Ardal Gwarchodaeth Arbennig Ynys Gwales / Grassholm Special Protection Area

Advice provided by Natural Resources Wales in fulfilment of Regulation 37(3) of the Conservation of Habitats and Species Regulations 2017.

June 2025

Northern Gannet *Morus bassanus*. © Jenny Elliott.

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Mae'r ddogfen hon yn cynnwys cyngor Cyfoeth Naturiol Cymru ar gyfer ardal gwarchodaeth arbennig (AGA) Ynys Gwales a gyhoeddwyd o dan Reoliad 37(3) o Reoliadau Cadwraeth 2017. Sef amcanion cadwraeth a chyngor ar weithrediadau.

Mae Adran 1 yn cyflwyno'r safle, pwrpas y cyngor a strwythur yr amcanion cadwraeth. Mae Adran 2 yn cynnwys esboniad o'r rolau a'r cyfrifoldebau, ac mae Adran 3 yn amlinellu amcanion cadwraeth pob nodwedd a gwybodaeth ategol. Mae cyngor ar weithrediadau mewn perthynas â'r safle hwn i'w gael yn Adran 4. Mae rhagor o wybodaeth am yr AGA wedi'i chynnwys yn Atodiad 1.

Isod mae rhestr o nodweddion dynodedig yr AGA hon a dolen uniongyrchol i'r amcanion cadwraeth, ond mae'n bwysig darllen pob adran yn llawn.

Tabl 1. Crynodeb o nodweddion yr AGA a'r ddolen i'r amcanion cadwraeth.

Enw'r AGA	Nodweddion Dynodedig	Cysylltiad â'r Amcanion Cadwraetho
Ynys Gwales	Hugan *Morus bassanus*	Amcanion cadwraeth

Executive Summary

This document contains NRW's advice for the Grassholm special protection area (SPA) issued under Regulation 37(3) of the Conservation Regulations 2017.

Section 1 introduces the SPA, the purpose of the advice and the structure of the conservation objectives. Section 2 includes an explanation of the roles and responsibilities, before Section 3 outlines each feature's conservation objectives and supporting information. Advice on operations in relation to this SPA is found in Section 4. More information about the SPA is included in Appendix 1.

Table 1 lists the designated features of this SPA and provides a direct link to the conservation objectives, but it is important that all sections are read in full.

Table 1. Summary of SPA features and link to conservation objectives.

SPA Name	Designated Features	Link to Conservation Objectives
Grassholm	Northern Gannet *Morus bassanus*	Conservation objectives

1. Introduction

Ardal gwarchodaeth arbennig Ynys Gwales / Grassholm special protection area (SPA) is a low-lying basalt island, situated approximately 18km off the south-west Wales coast. The island has limited terrestrial vegetation owing to the effects of the substantial number of breeding seabirds and the influence of salt spray and exposure, and its foreshore and sublittoral habitats are amongst the most wave and tide-exposed in Britain. From January to October Grassholm island supports the third largest breeding population of the northern gannet *Morus bassanus* in the world. The SPA covers an area of approximately 1744 ha.

The SPA was classified in 1986 to include the whole of the island of Grassholm and several small islets and rocks, down to the mean low water mark (Figure 1). In 2014 the site was extended to include a 2 km radius around the island from the original SPA seaward boundary (mean low water mark). Gannets use the marine waters immediately adjacent to the colony for several essential activities, such as preening, bathing and displaying. The nesting seabirds using the site also feed both within and outside the SPA in surrounding marine areas, as well as more distantly.

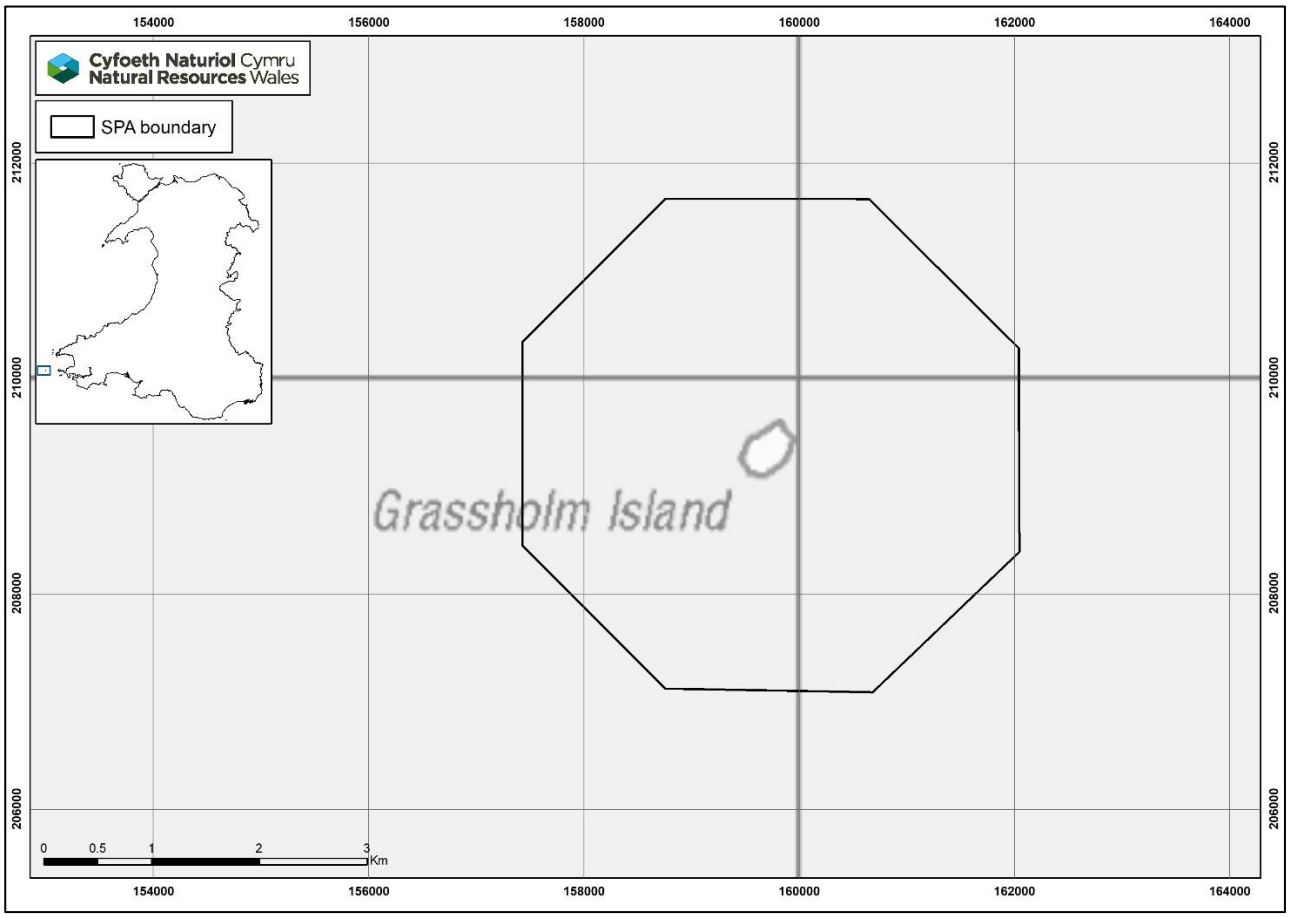
The site qualifies under article 4.2 of the Directive (79/409/EEC) as it is used regularly by 1% or more of the biogeographical population of the following regularly occurring migratory species (other than those listed in Annex I) in any season: gannet (*Morus bassanus*). The population at designation was estimated to be 33,000 pairs in the breeding season (count as at 1994/95). This equated to 12.5% of the breeding North Atlantic population.

The SPA is overlapped by the Pembrokeshire Marine SAC and West Wales Marine SAC and is adjacent to the Skomer, Skokholm and Seas off Pembrokeshire SPA. It also overlaps with the Grassholm Site of Special Scientific Interest (SSSI). The conservation advice for these protected sites can be found on the NRW website. Details of where the sites are located, and their boundaries can be seen on the JNCC MPA mapper.

SPA map

Figure 1 shows the boundary of the Grassholm SPA.

Figure 1. Map of the Grassholm SPA.



1.1. The purpose of conservation advice

Conservation advice provides a framework for assessing developments and activities with the potential to affect the features for which a European marine site (EMS) is designated. An EMS is a SAC or SPA which consists of marine areas. Conservation advice presents site specific information, in addition to highlighting activities that are potentially capable of having an impact on the site and its designated species (known as a feature).

This SPA is an EMS subject to protection under the Conservation of Habitats and Species Regulations 2017, as amended (referred to in this document as the 'Habitats Regulations'). Under the Habitats Regulations, relevant and competent authorities with functions in relation to an EMS must exercise those functions to comply with the requirements of the 1992 European Commission (EC) Habitats and Species Directive and the 2009 EC Wild Birds Directive. The key requirements of these Directives include the conservation of the features (habitat types or species) for which SACs or SPAs are designated. This requires taking appropriate steps to avoid deterioration or disturbance of

SAC or SPA features and carrying out appropriate assessment of any plan or project likely to have a significant effect on a SAC or SPA.

This document contains the conservation advice for Grassholm SPA. It is prepared by Natural Resources Wales (NRW) and given under our duty in Regulation 37(3) of the Habitats Regulations (see Section 2.1).

This advice is based on the best available evidence and information at the time of writing. In some cases, evidence can be limited. It will be kept under review by NRW and updated as and when appropriate.

1.2. Conservation objective structure

The conservation objectives for the designated features in this site are underpinned by conservation objective attributes. These attributes describe the ecological characteristics (e.g. population), and the ecological requirements that allow the conservation objectives for each feature to be met.

Conservation objective attributes have a target which is either quantified or qualified depending on the available evidence. The target identifies, as far as possible, the desired state to be achieved for the attribute. In many cases, the attribute targets show if the current objective is to either 'maintain' or 'restore' the attribute and are based on the latest condition assessment for the feature. Some aspects of feature condition may be assessed as unknown. In these cases, a maintain target will be set as necessary. For attributes that have been assigned 'unknown' in the condition assessment, further information on feature condition and/or activities impacting the feature will be required to inform further advice. Each attribute target will need to be assessed on a case-by-case basis using the most current information available.

The conservation objective attributes that underpin the conservation objectives are used to measure if the objective is being met. This in turn can be used to see if site integrity is being maintained. Failure to meet any attribute means that the conservation objective is not being met and thus site integrity is not being maintained. Below is an example of a conservation objective and associated conservation objective attributes and targets.

Example Objective 1: The wintering population of the feature is stable or increasing relative to the site reference population.

Example Objective attribute	**Example Site specific target**
Wintering population	Maintain/restore the wintering population of feature at or above X individuals (mean peak population year-year).

The conservation objectives for Grassholm SPA are set out in Section 3. As noted in Section 1.2. NRW may refine these in the future as further information becomes available and increases our understanding of the feature.

The feature's conservation objective section provides:

1. A clear statement of each conservation objective for the feature.

2. A table summarising the attributes, and the targets for those attributes.

3. Supporting information that underpins the selection of the attributes and targets.

2. Roles and responsibilities

2.1. NRW's role

Under Regulation 5 of the Habitats Regulations, NRW is a Nature Conservation Body and, in relation to Wales, is the Appropriate Nature Conservation Body (ANCB).

In its role as the ANCB, NRW has a duty under Regulation 37(3) of the Habitats Regulations to advise relevant authorities in respect of a EMS as to:

(a) the conservation objectives for that site

(b) any operations which may cause deterioration of natural habitats or the habitats of species, or disturbance of species, for which that site has been designated (see Section 1.1).

Advice on operations which may cause deterioration, together with the conservation objectives, is designed to assist relevant authorities and other decision-makers in complying with their statutory duties under the Habitats Regulations. The advice on operations which may cause deterioration given in this document is without prejudice to other advice given. This includes the conservation objectives themselves, and other advice which may be given by NRW from time to time in relation to any specific operations.

"Operations" is taken to cover all types of human activity, irrespective of whether they are under any form of regulation or management. Thus, the advice contains reference to operations which may not be the responsibility of any of the relevant authorities.

NRW will provide additional advice for the site to relevant authorities and competent authorities to allow them to fulfil their duties under the Habitats Regulations. For example, by providing advice to a competent authority assessing the implications of plans or projects on the features of the EMS. Each plan or project will be judged on its own merits, and this will determine the nature of any additional advice required.

2.2. The role of competent and relevant authorities

The expressions used in this advice of "relevant authority" and "competent authority" are as defined in Regulation 3 of the Habitats Regulations. Relevant authorities are specified in Regulation 6 of the Habitats Regulations. Competent Authorities are specified in Regulation 7 of the Habitats Regulations.

Under Part 6 of the Habitats Regulations, all competent authorities must undertake a formal assessment of the implications that any new plans or projects may have on the designated features of a protected site. The implications must be assessed in the context of other plans and projects affecting the same site. Activities outside the site may also affect the features of the site, therefore, plans and projects located outside of a designated site may still need to be assessed.

In respect of the assessment provisions in Part 6 (assessment of plans or projects) of the Habitats Regulations, NRW is also the ANCB in relation to Wales.

The assessment provisions comprise several distinct stages which are collectively described as a Habitats Regulations Assessment (HRA), for which guidance is available. Before deciding to undertake, or give any consent, permission or other authorisation for, a plan or project which is likely to have a significant effect on a European site or a European offshore marine site (either alone or in combination with other plans or projects), and is not directly connected with or necessary to the management of that site, the competent authority must make an appropriate assessment of the implications of the plan or project for that site in view of that site's conservation objectives.

In light of the conclusions of the HRA and subject to derogation under Regulation 64, the competent authority may agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the EMS. In considering whether a plan or project will adversely affect the integrity of the site, the competent authority must have regard to the manner in which it is proposed to be carried out or to any conditions or restrictions subject to which it proposes that the consent, permission or other authorisation should be given.

Carrying out the HRA process is the responsibility of the decision maker as the competent authority. However, it is the responsibility of the applicant to provide the competent authority with the information that they require for this purpose.

The competent authority has a duty to consult the ANCB for the purposes of the assessment. Under Regulation 63(3) of the Habitats Regulations the competent authority must have regard to any representations made by the ANCB when reaching its decision.

Under Regulation 38(1) of the Habitats Regulations it states that, "*the relevant authorities, or any of them, may establish for a European marine site a management scheme under which their functions (including any power to make byelaws) are to be exercised so as to secure compliance with the requirements of the Directives in relation to that site".*

In other words, a group of relevant authorities, or any individual relevant authority, may create a management plan for an EMS. Management plans should be used to help relevant authorities carry out their duties to secure compliance with the Habitats Regulations. Only one management scheme may be made for each EMS. A management scheme may be amended. An authority which has established a management scheme must as soon as practicable thereafter send a copy of it to the ANCB. Any management plans created on this site should be guided by the advice in this package.

Within their areas of jurisdiction relevant authorities must have regard to both direct and indirect effects of an activity on the designated features of the site. This may include consideration of issues outside the boundary of the site. Nothing within a Regulation 37(3) package will require relevant authorities to undertake any actions to maintain or improve the condition of designated features if it is shown that the changes result wholly from natural causes.

NRW will continue to review any new evidence or information about this site and will provide further advice as appropriate. This does not stop relevant authorities from taking any appropriate conservation measures to prevent deterioration to the designated features. Such actions should be undertaken when required.

2.3. The purpose of conservation objectives

The purpose of the conservation objectives for an EMS is to help meet the obligations of the Habitats Regulations in relation to that site. They do this by supporting:

- **Communication**. The conservation objectives help convey to stakeholders what is needed to maintain or restore a feature in/to favourable condition.
- **Site planning and management**. The conservation objectives guide the development of management measures for sites. Achievement of conservation objectives may require management action to be taken inside or outside the site boundary.
- **Assessment of plans and projects**. The Habitats Regulations require the assessment of plans and projects in view of a site's conservation objectives. Subject to certain exceptions, plans or projects may not proceed unless it is established that they will not adversely affect the integrity of a site. Conservation objectives can help develop suitable compensatory measures.
- **Monitoring and reporting**. Conservation objectives provide the basis for defining the evidence that will be used for assessing the condition of a feature.

This document includes both a statement of the conservation objectives and explanatory text on their intent and interpretation specific to the site (supporting information).

2.4. The purpose of advice on operations

NRW must provide advice to relevant authorities about operations that may cause,

- deterioration of designated natural habitats
- deterioration of the habitats of designated species
- the disturbance of designated species

This is statutory advice required by Regulation 37(3)(b) of the Habitats Regulations when considering operations which may cause impacts to designated features. These are operations which could take place within or outside the boundary of the GrassholmSPA.

NRW can provide specific advice on existing activities and management, advising on the extent to which activities are consistent with the conservation objectives. This advice, together with the list of activities in Section 4 and the latest condition assessments should direct required management measures within a site.

2.5. When to use this advice

This advice should be used together with case-specific advice issued by NRW when developing, proposing or assessing an activity, plan or project that may affect the features of the site. Any proposal or operation that has the potential to affect a site must not prevent the achievement of the feature's conservation objectives. Any such prevention would amount to an adverse effect on the integrity of the site.

The advice given here is without prejudice to any advice which may be provided by NRW in relation to the consideration of individual plans or projects in the carrying out of the assessment provisions as defined in Part 6 of the Habitat Regulations.

2.6. Feature condition

NRW has a dedicated condition assessment process to assess feature condition. Each feature designated in Welsh EMS have their own set of performance indicators. These indicators have targets which are assessed with the most up to date evidence available. When all required indicator targets are met a feature is in favourable condition.

The condition assessment of a feature helps to determine if its conservation objectives are being achieved. Results determine if maintain or restore conservation objectives are needed. Appropriate management must be in place to enable conservation objectives to continue being met and for feature condition to be maintained or restored as required. The conservation objectives cannot be achieved if a feature is in unfavourable condition.

Feature condition is recorded in condition assessment documents. These are available on the NRW website. NRW will update this advice package when new condition assessment information is available.

2.6.1. Favourable conservation status and National Site Network

If features are in favourable condition, it is likely they are making an appropriate contribution to Favourable Conservation Status (FCS) of the feature at the UK level. A feature cannot make an appropriate contribution to FCS without meeting its conservation objectives. More information on FCS can be found in the joint statement from the UK Statutory Nature Conservation Bodies.

Regulation 16A of the Habitats Regulations creates the National Site Network on land and at sea, including both the inshore and offshore marine areas in the UK, and sets out the powers and duties of the appropriate authority (Welsh Government).

Information on how features in a site are meeting their conservation objectives will feed into the assessment of the National Site Network management objectives. The management objectives for the National Site Network are to maintain or restore designated SAC and SPA features to favourable conservation status across their natural range. More information on the UK National Site Network and its management objectives can be found on the gov.uk website.

3. Conservation objectives for Grassholm SPA

The conservation objectives for each designated feature are outlined in the section below. Each objective is accompanied by objective attributes and targets (see Section 1.3) and supporting information specific to each objective. General site information and feature description can be found in Appendix 1.

The following terms are used in the conservation objectives.

Anthropogenic: In this document anthropogenic specifically relates to environmental changes caused or influenced by people, either directly or indirectly. NRW consider human influences to include climate change.

Maintain: Where existing evidence from the most recent condition assessment suggests the feature to be in favourable condition, the conservation objective is for the feature to remain in favourable condition.

Natural change: This is defined as species or habitat changes which are not a result of human influences.

Natural variability: This is defined as species or habitat variability, which are not a result of human influences.

Restore: Where existing evidence from the most recent condition assessment suggests the feature, or part of the feature, to be in unfavourable condition the conservation objective is to return the feature to favourable condition. As the feature is being returned to favourable condition, further decline in the aspects of condition that are causing it to be unfavourable should be prevented. The ability to achieve favourable condition should not be inhibited.

Significant anthropogenic disturbance: For anthropogenic disturbance on a species feature to be significant an action (alone or in combination with other effects) must impact on the species in such a way as to be likely to cause negative effects on the population associated with the site. For example, through changes to behaviour, distribution or abundance.

3.1. Feature 1: Northern gannet *Morus bassanus*

Northern gannet in the Grassholm SPA is currently in **unfavourable** condition (high confidence). NRW published the latest condition assessment in June 2025. NRW will review these conservation objectives when new condition assessment information is available.

Objective 1: The population of breeding northern gannet is stable or increasing relative to the SPA target population.

Objective attribute	**Site specific target**
1a. Breeding population	Restore the breeding population of northern gannet to a minimum 5-year peak mean of 33,000 pairs across the SPA.

Supporting Information

1a. Breeding population

At the time of designation, the colony was of international importance, supporting approximately 12% of the world population and the third largest colony in the world.

Gannets do not reach maturity until the ages of four and five, with the females laying a single egg. Making and the parents share incubation duties for six weeks. Chicks hatch in early June and the chicks fledge in late August and throughout September (Vulcano, 2021).

Due to an outbreak of the Highly Pathogenic Avian Influenza (HPAI) virus in 2022, the northern gannet population on Grassholm decreased by approximately 50% by 2023. There has been some recovery but the population is still below the target 33,000 pairs. The breeding population attribute is not being met and a restore target has been set for objective 1a. For more information see the latest condition assessment (Hatton-Ellis et al., 2025).

Objective 2: The breeding northern gannet that use the SPA continue to have access to, and can utilise, habitats necessary to restore the population to favourable condition.

Objective attribute	Site specific target
2a. Breeding population distribution	The distribution of the breeding northern gannet population should not be significantly impacted by anthropogenic activity.
2b. Population disturbance (by human activity)	The breeding northern gannet population that use the SPA should not be subject to significant anthropogenic disturbance.
2c. Invasive mammals	No invasive mammals should be present on Grassholm.

Supporting Information

2a. Breeding population distribution

This objective attribute seeks to ensure that northern gannets can continue to access and use all areas within the Grassholm SPA needed for breeding, feeding, moulting, roosting, rafting, shelter and any other activities necessary to support their survival. The ability of gannets to move freely between feeding sites and their breeding grounds is critical to their fitness and survival. Therefore, movement of the birds inside and outside of the SPA must not be impacted or restricted.

Gannets nest on more than half the Island's land and have been shown to raft in groups on the surrounding waters. Rafting is concentrated in a 2 km radius of the island within the SPA boundary (Carter et al., 2016).

Breeding gannets have been shown to range up to 500 km from Grassholm in a single foraging trip with individually consistent foraging locations. The majority of these trips were to the southwest of the island to the Celtic Sea and beyond. Immature birds residing at the colony range much further during foraging trips, with a median distance travelled recorded at 2216.6 km . The maximum distance recorded was 5538.0 km in a single trip (Votier et al., 2017).

While the gannet colony usually occupies over 50% of Grassholm Island in the breeding season, the occupation has been severely reduced in recent years due to mortality as a result of bird flu. However, there are no anthropogenic pressures restricting the distribution of the population. Therefore, the breeding population distribution attribute is being met. for further information see the latest condition assessment (Hatton-Ellis et. al., 2025).

2b. Population disturbance (by human activity)

Disturbance occurs when an activity is sufficient to disrupt normal behaviours, for example, changes to breeding, loafing or feeding behaviour, increased energy expenditure due to time spent moving to avoid stressors, desertion of supporting habitats (both within and

outside the protected area, where appropriate). If the activity occurs at a level that substantially impacts behaviour for long enough it can lead to changes in distribution, displacement through reduction of habitat available and consequently could affect the long-term viability of the population.

Disturbance associated with human activity may take a variety of forms including, light, sound, vibration, trampling, presence of people, animals and structures.

Human disturbance from visitors has been significantly reduced since landings on the island by the public were stopped in 1997. Tourist boats now circumnavigate the island, and there is a code of conduct agreed with tourist boat operators to minimise disturbance from the sea. There is still the potential for private boats to cause disturbance, although the remote nature of the island tends to deter most visitors.

There is currently no significant anthropogenic disturbance to the northern gannet population on Grassholm (Hatton-Ellis et. al., 2025).

2c. Invasive mammals

There is a need to keep mammals species not native to the island away from the colony on Grassholm. This includes foxes, rats, cats, stoats and weasels. Gannets nest on the ground so are particularly vulnerable to ground predating mammals. Introduction of invasive mammalian predators must be avoided. Should such predators be introduced they could severely threaten the gannet population on Grassholm.

There are currently no invasive mammals non-native to Grassholm present on the island. The risk of introduction is low as visits to the island are minimal (Hatton-Ellis et. al., 2025).

Objective 3: The quality of habitat and abundance of food supply is sufficient to restore the population of breeding northern gannet that use the SPA to favourable condition.

Objective Attribute	**Site specific target**
3a. Supporting habitat	Maintain sufficient extent, distribution, function and quality of habitat to support a gannet population of 33,000 breeding pairs.
3b. Prey availability	Maintain the abundance and distribution of northern gannet prey at levels sufficient to support a breeding population of 33,000 pairs.

Supporting information

3a. Supporting habitat

The extent, distribution and availability of suitable habitat (either within or outside the site boundary), which supports the feature for all necessary stages of the breeding period (displaying, nesting, roosting, feeding), should be maintained.

Grassholm island and the seas within the SPA used by the birds for foraging are able to support large numbers of gannets, as could be seen by the population of 34,000 pairs recorded in June 2022 (RSPB, 2023), before avian flu impacted the population. There is no reason to believe that supporting habitat is limited or has reduced since this time. Therefore the supporting habitat attribute is being met, allowing a maintain target to be set for objective 3a. For more information see the latest condition assessment (Hatton-Ellis et. al., 2025).

3b. Prey availability

Gannets are generalist predators known to take a wide range of prey species and sizes. During the breeding season, gannets feed primarily on lipid-rich pelagic shoaling fish such as mackerel *Scomber scomber* and sandeels, mainly *Ammodytes marinus* (Hamer et al., 2007). They often perform dramatic plunge dives from high in the sky to catch fish up to depths of 20 m and can stay submerged for over half a minute.

Gannets also feed from the surface on small shoaling fish and on discards from fishing vessels, where their large size helps them out-compete most other scavenging species. They are wide ranging foragers, capable of travelling 1000’s of km on a single foraging trip, though breeders do not range as far, travelling up to 500km to locate and obtain food for themselves and their young (Votier et al., 2017).

4. Advice on operations

NRW must provide advice to relevant authorities about operations that may cause,

- deterioration of designated natural habitats
- deterioration of the habitats of designated species
- the disturbance of designated species

This is statutory advice required by regulation 37(3b) of the Habitats Regulations.

This advice is to help relevant authorities direct and prioritise their management of activities that are of greatest threat to the features of the site. The advice given here is without prejudice to any advice provided in relation to the consideration of plans or projects within the meaning of Part 6 of the Habitat Regulations.

Activities operating at distance from the site may cause pressures that travel into the site. These external pressures may affect features within the site.

4.1. Operations which may cause deterioration or disturbance to the features of the site

Table 2 lists activities that have the potential to deteriorate or disturb the designated features of Grassholm SPA and if they are known to occur within the SPA.

This list of operations is not exhaustive. If an operation or activity is not listed in Table 2 it may still have the potential to cause deterioration of the features of the site. Activities occurring outside of the site may still have the potential to impact the features within the site. The occurrence information was correct at time of publication, but activities may have ceased or started since. Advice on individual operations should be sought on a case-by-case basis.

Additional information can be found on the Natural England's designated sites website and Marine Scotland's Feature Activity Sensitivity Tool (FEAST). It is important to note that NRW has not agreed sensitivity thresholds with either Natural England or Nature Scot and the information should be used as a general guide. Specific advice on operations should be sought from NRW on a case-by-case basis.

Table 2. Advice on operations for Grassholm SPA.

Operation/Activity	Occurrence in SPA
Shipping: Vessel traffic and maintenance (including antifouling)	No data available. Most shipping in transit in the area is unlikely to pass through SPA, except to seek shelter on passage.
Shipping: anchoring (commercial)	No commercial anchoring.
Shipping: Conventional and accidental discharges (including ballast water discharge, refuse, sewage, operational, petrochemical, cargo losses and salvage).	Possibly occurs in the waters adjacent to SPA, likely low level in site as not on main shipping routes. Ballast water convention now in force.
Pipelines	Not present in the SPA.
Power / communication cables	Not present in the SPA.
Effluent discharge or disposal of sewage, chemical and thermal waste.	NRW and DCWW datasets available on locations and inputs on the mainland. No thermal or sludge disposal at present.
Miscellaneous wastes and debris	Litter present in the sea from various sources. Reports of chicks being freed from fishing line.
Run-off: Agricultural, urban and industrial run-off	All forms of runoff from mainland into the seas surrounding the SPA.
Fishing: All trawling (Including beam, otter, toothed and any trawled gear)	May occur within the SPA and foraging area of gannets from Grassholm. Intensity, location and effort information is unknown.
Fishing: All dredging (including toothed, bladed, mechanical, hydraulic and any other great not listed)	May occur within the SPA and foraging area of gannets from Grassholm. Intensity, location and effort information is unknown.
Fishing: All netting (including gill, tangle, trammel, seine, fyke and any other fishing with netted gear)	May occur within the SPA and foraging area of gannets from Grassholm. Intensity, location and effort information is unknown.
Fishing: All potting (including lobster, crab, prawn, whelk and any other fishing with potted gear)	Known to occur within the foraging area of gannets from Grassholm and possibly in the

Operation/Activity	Occurrence in SPA
	SPA boundary. Intensity, location and effort information is unknown.
Fishing: All line fishing (including long-line and handline)	May occur within the SPA and foraging area of gannets from Grassholm. Intensity, location and effort information is unknown.
Aquaculture: All forms of aquaculture (including algae, sea cages, impoundments, ranching, shellfish ropes and trestles and enclosed recirculation).	None within the SPA. Aquaculture is known to occur in adjacent Pembrokeshire Marine SAC.
Aggregate extraction (including mineral and biogenic sands and gravels)	Not present within the SPA
Oil and gas exploration: All oil and gas exploration activity (including seismic survey, drilling and discharges both operational and accidental)	Not present within the SPA
Renewable energy generation: All forms of renewable energy (including tidal barrage and impoundments, tidal and wave energy, offshore wind both fixed and floating).	Not present within the SPA
Oil spill response: All activities of responding to oil spills at sea and on shore (including chemical, physical and access).	Reactive only. No recent activity.
Recreation: Fishing (e.g. angling and spearfishing).	Likely to occur within the foraging area of gannets from Grassholm and possibly in the SPA boundary. Intensity, location and effort information is unknown.
Recreation: Boating (e.g. power craft, sailing, canoeing, surfing, kite surfing, paddle boarding, snorkelling, scuba diving etc).	Common in the SPA and foraging area with peak activity during summer season.
Recreation: mooring and anchoring	Mooring and anchoring for RSPB staff only.

Operation/Activity	Occurrence in SPA
Recreation: Coastal activities (e.g. dog walking, coasteering etc)	Unlikely to occur in the SPA as no landing permitted on the island (with the exception of the RSPB).
Recreation: Coastal access	Unlikely to occur in SPA as no landing permitted on the island except for the RSPB.
Recreation: Light aircraft, drones	Numerous airstrips in the surrounding area, light aircraft flying over the SPA and foraging areas. Drones possible.
Recreation: Marine wildlife watching / eco-tourism	Wildlife watching boat tours are common around the island in the summer season.
Military activity: All forms of military activity (including ordnance ranges, marine exercises, aircraft etc)	Castlemartin military range is near the SPA. Occasional military exercises in Irish sea. RAF Valley airbase on Anglesey. Occasional aircraft transit over SPA.
Marine archaeology and salvage	No data available. Potential to occur in the SPA.
Science and outreach: Education	No data available. Potential to occur in the SPA.
Science and outreach: Animal welfare operations and sanctuaries	No data available. Potential to occur in the SPA.
Science and outreach: Science research	Occasional occurrence within the SPA but location and intensity information are unknown.

5. References

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Appendix 1: Additional supporting information

The northern gannet is the largest seabird in the North Atlantic. The northern gannet is endemic to the North Atlantic and most breed in Britain and Ireland. There are 22 gannetries around Britain and Ireland, with most being on remote offshore islands and stacks, and two on mainland cliffs. Some colonies have been occupied for centuries and are large, and conspicuous. For more information see the relative species page on the JNCC website.

Grassholm Island is situated 10 miles off the Pembrokeshire coast, separated from the mainland by the often-turbulent waters of the Irish sea. The first account of gannets occupying the island comes in the late 1800s with a record of up to 20 gannet nests in 1860 and anecdotal accounts of their presence as early as 1820. In 1948 Grassholm became the first reserve to be purchased by the RSPB in Wales.

The island is a remnant of ancient lava flows, with shallow soils overlaying the basalt. No vegetation survives the guano and trampling of the gannets but the half of the island, as yet unoccupied by the gannets, supports a classic example of vegetation, typical of an ungrazed seabird island, including the grasses red fescue and Yorkshire bog.

Small colonies of lesser, herring and great black-backed gulls nest in the turf and rocks of the eastern side of the island, while the western rock ledges support small numbers of guillemot, razorbill and kittiwake. Small numbers of storm petrels are also thought to breed among the rock boulders.

Atlantic grey seals use the island as a seasonal haul-out, and the offshore currents and upwellings are a source of attraction for several species of cetacean including good numbers of common dolphin and frequent sightings of minke whale.

When the island is free of birds in the winter, traces of old stone walls and cairns can be seen across the summit implying human occupation in the past. The name “Grassholm” is Norse and refers to the island’s once green appearance.

The RSPB manage the island part of the SPA. Current management comprises the following work by the RSPB:

- Protect the nesting gannets by maintaining a no landing policy on the island.
- Monitor productivity of the gannets each year.
- Carry out a full population survey every 5 years.
- Visit the island each autumn to cut free chicks entangled in fishing line.
- Liaise with, and assist, local boat operators who run trips around the island to minimise disturbance to the colony.
- Monitor other breeding seabird numbers on a periodic basis.
- Encourage additional scientific research on gannet ecology