Northumberland north up the east coast of mainland Scotland to Shetland and the Hebrides, with outliers on Flamborough Head in Yorkshire and Skomer Island off Pembrokeshire (Mitchell *et al*. 2004). Nesting is confined to areas safe from mammalian predators such as sheer cliffs and offshore islands. It is considered that two distinct subspecies occur within the British Isles, with those breeding in Scotland and Northumberland belonging to the nominate race *U.a.aalge* while those in the rest of England, Wales and all of Ireland belong to the southern race *U.a.albionis* (UK SPA and Ramsar Scientific Working Group 2014). The population size of the nominate *U.a.aalge* in the northern UK has recently been estimated to be 591,017 pairs which represents 30.8% of the north-east Atlantic population of this subspecies (1,917,167 pairs : UK SPA and Ramsar Scientific Working Group (2014) (excluding birds breeding in eastern North America and Greenland due to the lack of any evidence of trans-Atlantic movements).

The Farne Islands SPA citation (copy of the amended 1983 SSSI citation) lists 6,000 pairs of common guillemot. Numbers at the site have since increased dramatically, and between 2010 and 2014 the Farne Islands supported an average of 49,068 common guillemots (counted as "individuals on land") representing **32,875** pairs (correction factor of 0.67 applied to counts of individuals, Harris 1989; Musgrove *et al*. 2013) which equates to 65,751 breeding adults. This constitutes **1.72%** of the North East Atlantic biogeographic population of the nominate race *U.a.aalge* (UK SPA and Ramsar Scientific Working Group 2014). As the Farne Islands support an internationally important population of common guillemot (over 1% of biogeographic population), this Departmental Brief proposes this new population to be the notified population of this species at the amended Farne Islands SPA.

Breeding guillemots can be found on the majority of the Farne Islands and in 2014 the largest colony was on Staple, with other large colonies on Brownsman, Inner Farne, East Wideopen, Skeney Scar, West Wideopen and North Wamses (National Trust *pers. comm.*).

5.4. Seabird assemblage

Summing the most recent population estimates for each species (i.e. the 5 year mean population figure from 2010-2014 for all species except Atlantic puffin for which the average of censuses in 2008 and 2013 are used) yields a total of **163,819** individual breeding seabirds supported by the Farne Islands SPA. This qualifies as an internationally important assemblage of over 20,000 seabirds. This seabird assemblage includes: Arctic tern, common tern, roseate tern, Sandwich tern and common guillemot, i.e. the species described above which qualify as features in their own right. In addition, the breeding seabird assemblage includes Atlantic puffin (76,798 breeding adults), great cormorant *Phalacrocorax carbo* (230 breeding adults), European shag *Phalacrocorax aristotelis* (1,677 breeding adults) and black-legged kittiwake *Rissa tridactyla* (8,241 breeding adults), all of which are present in nationally important numbers i.e. exceeding 1% of the national populations (6.62%, 1.37%, 3.11% and 1.11% of the GB breeding populations respectively). It is therefore proposed that these species are identified as main components of the assemblage as set out in the 2001 SPA Review (Stroud *et al*. 2001).

The assemblage also includes the following species: northern fulmar *Fulmarus glacialis* (542 breeding adults), black-headed gull *Chroicocephalus ridibundus* (973 breeding adults), great black-backed gull *Larus marinus* (27 breeding adults), lesser black-backed gull *Larus fuscus* (1,400 breeding adults), herring gull *Larus argentatus* (1,688 breeding adults) and razorbill *Alca torda* (572 breeding adults). Although these species do not occur in numbers that meet the qualifying criteria

for them to be listed as main components of the assemblage, these migratory species are still considered part of the designated assemblage feature.

6. Comparison with other sites in the UK

A comparison is presented in Table 3 of the populations of each qualifying feature of the Farne Islands SPA with the largest breeding populations supported by individual SPAs across Great Britain. In the case of all of these features the figures for the Farne Islands SPA are based on the most recent 5 year mean.

Unless otherwise stated, for the purposes of this comparison exercise, the populations from each of the other individual SPAs are those presented in the SPA review (Stroud *et al.* 2001), which in all cases are of course many years out of date. It is acknowledged that the rankings are therefore not based on like-for-like directly comparable information and instead merely indicates the Farne Islands SPA's general level of relative importance in a national context.

Table 3 Comparison of the numbers of individuals (and pairs) of each of the qualifying features of the Farne Islands SPA with numbers at other SPAs for which figures are provided in Stroud *et al.* (2001)[1].

Species	Site	Individuals (pairs)[1]	Rank[2, 3]	Comments
Arctic tern *Sterna paradisaea* (breeding)	Farne Islands	4,006 (2,003)[4]	1st of 17	At the time of classification, the Farne Islands supported 4,000 pairs of Arctic tern. The Farne Islands ranked as the most important site for the species in the UK (Stroud *et al.* 2001). The most recent 5 year mean of 2,003 pairs represents **3.78%** of the GB breeding population, and in comparison with historical populations at the other sites, results in the Farne Islands remaining the most important site for the species in the UK.
	Papa Westray (North Hill and Holm)	3,900 (1,950)	2nd of 17	
	Ynys Feurig, Cemlyn Bay and The Skerries	2,580 (1,290)	3rd of 17	
	Pentland Firth Islands	2,400 (1,200)	=4th of 17	
	West Westray	2,400 (1,200)	=4th of 17	
Sandwich tern *Sterna sandvicensis* (breeding)	North Norfolk Coast	6,914 (3,457)	1st of 16	At the time of classification, the Farne Islands supported 4,000 pairs of Sandwich tern. The Farne Islands ranked as the 2nd most important site for the species in the UK (Stroud *et al.* 2001). The most recent 5 year mean of 862 pairs represents **7.84%** of the GB breeding population, and in comparison with historical populations at the other sites, results in the Farne Islands becoming the 3rd most important site for the species in the UK.
	Coquet Island	3,180 (1,590)	2nd of 16	
	Farne Islands	1,724 (862)[4]	3rd of 16	
	Ythan Estuary, Sands of Forvie and Meikle Loch	1,200 (600)	4th of 16	
	Strangford Lough	1,186 (593)	5th of 16	
Common guillemot *Uria aalge* (breeding)	Handa	152,206 (76,103)	1st of 34	At the time of classification, the Farne Islands supported 6,000 pairs of common guillemot. The increase in numbers at the Farne Islands since then has resulted in the most recent 5 year mean population of 32,875 pairs now equating to **1.72%** of the north-east Atlantic population of the *U. a. aalge* subspecies of 1,917,167 pairs.
	East Caithness Cliffs	143,018 (71,509)	2nd of 34	
	Fowlsheugh	80,280 (40,140)	3rd of 34	
	Farne Islands	65,751 (32,875)[4]	4th of 34	
	Noss	61,238 (30,619)	5th of 34	

[1] Stroud *et al. (2001)* notes: Data from the JNCC/RSPB/ Seabird Group's Seabird Colony Register have been used. These comprised the best available, whole colony counts for the period 1993-1997 or earlier. These data have been supplemented with additional census data for some sites provided by country agencies (especially in Scotland) and/or as a result of more recent surveys of particular species.

[2] Note that for all species these rankings should only be considered indicative of the relative importance of the Farne Islands SPA as they are based on a comparison of the sum of the most recent 5 year mean populations of each species at the SPA (as listed in Table 1) with the historical populations of each species at each SPA in the UK as listed in Stroud *et al.* (2001). The number of sites ranked is based on the number of sites listed for each species in Stroud *et al*. (2001). For brevity, only the top 5 ranked sites are tabulated for each species, except where the Farne Islands SPA position in the rank order is lower than this – in which case all sites down to that rank position are tabulated.

[3] These rank orders to not take account of numbers currently being considered in the context of other pSPAs in the United Kingdom.

[4] Based on the most recent 5 year mean peak population: 2010-2014.

7. Conclusion

It can be seen from the evidence presented above that the Farne Islands are an important site. in addition to the to the existing qualifiers - 4 Annex I species of breeding terns, The Farne Islands also supports breeding common guillemot (is one of the most southerly sites in the UK (and only the second site in England) holding qualifying numbers of breeding common guillemots and a seabird assemblage of international importance .

8. References

AEWA – African-Eurasian Waterbird Agreement (2012): Report on the Conservation Status of Migratory Waterbirds in the Agreement Area. Fifth Edition. AEWA, Bonn.
Available at:
http://www.unep-aewa.org/meetings/en/stc_meetings/stc7docs/info_docs_pdf/stc_inf_7_4_csr5.pdf

Cook, A.S.C.P. & Robinson, R.A. (2010): How representative is the current monitoring of breeding success in the UK? BTO Research Report No. 573, BTO, Thetford.

Cramp, S., Bourne, W.R.P. & Sanders, D. (1974). The Seabirds of Britain and Ireland. Collins, London.

Day J.C., Hodgson M.S. & Rossiter N. (eds.) (1995): The Atlas of Breeding birds in Northumbria. Northumberland and Tyneside Bird Club.

Harris, M.P. (1989): Variation in the correction factor used for converting counts of individual guillemots into breeding pairs. Ibis, Vol.131, 85-93.
Abstract available at: http://onlinelibrary.wiley.com/doi/10.1111/j.1474-919X.1989.tb02747.x/abstract (Full text available with paid subscription).

JNCC (1999): The Birds Directive – selection guidelines for Special Protection Areas. JNCC, Peterborough. *Available at:* http://jncc.defra.gov.uk/page-1405

JNCC (2006): Natura 2000 Standard Data Form for Special Protection Areas (SPA), for sites eligible for identification as Sites of Community Importance (SCI) and for Special Areas of Conservation (SAC) – Farne Islands SPA. *Available at*:
http://jncc.defra.gov.uk/pdf/SPA/UK9006021.pdf

JNCC (2014): Seabird Population Trends and Causes of Change: 1986-2013 Report (http://www.jncc.defra.gov.uk/page-3201). Joint Nature Conservation Committee. Updated August 2014.

Mitchell, P.I., Newton, S.F., Ratcliffe, N. & Dunn, T.E. (2004): Seabird Populations of Britain and Ireland. Poyser, London. 511pp. *Summary findings available at:* http://jncc.defra.gov.uk/page-1548

Musgrove, A., Aebischer, N., Eaton, M., Hearn, R., Newson, S., Noble, D., Parsons, M., Risely, K. & Stroud, D. (2013): Population estimates of birds in Great Britain and the United Kingdom. *British Birds*, **106**, 64-100.

Stroud, D.A., Chambers, D., Cook, S., Buxton, N., Fraser, B., Clement, P., Lewis, P., McLean, I., Baker, H., Whitehead, S. (2001): The UK SPA network: its scope and content, Volume 2: Species accounts. JNCC, Peterborough, 438 pp. *Available at: http://jncc.defra.gov.uk/page-1418.*

UK SPA and Ramsar Scientific Working Group (2014) *International Population Estimates for some seabird species*. Paper of meeting held on 23 June 2014.

Annex 2 Special Protection Area (SPA) Citation

EC Directive 2009/147/EC9/409 on the Conservation of Wild Birds potential Special Protection Area (SPA)

Name: Farne Islands

Counties/Unitary Authorities: Northumberland, North Tyneside

Boundary of the SPA:

The boundary is defined by the Mean Low Water Mark.

Size of SPA: The SPA covers an area of 101.86 ha.

Site description:

The Farne Islands are a group of low-lying islands 2-6 km off the coast of Northumberland in north-east England. They form the easternmost outcroppings of the Great Whin Sill of quartz dolerite, and although some islands retain cappings of boulder clay or peaty deposits, vegetation is limited to pioneer communities. Vegetation is further affected by the maritime conditions and large numbers of seabirds. The islands are important as nesting areas for these birds, especially terns, gulls and auks. The seabirds feed outside the SPA in nearby waters, as well as more distantly in the North Sea.

Qualifying species:

The site qualifies under **Article 4** of the Birds Directive (2009/147/EC) for the following reasons (summarised in Table 1):

- The site regularly supports more than 1% of the GB populations of four species listed in Annex I of the EC Birds Directive. Therefore, the site qualifies for SPA classification in accordance with the UK SPA selection guidelines (stage 1.1).
- The site regularly supports more than 1% of the biogeographical population of one regularly occurring migratory species not listed in Annex I of the EC Birds Directive. Therefore, the site qualifies for SPA designation in accordance with the UK SPA selection guidelines (stage 1.2).

Table 1 Summary of qualifying ornithological interest in the Farne Islands SPA

Feature	Count (period)	% of subspecies or population	Interest type
Common tern *Sterna hirundo*	183 pairs 366 individuals (Farne Islands SPA citation 1985)[1]	1.69% of GB population (1985)[4]	Annex 1
Arctic tern *Sterna paradisaea*	2,003 pairs 4,006 individuals (2010-2014)[2]	3.78% of GB population[5]	Annex 1
Roseate tern *Sterna dougallii*	13 pairs 26 individuals (Farne Islands SPA citation 1985)[1]	1.88% of GB population (1985)[6]	Annex 1
Sandwich tern *Sterna sandvicensis*	862 pairs 1,724 individuals	7.84% of GB population[5]	Annex 1

Feature	Count (period)	% of subspecies or population	Interest type
	(2010-2014)[2]		
Common guillemot *Uria aalge*	32,875 pairs 65,751 individuals (2010-2014)[2,3]	1.72% of *aalge* biogeographic population[7]	Regularly occurring migrant

[1] Data from: Farne Islands SPA citation (Available from: http://publications.naturalengland.org.uk/publication/4521874151178240?category=4698884316069888) as recent data contemporary data (2010-2014) reveal that these species are no longer present at the site in qualifying numbers. It is not clear whether anthropogenic influences have affected the populations at the site. Defra policy indicates that in these circumstances the feature should be retained until such time as the reasons for the reduction in population can be established.
[2] Data from: Seabird Monitoring Programme (SMP) and colony managers (pairs multiplied by 2 to arrive at breeding adults; this rule applies to all species listed within the table, with the exception of common guillemot).
[3] Common guillemots are counted as "individuals on land"; this is multiplied by a correction factor of 0.67 (Harris 1989) to translate to breeding pairs and multiplied by 2 to yield an estimate of the number of breeding adult individuals.
[4] GB breeding population (10,800 pairs) derived from data Operation Seafarer (Cramp *et al.* 1974). This is assumed to be the relevant GB breeding population at the time of classification of the existing Farne Islands SPA in 1985. Current five year peak mean (2010-2014) = 97 pairs (0.97% GB breeding population of 10,000 pairs (Musgrove *et al.* 2013)).
[5] GB breeding populations derived from Musgrove *et al*. (2013)
[6] GB breeding population (691 pairs) derived from data Operation Seafarer (Cramp *et al.* 1974). This is assumed to be the relevant GB breeding population at the time of classification of the existing Farne Islands SPA in 1985. Current five year peak mean (2010-2014) = 0 pairs.
[7] Birds breeding at the Farne Islands are assumed to belong to the nominate race of *Uria aalge aalge* in line with UK SPA and Ramsar Scientific Working Group (2014) paper*: International Population Estimates for some seabird species* in which a population midpoint estimate of 1,909,417 pairs (rounded to 3,820,000 individuals) is given.

Assemblage qualification:

The site qualifies under **Article 4.2** of the Directive (2009/147/EC) as it used regularly by over 20,000 seabirds in any season:

During the breeding season (2010-2014)[1], the area supports 163,819 individual seabirds including the 5 qualifying species listed above plus: Atlantic puffin (76,798 breeding adults), great cormorant (230 breeding adults), European shag (1,677 breeding adults) and black-legged kittiwake (8,241 breeding adults) all of which are present in nationally important numbers (6.62%, 1.37%, 3.11% and 1.11% of the GB breeding populations respectively) and therefore are named as key assemblage components.

[1] With exception of Atlantic Puffin for which censuses in 2008 and 2013 have been used. Due to the complexity and costs of Atlantic puffin burrow surveys these are not carried out yearly by all colony managers, but are surveyed as a minimum on a 5-yearly basis as part of a UK-wide puffin census. Given this constraint to the availability of population estimates for puffins, the most recent of these censuses at the Farne Islands in 2008 and 2013 have been used in our assessment.

Principal bird data sources

Colony counts from JNCC Seabird Monitoring Programme contributed by colony managers: National Trust, supplemented by most up to date counts in some instances from those colony managers.

Annex 3 Sources of bird data

Source of Data	Data provider	Subject	Date produced	Method of data collection	Verification
Seabird Monitoring Programme	JNCC and site manager	Farne Islands breeding seabird data	2008-2014	Standard methodology	Verified by site manager and JNCC
Farne Islands SPA citation (copy of revised 1983 SSSI citation)	Available from: http://publications.naturalengland.org.uk/publication/4521874151178240?category=4698884316069888	Population counts for common tern and roseate tern			

Annex 4 Implementation of Evidence Standard within decision process

Decision-making processes within Natural England are evidence driven and the Natural England strategic evidence standard, and supporting guidance were followed. In particular, the four principles for the analysis of evidence set out in the Natural England Standard *Analysis of Evidence* have been adhered to. These two standards documents can be downloaded from the following web-links:

Strategic Evidence Standard:
http://publications.naturalengland.org.uk/publication/7699291?category=3769710

Analysis of Evidence Standard:
http://publications.naturalengland.org.uk/publication/7850003?category=3769710

An explanation follows as to how the principles within the *Analysis of Evidence* standard have been applied in defining the set of qualifying features of the amended Farne Islands SPA.

1.) The evidence used is of a quality and relevance appropriate to the research question or issue requiring advice or decision

Quantification of Farne Islands SPA interest feature population sizes.

This is a re-classification of the existing Farne Islands SPA. The re-classification aims to implement the recommendations of the 2001 SPA review (Stroud *et al.* 2001) where applicable and propose the addition of any new qualifying features to the site. No alterations to the boundary of the existing SPA are proposed in this re-classification and it is generally (though not only) the case that reference populations are only amended where SPA boundaries change. However, due to the existing citation being a SSSI citation that does not specify the features considered qualifying features of the SPA, and given the age and different purposes of the SSSI citation, Natural England has elected to use the latest data when re-classifying the site in this Departmental Brief.

The evidence base underpinning the population sizes of the interest features for the re-classification of the site is provided by bird count data from two main sources. These data sources are as follows:

1. Data from JNCC's Seabird Monitoring Programme (SMP) (http://jncc.defra.gov.uk/smp/): 2010-2014 for all species, plus results of 2008 and 2013 puffin census. All of these counts are assessed as "accurate".

2. Data from colony managers supplemented the SMP data where this was not available, in the following instances: roseate tern data which were not accessible via the SMP webpages. These data were made available by the National Trust.

The count data taken from the SMP database is the best available information. In addition, the 2013 SMP data has been checked by JNCC. The count data which were obtained directly from the colony managers is source information that will in due course become part of the SMP database. As such, it too is the best available information.

For two features (breeding common tern and roseate tern) no changes are being proposed to the notified population sizes at the time of original classification (1985). This is because recent data contemporary data (2010-2014) reveal that these species are no longer present at the site in qualifying numbers. It is not clear whether anthropogenic influences have affected the populations at the site. Defra policy indicates that in these circumstances the feature should be retained until such time as the reasons for the reduction in population can be established. Natural England therefore considers that these species should be retained on the citation of the SPA, and the level of ambition set out in the conservation objectives for the species maintained, until we have

evidence to support the conclusion that declines are a result of natural processes and that the SPA is no longer suitable for these species. The evidence on which those original features were identified and populations quantified is not re-considered in this Annex.

2.) The Analysis carried out is appropriate to the evidence available and the question or issue under consideration

The population counts produced from the latest data were compared to established site selection criteria (JNCC 1999), meaning the analysis is entirely appropriate to the evidence available.

3.) Conclusions are drawn which clearly relate to the evidence and analysis

All recommendations for the updated SPA features are based on application of selection guidelines issued by JNCC (JNCC 1999), and conclusions are based on application of these guidelines to relevant data (SMP data and National Trust survey data). As such the conclusions in this respect clearly relate to the best available evidence.

4.) Uncertainty arising due to the nature of the evidence and analysis is clearly identified and explained

The UK SMP is an internationally recognised monitoring scheme coordinated by JNCC in partnership with others (e.g. statutory nature conservation bodies, the RSPB and other colony managers as data providers, etc.). It collects data according to standardised field methods (Walsh *et al.* 1995). SMP data are verified by the JNCC seabird team. Therefore, there is high confidence in SMP data. The majority of the data which has been used in determining the size of the populations for the SPA features is based on counts which are on the SMP database and so justify high confidence.

Natural Trust data is verified and quality assured by the site manager. The National Trust is a professional organisation with long-standing experience of seabird monitoring, and surveys are conducted by trained surveyors. There is therefore high confidence in National Trust survey data. Accordingly, even the most recent count data referred to in this Departmental Brief can be considered to justify high confidence.

One particular issue with the count data requires further consideration, namely the lack of consecutive counts of Atlantic puffin. Due to the complexity and costs of Atlantic puffin burrow surveys these are not carried out yearly by all colony managers, but are surveyed as a minimum on a 5-yearly basis as part of a UK-wide puffin census. Given this constraint to the availability of population estimates for puffins, the most recent of these censuses at the Farne Islands in 2008 and 2013 have been used in our assessment. This is the best available evidence.

5.) Independent expert review and internal quality assurance processes

Natural England's standard in quality assurance of use of evidence, including peer review; (http://www.naturalengland.org.uk/images/operationalstandardsforevidence_tcm6-28588.pdf) has been followed in determining the level of independent expert review and internal quality assurance required in relation to Natural England's analysis of the evidence for this site. Independent expert review is to be adopted where there is a high novelty or technical difficulty to the analysis.

The re-classification aims to implement the recommendations of the 2001 SPA review (Stroud *et al.* 2001) where applicable and propose the addition of any additional qualifying features to the site. No alterations to the boundary of the existing SPA are proposed in this re-classification and it is generally (though not only) the case that reference populations are only amended where SPA boundaries change. However, due to the existing citation being a SSSI citation that does not specify the features considered qualifying features of the SPA, and given the age and different purposes of the SSSI citation, Natural England has elected to use the latest data when re-classifying the site in this Departmental Brief. The proposal to re-classify the Farne Islands site has

been made on the basis of an assessment of standard breeding bird i.e. the SMP database, supplemented by data from colony managers (National Trust). The count data have been assessed against and conform with the SPA selection guidelines (JNCC 1999). Natural England believes these amendments not to be contentious and therefore independent review of how it has applied the evidence in making these amendments is not being sought.

Internal quality assurance of the Departmental Brief has been carried out as follows:

The first version of this Departmental Brief was drawn up by Tim Dixon and Martin Kerby with support from Katie Finkill-Coombs of Natural England. This was edited by Allan Drewitt and Helen Rowell to produce this version of the Departmental Brief.

Departmental Briefs are drafted by an ornithologist with support from the site lead who provides the local site specific detail. This document is then quality assured by the marine N2K National Project Management team as well as Natural England staff including Ben Fraser, Sarah Anthony, Angela Moffat and Phil Eckersley. The amended briefs are then reviewed and approved by the relevant Area Manager and subsequently by the Natural England Chief Scientist in accordance with our Quality Management Standard. The brief is then signed off as required by our Non-Financial Scheme of Delegation by a representative of the Senior Leadership Team with delegated authority before being submitted to Defra.

References

JNCC (1999): The Birds Directive – selection guidelines for Special Protection Areas. JNCC, Peterborough. *Available at:* http://jncc.defra.gov.uk/page-1405

Stroud, D.A., Chambers, D., Cook, S., Buxton, N., Fraser, B., Clement, P., Lewis, P., McLean, I., Baker, H., Whitehead, S. (2001): The UK SPA network: its scope and content, Volume 2: Species accounts. JNCC, Peterborough, 438 pp. *Available at: http://jncc.defra.gov.uk/page-1418.*

Walsh, P.M., Halley, D.J., Harris, M.P., del Nevo, A., Sim, I.M., Tasker, M.L. (1995): Seabird Monitoring Handbook for Britain and Ireland. JNCC, RSPB, Seabird Group, Peterborough, 150 pp. *Available at:* http://jncc.defra.gov.uk/PDF/pub95_SeabirdHandbook.pdf