

National Parks and Wildlife Service

Conservation Objectives Series

Saltee Islands SAC 000707

Saltee Islands SPA 004002



An Roinn
Ealaíon, Oidhreachta agus Gaeltachta

Department of
Arts, Heritage and the Gaeltacht



**National Parks and Wildlife Service,
Department of Arts, Heritage and the Gaeltacht,
7 Ely Place, Dublin 2, Ireland.
Web: www.npws.ie
E-mail: natureconservation@environ.ie**

Citation:

NPWS (2011) Conservation Objectives: Saltee Islands SAC 000707 and Saltee Islands SPA 004002. Version 1.0.
National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

**Series Editors: Rebecca Jeffrey & Naomi Kingston
ISSN 2009-4086**

Introduction

The overall aim of the Habitats Directive is to maintain or restore the favourable conservation status of habitats and species of community interest. These habitats and species are listed in the Habitats and Birds Directives and Special Areas of Conservation and Special Protection Areas are designated to afford protection to the most vulnerable of them. These two designations are collectively known as the Natura 2000 network.

European and national legislation places a collective obligation on Ireland and its citizens to maintain habitats and species in the Natura 2000 network at favourable conservation condition. The Government and its agencies are responsible for the implementation and enforcement of regulations that will ensure the ecological integrity of these sites.

A site-specific conservation objective aims to define favourable conservation condition for a particular habitat or species at that site.

The maintenance of habitats and species within Natura 2000 sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level.

Favourable conservation status of a habitat is achieved when:

- its natural range, and area it covers within that range, are stable or increasing, and
- the specific structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future, and
- the conservation status of its typical species is favourable.

The favourable conservation status of a species is achieved when:

- population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats, and
- the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future, and
- there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

Notes/Guidelines:

1. The targets given in these conservation objectives are based on best available information at the time of writing. As more information becomes available, targets for attributes may change. These will be updated periodically, as necessary.
2. An appropriate assessment based on these conservation objectives will remain valid even if the targets are subsequently updated, providing they were the most recent objectives available when the assessment was carried out. It is essential that the date and version are included when objectives are cited.
3. Assessments cannot consider an attribute in isolation from the others listed for that habitat or species, or for other habitats and species listed for that site. A plan or project with an apparently small impact on one attribute may have a significant impact on another.
4. Please note that the maps included in this document do not necessarily show the entire extent of the habitats and species for which the site is listed. This should be borne in mind when appropriate assessments are being carried out.
5. When using these objectives, it is essential that the relevant backing/supporting documents are consulted, particularly where instructed in the targets or notes for a particular attribute.

Qualifying Interests

* indicates a priority habitat under the Habitats Directive

000707 Saltee Islands SAC

- 1140 Mudflats and sandflats not covered by seawater at low tide
- 1160 Large shallow inlets and bays
- 1170 Reefs
- 1230 Vegetated sea cliffs of the Atlantic and Baltic coasts
- 1364 Grey Seal *Halichoerus grypus*
- 8330 Submerged or partially submerged sea caves

004002 Saltee Islands SPA

- A009 Fulmar *Fulmarus glacialis* breeding
- A016 Gannet *Morus bassanus* breeding
- A018 Shag *Phalacrocorax aristotelis* breeding
- A188 Kittiwake *Rissa tridactyla* breeding
- A199 Guillemot *Uria aalge* breeding
- A200 Razorbill *Alca torda* breeding
- A204 Puffin *Fratercula arctica* breeding

Supporting documents, relevant reports & publications (listed by date)

Supporting documents, NPWS reports and publications are available for download from: www.npws.ie/Publications

Title: Reef Investigations in Saltee Islands cSAC (Site Code: IE000707), Co. Wexford

Year: 2011

Author: Aquafact

Series: Unpublished Report to NPWS

Title: Subtidal Benthic Investigations in Saltee Islands cSAC (Site Code: IE000707), Co. Wexford

Year: 2011

Author: Aquafact

Series: Unpublished Report to NPWS

Title: BirdLife International Seabird Ecology and Foraging Range Database

Year: 2011

Author: BirdLife International

Series: <http://seabird.wikispaces.com>

Title: Seabird Monitoring Programme (SMP) Database

Year: 2011

Author: JNCC

Series: <http://jncc.defra.gov.uk/smp/Default.aspx>

Title: Saltee Islands SAC (000707): Conservation objectives supporting document - marine habitats and species [Version 1]

Year: 2011

Author: NPWS

Series: Unpublished Report to NPWS

Title: Saltee Islands SAC (000707): Conservation objectives supporting document - coastal habitats [Version 1]

Year: 2011

Author: NPWS

Series: Unpublished Report to NPWS

Title: An assessment of the breeding population of grey seals in the Republic of Ireland, 2005

Year: 2008

Author: Ó Cadhla, O.; Strong, D.; O'Keeffe, C.; Coleman, M.; Cronin, M.; Duck, C.; Murray, T.; Dower, P.; Nairn, R.; Murphy, P.; Smiddy, P.; Saich, C.; Lyons, D.; Hiby, L.

Series: Irish Wildlife Manuals No. 34

Title: Grey seal moult population survey in the Republic of Ireland, 2007

Year: 2007

Author: Ó Cadhla, O.; Strong, D.

Series: Unpublished Report to NPWS & CMRC

Title: Marine Natura 2000 recommendations for the extension of existing seabird (colony) special protection areas into the marine environment

Year: 2005

Author: Reid, J.; Webb, A.

Series: JNCC Committee Paper 05P14B

-
- Title:** Harbour seal population assessment in the Republic of Ireland: August 2003
Year: 2004
Author: Cronin, M.; Duck, C.; Ó Cadhla, O.; Nairn, R.; Strong, D.; O'Keeffe, C.
Series: Irish Wildlife Manuals No. 11
-
- Title:** Summary of National Parks & Wildlife Service surveys for common (harbour) seals (*Phoca vitulina*) and grey seals (*Halichoerus grypus*), 1978 to 2003
Year: 2004
Author: Lyons, D.O.
Series: Irish Wildlife Manuals No. 13
-
- Title:** Seabird Populations of Britain and Ireland
Year: 2004
Author: Mitchell, P.I.; Newton, S.F.; Ratcliffe, N.; Dunn, T.E.
Series: Poyser, London
-
- Title:** The status of breeding grey seals (*Halichoerus grypus*) on the east and south-east coast of Ireland
Year: 2001
Author: Lidgard, D.C.; Kiely, O.; Rogan, E.; Connolly, N.
Series: Mammalia 65 (3): 283-294
-
- Title:** Grey Seals: Status & Monitoring in the Irish & Celtic Seas
Year: 2000
Author: Kiely, O.; Lidgard, D.C.; McKibben, M.; Baines, M.E.; Connolly, N.
Series: Maritime Ireland/Wales INTERREG Report no. 3. Marine Institute
-
- Title:** Population biology of grey seals (*Halichoerus grypus* Fabricius 1791) in western Ireland
Year: 1998
Author: Kiely, O.R.M.
Series: Unpublished PhD. Thesis, National University of Ireland, University College Cork
-
- Title:** The BioMar biotope viewer: a guide to marine habitats, fauna and flora in Britain and Ireland
Year: 1997
Author: Picton, B.E.; Costello, M.J.
Series: Trinity College Dublin
-
- Title:** Seabird monitoring handbook for Britain and Ireland: a compilation of methods for survey and monitoring of breeding seabirds.
Year: 1995
Author: Walsh, P.; Halley, D.J.; Harris, M.P.; del Nevo, A.; Sim, I.M.W.; Tasker, M.L.
Series: JNCC, Peterborough
-

Spatial data sources

Year:	Interpolated 2011
Title:	1994 BioMar Survey; 2010 subtidal and intertidal surveys
GIS operations:	Polygon feature classes from marine community types base data sub-divided based on interpolation of marine survey data. Expert opinion used as necessary to resolve any issues arising
Used for:	Marine community types, 1140, 1170 (maps 2, 4 and 5)
Year:	2005
Title:	OSi Discovery series vector data
GIS operations:	High Water Mark (HWM) polyline feature class converted into polygon feature class; clipped to SAC boundary. Seaward boundary defined by expert judgement
Used for:	1160 (map 3)
Year:	2005
Title:	OSi Discovery series vector data
GIS operations:	High water mark (HWM) and low water mark (LWM) polyline feature classes converted into polygon feature classes and combined
Used for:	Marine community types base data (map 5)
Year:	2011
Title:	Internal NPWS files
GIS operations:	Digitised using the OSi six inch (1:10560) mapping series with reference to draft conservation plan map (2000). Clipped to SAC boundary. Expert opinion used as necessary to resolve any issues arising
Used for:	1230 (map 6)
Year:	Derived 2011
Title:	Coast of Ireland Oblique Imagery Survey 2003
GIS operations:	Point dataset created from visual inspection of survey
Used for:	8330 (map 6)
Year:	2011
Title:	NPWS rare and threatened species database
GIS operations:	Dataset created from spatial references in database records. Expert opinion used as necessary to resolve any issues arising
Used for:	1364 (map 7)
Year:	2005
Title:	OSi Discovery series vector data
GIS operations:	High Water Mark (HWM) polyline feature class converted into polygon feature class; clipped to SAC boundary. Expert opinion used as necessary to resolve any issues arising
Used for:	1364 (map 7)

Conservation objectives for: Saltee Islands SAC [000707]

1140 Mudflats and sandflats not covered by seawater at low tide

To maintain the favourable conservation condition of Mudflats and sandflats not covered by seawater at low tide in the Saltee Islands SAC, which is defined by the following list of attributes and targets

Attribute	Measure	Target	Notes
Habitat area	Hectares	The permanent habitat area is stable or increasing, subject to natural processes. See map 2	Habitat area was estimated using OSi data as 20ha. See marine supporting document for further details
Community extent	Hectares	The following community should be maintained in a natural condition: Intertidal sand to muddy sand dominated polychaetes community complex. See map 5	Based on information from a intertidal survey (EcoServe, 2011). See marine supporting document for further details

1160 Large shallow inlets and bays

To maintain the favourable conservation condition of Large shallow inlets and bays in the Saltee Islands SAC, which is defined by the following list of attributes and targets

Attribute	Measure	Target	Notes
Habitat area	Hectares	The permanent habitat area is stable or increasing, subject to natural processes. See map 3	Habitat area was estimated using OSi data as 3651ha. See marine supporting document for further details
Community extent	Hectares	The following communities should be maintained in a natural condition: Coarse sediment with <i>Pomatoceros</i> spp. and <i>Pisidia longicornis</i> community. See map 5	Based on information from 1994 BioMar Survey (Picton and Costello, 1997) and a subtidal survey (Aquafact, 2011). See marine supporting document for further details

1170 Reefs

To maintain the favourable conservation condition of Reefs in the Saltee Islands SAC, which is defined by the following list of attributes and targets

Attribute	Measure	Target	Notes
Distribution	Occurrence	The distribution of reefs should remain stable, subject to natural processes. See map 4	Reef mapping based on information from 1994 BioMar Survey (Picton and Costello, 1997), subtidal survey (Aquafact, 2011) and intertidal survey (EcoServe, 2011). See marine supporting document for further details
Habitat area	Hectares	The permanent habitat area is stable, subject to natural processes. See map 4	Habitat area was estimated from the 2010 survey data as 4,595ha. See marine supporting document for further details
Community structure	Biological composition	The following reef community complexes should be maintained in a natural condition: Intertidal reef community complex; and Subtidal reef dominated by echinoderms and sponges community complex. See map 5	Reef mapping based on information from 1994 BioMar Survey (Picton and Costello, 1997), subtidal survey (Aquafact, 2011) and intertidal survey (EcoServe, 2011). See marine supporting document for further details
Community extent	Hectares	The extent of <i>Laminaria</i> dominated community should be conserved, subject to natural processes. See map 5	Based on information from 1994 BioMar Survey (Picton and Costello, 1997) and subtidal reef survey (Aquafact, 2011). See marine supporting document for further details
Community structure	Biological composition	The biology of the <i>Laminaria</i> dominated community should be conserved, subject to natural processes	Based on information from 1994 BioMar Survey (Picton and Costello, 1997) and subtidal reef survey (Aquafact, 2011). See marine supporting document for further details

1230 Vegetated sea cliffs of the Atlantic and Baltic coasts

To maintain the favourable conservation condition of Vegetated sea cliffs of the Atlantic and Baltic coasts in the Saltee Islands SAC, which is defined by the following list of attributes and targets

Attribute	Measure	Target	Notes
Habitat length	Kilometres	Area stable, subject to natural processes, including erosion. For sub-sites mapped: Great Saltee Island - 5.51km and Little Saltee Island - 3.11km. See map 6	Two sub-sites were identified giving a total estimated area of 8.62km within the SAC. Cliffs are linear features and are therefore measured in kilometres. See coastal habitats supporting document for further details
Habitat distribution	Occurrence	No decline, subject to natural processes. See map 6	See coastal habitats supporting document for further details
Physical structure: functionality and hydrological regime	Occurrence of artificial barriers	No alteration to natural functioning of geomorphological and hydrological processes due to artificial structures	Maintaining natural geomorphological processes including natural erosion is important for the health of a vegetated sea cliff. Hydrological processes maintain flushes and in some cases tufa formations that can be associated with sea cliffs, although it is not known if such formations occur on the Saltee Islands. See coastal habitats supporting document for further details
Vegetation structure: zonation	Occurrence	Maintain range of sea cliff habitat zonations including transitional zones, subject to natural processes including erosion and succession	See coastal habitats supporting document for further details
Vegetation structure: vegetation height	Centimeters	Maintain structural variation within sward	See coastal habitats supporting document for further details
Vegetation composition: typical species and sub-communities	Percentage cover at a representative sample of monitoring stops	Maintain range of sub-communities with typical species listed in the Irish Sea Cliff Survey (Barron et al., 2011)	See coastal habitats supporting document for further details
Vegetation composition: negative indicator species	Percentage	Negative indicator species (including non-natives) to represent less than 5% cover	See coastal habitats supporting document for further details
Vegetation composition: bracken and woody species	Percentage	Cover of bracken (<i>Pteridium aquilinum</i>) on grassland less than 10%. Cover of woody species on grassland less than 20%	See coastal habitats supporting document for further details

1364 Grey Seal *Halichoerus grypus*

To maintain the favourable conservation condition of Grey Seal in the Saltee Islands SAC, which is defined by the following list of attributes and targets

Attribute	Measure	Target	Notes
Access to suitable habitat	Number of artificial barriers	Species range within the site should not be restricted by artificial barriers to site use. See map 7	See marine supporting document for further details
Breeding behaviour	Breeding sites	The breeding sites should be maintained in a natural condition. See map 7 for known sites	Attribute and target based on background knowledge of Irish breeding populations; review of data from Kiely et al. (2000); Lidgard et al. (2001); Lyons (2004); a comprehensive breeding survey in 2005 (Ó Cadhla et al., 2007); and unpublished National Parks & Wildlife Service records. See marine supporting document for further details
Moulting behaviour	Moult haul-out sites	The moult haul-out sites should be maintained in a natural condition. See map 7 for known sites	Attribute and target based on background knowledge of Irish populations; research by Kiely et al. (2000); a national moult survey (Ó Cadhla and Strong, 2007); and unpublished National Parks & Wildlife Service records. See marine supporting document for further details
Resting behaviour	Resting haul-out sites	The resting haul-out sites should be maintained in a natural condition. See map 7 for known sites	Attribute and target based on review of data from Kiely (1998); Kiely et al. (2000); Lyons (2004); Cronin et al. (2004); Ó Cadhla et al. (2007); Ó Cadhla and Strong (2007); and unpublished National Parks & Wildlife Service records. See marine supporting document for further details
Population composition	Number of cohorts	The grey seal population occurring within this site should contain adult, juvenile and pup cohorts annually	Attribute and target based on review of data from Kiely (1998), Kiely et al. (2000), Lyons (2004), Ó Cadhla et al. (2007), Ó Cadhla and Strong (2007); and unpublished National Parks & Wildlife Service records. See marine supporting document for further details
Disturbance	Level of impact	Human activities should occur at levels that do not adversely affect the grey seal population	See marine supporting document for further details

8330 Submerged or partially submerged sea caves

To maintain the favourable conservation condition of submerged or partly submerged sea caves in the Saltee Islands SAC, which is defined by the following list of attributes and targets subject to natural variation

Attribute	Measure	Target	Notes
Distribution	Occurrence	The distribution of sea caves should remain stable, subject to natural processes. See map 6 for known distribution	Sea cave distribution was derived from an oblique aerial survey and therefore only detects the presence of sea caves visible intertidally in the flight path
Community structure	Biological composition	Human activities should occur at levels that do not adversely affect the ecology of sea caves	

A009 Fulmar *Fulmarus glacialis*

To maintain the favourable conservation condition of Fulmar in the Saltee Islands SPA, which is defined by the following list of attributes and targets

Attribute	Measure	Target	Notes
Breeding population abundance: apparently occupied sites (AOSs)	Number	No significant decline	Measure based on standard survey methods (see Walsh et al., 1995). Mitchell et al. (2004) provides summary population information. The Seabird Monitoring Programme (SMP) online database (JNCC, 2011) provides population data for this species
Productivity rate	Mean number	No significant decline	Measure based on standard survey methods (see Walsh et al., 1995). The Seabird Monitoring Programme (SMP) online database (JNCC, 2011) provides population data for this species
Distribution: breeding colonies	Number; location; area (hectares)	No significant decline	Typically, fulmar nest near the tops of grassy cliffs on relatively wide ledges (Mitchell et al., 2004)
Prey biomass available	Kilogrammes	No significant decline	Key prey items: broad diet encompassing fish, zooplankton, squid, offal and fishery discards. Key habitats: relatively clear 'oceanic' water with high salinity, thermally stratified in summer. Shelf breaks, offshore banks, frontal zones, tide and rip currents may also be important. Foraging range: max. 664km, mean max. 311.43km, mean 69.35km (BirdLife International Seabird Database (Birdlife International, 2011))
Barriers to connectivity	Number; location; shape; area (hectares)	No significant increase	Seabird species can make extensive use of the marine waters adjacent to their breeding colonies for non site-specific behaviours (e.g. courtship, bathing, preening). Work carried out in the UK found that highest densities of fulmar performing these behaviours occurred within 2km of the breeding colony (Reid and Webb, 2005). Foraging range: max. 664km, mean max. 311.43km, mean 69.35km (BirdLife International Seabird Database (Birdlife International, 2011))
Disturbance at the breeding site	Level of impact	No significant increase	Typically, fulmar nest near the top of grassy cliffs on relatively wide ledges (Mitchell et al., 2004)
Disturbance at marine areas immediately adjacent to the colony	Level of impact	No significant increase	Seabird species can make extensive use of the marine waters adjacent to their breeding colonies for non site-specific behaviours (e.g. courtship, bathing, preening). Work carried out in the UK found that highest densities of fulmar performing these behaviours occurred within 2km of the breeding colony (Reid and Webb, 2005)

A016 Gannet *Morus bassanus*

To maintain the favourable conservation condition of Gannet in the Saltee Islands SPA, which is defined by the following list of attributes and targets

Attribute	Measure	Target	Notes
Breeding population abundance: apparently occupied nests (AONs)	Number	No significant decline	Measure based on standard survey methods (see Walsh et al., 1995). Mitchell et al. (2004) provides summary population information. The Seabird Monitoring Programme (SMP) online database (JNCC, 2011) provides population data for this species
Productivity rate	Mean number	No significant decline	Measure based on standard survey methods (see Walsh et al., 1995). The Seabird Monitoring Programme (SMP) online database (JNCC, 2011) provides population data for this species
Distribution: breeding colonies	Number; location; area (hectares)	No significant decline	Gannetries are conspicuous with high densities of nests built with seaweed, other vegetation and earth stuck together with excreta
Prey biomass available	Kilogrammes	No significant decline	Key prey items: surface schooling fish, fisheries waste; discards important for some colonies and/or in some seasons. Key habitats: Deep-water depressions, tidal mixing fronts, shelf breaks, sandbanks, inshore and coastal waters. Foraging range: max. 640km, mean max. 308.36km, mean 140.09km (BirdLife International Seabird Database (Birdlife International, 2011))
Barriers to connectivity	Number; location; shape; area (hectares)	No significant increase	Seabird species can make extensive use of the marine waters adjacent to their breeding colonies for non site-specific behaviours (e.g. courtship, bathing, preening). Work carried out in the UK found that highest densities of gannet performing these behaviours occurred within 2km of the breeding colony (Reid and Webb, 2005). Foraging range: max. 640km, mean max. 308.36km, mean 140.09km (BirdLife International Seabird Database (Birdlife International, 2011))
Disturbance at the breeding site	Level of impact	No significant increase	Gannetries are conspicuous with high densities of nests built with seaweed, other vegetation and earth stuck together with excreta. Often 'clubs' of immature and adult plumage non-breeders are discrete from the breeding birds

A016 Gannet *Morus bassanus*

To maintain the favourable conservation condition of Gannet in the Saltee Islands SPA, which is defined by the following list of attributes and targets

Attribute	Measure	Target	Notes
Disturbance at marine areas immediately adjacent to the colony	Level of impact	No significant increase	Seabird species can make extensive use of the marine waters adjacent to their breeding colonies for non site-specific behaviours (e.g. courtship, bathing, preening). Work carried out in the UK found that highest densities of gannet performing these behaviours occurred within 2km of the breeding colony (Reid and Webb, 2005)

A017 Cormorant *Phalacrocorax carbo*

To maintain the favourable conservation condition of Cormorant in the Saltee Islands SPA, which is defined by the following list of attributes and targets

Attribute	Measure	Target	Notes
Breeding population abundance: apparently occupied nests (AONs)	Number	No significant decline	Measure based on standard survey methods (see Walsh et al., 1995). Mitchell et al. (2004) provides summary population information. The Seabird Monitoring Programme (SMP) online database (JNCC, 2011) provides population data for this species.
Productivity rate	Mean number	No significant decline	Measure based on standard survey methods (see Walsh et al., 1995). The Seabird Monitoring Programme (SMP) online database (JNCC, 2011) provides population data for this species
Distribution: breeding colonies	Number; location; area (hectares)	No significant decline	Cormorant colonies are usually sited on flat or rocky islets or sea stack tops, less often on cliffs (Walsh et al., 1995)
Prey biomass available	Kilogrammes	No significant decline	Key prey items: fish (mostly benthic), some crustaceans. Key habitats: populations use sandy areas, rocky and vegetated substrate. Foraging range: max. 50km, mean max. 31.67km, mean 8.46km (BirdLife International Seabird Database (Birdlife International, 2011))
Barriers to connectivity	Number; location; shape; area (hectares)	No significant increase	Foraging Range: max. 50km, mean max. 31.67km, mean 8.46km (BirdLife International Seabird Database (Birdlife International, 2011))
Disturbance at the breeding site	Level of impact	No significant increase	Cormorant colonies are usually sited on flat or rocky islets or stack tops, less often on cliffs (Walsh et al., 1995)

Conservation objectives for: Saltee Islands SPA [004002]

A018 Shag *Phalacrocorax aristotelis*

To maintain the favourable conservation condition of Shag in the Saltee Islands SPA, which is defined by the following list of attributes and targets

Attribute	Measure	Target	Notes
Breeding population abundance: apparently occupied nests (AONs)	Number	No significant decline	Measure based on standard survey methods (see Walsh et al., 1995). Mitchell et al. (2004) provides summary population information. The Seabird Monitoring Programme (SMP) online database (JNCC, 2011) provides population data for this species
Productivity rate	Mean number	No significant decline	Measure based on standard survey methods (see Walsh et al., 1995). The Seabird Monitoring Programme (SMP) online database (JNCC, 2011) provides population data for this species
Distribution: breeding colonies	Number; location; area (hectares)	No significant decline	Shags can nest in small groups spread along several kilometres of coastline. In general, colonies are discrete and normally on cliffs/offshore islands (Mitchell et al., 2004)
Prey biomass available	Kilogrammes	No significant decline	Key prey items: benthic, demersal and schooling pelagic fish- especially sandeels (<i>Ammodytes</i> spp.). Key habitats: shallow waters, particularly over sand and gravel banks, areas of high tidal flow. Foraging range: max. 20km, mean max. 16.42km, mean 6.53km (BirdLife International Seabird Database (Birdlife International, 2011))
Barriers to connectivity	Number; location; shape; area (hectares)	No significant increase	Foraging range: max. 20km, mean max. 16.42km, mean 6.53km (BirdLife International Seabird Database (Birdlife International, 2011))
Disturbance at the breeding site	Level of impact	No significant increase	Shags can nest in small groups spread along several kilometres of coastline. In general colonies are discrete and normally on cliffs/offshore islands (Mitchell et al., 2004)

A183 Lesser Black-backed Gull *Larus fuscus*

To maintain the favourable conservation condition of Lesser Black-backed Gull in the Saltee Islands SPA, which is defined by the following list of attributes and targets

Attribute	Measure	Target	Notes
Breeding population abundance: apparently occupied nests (AONs)	Number	No significant decline	Measure based on standard survey methods (see Walsh et al., 1995). Mitchell et al. (2004) provides summary population information. The Seabird Monitoring Programme (SMP) online database (JNCC, 2011) provides population data for this species
Productivity rate	Mean number	No significant decline	Measure based on standard survey methods (see Walsh et al., 1995). The Seabird Monitoring Programme (SMP) online database (JNCC, 2011) provides population data for this species
Distribution: breeding colonies	Number; location; area (hectares)	No significant decline	Lesser black-backed gull nests colonially, often with other gull species on offshore islands and coastal cliffs often within vegetated areas (Mitchell et al., 2004)
Prey biomass available	Kilogrammes	No significant decline	Lesser black-backed gulls are surface feeders whose diet includes fish, invertebrates and fishery-related discards. max. foraging range 40km
Barriers to connectivity	Number; location; shape; area (hectares)	No significant increase	Foraging range: max. 40km
Disturbance at the breeding site	Level of impact	No significant increase	Lesser black-backed gull nests colonially, often with other gull species on offshore islands and coastal cliffs often within vegetated areas (Mitchell et al., 2004)

A184 Herring Gull *Larus argentatus*

To maintain the favourable conservation condition of Herring Gull in the Saltee Islands SPA, which is defined by the following list of attributes and targets

Attribute	Measure	Target	Notes
Breeding population abundance: apparently occupied nests (AONs)	Number	No significant decline	Measure based on standard survey methods (see Walsh et al., 1995). Mitchell et al. (2004) provides summary population information. The Seabird Monitoring Programme (SMP) online database (JNCC, 2011) provides population data for this species
Productivity rate	Mean number	No significant decline	Measure based on standard survey methods (see Walsh et al., 1995). The Seabird Monitoring Programme (SMP) online database (JNCC, 2011) provides population data for this species
Distribution: breeding colonies	Number; location; area (hectares)	No significant decline	Rocky coastline with cliffs, islets and offshore islands, is the preferred breeding habitat (Mitchell et al., 2004)
Prey biomass available	Kilogrammes	No significant decline	Primarily a coastal feeder, mainly in the littoral and shallow sub-littoral zones; also targets anthropogenic sources of food in both marine and terrestrial areas. max. foraging range approximately 50km
Barriers to connectivity	Number; location; shape; area (hectares)	No significant increase	Foraging range: max. 50km
Disturbance at the breeding site	Level of impact	No significant increase	Herring gull colonies are usually sited on flat or rocky islets or stack stops, less often on cliffs (Walsh et al., 1995)

A188 Kittiwake *Rissa tridactyla*

To maintain the favourable conservation condition of Kittiwake in the Saltee Islands SPA, which is defined by the following list of attributes and targets

Attribute	Measure	Target	Notes
Breeding population abundance: apparently occupied nests (AONs)	Number	No significant decline	Measure based on standard survey methods (see Walsh et al., 1995). Mitchell et al. (2004) provides summary population information. The Seabird Monitoring Programme (SMP) online database (JNCC, 2011) provides population data for this species
Productivity rate	Mean number	No significant decline	Measure based on standard survey methods (see Walsh et al., 1995). The Seabird Monitoring Programme (SMP) online database (JNCC, 2011) provides population data for this species
Distribution: breeding colonies	Number; location; area (hectares)	No significant decline	In general, kittiwake colonies are found on vertical rocky sea cliffs
Prey biomass available	Kilogrammes	No significant decline	Key prey items: small pelagic shoaling fish, marine invertebrates. Key habitats: fronts, tidal upwellings and eddies, offshore sandbanks, areas over rocky seabed. Foraging range: max. 200km, mean max. 65.81km, mean 25.45km (BirdLife International Seabird Database (Birdlife International, 2011))
Barriers to connectivity	Number; location; shape; area (hectares)	No significant increase	Foraging range: max. 200km, mean max. 65.81km, mean 25.45km (BirdLife International Seabird Database (Birdlife International, 2011))
Disturbance at the breeding site	Level of impact	No significant increase	In general, kittiwake colonies are found on vertical rocky sea cliffs

A199 Guillemot *Uria aalge*

To maintain the favourable conservation condition of Guillemot in the Saltee Islands SPA, which is defined by the following list of attributes and targets

Attribute	Measure	Target	Notes
Breeding population abundance: individual adult	Number	No significant decline	Measure based on standard survey methods (see Walsh et al., 1995). Mitchell et al. (2004) provides summary population information. The Seabird Monitoring Programme (SMP) online database (JNCC, 2011) provides population data for this species
Productivity rate	Mean number	No significant decline	Measure based on standard survey methods (see Walsh et al., 1995). The Seabird Monitoring Programme (SMP) online database (JNCC, 2011) provides population data for this species
Distribution: breeding colonies	Number; location; area (hectares)	No significant decline	In general, guillemot colonies are found on vertical rocky sea cliffs and sea stacks
Prey biomass available	Kilogrammes	No significant decline	Key prey items: schooling pelagic fish, crustaceans. Key habitats: fronts and other ocean features that concentrate prey, offshore sandbanks, areas of sandy sediment. Foraging range: max. 200km, mean max. 60.61km, mean 24.49km (BirdLife International Seabird Database (Birdlife International, 2011))
Barriers to connectivity	Number; location; shape; area (hectares)	No significant increase	Seabird species can make extensive use of the marine waters adjacent to their breeding colonies for non site-specific behaviours (e.g. courtship, bathing, preening). Work carried out in the UK found that highest densities of guillemot performing these behaviours occurred within 1km of the breeding colony (Reid and Webb, 2005). Foraging range: max. 200km, mean max. 60.61km, mean 24.49km (BirdLife International Seabird Database (Birdlife International, 2011))
Disturbance at the breeding site	Level of impact	No significant increase	In general, guillemot colonies are found on vertical rocky sea cliffs and sea stacks
Disturbance at marine areas immediately adjacent to the colony	Level of impact	No significant increase	Seabird species can make extensive use of the marine waters adjacent to their breeding colonies for non site-specific behaviours (e.g. courtship, bathing, preening). Work carried out in the UK found that highest densities of guillemot performing these behaviours occurred within 1km of the breeding colony (Reid and Webb, 2005)

A200 Razorbill *Alca torda*

To maintain the favourable conservation condition of Razorbill in the Saltee Islands SPA, which is defined by the following list of attributes and targets

Attribute	Measure	Target	Notes
Breeding population abundance: individual adult	Number	No significant decline	Measure based on standard survey methods (see Walsh et al., 1995). Mitchell et al. (2004) provides summary population information. The Seabird Monitoring Programme (SMP) online database (JNCC, 2011) provides population data for this species
Productivity rate	Mean number	No significant decline	Measure based on standard survey methods (see Walsh et al., 1995). The Seabird Monitoring Programme (SMP) online database (JNCC, 2011) provides population data for this species
Distribution: breeding colonies	Number; location; area (hectares)	No significant decline	Razorbill breed mainly on small ledges or in cracks of rocky cliffs and in associated screes, and on boulder fields (Mitchell et al., 2004)
Prey biomass available	Kilogrammes	No significant decline	Key prey items: Sandeels (<i>Ammodytes</i> spp.), clupeids. Key habitats: shallow waters, sandy seabeds, upwelling areas and tidal fronts. Foraging range: max. 51km, mean max. 31km, mean 10.27km (BirdLife International Seabird Database (Birdlife International, 2011))
Barriers to connectivity	Number; location; shape; area (hectares)	No significant increase	Seabird species can make extensive use of the marine waters adjacent to their breeding colonies for non site-specific behaviours (e.g. courtship, bathing, preening). Work carried out in the UK found that highest densities of razorbill performing these behaviours occurred within 1km of the breeding colony (Reid and Webb, 2005). Foraging range: max. 51km, mean max. 31km, mean 10.27km (BirdLife International Seabird Database (Birdlife International, 2011))
Disturbance at breeding site	Level of impact	No significant increase	Razorbill breed mainly on small ledges or in cracks of rocky cliffs and in associated screes, and on boulder fields (Mitchell et al., 2004)
Disturbance at marine areas immediately adjacent to the colony	Level of impact	No significant increase	Seabird species can make extensive use of the marine waters adjacent to their breeding colonies for non site-specific behaviours (e.g. courtship, bathing, preening). Work carried out in the UK found that highest densities of razorbill performing these behaviours occurred within 1km of the breeding colony (Reid and Webb, 2005)

A204 Puffin *Fratercula arctica*

To maintain the favourable conservation condition of Puffin in the Saltee Islands SPA, which is defined by the following list of attributes and targets

Attribute	Measure	Target	Notes
Breeding population abundance: apparently occupied burrow (AOB)	Number	No significant decline	Measure based on standard survey methods (see Walsh et al., 1995). Mitchell et al. (2004) provides summary population information. The Seabird Monitoring Programme (SMP) online database (JNCC, 2011) provides population data for this species.
Productivity rate	Mean number	No significant decline	Measure based on standard survey methods (see Walsh et al., 1995). The Seabird Monitoring Programme (SMP) online database (JNCC, 2011) provides population data for this species
Distribution: breeding colonies	Number; location; area (hectares)	No significant decline	Highly colonial species with pairs typically nesting underground in burrows dug in the soil of offshore islands. If such habitat is in short supply puffins can nest among boulder screes or at low densities in cracks in sheer cliffs (Mitchell et al., 2004)
Prey biomass available	Kilogrammes	No significant decline	Key prey items: mid-sized schooling mid-water fish, especially sandeels (<i>Ammodytes</i> spp.). Key habitats: shallow waters, tidal fronts. Foraging range: max. 200km, mean max. 62.2km, mean 30.35km (BirdLife International Seabird Database (Birdlife International, 2011))
Barriers to connectivity	Number; location; shape; area (hectares)	No significant increase	Seabird species can make extensive use of the marine waters adjacent to their breeding colonies for non site-specific behaviours (e.g. courtship, bathing, preening). Work carried out in the UK found that highest densities of puffin performing these behaviours occurred within 1km of the breeding colony (Reid and Webb, 2005). Foraging range: max. 200km, mean max. 62.2km, mean 30.35km (BirdLife International Seabird Database (Birdlife International, 2011))
Disturbance at the breeding site	Level of impact	No significant increase	Highly colonial species with pairs typically nesting underground in burrows dug in the soil of offshore islands. If such habitat is in short supply Puffins can nest among boulder screes or at low densities in cracks in sheer cliffs (Mitchell et al., 2004)

A204 Puffin *Fratercula arctica*

To maintain the favourable conservation condition of Puffin in the Saltee Islands SPA, which is defined by the following list of attributes and targets

Attribute	Measure	Target	Notes
Disturbance at marine areas immediately adjacent to the colony	Level of impact	No significant increase	Seabird species can make extensive use of the marine waters adjacent to their breeding colonies for non site-specific behaviours (e.g. courtship, bathing, preening). Work carried out in the UK found that highest densities of puffin performing these behaviours occurred within 1km of the breeding colony (Reid and Webb, 2005)
Occurrence of mammalian predators	Level of impact	Absent or under control	Puffin and other cavity/burrow nesting seabirds can be particularly susceptible to rat (<i>Rattus</i> spp.) predation