RATHLIN ISLAND SAC
UK0030055

CONSERVATION OBJECTIVES

Document Details

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Date Effective From	*13.10.2017*
Version Number	*V3.1*
Next Review Date	Nov 2020
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Revision History:

Version	Date	Summary of Changes	Initials
V1.0	June 2013	Internal working document	PC
V2.0	January 2015	Complete review	RMK
V3.0	25.03.2017	Review marine features	LP
V3.1	13.10.2017	Removed wording '*excluding recently burnt areas*' from bare peat target in all relevant Annex tables	PMC

Site relationships

To fully understand the conservation requirements of this site, it is necessary to also refer to the Conservation Objectives for Rathlin Island SPA and the Rathlin Island European Marine Site Management Scheme.

Rathlin Island SAC boundary is identical to the boundary for Rathlin Island SPA. The marine areas of Rathin Island SAC and SPA also lie within Rathlin Marine Conservation Zone (MCZ).

1. INTRODUCTION

EU Member States have a clear responsibility under the Habitats and Birds Directives[1] to ensure that all habitats and species of Community Interest are maintained or restored to Favourable Conservation Status (FCS). Natura 2000 sites have a crucial role to play in achieving this overall objective since they are the most important core sites for these species and habitats. Each site must therefore be managed in a way that ensures it contributes as effectively as possible to helping the species and habitats for which it has been designated reach a favourable conservation status within the EU.

To ensure that each Natura 2000 site contributes fully to reaching this overall target of FCS, it is important to set clear conservation objectives for each individual site. These should define the desired state, within that particular site, of each of the species and habitat types for which the site was designated.

Once a site has been included in the Natura 2000 network, Member States are required to implement, on each site, the necessary conservation measures which correspond to the ecological requirements of the protected habitat types and species of Community Interest present, according to Article 6.1 of the Habitats Directive. They must also prevent any damaging activities that could significantly disturb those species and habitats (Article 6.2) and to protect the site from new potentially damaging plans and projects likely to have a significant effect on a Natura 2000 site (Article 6.3, 6.4).

Conservation measures can include both site-specific measures (i.e. management actions and/or management restrictions) and horizontal measures that apply to many Natura 2000 sites over a larger area (e.g. measures to reduce nitrate pollution or to regulate hunting or resource use).

In Northern Ireland, Natura 2000 sites are usually underpinned by the designation of an Area of Special Scientific Interest (ASSI) under the Environment (NI) Order 2002 (as amended).

[1] 92/43/EEC and 2009/147/EC (codified version of Directive 79/409/EEC as amended)

2. ROLE OF CONSERVATION OBJECTIVES

Conservation Objectives have a role in

- Conservation Planning and Management – guide management of sites, to maintain or restore the habitats and species in favourable condition

- Assessing Plans and Projects, as required under Article 6(3) of the Habitats Directive - Habitats Regulations Assessments (HRA) are required to assess proposed plans and projects in light of the site's conservation objectives.

- Monitoring and Reporting – Provide the basis for assessing the condition of a feature, the factors that affect it and the actions required.

3. DEFINITION OF FAVOURABLE CONSERVATION STATUS

Favourable Conservation Status is defined in Articles 1(e) and 1(i) of the Habitats Directive:

The conservation status of a natural habitat is the sum of the influences acting on it and its typical species that may affect its long-term natural distribution, structure and functions as well as the long term survival of its typical species. The conservation status of a natural habitat will be taken as favourable when:

- Its natural range and areas 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 as defined in Article 1(i).

For species, favourable conservation status is defined in Article 1(i) as 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 population on a long term basis.

3.1 DEFINITION OF FAVOURABLE CONDITION

Favourable Condition is defined as "**the target condition for an interest feature in terms of the abundance, distribution and/or quality of that feature within the site**".

The standards for favourable condition (Common Standards) have been developed by JNCC and are applied throughout the UK. Achieving Favourable Condition on individual sites will make an important contribution to achieving Favourable Conservation Status across the Natura 2000 network.

4. SITE INFORMATION

COUNTY: ANTRIM

GRID REFERENCE: ID 132523

AREA: 3344.62 ha

5. SUMMARY SITE DESCRIPTION

Rathlin Island is a large inhabited marine island situated some 4km from the north Antrim coast of Northern Ireland. There are basalt and chalk cliffs, some as high as 100 metres, as well as several sea stacks on the north and west shores of the island. The south and east shores are more gently sloping with areas of maritime grassland and rocky shore. The length of the coastline is approximately 30 km.

Rathlin Island is surrounded by a wide range of coarse sediment and rocky habitats. Strong tidal streams prevail around most of the island. A very wide range of species (530 species) were recorded around the island, including a high proportion of species of particular interest. Probably because of the strong tidal streams there is little silt anywhere around the island. Turbidity is generally low, with the infralittoral extending below 20m, and water temperatures are stable, not rising much above 13ºC in the summer.

Church Bay

Church Bay contains a wide range of coarser sediments. The inner part of the bay consists mostly of stable sand with dense populations of *Labidoplax digitata*, *Echinocardium cordatum* and *Amphiura brachiata*. In deeper water, the tidal streams are stronger and the seabed consists of boulder, cobble, pebble and coarse sand in varying proportions, forming very patchy habitats. The boulders and cobbles support diverse communities of hydroids and bryozoans.

SW Coast

Along the coast from the White Cliffs to Bull Point is a very steep slope of large, stable boulders extending below 50m in places. The boulders support communities dominated by *Tubularia indivisa* in deeper water and by a diverse assemblage of algae in the shallows. The area where this boulder slope meets the sand of Church Bay has a steep slope of muddy gravel close inshore, with coarser gravel further out. A number of species rare in N. Ireland are found on this part of the coast, especially those with south-western distributions such as *Holothuria forskali*, *Axinella damicornis*, and *Drachiella spectabilis*.

NNW Coast

This part of Rathlin Island consists of a shallow shelf 10-100m wide at the base of the cliffs followed by a vertical underwater cliff which starts at 20-30m and descends to over 100m. The cliff is populated by a rich assemblage of sponges and hydroids. Parts of the cliff are exposed limestone, other parts are basalt. In places, there are caves and arches in the limestone and these caves may sometimes shelter unexpected species, such as the sea pen *Virgularia mirabilis* in a cave at 30m off Derginan Point. The cliff is dominated by different species in different areas, including *Pachymatisma johnstonia*, *Alcyonium digitatum*, *Dendrodoa grossularia* and *Turbularia indivisa*. A number of species were recorded only from this area during the survey eg. *Parazoanthus axinellae*, *Stryphnus ponderosus*.

NNE Coast

This part of Rathlin Island has a shallower slope offshore, with the seabed consisting of areas of bedrock interspersed with stable boulder slopes. Sponges are particularly diverse and abundant. In shallow water, there are overhangs and surge gullies with characteristic assemblages of species.

East Coast

The circalittorral zone of the east coast is mostly dominated by rich hydroid and sponge communities on bedrock, boulders, and cobbles, amongst coarse gravel. Frequent components of these communities are the hydroids *Polyplumaria flabellata*, *Diphasia pinastrum* and the sponge *Axinella infundibuliformis*. In shallower water, there are areas of boulder, pebble and sand, with sparse kelp forest and a variety of algal communities.

The coastal strip, which is included in the SAC, is of scientific interest because of the wide variety of habitats and associated flora and fauna it contains. These habitats include very high sea cliffs, sea stacks, maritime grassland, saltmarsh and an equally wide range of inter-tidal conditions e.g. vertical cliff, boulder and shingle shores and wave cut platforms on both chalk and basalt.

The geological exposures and rock formations associated with such coastal conditions are also of importance. The Tertiary igneous series is well represented along the coastline. Notable features include the development of columnar

basalt's in the Lower Basalt series between Doon Point and Ruenascarrive and the unique (in Northern Ireland) association of a feeder dyke and fissure erupted lava's at Maddygalla.

Further details of the site are contained in the ASSI Citation and Views About Management statement, which are available on the NIEA website (www.doeni.gov.uk/niea).

5.1 BOUNDARY RATIONALE

The seas around the island have long been recognised as being of high nature conservation importance. The Northern Ireland sub-littoral survey of the mid-1980s identified the area as one of the most important marine sites around the coast of Northern Ireland.

The seaward boundary of the SAC is some 1-2 km offshore around the island and the landward boundary is entirely coincident with the landward boundary of the Rathlin Island Coast - Area of Special Scientific Interest.

6. SAC SELECTION FEATURES

Feature type	Feature	Global Status	Size/ extent/ pop~
Habitat	Reefs	A	
Habitat	Submerged or partially submerged sea caves	B	15 km
Habitat	Vegetated sea cliffs of the Atlantic and Baltic coasts	B	45ha / 25km
Habitat	Annual vegetation of drift lines	C	
Habitat	Sandbanks which are slightly covered by sea water all the time	C	500 ha

Table 1. List of SAC selection features. Those with global status A-C will be referred to in ANNEX I.

The global status is an expert judgement of the overall value of the site for the conservation of the relevant Annex I habitat. Sites have been graded A, B or C - in the UK these gradings have been interpreted as follows:

A - Sites holding outstanding examples of the habitat in a European context.

B - Sites holding excellent stands of the habitat, significantly above the threshold for SSSI/ASSI notification but of somewhat lower value than grade A sites.

C - Examples of the habitat which are of at least national interest (i.e. usually above the thresholdfor SSSI/ASSI notification on terrestrial sites) but not significantly above this. These habitats are not the primary reason for SACs being selected.

D - Habitat present but not of sufficient extent or quality to merit listing as SAC feature.

There is therefore a distinction between the principal features for which sites have been selected (those graded A or B) and those which are only of secondary interest (those graded C). This is a useful distinction but it is important to note that all three grades are qualifying SAC interest features.

Click here to go to the Natura 2000 Standard Data Form for Rathlin Island SAC.

6.1 ASSI SELECTION FEATURES

Rathlin Island ASSI

Feature Type	Feature	Size/ extent/ pop~
Habitat	Intertidal Rock	
Habitat	Maritime Cliff & Slope	
Habitat	Coastal Vegetated Shingle	
Species	Seabird Assemblage	
Species	Breeding Bird Assemblage	
Earth Science	Tertiary igneous series – Maddygalla dyke	
Earth Science	Tertiary igneous series – Doon Point to Ruenascarrive columnar basalts	

Table 2. List ASSI features.

7. CONSERVATION OBJECTIVES

The *Conservation Objective* for this site is:

To maintain (or restore where appropriate) the

- *Reefs*
- *Submerged or partially submerged sea caves*
- *Vegetated sea cliffs of the Atlantic and Baltic coasts*
- *Annual vegetation of drift lines*
- *Sandbanks which are slightly covered by sea water all the time*

to favourable condition.
Maintain implies that the feature is in favourable condition and will, subject to natural change, remain at its condition at designation. Restore implies that the feature is degraded to some degree and that activities will have to be managed to reduce or eliminate negative impact(s). Restoration in the marine environment can refer to natural recovery through the removal of unsustainable physical, chemical and biological pressures, as well as intervention.

For each SAC feature, there are a number of component objectives which are outlined in the table below. These include a series of attributes, measures and targets which form the basis of *Condition Assessment*. The results of this will determine whether the feature is in favourable condition or not. The feature attributes and measures are found in the attached annex.

8. SAC SELECTION FEATURE OBJECTIVE REQUIREMENTS

Feature	Global Status	Component Objective
Reefs	A	Maintain and enhance, as appropriate the extent of the reefs
		Allow the natural processes which determine the development, structure, function and extent of the reefs, to operate appropriately
		Maintain and enhance, as appropriate, the species diversity within this habitat.
Submerged or partially submerged sea caves	B	Maintain and enhance, as appropriate the extent of the submerged or partially submerged sea caves
		Allow the natural processes which determine the development, structure, function and extent of the submerged or partially submerged sea caves, to operate appropriately
		Maintain and enhance, as appropriate, the species diversity within this habitat.
Vegetated sea cliffs of the Atlantic and Baltic coasts	B	Maintain the extent of vegetated sea cliff subject to natural processes
		Allow the natural processes which determine the development and extent of vegetated sea cliffs to operate appropriately
		Maintain and enhance, as appropriate, range of maritime rock crevice and cliff ledge communities
		Maintain and enhance, as appropriate, range of sea-bird cliff communities
		Maintain and enhance, as appropriate, range of maritime grassland communities
		Maintain and enhance, as appropriate, range of maritime heath communities
		Maintain and enhance, as appropriate, range of transitions and other communities
		No increase in status of non-native species, undesirable invasive species and species not characteristic of typical communities
		Maintain and enhance, as appropriate, status of rare and notable species
		Monitor cliff top or near cliff management activities to ensure they do not lead to loss or enrichment of sea cliff associated

		communities
Annual vegetation of drift lines	C	Maintain and enhance the extent of annual vegetation of drift lines subject to natural processes
		Allow the natural processes which determine the development and extent of annual vegetation of drift lines to operate appropriately
		Maintain and enhance, as appropriate, the species diversity within this community including the presence of notable species
Sandbanks which are slightly covered by sea water	C	Allow the natural processes which determine the development, structure and extent of sandbanks which are slightly covered by sea water all the time, to operate appropriately
		Maintain and enhance, as appropriate, the species diversity within this habitat.
		Maintain the extent and volume of sandbanks which are slightly covered by sea water all the time, subject to natural processes.

9. ASSI FEATURE OBJECTIVE REQUIREMENTS

Feature	Component Objective
Intertidal Rock	See SAC Selection Feature Objective Requirements table.
Maritime Cliff & Slope	See SAC Selection Feature Objective Requirements table.
Coastal Vegetated Shingle	See SAC Selection Feature Objective Requirements table.
Seabird Assemblage	To be finalised
Breeding Bird Assemblage	To be finalised
Tertiary igneous series – Maddygalla dyke	Maintain extent and quality of exposure, together with access to the feature subject to natural processes
Tertiary igneous series – Doon Point to Ruenascarrive columnar basalts	Maintain extent and quality of exposure, together with access to the feature subject to natural processes

10. MANAGEMENT CONSIDERATIONS

It is not considered that there are any major management issues relating to the Rathlin Island SAC. The following topics relate to many marine sites and in certain circumstances may have some bearing on the management of Rathlin Island SAC.

11. MAIN THREATS, PRESSURES AND ACTIVITIES WITH IMPACTS ON THE SITE

Both on-site and off-site activities can potentially affect SAC/ASSI features. The list below is not exhaustive, but deals with the most likely factors that are either affecting Rathlin Island SAC, or could affect it in the future.

Although Reefs, Submerged or partially submerged sea caves, Vegetated sea cliffs of the Atlantic and Baltic coasts, annual vegetation of drift lines, and Sandbanks which are slightly covered by sea water all the time are the qualifying SAC features, factors affecting ASSI features are also considered.

NOTE - Carrying out any of the Notifiable Operations listed in the ASSI schedule could affect the site.

Diving

The study of the seabed by divers is in harmony with conservation interests provided no damage is done. Overcollection of marine life could, however, prove damaging to the populations of certain species.

Commercial Fishing

There is a small but locally important fishery (crabs, lobsters and line caught fish). Dredge trawl fishing can seriously impact designated features adn needs managed accordingly based on sensitivity. In order to protect the reef features, the Department has introduced prohibitions on mobile gear within the SAC boundary. Diversification within the fishing community has resulted in a range of activities such as seaweed aquaculture and boat based wildlife trips. The Department regularly liaises with local fishermen.

Seaweed Harvesting

Drift wrack and kelp (brown seaweeds) were historically used on the land as fertiliser.

Wildlife watching trips

Wildlife watching trips (boat and land based) have the potential to cause disturbance to species if operators are not appropriately trained in how to approach species while minimising potential disturbance. In addition, damage to sensitive habitats may occur through lack of knowledge of their location.

Various wildlife training courses are available which teach best practice when dealing with wildlife.

Removal of Beach Sand and Gravel

Gravel is traditionally removed from the shore around the island, particularly in the vicinity of Mill Bay. The Department monitors this activity through its Site Integrity Monitoring programme.

Grazing Regime

The quality of the vegetation on the cliff slopes is dependant on appropriate levels of grazing. Sheep are generally allowed to roam freely on the cliff ledges.

ACTION: Site integrity monitoring to evaluate any adverse impacts and if necessary modify the grazing regime.

Activities on the Cliff

There is no history of recreational climbing, probably due to the friable nature of the basalts. Any significant increase in recreational activities either on the cliff or at its base could have a damaging affect on the calcareous grasslands associated with the cliffs.

ACTION: Site integrity monitoring to evaluate any adverse impacts.

Nitrogen Deposition

Excess nitrogen deposition can favour the growth of competitive plants and lead to changes in ecosystem structure or function and to a reduction in biodiversity. National scale studies show the potential adverse effects of excess nitrogen on natural and semi-natural habitats to be widespread across the UK.

Reefs - Designated feature/feature habitat not sensitive to eutrophication

Submerged or partially submerged sea caves - Designated feature/feature habitat not sensitive to eutrophication

Vegetated sea cliffs of the Atlantic and Baltic coasts - No comparable habitat with established critical load estimate available

Annual vegetation of drift lines - Designated feature/feature habitat not sensitive to eutrophication

Sandbanks which are slightly covered by sea water all the time - Designated feature/feature habitat not sensitive to eutrophication

(Source: Air Pollution Information System (APIS) website- www.apis.ac.uk)

Changes to surrounding land use

Any changes in local land-use e.g. agricultural intensification, drainage works and development) may be detrimental to the SAC.

ACTION: Reduce the risk of surrounding agricultural intensification by encouraging the adjacent owner/occupiers to enter into agri-environment schemes. Use Habitats Regulations Assessments (HRAs), through the planning process, to minimise any development risks adjacent to the SAC.

Climate Change

Northern Ireland faces changes to its climate over the next century. Indications are that we will face hotter, drier summers, warmer winters and more frequent extreme weather events. The Northern Ireland Climate Change Adaptation Programme was published in January 2014. This contains the Northern Ireland Executive's response to the risks and opportunities identified in the Climate Change Risk Assessment for Northern Ireland (published January 2012) as part of the overall UK Climate Change Risk Assessment. The Adaptation Programme provides the strategic objectives in relation to adaptation to climate change, the proposals and policies by which each department will meet these objectives and the timescales associated with the proposals and policies identified in the period up to 2019.

Rathlin Island is identified as a WWF biodiversity hotspot and widely recognised as a meeting point beyween Arctic waters and warmer Luisitanian/Mediterranean waters. Consequently it has a diverse range of Arctic and warm water species that may be regarded as a sentienl monitoring station for climate change as indicated by the presence or absence of key species.

ACTION: When developing SAC management plans, the likely future impacts of climate change should be considered and appropriate changes made.

12. MONITORING

The SAC is surveyed using two forms of monitoring:

Site Integrity Monitoring (SIM) is carried out to ensure compliance with the ASSI/ SAC Schedule. The most likely processes of change will either be picked up by SIM (e.g. dumping, burning, turf cutting, grazing etc.) or will be comparatively slow (e.g. gradual degradation of the habitat). In addition, potentiall damaging activities may picked up through the active marine ranger programme or by members of the public raising concerns with the Department. These reports are followed up through consultation with the relevant competent authorities.

Site Condition Assessment of the designated features is carried out on a rolling 6 year basis to pick up subtle changes in the condition of the feature.

The method for Site Condition Assessment was agreed by the relevant JNCC-led Lead Co-ordination Network although the methodology has been modified to reflect individual site attributes in Northern Ireland. For marine features, condition assessments include a variety of techniques such as diving, remote cameras, sediment sampling and acoustic seabed mapping. Marine mammal monitoring programmes also contribute.

12.1 MONITORING SUMMARY

1. Monitor the integrity of the site (SIM or Compliance Monitoring)
This SIM should be carried out at least once every year.

2. Monitor the condition of the site (Condition Assessment)
Monitor the key attributes for each of the SAC selection features. This will detect if the features are in favourable condition or not. See Annex I.

The favourable condition table provided in Annex I is intended to supplement the conservation objectives only in relation to management of established and ongoing activities and future reporting requirements on monitoring condition of the site and its features. It does not by itself provide a comprehensive basis on which to assess plans and projects, but it does provide a basis to inform the scope and nature of any Habitats Regulations Assessment (HRA) that may be needed. It should be noted that completion of a HRA is a separate activity to condition monitoring, requiring consideration of issues specific to individual plans or projects.

13. REFERENCES

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ANNEX I

The marine Annex I habitats are very broadly defined habitats that are often represented by large and complex sites. To effectively describe, monitor and manage such complex features, it has been necessary to divide some of them into smaller units called *sub-feature*s. Sub-features are distinctive biological communities (e.g. eelgrass beds, maerl beds, horse-mussel reefs), or particular structural or geographical elements of the feature. Due to the broad nature of marine Annex I features, it has often proved helpful, both in the development of conservation objectives, and of monitoring program's, to separate the feature into a number of constituent sub-features, and then to identify attributes and targets for the sub-features. The use of sub-features has been found to be particularly helpful for those marine Annex I features that represent whole physiographic units and permits a level of flexibility in the application of the UK's Common Standards Monitoring which has been found necessary when applying the standards at the site level.

Feature 1 (SAC) - Reefs (status A)

* = primary attribute. One failure among primary attribute = unfavourable condition.

SUB-FEATURE	ATTRIBUTE	MEASURE	TARGETS	COMMENTS
Subtidal Rock and Boulder Communities Subtidal Rocky Reef Communities Intertidal Rock and Boulder Communities	* Characteristic biotopes at sites chosen so as to provide some indication of the distribution and extent of the Sub-Feature.	Presence of the selected biotopes/indicator species at selected sites measured once during the reporting cycle.	Results should not deviate significantly from the established baseline, subject to natural change	Baseline survey was obtained through the Northern Ireland Sublittoral Survey (NISS, 1986) while further data was gathered through the Joint Irish Bathymetric Survey (JIBS, 2008) and AFBI (2015) survey work. A list of selected indicator species identified by field surveys will be utilised to determine the achievement of the conservation objectives through presence/absence at monitoring sites. Changes in extent and distribution may indicate long term changes in the physical conditions at the site. Damage to reefs caused by mobile gear was reported to the Department on previous occasions and resulted in subsequent fishery prohibition regulations (with regard to mobile gear).

SUB-FEATURE	ATTRIBUTE	MEASURE	TARGETS	COMMENTS
	* Species composition of selected biotopes at monitoring sites	Species composition of the selected biotopes measured once during the reporting cycle.	Composite species of selected biotopes should not deviate significantly from the established baseline, subject to natural change.	Species composition will be used to determine the biotope classification. A list of selected indicator species identified by field surveys will be utilised to determine the achievement of the conservation objectives through presence/absence at monitoring sites. The species composition of some biotopes may provide further information on changes/trends in these communities. With regard to the intertidal rock and boulder communities surveys carried out under the ASSI and WFD monitoring programmes will form the basis of this data.

Feature 2 (SAC) - Submerged or partially submerged sea caves (status B)

SUB-FEATURE	ATTRIBUTE	MEASURE	TARGET	COMMENTS
	* Extent	Number and location, measured once during reporting cycle	No decrease in extent from a baseline to be established, subject to natural change	Extent is an attribute on which reporting is required by the Habitats Directive. The extent may alter as a result of natural erosion and collapses as well as a result of human activity, hence the need for periodic measurement
	* Distribution of characteristic sea cave communities	Distribution of intertidal cave biotopes. Measured during summer, once during reporting cycle. This will only be delivered for a representative number of the caves. Access to these caves given their exposed Atlantic location is problematic and subject to comprehensive risk assessment.	Distribution should not deviate significantly from a baseline to be established, subject to natural change	Distribution of certain biotopes are an important structural component of the sea caves of Rathlin Island. Changes in extent and distribution may indicate long term changes in physical conditions at the site
	* Distribution of characteristic rocky shore	Distribution of intertidal chalk cave biotopes.	Distribution should not deviate	Distribution of animal dominated biotopes within the sea caves at Rathlin Island is an important structural component. Changes in extent and distribution may

	communities	Measured during summer, once during reporting cycle. A list of selected indicator species identified by field surveys will be utilised to determine the achievement of the conservation objectives through presence/absence at monitoring sites.	significantly from a baseline to be established, subject to natural change	indicate long term changes in physical conditions at the European marine site. There is a fine example of s totally submerged limestone sea cave/arch system on the north wall. The diagnostic species that occurs here (and nowhere else in Northern Ireland) is *Alcyonium hibernicum.* The continued presence of this species, albeit in a very localised specialised niche habitat, may be considered as an indicator of favourable condition.

Feature 3 (SAC) - Sandbanks which are slightly covered by sea water all the time (status C)

SUB-FEATURE	ATTRIBUTE	MEASURE	TARGET	COMMENTS
	* Extent	Area (ha) of the subtidal sandbanks to be measured periodically (frequency to be determined).	Ensure that quality and extent of sandbank are not threatened by aggregate removal.	Currently there is no licensed aggregate removal activity within or near to this SAC.
Subtidal Sand and Gravel Communities Subtidal Fine Sand and Mud Communities	* Characteristic biotopes at sites chosen so as to provide some indication of the distribution and extent of the Sub-Feature.	Presence of the selected biotopes as identified by the NI Sublittoral survey at selected sites measured once during the reporting cycle	Results should not deviate significantly from the established baseline, subject to natural change.	Baseline survey obtained through the Northern Ireland Sublittoral Survey (NISS, 1986) while further data was gathered through the Joint Irish Bathymetric Survey (JIBS, 2008) and AFBI (2015) survey work. Changes in extent and distribution may indicate long term changes in the physical conditions at the site

SUB-FEATURE	ATTRIBUTE	MEASURE	TARGET	COMMENTS
	* Species composition of selected biotopes at monitoring sites.	Species composition of the selected biotopes as identified by the NI Sublittoral survey measured once during the reporting cycle.	Composite species of selected biotopes should not deviate significantly from the established baseline, subject to natural change.	Species composition will be used to determine the biotope classification. A list of selected indicator species identified by field surveys will be utilised to determine the achievement of the conservation objectives through presence/absence at monitoring sites. The species composition of some biotopes may provide further information on changes/trends in these communities.

Feature 4 (SAC) - Vegetated Sea Cliffs of the Atlantic and Baltic Coasts (Status C)

* = primary attribute. One failure among primary attribute = unfavourable condition

Attribute	Targets	Method of Assessment	Comments
*Morphological naturalness (extent, mobility and physical structure)	Ensure that any loss in extent and change in system dynamics is only due to natural processes	No human induced developments impacting on the natural system or constraining it. Maintain the range of physical conditions arising from variation in geology and geomorphology, profile, stability, degree of maritime exposure, drainage, aspect, geographical location and history of management.	This community occupies a naturally dynamic position in coastal systems. Provided that no human developments result in direct loss of habitat or of areas with the potential to develop this habitat, or change the site dynamics, then the attribute should be deemed to be in favourable condition.
Vegetation Structure	Sward height 4 – 15 cm during summer (July/August) over 65% of the area	Maintain short sward in areas of species-rich vegetation (especially MC9 communities in White Park Bay)* * This to be assessed in conjunction with other short, species-rich grassland	An element of grazing is required on some of the sea cliff communities to mitigate against rankness and loss of species diversity. Conflicts can arise between presence of livestock and visitor access. The introduction or re-introduction of controlled grazing should be considered as an option on less steep cliff slopes.

		communities, including SD8	
*Vegetation – maritime rock crevice and cliff ledge communities. (Where present on a site)	At least 4 of the species below recorded as occasional: *Aster tripolium, Armeria maritima, Daucus carota, Festuca rubra, Plantago coronopus, P. maritima, Sedum anglicum*, *Silene vulgaris maritima, Spergularia maritima, S. rupicola, Tripleurospermum maritimum* and orange *Xanthoria* lichens	Maintain maritime rock- crevice and cliff-ledge communities – i.e. MC1c* and MC5c. * recorded by coastal survey, but may not reflect true composition of community	Individual sites will exhibit different patterns and range of vegetation types depending on site characteristics. Surveys may be needed to establish the full range for each site.
*Vegetation composition sea-bird cliff communities. (Where present on a site)	At least 3 of the species below recorded as occasional: *Festuca rubra, Matricaria maritima, Beta vulgaris maritima, Atriplex prostrata, Stellaria media, Rumex acetosa, Holcus lanatus* and *Atriplex hastata*	Maintain range of sea-bird cliff communities - i.e. MC6 and MC7.	Individual sites will exhibit different patterns and range of vegetation types depending on site characteristics. Surveys may be needed to establish the full range for each site.
*Vegetation composition maritime grassland communities. (Where present on a site)	At least 6 of the species below recorded as occasional: *Alchemilla* spp, *Anthyllis vulnearia, Armeria maritima, Calluna vulgaris, Campanula rotundifolia*, *Carex flacca*, Small sedge spp, *Danthonia decumbens, Euphrasia vulgaris*, *Festuca* sp*, Galium verum*,	Maintain range of maritime grassland communities – i.e. MC8, MC9a, MC9c, MC9d, MC9e (including non-maritime forms of these).	Individual sites will exhibit different patterns and range of vegetation types depending on site size, history, substrate and patterns of human use. Surveys may be needed to establish the full range for each site.

	Hyacinthoides non-scripta, Hypochaeris radicata, Koeleria macrantha, *Linum catharticum*, *Lotus corniculatus*, *Pilosella officinalis*, *Plantago maritima, Polygala* sp, *Potentilla erecta*, *Primula vulgaris*, *Ranunculus bulbosus*, *Scilla verna, Sedum* sp*, Silene maritima, Succisa pratensis*, *Thymus praecox, Veronica officinalis*, *Viola riviniana.*		
*Vegetation composition- maritime heath communities. (Where present on a site)	At least 3 of the species below recorded as occasional: *Calluna vulgaris, Campanula rotundifolia, Carex flacca, Carex panicea, Carex pilulifera, Carex pulicaris, Festuca ovina, Jasione montana, Lotus corniculatus, Plantago maritima, Polygala sp, Potentilla erecta, Scilla verna, Succisa pratensis, Thymus praecox, Viola riviniana.*	Maintain range of maritime heath communities – i.e. H7a and b and H10d	Maritime heaths can show some affinities with lowland heaths in relation to quality. Reference should be made to the appropriate guidance for dry heaths, taking into account the maritime influence and the effects of exposure and slat deposition as factors affecting growth rates and succession in.
*Vegetation of soft cliffs and other communities. (Where present on a	Ensure that the general distribution of communities is broadly maintained	Maintain range of transitions and other communities – the area is notable for the	Vegetated sea cliff sites on soft geology in more sheltered locations are likely to support variants of wet flush/seepage/mire communities, scrub/woodland communities, ruderal and

site)	Fixed point photography every 6 years – late in season (August) to record maximum extent of less desirable and potentially invasive species such as scrub, bracken, etc.	range of non-cliff communities that are present on the cliffs, including grassland communities (MG1) scrub communities (W25x), mires (M27b) and upland communities (U17 and U1).	bracken communities, which may be subject to maritime influence. Some or all of these may also occur on relatively hard rock cliffs with a less extreme maritime influence. The diversity of habitats on sea cliff sites is promoted by the inherent instability of the substrate that maintains a range of successional stages.
Vegetation negative indicators	Ensure that the more species-rich elements of the cliff vegetation are maintained Fixed point photography every 6 years (August) to record maximum extent of scrub, bracken, etc.	No further increase in bracken, scrub, rank grasses, ruderal species (Thistles, Nettle etc).	Changes in the extent and cover of invasive species usually indicate a change in conditions on a site, often as a result of anthropogenic activities that may promote rapid expansion or increase in cover. These are often initiated by changes in management. Some tall ruderal communities may be present naturally on a cliff site.
Rare and notable species		To maintain the presence of notable species at localities with historical records.	Check historical records to determine applicability

DAFOR ratings: 1-20% - **rare,** 21-40% - **occasional,** 41-60 **frequent,** > 60% - **constant.**

Feature 5 (SAC)- Annual Vegetation of Drift Lines (Status C)

* = primary attribute. One failure among primary attribute = unfavourable condition

Attribute	Targets	Method of Assessment	Comments
* Morphological naturalness (extent, mobility and substrate)	No human induced developments impacting on the natural system.		This community occupies a naturally dynamic position in coastal systems. Provided that no human developments result in direct loss of habitat or of areas with the potential to develop this habitat, or change the site dynamics, then the attribute should be deemed to be in favourable condition. Both inorganic and organic substrates are important precursors to development of annual vegetation of drift lines. Substrate supply should be regulated by natural coastal processes.
* Characteristic species	Maintain the presence and broad distribution of stands of *Honckenya peploides – Cakile maritima* SD2 community and the SD3 *Matricaria maritima - Galium aparine* community together with other local variants across the feature. Assessments will need to be made during late summer(July/August)		These communities are found in a narrow strip at the extreme high water mark. Changes in the frequency and abundance of these species should be expected to occur seasonally as a result of storm events, but the communities are also sensitive to disturbance by human activities. Some communities on coarse substrates do not match well with SD 2 but are important as regional variants. Such communities are dominated by *Beta* and *Atriplex* spp. and show affinities to MC 6 *Atriplex hastata-Beta vulgaris* ssp *maritima* Sea-bird cliff community.
Disturbance	No increase in area where vegetation colonisation/recolonisation is prevented by human		To be assessed once per reporting cycle in late summer (July/August)

	activity		
Rare and notable species	To maintain the presence of notable species at localities with historical records.		Check historical records to determine applicability