NatureScot
Scotland's Nature Agency
Buidheann Nàdair na h-Alba

Conservation and Management Advice

RUM SPA

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This document provides advice to Public Authorities and stakeholders about the activities that may affect the protected features of the Rum Special Protection Area (SPA). It provides advice from Scottish Natural Heritage (SNH) (operating under the name of and hereinafter referred to as NatureScot) under Regulation 33(2) of the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended in Scotland) to other relevant authorities on the Conservation Objectives for the Rum SPA, and any operations which may cause deterioration of natural habitats or the habitats of species, or disturbance of species for which the site has been designated. It covers a range of different activities and developments but is not exhaustive. It focuses on where there is a risk to achieving the Conservation Objectives. The paper does not attempt to cover all possible future activities or eventualities (e.g. as a result of accidents), and does not consider cumulative effects.

Further information on marine protected areas and management is available at -

https://www.gov.scot/policies/marine-environment/marine-protected-areas/

For the full range of MPA site documents and more on the fascinating range of marine life to be found in Scotland's seas, please visit -

www.nature.scot/mpas or https://jncc.gov.uk/advice/marine-protected-areas/

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Contents

1. Overview of document

This document provides details of the Conservation and Management Advice for the Rum Special Protection Area (SPA) and it is divided into eight main sections. The introduction in section 2 gives an overview of the Rum SPA and its contribution in terms of conservation and wider benefits. Section 3 provides an overview of the roles of the various bodies involved with advising, regulating and managing the SPA. Section 4 describes the protected features and their condition, and section 5 introduces the Conservation Objectives for the site. Section 6 describes the threats and pressures to which the protected features are sensitive, and section 7 provides the management advice for these activities. Section 8 identifies what further research and surveys may be required to increase our understanding of how the protected features utilise the marine protected area.

Annex 1 sets out the Rum SPA Conservation Objectives. Annex 2 provides supporting information relating to the protected features.

Throughout this document the term Special Protection Area (SPA) is used in relation to the site name, e.g. Rum SPA or in discussion of the specific legislation relating to the site. The term *qualifying features* is used in the Conservation Objectives (Annex 1) to refer to the species that Rum SPA has specifically been designated to protect. Within the wider document text, the term *protected features* is used to refer both to these specific site features and more generally to species or habitats protected through designations.

2. Introduction

2.1 Purpose statement

The Rum SPA has been designated to protect breeding red-throated diver, common guillemot, black-legged kittiwake, Manx shearwater, and golden eagle, and their supporting habitats. By doing so it contributes to the Scottish, UK and OSPAR MPA networks, the conservation of the wider marine environment around Scotland, and progress towards Good Environmental Status within the North-East Atlantic marine region.

The main purpose of the Rum SPA is to contribute to the Favourable Conservation Status of the protected features in the Atlantic Biogeographic Region. Otherwise the term Marine Protected Area (MPA) is used when discussing the MPA network generally. The Conservation Objectives form the framework for establishing appropriate management measures and assessing all future plans and projects that have the potential to affect the protected features of the MPA.

2.2 Conservation benefits

The conservation benefits of the Rum SPA are:

- Protecting 13 pairs of breeding red-throated diver (an Annex 1 rare and vulnerable species), representing 1% of the GB population and an important component in the southern part of their range in GB, and regularly supporting at least 18 pairs in the surrounding marine waters.
- Protecting approximately 61,000 breeding pairs of Manx shearwater, which represent an important component of the world biogeographic population (23%).
- Protecting a nationally important aggregation of breeding seabirds including 0.4% of the GB common guillemot population (approximately 4,000 individuals), 0.3% of the GB black-legged kittiwake population (approximately 1,500 pairs).
- Protecting four pairs of golden eagles (an Annex 1 rare and vulnerable species), representing 1% of the GB population.

- Protecting important waters immediately surrounding the seabird breeding colony, which birds use for resting, preening, moulting, roosting, and other maintenance activities.
- Protecting waters with rich marine habitats, including important shelf waters with areas of high productivity, that support a diversity of pelagic and demersal fish, bivalve molluscs, gastropods and crustaceans where the seabirds and red-throated divers can feed.
- Protecting important terrestrial habitats that supports nesting golden eagles, and areas where they can hunt.
- Protecting important cliff habitats where the seabird protected features can nest.
- Protecting important freshwater pools where red-throated divers can breed.

2.3 Wider benefits

The protected features of the Rum SPA provide ecosystem services locally and to the wider marine ecosystem. We describe these ecosystem services in terms of their functions (the support or provision of something to the wider ecosystem e.g. habitat, nutrient cycling, sediment stabilisation) and natural resources (e.g. fish and shellfish, aggregates, wildlife), which in turn lead to benefits for people.

Figure 1 illustrates how the protected features of the Rum SPA contribute to benefits for people.

The protected features, especially when taken within the context of the whole SPA and/or local ecosystem, contribute to certain functions more than others, e.g. biomass production and nutrient cycling and are fundamental to the continued supply of natural resources and benefits associated with this SPA, and to the long-term health of the protected features.

In terms of resources, the SPA encompasses the Inner Hebridean island of Rum and an area of sea and seabed which surrounds it. Characterised by large rocky coasts with cliffs rising to 210m and a mixture of exposed beaches, sheltered shingle bays and intertidal mudflats, the Isle of Rum offers a range of habitats for mammal and bird species. This includes high numbers of breeding seabird species such as Manx shearwater, guillemot and kittiwake. Other natural resources provided by the SPA include the mixture of muddy and sandy sediments lying immediately offshore in water depths generally less than 40 m, which offer important foraging grounds for breeding seabirds and breeding divers. Inland, large cliffs and mountainous landscapes offer ideal breeding and feeding habitat for golden eagle, which have nested on the island for many years. Much of the island is upland, with vast open areas of wet and dry heaths, blanket bog and species-rich grasslands, with important areas of scree and crevice vegetation. The abundance of small freshwater lochs, with close access to sheltered marine feeding areas, offer suitable breeding habitat for red-throated divers.

The rich and varied natural resources present within the SPA give rise to a wide range of benefits to people. Having likely been inhabited for thousands of years, the site is steeped in archaeological history and holds cultural significance to both local communities and to Scotland itself. The seascapes and wildlife within the SPA provide opportunities for tourism, recreation, wildlife watching, all of which encourage local jobs and businesses. Fisheries and supporting businesses from local communities within and around the SPA utilise and benefit from the wildlife and the area's fish and shellfish resources. Thanks to Rum's commanding position amongst the Inner Hebrides and its dramatic scenery, the island provides a unique location where people can engage in outside pursuits for health and wellbeing e.g. sailing and walking. The SPA is also valued by the local community. The overlapping Rum National Nature Reserve (NNR) is well-used by locals and visitors alike. This island is home to wildlife and habitats that can be watched, enjoyed and studied either out on the sea, on its shores, or further inland. It is a place where communities and visitors can spend time connecting with and enjoying nature.

The benefits that arise from the functions and natural resources of the MPA are typically small in the context of the whole of Scotland, but some are of greater importance for this MPA and the people that use it. There is potential for benefits to be enhanced through improving the quantity or quality (health) of the protected features themselves.

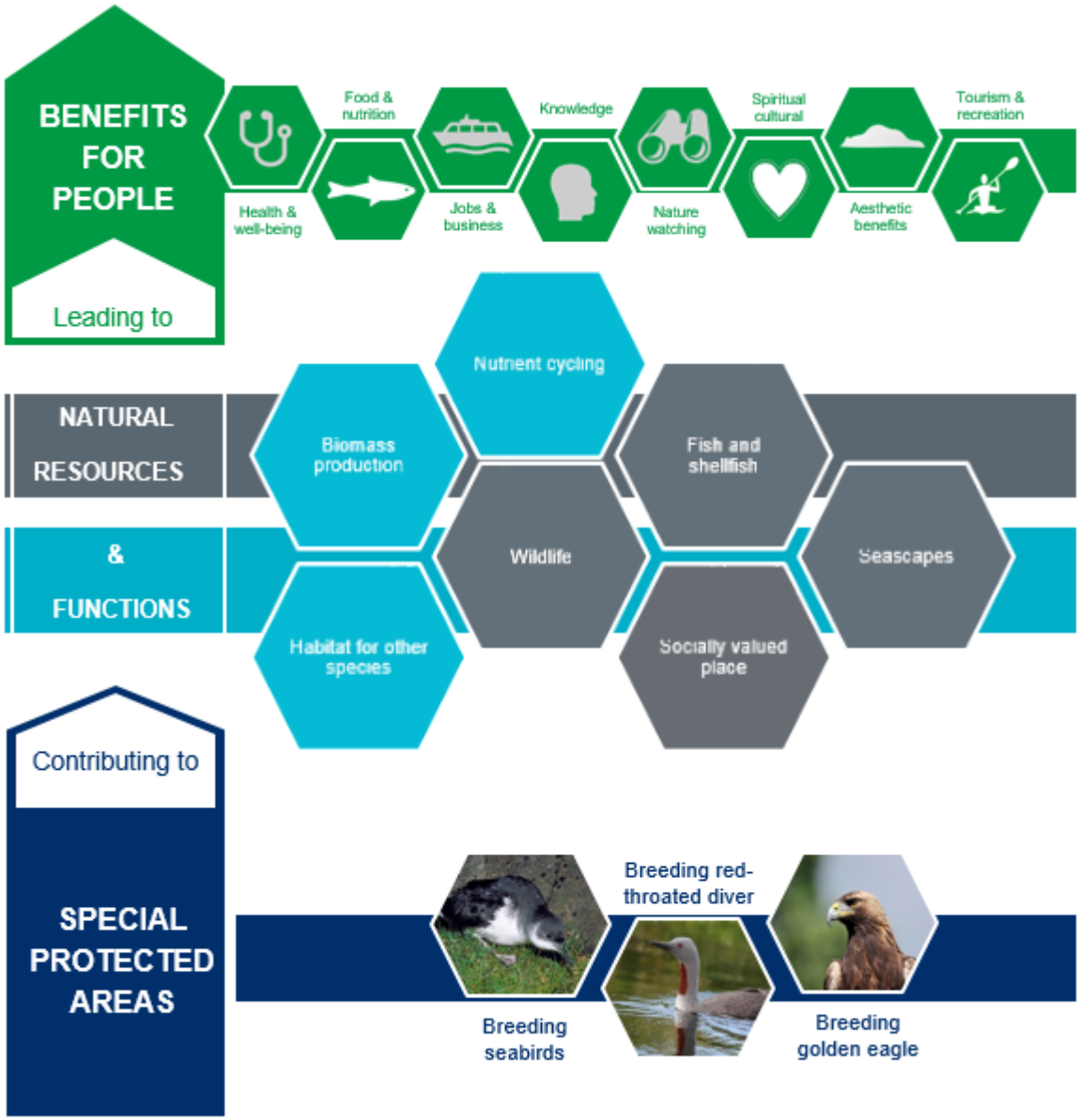

Figure 1. Benefits to people associated with protected features of the Rum SPA.

2.4 Contribution to policy commitments

Managing the Rum SPA to maintain the protected features in favourable condition, will ensure the continued provision of the benefits above as well as the SPA's contribution to:

- An ecologically coherent network of Marine Protected Areas which are well managed under the OSPAR convention and national legislation.
- Achieving Favourable Conservation Status for the protected features in the Atlantic Biogeographic Region.
- Progress towards achieving Good Environmental Status particularly in relation to maintaining biological diversity and ensuring marine food web abundance and diversity.

- Making a significant contribution to the protection, enhancement and health of the marine area under the National Marine Plan.
- Restoring marine and coastal ecosystems and increasing the environmental status of our seas under the Scottish Biodiversity Strategy.
- Helping to adapt to climate change under The Scottish Climate Change Adaptation Programme.

3. Roles

This document provides advice for the Rum SPA in relation to activities that may affect the protected features. More detailed advice can be provided to public authorities to inform their decision making as required. In doing this, our aim is to ensure the Conservation Objectives for the protected features are met.

The Conservation (Natural Habitats, &c.) Regulations 1994 (as amended in Scotland) (the "Habitats Regulations") under Regulation 33(2), make special provisions for the protection of European marine sites, requiring SNH (now referred to as NatureScot) to advise other relevant authorities of the Conservation Objectives for a site, and also of the operations which may cause deterioration of the habitats or species, or disturbance of species protected in the SPA.

It is the role of the relevant and competent authorities[1] to ensure that the activities they regulate, permit or license do not hinder the achievement of the Conservation Objectives of the Rum SPA. The management advice in this document is provided to assist authorities in managing the activities outlined in Table 2, section 7, and undertaking Habitats Regulations Appraisals of plans and projects.

Stakeholders can provide additional evidence to support the development of management including local knowledge of the environment and of activities. This will contribute to the development of well-designed and effective management measures.

4. Protected features and status

The Rum SPA has been selected to become part of the UK's SPA network, contributing to Scotland's MPA network, which in turn has been established to help conserve and recover a range of Scotland's important marine habitats, wildlife, geology and landforms.

The protected features of the Rum SPA are protected within the SPA throughout the year, irrespective of the season for which they qualified as a protected feature.

Table 1 provides a summary of the protected features within the SPA, their condition within the site (where known), and the broader conservation status of the protected features. Condition assessment is based on the latest NatureScot Site Condition Monitoring and, where it is available, unpublished recent count data from the Rum NNR which overlaps entirely with the Rum SPA. Current trends for relevant seabird colonies can be found in

[1] A relevant authority is a body or authority that has a function in relation to land or waters within or adjacent to the site (Regulation 5) and include: a nature conservation body; a local authority; water undertakers; a navigation authority; a harbour authority; a lighthouse authority; a river purification board (SEPA); a district salmon fishery board; and a local fisheries committee. All relevant authorities are competent authorities. A competent authority is defined in Regulation 6 as "any Minister, government department, public or statutory undertaker, public body of any description or person holding a public office". In the context of a plan or project, the competent authority is the authority with the power or duty to determine whether or not the proposal can proceed.

JNCC (2021), and is based on trends derived from the Seabird Monitoring Programme (SMP) including where available, Seabird Counts census data (Burnell *et al.,* 2023).

Table 1. Protected features and status for the Rum SPA.
Feature condition refers to the condition of the protected feature at a site level. Broader conservation status is the overall conservation status of the feature within the UK and Europe. No assessment on the condition of the feature at the Marine Atlantic Biogeographic Region scale is available.

Protected Feature	Feature condition at site	Assessment year	Broader conservation status	
			UK[2]	European region[3]
Red-throated diver (breeding)	Favourable, maintained	2013	Green	Least Concern
Common guillemot (breeding)	Unfavourable, recovering	2021	Amber	Least Concern
Black-legged kittiwake (breeding)	Unfavourable, recovering	2021	Red	Vulnerable
Manx shearwater (breeding)	Favourable, maintained	2021	Amber	Least Concern
Golden eagle (breeding)	Favourable, maintained	2013	Green	Least Concern

5. Setting Conservation Objectives

5.1 Background

Under Regulation 33(2) of the Habitats Regulations, NatureScot have responsibility for providing the Conservation Objectives for European marine sites in Scottish territorial waters. These site-level Conservation Objectives seek to define the contribution that each SPA should make to achieving Favourable Conservation Status for the protected features. They provide the framework for the setting of site conservation measures (management) and for the Habitats Regulations Appraisal of projects and plans.

The Conservation Objectives for the Rum SPA are provided in Annex 1.

5.2 Relationship between feature condition and Conservation Objectives

The Conservation Objectives seek to *maintain* protected SPA features where evidence exists that a feature is in favourable condition in the site, or where there is uncertainty concerning the assessed condition of a feature (see section 4) but no reason to suspect deterioration in condition since designation. Where evidence exists that a feature is declining and/or damaged and therefore not in a favourable condition in the site, the Conservation Objectives will seek to *restore* the protected feature.

The following protected features are in favourable condition at Rum SPA: Manx shearwater, red-throated diver and golden eagle. Therefore, the Conservation Objectives seek to *maintain* this condition.

[2] Based on Birds of Conservation Concern 5 (BoCC5), for further details on definitions see Stanbury *et al.* 2021 and 2024.
[3] Based on BirdLife International, 2021.

The following protected features are in unfavourable condition at Rum SPA: black-legged kittiwake and common guillemot. Therefore, the Conservation Objectives seek to *restore* this condition, where on-site remedies can influence this.

Breeding kittiwake are in unfavourable condition at Rum SPA due to a decline of 53% from 1,500 pairs (1996 citation) to around 700 pairs (2021 count). The reasons for declines of kittiwakes at this SPA are uncertain however reduction of prey in their foraging areas (potentially both an on-site and off-colony factor) is considered a key contributing factor. Kittiwake breeding success is known to be related to sandeel abundance and availability in many colonies (e.g. Daunt *et al.* 2008; Poloczanska *et al.* 2004). Rats have been identified as a potential invasive predator of seabirds on Rum (SNH, 2015), however as kittiwake nest on exposed cliff ledges rate predation is unlikely to be a pressure influencing the population at this site. Additionally at Rum SPA predation of eggs or chicks from rats may occur (an on-site factor). The manner in which kittiwakes nest on exposed cliffs would suggest rat predation unlikely, however no firm conclusion on this can be drawn (SNH, 2015). As the condition of kittiwake at the Rum SPA is considered to be unfavourable, the Conservation Objectives seek to *restore* favourable condition.

Breeding common guillemot are in unfavourable condition at Rum SPA due to a decline of 55% from 4000 (1996 citation) to around 1,800 (2021 count). The reasons for the decline are uncertain however factors such as reduction in prey in foraging areas (both on-site and off-colony) may be contributing to the decline. The presence of rats has been identified as a negative pressure that could be affecting the guillemot, but it has not yet been determined if predation is a contributing factor for the decline in guillemots at Rum SPA. As the condition of common guillemot at Rum SPA is considered to be unfavourable, the Conservation Objectives seek to *restore* favourable condition.

5.3 Conservation priorities

On the rare occasion where the need to favour the management of one protected feature of a site over another, conservation priority will be given to the most important species/habitats to take action for and/or the most important or urgent measures to be taken.

For the Rum SPA, red-throated divers and golden eagles are both Annex 1 species considered rare and vulnerable and are on Schedule 1.1 of the Wildlife and Countryside Act 1981 (as amended). The conservation requirements for Annex 1 species should take precedence over regularly occurring migratory species (Manx shearwater, common guillemot and black-legged kittiwake). There are currently no potential apparent management conflicts between the protected features.

5.4 Overlapping Protected Areas

The boundaries for the following protected areas overlap with Rum SPA:

- Rum Special Area of Conservation (SAC)
- Rum National Nature Reserve (NNR)
- Rum Site of Special Scientific Interest (SSSI)
- Sea of the Hebrides MPA
- Small Isles MPA
- Inner Hebrides and the Minches SAC

Conservation measures in the overlapping protected areas need to ensure the Conservation Objectives of the Rum SPA and the other protected areas are meet are met. There are no

apparent management conflicts between the protected features of these protected areas. Site information including the Conservation Objectives for the overlapping protected areas are available on SiteLink.

6. Feature sensitivity

The following section provides an overview of the pressures associated with human activities that are most relevant to the protected features. Further information on feature sensitivity for the marine protected features will be made available on Marine Scotland's Feature Activity Sensitivity Tool (FeAST)[4]. The information in FeAST will reflect our current understanding of the interactions between activities, pressures and features. It highlights that activities can give rise to a range of pressures, which the protected features may be sensitive to. Our assessment of sensitivity is based on a feature's tolerance (response to change) and its ability to recover.

6.1 Red-throated diver (breeding)

Red-throated divers are considered sensitive to mortality through entanglement in various types of fishing gears and incidental bycatch (Mendel *et al.* 2008; Dierschke *et al.* 2012). Breeding red-throated divers are also vulnerable to predation at the nest site from invasive non-native mammals such as mink or stoat. This species is also vulnerable to disease, including avian flu (APHA). Red-throated divers exhibit sensitivity to disturbance, both at sea (Jarrett *et al.* 2018), and where they nest on the margins of freshwater lochs (Nummi *et al.* 2013). During the breeding season their more restricted distribution within sheltered inshore waters will limit potential exposure to large marine developments, however they are known to exhibit strong displacement associated with various marine developments (Furness *et al.* 2013; Cook & Burton 2010). Red-throated divers are also sensitive to pressures affecting prey availability (Guse *et al.* 2009). (*See also Sandeel sensitivity assessment in FeAST).*

6.2 Common guillemot (breeding)

Guillemots may be prone to accidental bycatch in fishing nets particularly in surface gears (Zydelis *et al.* 2013). Depletion of prey resources either due to climate change or industry can also have effects on their populations (Mendel *et al.* 2008). These species are also susceptible to large scale mortality in major oil spills (Mendel *et al.* 2008), particularly during their flightless moult period. There is potential for impacts on guillemots due to collision with artificial structures under water (Furness *et al.* 2012). Guillemots may also be susceptible to disease, including avian flu (APHA). These species may be displaced as a result of marine developments (Furness *et al.* 2013) and vessel activities associated with marine developments (Furness, 2016). Guillemots show sensitivity to visual disturbance associated with vessels (Cook & Burton, 2010) and disturbance due to marine industry noise may also occur (Leopold & Camphuysen, 2009). As these are species that feed in the water column, they can be potentially affected by any increase in turbidity that would affect their ability to successfully forage for their prey (Cook & Burton, 2010). (*See also Sandeel sensitivity assessment in FeAST).*

6.3 Black-legged kittiwake (breeding)

Kittiwakes may be susceptible to collision (Furness *et al.* 2013) and displacement (Peschko *et al.* 2020) from marine developments. They may also be vulnerable to oil spills (Mendel *et al.* 2008) and organochlorine pollution (Tartu *et al.* 2015), which can lead to lower adult survival and reduced breeding performance (Tartu *et al.* 2013; Svendsen *et al.* 2018). Kittiwakes are identified as potentially sensitive to accidental bycatch in fishing nets particularly in surface gears in UK waters (Bradbury *et al.* 2017). Kittiwakes may also be susceptible to disease (OSPAR Commission, 2009), including avian flu (APHA). Any

[4] http://www.marine.scotland.gov.uk/feast/

reduction in prey items will also have an effect on kittiwake populations (Tasker *et al.* 2000), whether due to climate change (Sandvik *et al.* 2014) or industry (Bicknell *et al.* 2013). (*See also Sandeel sensitivity assessment in FeAST*).

6.4 Manx shearwater (breeding)

Manx shearwaters are highly vulnerable to depredation by mammalian predators at their breeding colonies (Furness, 2016). Shearwater species are vulnerable to bycatch in longline and gillnet fisheries (e.g. Cortes *et al*. 2018; Žydelis *et al.* 2013) and are among the most sensitive species to bycatch in surface gears in fisheries operating in UK waters (Bradbury *et al*. 2017). Manx shearwaters are also susceptible to diseases, including avian flu (APHA). Manx shearwaters can become disorientated by and attracted to artificial light, which may lead to collisions (Newton *et al.* 2004) and even predation or starvation (Syposz *et al.* 2018). Heavy rainfall during incubation period can cause burrows to be flooded and eggs to fail (Brooke, 1990). Any impact on their prey will also have a subsequent effect on the Manx shearwater populations.

6.5 Golden eagle (breeding)

Illegal persecution remains the largest threat overall for golden eagles (Whitfield *et al.* 2000; 2008), which is most prevalent in those regions with grouse moors. Golden eagles are also considered vulnerable to displacement and barrier affects posed by wind turbines, as well as to collision (Smallwood & Thelander, 2008; Pagel *et al.* 2013; Haworth Conservation, 2015). Golden eagles have also shown susceptibility to avian flu (APHA). Golden eagles exhibit behavioural sensitivity to human disturbance (including from vehicles and aircraft), particularly during nest establishment (January to March), egg incubation and when brooding young (July to mid-September). Golden eagles are also affected by habitat change through overgrazing and a subsequent reduction of prey base and prey availability (Whitfield *et al.* 2008).

7. Management

7.1 Conservation Measures

The following conservation measures are currently in place for the Rum SPA:

- The Habitats Regulations require all plans or projects that may have an effect on the protected features of a SPA to be assessed against the Conservation Objectives for that site. This process is known as a Habitats Regulations Appraisal (HRA). An HRA is a statutory procedure that ensures the integrity of the site is maintained. It also provides an opportunity to consider appropriate mitigation that can reduce impacts, avoid adverse effects and permit plans or projects to proceed having taken full account of the protected features of an SPA.

Other relevant measures include:

- The Rum NNR has a management plan in place. The NNR is managed by NatureScot. There are a number of management measures within this plan that are relevant to the protected features of Rum SPA including:
  - Objective to maintain and improve habitats that support the SPA qualifying features and their prey.
  - Ensuring a non-native monitoring and intervention plan is in place. This is of particular relevance to the burrow nesting Manx shearwaters and potential threat from brown rats invading the colony.
  - Prioritising monitoring of SPA qualifying feature populations.
  - Production of a visitor management plan which includes work to liaise with and provide advice to anglers to minimise disturbance to red-throated divers, as well as to

liaise with and provide advice to climbers to minimise disturbance to crag nesting birds.
- Freshwater loch fishing is not permitted on red-throated diver breeding lochs.
- Use of lights within the Manx shearwater colony is avoided to reduce the potential for disturbance.
- Climbing is restricted in the golden eagle breeding season (February-July inclusive). Restrictions are published on the Mountaineering Scotland page, and climbers should contact Rum NNR staff on routes beforehand for the most up to date information.
- A conservation framework for golden eagles (Whitfield *et al.* 2008), which considers the implications for their conservation and management in Scotland, has relevance for Rum SPA.

7.2 Advice to support management

Table 2 provides NatureScot's advice on management for activities where we consider this may be necessary to achieve the Conservation Objectives for the protected features. The advice is focused on the activities that cause an effect (a pressure) that a feature is sensitive to. Pressures can be physical (e.g. abrasion of the seabed), chemical (e.g. introduction of pollutants) or biological (e.g. removal of prey resources). Different activities may cause the same pressure, e.g. fishing using bottom gears and aggregate dredging both cause abrasion which can damage the surface of the seabed.

Our advice takes a risk-based approach, i.e. we are focusing on providing advice where we believe there is a risk to achieving the Conservation Objectives. We have identified risks to achieving the Conservation Objectives where there is an overlap between protected features and activities associated with pressures that the features are sensitive to. We have provided management advice to support public authorities and others in managing these risks. Our advice is based on existing data and information on protected features and relevant activities, and our understanding of the relationships between the features and activities. We have identified a range of management advice:

- management to remove or avoid pressures;
- management to reduce or limit pressures; or
- no additional management required.

For our advice on fisheries management, we have also stated where we think this should be 'considered.' This term is included to highlight that an issue exists, but circumstances mean that a specific recommendation for action cannot or need not be made at this point. However, there is sufficient cause to make fishery managers aware of the issue and for them to consider if a fishery management measure may be helpful in achieving Conservation Objectives – particularly where there may be a synergy between the benefits of management actions for the fishery and the Conservation Objectives for the feature. The term 'recommended' highlights that an issue of fishery-feature interaction exists, there is a reasonable evidence base and a specific recommendation can be made/ justified.

New or other activities not identified within the table would need to be considered on a case-by-case basis.

We recognise that stakeholders can provide local environmental knowledge and more detailed information on activities, including in relation to intensity, frequency and methods. This additional information will help public authorities and others develop more specific management, focussed on the interaction between features and activities. If new information becomes available our management advice may be revised.

Table 2 describes the activities that are considered capable of affecting the protected features. Activities that are considered not likely to affect the protected features (other than insignificantly) are listed in Table 3. Spatial data relating to the location and extent of the activities listed can be accessed on Marine Scotland's National Marine Plan Interactive (where available).

7.3 Best Practice

In our management advice for activities in Table 2 we refer to the development, adoption or use of 'best practice' as a way of managing interactions between activities and the features. Best practice is taken to mean approaches or procedures that are developed and accepted by regulators and relevant stakeholders as being an effective way of dealing with an interaction between a habitat or species and the pressures created by an activity. Much of this best practice is already being implemented by sectors and regulators, e.g. pre-application discussions between developers and regulators, the Scottish Marine Wildlife Watching Code, Scottish Outdoor Access Code, and Technical Standards for Scottish Finfish Aquaculture.

Table 2. NatureScot's advice to support management for the Rum SPA for activities which are considered capable of affecting the protected features.

The text under the 'Advice to support management' columns provides NatureScot's management advice for the features in relation to the activities (further details about the terminology used are provided in section 7.2). Where a cell is coloured grey this indicates that management is already in place, this includes where there are existing regulatory requirements for new proposals. Cells are also coloured grey where it is considered there is no additional management required to achieve the Conservation Objectives. An * has been used to highlight those activities to which the advice under '*Boat use associated with both commercial and recreational activities'* also applies. For some activities, the pressures associated with new proposals are considered unlikely to affect some the features either because these activities do not occur in the same locations as the features or the pressure is unlikely to be at levels that can affect the features (see also Table 3). In these cases, we have not provided advice however, where regulated; this does not exempt new plans or projects related to these activities undergoing a Habitats Regulations Appraisal (HRA).

Activities considered capable of affecting the protected features	**Advice to support management**		
	Guillemot, black-legged kittiwake, Manx shearwater	**Red-throated diver**	**Golden eagle**
Aircraft (specifically unmanned aerial vehicles (UAV))	**Reduce or limit pressures** (disturbance) associated with UAVs within the SPA through effective mitigation such as: • following the Good Practice Advice for drones and wildlife • seasonal restrictions to avoid sensitive time periods for those protected features most susceptible to disturbance and/or; • spatial restrictions		
Aquaculture* - finfish	**Remove or avoid pressures** (entanglement due to set nets) in existing and new finfish farms by prohibiting the use of set (gill) nets for recapture of escaped farmed stock within the SPA. **Reduce or limit pressures** (entanglement, disturbance, reduction of prey supporting habitat) associated with new, consented inactive, or existing fish farms that are proposing	**Remove or avoid pressures** (entanglement due to set nets) in existing and new finfish farms by prohibiting the use of set (gill) nets for recapture of escaped farmed stock within the SPA. **Reduce or limit pressures** (disturbance, reduction of prey supporting habitat) associated with new, consented inactive or existing fish farms that are proposing to	**Reduce or limit pressures** (disturbance) associated with new, consented inactive, or existing fish farms that are proposing to expand or relocate. Appropriate mitigation may include: • Seasonal limitation and/or defining routes for vessel to avoid disturbance of coastally nesting golden eagles. • Careful siting of new finfish farms.

Activities considered capable of affecting the protected features	Advice to support management		
	Guillemot, black-legged kittiwake, Manx shearwater	**Red-throated diver**	**Golden eagle**
	to expand or relocate. Appropriate mitigation may include: • Application of best practice, monitoring and reporting of incidences of bird entanglement, ensuring cage mesh sizes and tensioning are appropriate. • Seasonal limitation and/or defining routes for maintenance vessels; • Spatial limitation to avoid damaging or restricting access to prey-supporting habitats; • Limiting lighting from vessels and shore-bases to avoid disorientation for Manx shearwaters; and/or • Careful siting of new finfish farms.	expand or relocate. Appropriate mitigation may include: • Application of best practice, monitoring and reporting of incidences of bird entanglement, ensuring cage mesh sizes and tensioning are appropriate. • Seasonal limitation and/or defining routes for maintenance vessels, in particular to avoid important foraging areas for breeding red-throated divers (as identified from habitat and dive depth preferences). • Spatial limitation to avoid damaging or restricting access to prey-supporting habitats of red-throated divers. • Careful siting of new finfish farms.	
Boat use associated with both commercial and recreational activities.	**Reduce or limit pressures** (disturbance) associated with new boat use during commercial and recreational activities through effective mitigation such as: • following the Scottish Marine Wildlife Watching Code (SMWWC).	**Reduce or limit pressures** (disturbance) associated with new boat use during commercial and recreational activities through effective mitigation such as: • following the Scottish Marine Wildlife Watching Code (SMWWC).	**Reduce or limit pressures** (disturbance) associated with vessel movement from commercial and recreational activities through effective mitigation such as: • seasonal and/or spatial restrictions to avoid sensitive time periods for coastally breeding golden eagles and/or

Activities considered capable of affecting the protected features	Advice to support management		
	Guillemot, black-legged kittiwake, Manx shearwater	**Red-throated diver**	**Golden eagle**
	• seasonal and/or spatial restrictions to avoid sensitive time periods for those protected species most susceptible to disturbance and/or; • production of vessel management plans associated with activities that require a marine licence. This may include agreed routes and for boats, potential seasonal speed restrictions. **Remove or avoid** any potential biosecurity threat as a result of vessels landing at Rum SPA.	• seasonal and/or spatial restrictions to avoid sensitive time periods for red-throated divers which are susceptible to disturbance and/or; • production of vessel management plans associated with activities that require a marine licence. This may include agreed routes and for boats, potential seasonal speed restrictions. **Remove or avoid** any potential biosecurity threat as a result of vessels landing at Rum SPA.	• production of vessel management plans which may include agreed routes and potential speed restrictions.
Dredging/extraction of material (includes navigational, maintenance, and capital dredging)*	**No additional management** for existing maintenance dredging (ports and harbours). **Reduce or limit pressures** (disturbance, damage of supporting habitat) associated with new capital dredging projects and associated maintenance dredging through appropriate mitigation such as: • spatial limitations to avoid damaging supporting habitat within foraging dive ranges of all qualifying features and/or;	**No additional management** for existing maintenance dredging (ports and harbours). **Reduce or limit pressures** (disturbance, damage of supporting habitat) associated with new capital dredging projects and associated maintenance dredging through appropriate mitigation such as: • spatial limitations to avoid damaging supporting habitat within foraging dive ranges of red-throated divers and/or;	*Pressures unlikely to affect this feature*

Activities considered capable of affecting the protected features	Advice to support management		
	Guillemot, black-legged kittiwake, Manx shearwater	**Red-throated diver**	**Golden eagle**
	• seasonal restrictions.	• seasonal restrictions.	
Farming – domestic stock	**No additional management** required for existing domestic livestock – *existing management in place.*		
Fishing - demersal mobile/active gear/benthic trawls (including mechanical trawls)*	Whilst we have limited understanding about the extent of interactions between benthic fisheries and prey supporting habitat within the site, a principal objective of the management of the relevant fisheries should be to ensure that the fishing activity does not cause such disturbance to the benthic habitats that it adversely affects the abundance and availability of prey. **Reduce or limit pressures** (removal of prey species and abrasion of prey-supporting habitat) associated with fishing that has the potential to damage seabed habitat (in particular, sandeel habitat, herring spawning grounds) **should be considered.**	Whilst we have limited understanding about the extent of interactions between benthic fisheries and prey supporting habitat within the site, a principal objective of the management of the relevant fisheries should be to ensure that the fishing activity does not cause such disturbance to the benthic habitats that it adversely affects the abundance and availability of prey of red-throated divers. **Reduce or limit pressures** (removal of prey species and abrasion of prey-supporting habitat) associated with fishing that has the potential to damage seabed habitat (in particular, sandeel habitat, herring spawning grounds) **should be considered.**	*Pressures unlikely to affect this feature*
Fishing – hydraulic dredges*	Hydraulic dredging has the potential to cause significant disturbance to the sediment habitats that support the prey species of the protected features, particularly for sandeel and herring. A principal objective of the management of the relevant fisheries should be to ensure that the fishing activity does not cause such disturbance to the benthic habitats that it adversely affects the abundance and availability of prey.		*Pressures unlikely to affect this feature*

Activities considered capable of affecting the protected features	Advice to support management		
	Guillemot, black-legged kittiwake, Manx shearwater	**Red-throated diver**	**Golden eagle**
	Remove or avoid pressures (removal of prey species and disturbance of prey-supporting habitat) associated with hydraulic fishing that has the potential to damage seabed habitat (in particular, sandeel habitat, herring spawning grounds) **is recommended.**		
Fishing* – static gear	**Remove or avoid pressures** (entanglement) associated with the use of all static nets. Spatial exclusion of all static nets in areas identified as being important for guillemot (as identified from habitat and dive depth preferences) **is recommended**.	**Remove or avoid pressures** (entanglement) associated with the use of all static nets. Spatial exclusion of all static nets in areas identified as being important for red-throated diver (as identified from habitat and dive depth preferences) **is recommended**.	*Pressures unlikely to affect this feature*
Fishing – pelagic *	**Remove or avoid pressures** (removal of key prey species) associated with fishing for sandeels. There is no current targeted sandeel fishery within the SPA, this position should be retained. Pelagic fishing for herring/sprat may occur within or around the SPA. We **recommend** that a principal objective of the management of the fishery should be ensuring that the fishing activity does not prevent or disrupt the availability of prey species for red-throated divers and the seabird protected features, i.e. it should be considered as part of a broader ecosystem-based approach to management of this fishery.		*Pressures unlikely to affect this feature*
Fishing – long-lining (not including jigging)*	Our current understanding is that long-line fisheries are largely restricted to offshore waters. Site-specific measures for long-lining are not currently considered appropriate due to the scale of the fishery, and the wide-spread interaction with seabirds. However, there is evidence of seabird bycatch in long-line (not jigging)	*Pressures unlikely to affect this feature*	*Pressures unlikely to affect this feature*

Activities considered capable of affecting the protected features	Advice to support management		
	Guillemot, black-legged kittiwake, Manx shearwater	**Red-throated diver**	**Golden eagle**
	fisheries which **we recommend** require wider seas management measures.		
Marine disposal sites	**No additional management** for established licensed disposal sites (ports and harbours). **Reduce or limit pressures** (disturbance, smothering of prey supporting habitat, changes in water clarity) associated with new disposal sites within or adjacent to the SPA.	**No additional management** for established licensed disposal sites (ports and harbours). **Reduce or limit pressures** (disturbance, smothering of prey supporting habitat, changes in water clarity) associated with new disposal sites within or adjacent to the SPA.	*Pressures unlikely to affect this feature*
Mineral extraction	*Pressures unlikely to affect these features*	**No additional management for** established activities associated with quarrying (Kinlock Glen).	**Remove or avoid pressures** (disturbance) associated with quarrying (Kinloch Glen) and associated road repair in areas identified as being within disturbance distance of golden eagle nest sites between February and September.
Ports and harbours	**No additional management for** established activities at ports and harbours within the SPA. **Reduce or limit** lighting at existing ports and harbours both within the SPA and at nearby ports and harbours outside the SPA. **Reduce or limit pressures** (disturbance, displacement, loss or	**No additional management for** established activities at ports and harbours within the Rum SPA. **Reduce or limit pressures** (disturbance, displacement, loss or damage to prey-supporting habitat) associated with new development proposals or expansion of ports and harbours within or adjacent to the	*Pressures unlikely to affect this feature*

Activities considered capable of affecting the protected features	Advice to support management		
	Guillemot, black-legged kittiwake, Manx shearwater	**Red-throated diver**	**Golden eagle**
	damage to prey-supporting habitat) associated with new development proposals or expansion of ports and harbours within or adjacent to the SPA. Appropriate mitigation may include: • spatial limitations to avoid damaging supporting habitat within foraging dive range of the seabird protected features and/or; • seasonal restrictions during construction to avoid periods when birds are present. • seasonal lighting restrictions and management for Manx shearwaters.	SPA. Appropriate mitigation may include: • spatial limitations to avoid damaging supporting habitat within foraging dive range of red-throated divers and/or; • seasonal restrictions during construction to avoid periods when birds are present.	
Renewable energy	There are new marine renewable development proposals within connectivity to the St Kilda SPA. Mitigation should focus on reducing or limiting pressures (disturbance, displacement, collision) on the protected features.		
Tourism & recreation (includes leisure boat users, anglers, kayaking, diving, walkers, climbing).	**No additional management** for existing recreational marine activities (includes yachting, angling, sea kayaking, diving, leisure boating) providing the Scottish Marine Wildlife Watching Code (SMWWC) is followed by water-borne recreational users. **No additional management** for current levels of land-based tourism	**No additional management** for existing recreational marine activities (includes yachting, sea kayaking, diving, leisure boating) providing the Scottish Marine Wildlife Watching Code (SMWWC) is followed by water-borne recreational users.	**No additional management** requirements for land-based tourism activities (walking), providing Scottish Outdoor Access Code is followed and advice from Rum NNR staff on routes to avoid is followed. **Remove or avoid pressures** (disturbance) of climbing within the vicinity of golden eagle territories

Activities considered capable of affecting the protected features	Advice to support management		
	Guillemot, black-legged kittiwake, Manx shearwater	**Red-throated diver**	**Golden eagle**
	activities (walking, climbing), providing Scottish Outdoor Access Code is followed. Contacting the Rum NNR warden to discuss climbing plans is advised. **Reduce or limit pressures** (disturbance) of the qualifying species if in the future there is evidence of impacts at particular locations and/or if there is major increase in intensity of water-based pursuits within the Rum SPA. **Reduce or limit pressures** (disturbance) on guillemots and black-legged kittiwakes if in the future there is evidence of impacts of climbing at particular locations within Rum SPA.	**No additional management** for angling at current levels – *existing management in place* **No additional management** requirements' for land-based tourism activities (walking), providing Scottish Outdoor Access Code is followed. **Reduce or limit pressures** (disturbance) on red-throated divers if in the future there is evidence of impacts at particular locations within Rum SPA. **Reduce or limit pressures** (disturbance) where an increase by water-borne recreational activities demonstrates there is evidence of impacts at particular locations and/or if there is a major increase in intensity of these pursuits within the SPA. There would be potential for some zonation of measures across the site given that red-throated divers exhibit behavioural sensitivity to disturbance.	between February and July (inclusive). Restrictions are published on the Mountaineering Scotland page, and climbers should contact Rum NNR staff on routes beforehand for the most up to date information. **Reduce or limit pressures** (disturbance) on golden eagles if in the future there is evidence of impacts at particular locations and/or if there is major increase in intensity of land-based or water-based tourism within the Rum SPA.
Scientific survey/research	**No additional management** for current level of scientific research – *existing management in place for Manx shearwater research.*	**No additional management** for current level of scientific research.	

Activities considered capable of affecting the protected features	Advice to support management		
	Guillemot, black-legged kittiwake, Manx shearwater	**Red-throated diver**	**Golden eagle**
Seaweed harvesting	**No additional management** is recommended for existing seaweed harvesting activities for hand-harvesting. **Reduce or limit pressures** (disturbance) associated with new seaweed harvesting developments. **Remove or avoid pressures** (disturbance, removal of prey supporting habitat) associated with mechanical harvesting of seaweed (in particular of kelp).		**No additional management** is recommended for existing seaweed harvesting activities for hand-harvesting. **Reduce or limit pressures** (disturbance) associated with new seaweed harvesting developments for coastal nesting golden eagles.
Wildlife tour operators	**No additional management** for existing wildlife tours providing the Scottish Marine Wildlife Watching Code is followed by Wildlife tour operators. The Scottish Marine Wildlife Watching Code (SMWWC) should be followed by water-borne recreational users. **Reduce or limit pressures** (disturbance) associated with an increase in wildlife tour operators if in the future there is evidence of impacts at particular locations and/or if there is an increase in intensity of these pursuits within the SPA.	**No additional management** for existing wildlife tours providing the Scottish Marine Wildlife Watching Code is followed by Wildlife tour operators. The Scottish Marine Wildlife Watching Code (SMWWC) should be followed by water-borne recreational users. **Reduce or limit pressures** (disturbance) associated with an increase in wildlife tour operators if in the future there is evidence of impacts at particular locations and/or if there is an increase in intensity of these pursuits within the SPA. There would be potential for some zonation of measures across the site given that red-throated divers exhibit behavioural sensitivity to disturbance.	**Reduce or limit pressures** (disturbance) associated with an increase in wildlife tour operators if in the future there is evidence of impacts at particular locations and/or if there is an increase in intensity of these pursuits within the SPA.

Table 3. Activities that are considered not likely to affect the protected features (other than insignificantly) [5]

Activity	Comments
Aquaculture – shellfish	Beyond pressures associated with the vessel movement (covered in Table 2), we are not aware of any further pressures that have the potential to cause an adverse effect on the protected features.
Anchorages & moorings	Beyond pressures associated with the vessel movement (covered in Table 2), we are not aware of any further pressures that have the potential to cause an adverse effect on the protected features.
Ferry routes	We do not expect existing ferry routes to have the potential to cause an adverse effect on the protected features.
Fishing – static gear – Creels (including lobster, crabs and *Nephrops*) and hand-fishing.	Fishing using creels is widespread throughout the MPA. Whilst there is the potential for entanglement for diving species such as auks, the occurrence is rare and therefore we consider this method poses a low risk to the protected features. Pressures associated with the vessel traffic from this pressure is covered under Table 2.
Fishing – line fishing (jigging)	Beyond pressures associated with the vessel movement (covered in Table 2), this activity is not expected to have the potential to cause an adverse effect on the protected features.

[5] Only the specific examples of activities listed in the table have been excluded, rather than the broad activity types. New plans or projects will still need to be considered by the relevant competent authority (see Annex 1 for further details).

8. Research and survey

We recognise that there are still important gaps in our understanding and knowledge of the features of this site. We will identify research and survey projects to inform our understanding of these aspects. The knowledge gaps identified below are not a commitment to undertake this work. However, by highlighting these gaps we hope to inform future discussions with parties interested in undertaking research in this site and/or on these features, to help direct research and improve understanding of monitoring needs. The following list of research and survey needs is not prioritised and is not exhaustive.

- Establish adequate baseline information for supporting habitats and prey species and gain an understanding of which prey items are the most important at a local scale within the SPA for all protected features.
- Establish a marine bird monitoring programme that informs changes in species populations and distributions at a site and SPA network level, and which may include monitoring of the supporting prey, habitats and processes within the SPA.
- Further understanding required on the reasons as to why some the protected features are unfavourable at the SPA. Productivity estimates at the SPA would be beneficial to help understand this decline.
- Further ecological studies of all protected features habitat preferences and use, and movements within the SPA.
- Better understanding on the implications offshore developments around the site on the protected features.
- Oceanographic studies, such as sea temperature and acidity levels, how these might change in future, and the effects of such changes on prey availability for birds.
- Studies of food availability and competition for food between different fish predators (e.g., birds, seals, dolphins, porpoises, whales) in relation to fisheries policy.
- Improved understanding of what supporting processes the key prey species are reliant upon within the SPA.
- Additional research is required to better understand the relationships between the impact of dredging and benthic trawling on supporting habitats, their ability to support suitable prey and any consequential effect this may have on protected features.
- Understanding of the impact of tourism on the protected features at the SPA.
- Further work to understanding of the impacts of non-native mammals on the protected features at the SPA in particular for Manx shearwater and red-throated divers.
- Investigation is required to assess the potential impact of highly pathogenic avian flu on the protected features both within the SPA and at a wider scale.
- Research required on the evolution of the HPAI virus, exposure and survival rates in affected seabird species following the 2021-2023 HPAI outbreak.
- Evaluate the potential mitigations that could be put into place to limit disease spread should another outbreak of HPAI occur at this, or any other SPAs.
- Further ecological studies of red-throated diver diets, habitat preferences and use, and movements between their terrestrial breeding sites and the marine foraging waters of the SPA.
- Studies of the numbers, distribution, productivity, diet of breeding red-throated diver foraging in the SPA and whether this changes in future.

- Studies of the energetic/survival consequences of red-throated diver behavioural sensitivity to visual disturbance, including within the SPA.
- Research on golden eagle movements within and use of the Rum SPA. Work also required on where the golden eagle chicks are dispersing to, potentially via a satellite tracking project.
- Research on factors affecting the productivity of golden eagles on Rum SPA, including whether pollutant accumulation occurs (for example could be studied by analysing failed eggs).
- Research required on the expansion of white-tailed eagles and any consequential effect on golden eagle prey resource through competition for food.

Annex 1. Rum SPA Conservation Objectives

The box below provides the high-level Conservation Objective statements for Rum SPA.

The full Conservation Objectives, which includes site-specific advice and information on the qualifying features that form part of these SPAs, are provided in the tables that follow. The site-specific advice and information provides more detail in relation to each of the high level Conservation Objective statements for each feature, e.g. detail on the seasonal timings and what the supporting habitats and prey are for the qualifying features.

Information is also provided below on how minor changes to features should be considered and the influence of environmental change on features, particular in relation to climate change. Temporary impacts on the qualifying features resulting from plans or projects can only be permitted where there is certainty that the features will be able to quickly recover. Further details on the potential for each qualifying feature to recover are described in more detail in Annex 2 '*Factors determining the potential of features to recover'*.

A definition of the terms used is in the Glossary (Annex 3).

Rum SPA
Qualifying features: • Red-throated diver (*Gavia stellata*) • Common guillemot* (*Uria aalge*) • Black-legged kittiwake* (*Rissa tridactyla*) • Manx shearwater (*Puffinus puffinus*) • Golden eagle (*Aquila chrysaetos*)
The Rum SPA also supports: • Breeding seabird assemblage (includes all seabird qualifying features)
1. To ensure that the qualifying features of the Rum SPA are in favourable condition and make an appropriate contribution to achieving Favourable Conservation Status. 2. To ensure that the integrity of the Rum SPA is restored in the context of environmental changes by meeting objectives 2a, 2b and 2c for each qualifying feature: 2a. The populations of the qualifying features are viable components of the Rum SPA. 2b. The distributions of the qualifying features throughout the site are maintained by avoiding significant disturbance of the species. 2c. The supporting habitats and processes relevant to qualifying features and their prey/food resources are maintained, or where appropriate, restored at the Rum SPA.

1. To ensure that the qualifying features of the Rum SPA are in favourable condition and make an appropriate contribution to achieving Favourable Conservation Status.
Achieving Favourable Conservation Status (FCS) is defined in terms of the natural range and population of the species and the extent of habitat necessary for long-term maintenance of populations. There is an important role for all protected sites in the UK in defining, achieving and maintaining FCS for any habitat or species. Achieving FCS requires that each parameter is either stable or increasing, exceeds the relevant reference value and has good prospects of continuing to do so in the foreseeable future (JNCC, 2018). FCS is assessed across the Marine Atlantic Biogeographic Region with individual SPAs and SPA networks contributing to FCS. The conservation status will be taken as 'favourable' 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; • the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future; • there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis. When carrying out appraisals of plans and projects against these Conservation Objectives, it is not necessary to understand the status of the qualifying features within each individual SPA in this Biogeographic Region. The focus of the appraisal should be at a site level. If the site Conservation Objectives are met then the site's contribution to FCS across the qualifying features' biogeographic range will be maintained. Similarly, when determining whether management measures may be required to ensure that the Conservation Objectives for this SPA are achieved, the focus should be on maintaining the contribution that it makes to FCS. Further advice on how these appraisals should be focussed in relation to maintaining site integrity is provided by Conservation Objective 2 (including parts a, b and c). If broader information (status, trends) on the qualifying features is available, it should be used to provide context to the site-based appraisal. Note '*Appropriate'* within this part of the Conservation Objectives is included to indicate that the contribution to FCS varies from site to site, and feature to feature.

2. To ensure that the integrity of the Rum SPA is restored in the context of environmental changes by meeting objectives 2a, 2b and 2c for each qualifying feature:
This objective recognises that black-legged kittiwake and common guillemot are in unfavourable condition at the Rum SPA and consequently site integrity is compromised.

For Rum SPA, when carrying out appraisals of plans or projects, the focus of the appraisal should be to understand the impact of the plan or project on site integrity. For qualifying features that are favourable condition this means maintaining that condition. For black-legged kittiwake and common guillemot that are in unfavourable condition, it means ensuring that the plan or project does not prevent or reduce the potential for recovery. The expectation is not for the plan or project to restore site integrity. Should the plan or project compromise the ability of the qualifying features to recover (e.g. result in a further decline or accelerate the rate of decline, or prevent a recovery from occurring), then the Rum SPA will not make an appropriate contribution to achieving FCS across the Atlantic Biogeographic Region. Similarly, when determining whether management measures are required to meet the Conservation Objectives, the focus is on ensuring the conditions are appropriate to support recovery and subsequently restore site integrity. Further advice on how these appraisals should be focussed in relation to site integrity is provided in 2a, b and c.

The breeding seabird assemblage is not considered further in the Conservation Objectives as each qualifying feature and 'named qualifier' of the assemblage are addressed individually.

Temporary impacts on these objectives resulting from plans or projects can only be permitted where there is a high degree of certainty that the features will be able to quickly recover from the impact and that impacts do not prevent the ability of unfavourable features to fully recover in the long-term.

Environmental changes

This Conservation Objective recognises that the qualifying features are part of a complex, dynamic and multi-dimensional environment. Birds depend on environmental conditions (for example water movement, up-wellings and prevailing weather) which vary over time and space. Consequently, bird species are exposed to a wide range of drivers of change. 'Environmental changes' for the purpose of these Conservation Objectives means any change to the qualifying features reflecting both natural population dynamics and also broader environmental changes (i.e. those related to climate change and environmental variability, management of which is beyond the scope of the SPA). The impact of human activities on the SPA that can be managed will not be considered as part of the broader context of environmental change (i.e. where required they should be managed).

Some site-level changes are natural and are not a direct result of human influences (e.g. population fluctuations arising from factors such as variable breeding success or weather conditions across the wintering range / shifts or changes in prey availability resulting from variability in environmental factors processes such as water temperature and movements). Changes in the qualifying features' distribution and use of the site, which are brought about by entirely natural drivers, directly or indirectly, are normally considered compatible with the SPA's Conservation Objectives.

There may also be historical human influences that have now ceased but have modified and continue to drive change within the site. It is also recognised that climate change pressures could affect the qualifying features within the site. These changes cannot be prevented, so

the Conservation Objectives seek at a site level to take account of them and where possible, improve the qualifying species' resilience to environmental change when considering future plans or projects. The magnitude of the future impacts will depend on the nature, scale, duration and intensity of the activity and the qualifying features tolerance and ability to recover from such an impact.

Additionally, management of human activities at a wider scale (i.e. regional, Scotland or the area covered by an international agreement such as the OSPAR convention) may also affect the qualifying features associated with this site (either by making a positive contribution or having a negative impact). Wider scale impacts may affect the ability of the qualifying features to recover from site level changes, and therefore additional precaution over the impacts of any future human activities may be necessary.

An assessment of whether a change is natural or anthropogenic, or a combination of both, will need to be looked at on a case-by-case basis.

In relation to the Rum SPA and its qualifying features, the following effects of environmental change (climate change) are relevant. These effects should be taken into account when considering plans and projects as additional pressures may reduce the protected features' resilience to climate change, and conversely climate change impacts may start to hinder the their ability to recover from human activities.

- ***All marine birds:*** Under climate change, sea temperatures are predicted to increase, sea levels will rise and there could be increases in the frequency of stormy conditions. Increased levels of atmospheric CO_2 will also result in ocean acidification. Any of these factors could cause changes in bird abundance and distribution at the SPA due to changes in prey (species, availability and distribution).
- ***Breeding seabirds:*** Climate change may result in effects at wintering grounds or in other parts of the overall breeding range which could have subsequent effects on their breeding population and distributions. For any burrow or hole nesting species (e.g. Manx shearwater) an increase in rainfall due to climate change could also have adverse effects during the incubation or chick-rearing periods which may result in increased mortality of eggs or chicks due to a flooded burrow or hole. Climatic change may also result in colonies being more prone to soil erosion which would in turn mean reduced habitat availability for burrowing species.
- ***Red-throated diver*****:** Long-term population variations in breeding populations of red-throated divers have been identified as corresponding with a large scale climatic pattern but the mechanism for any causal link has not been established (Schmutz, 2014). It is unclear what effects climate change might have on breeding red-throated divers in Scotland.
- ***Common guillemot:*** guillemots are vulnerable to extreme weather events, particularly winter storms, which have been linked to adult mortality and winter 'wreck' events (BirdLife International, 2019). Decreased survival rates in these species have been linked to increased sea temperatures and stronger winds (Votier *et al.* 2008; Sandvik *et al.* 2005).
- ***Black-legged kittiwake:*** Breeding phenology is affected by climate change, with a trend in later breeding being seen in kittiwakes (Wanless *et al.* 2009). Kittiwake breeding populations are highly vulnerable to the impacts of climate change on the population dynamics and distribution of their preferred prey (e.g. Sandvik *et al.* 2014).
- ***Manx shearwater***: The potential impacts of climate change on Manx shearwater in the UK are uncertain (Russell *et al.* 2015).

- ***Golden eagle***: This species inhabits a wide climate envelope internationally. In Scotland, there is evidence of impacts of changing weather on golden eagles. Increasing rainfall at key stages of the breeding cycle is considered likely to reduce breeding success (e.g. dry May weather has been strongly correlated with good productivity in parts of the west Highlands and Islands). There is also evidence of a declining proportion of twins being hatched and reared, even though overall productivity hasn't declined (Fielding & Haworth, 2014).

2a. The populations of the qualifying features are viable components of Rum SPA.

This objective seeks to specifically protect the qualifying features from ***significant*** mortality, injury or removal that can lead to a long-term decline of the feature(s) within the site. It protects the features from significant risk of incidental killing and injury from activities both within and outwith the site. Impacts and effects are considered 'significant' where they could result in a permanent or long-term reduction or continued decline in the population and consequently, reduction in the contribution the Rum SPA makes to the maintenance of the qualifying features in their natural range in the UK. It should be ensured that the qualifying features are protected from anthropogenic pressures that could lead to a significant long-term decline in numbers using the site. Ensuring the capacity of the Rum SPA to support all the essential behaviours and activities required to support viable populations of the qualifying features in the relevant season(s) are addressed by Conservation Objectives 2b and 2c.

At a site level, the population is considered to be viable if the species can carry out their life cycle functions relevant to the season(s) they are present, irrespective of dependencies such as immigration. In the Rum SPA, this means that all breeding qualifying features should be able to breed successfully and should subsequently be in good enough body condition to be able to survive the winter.

For all qualifying features, the viability of the species within the Rum SPA is intrinsically linked to their ability to access and foraging areas outwith the site, in addition to the ability of the site to support breeding adult survival and chick-rearing.

When assessing the effects of any plan or project consideration should also be given to whether impacts outwith the SPA could affect achievement of this Conservation Objective. This Conservation Objective is considered to be met if the conditions to support all the species' essential behaviours and activities within the site are in place. This includes:

- avoiding effects within and outwith the site that could prevent or reduce the ability of the populations of qualifying features to recover.
- avoiding effects within and outwith the site that could lead to a permanent reduction in the populations of qualifying features through mortality, injury, or impacts caused by disturbance, displacement, barrier effects or reduction in mobile prey resources.
- maintaining the species' ability to use all areas of importance within the site (to be considered under Conservation Objective 2b)
- maintaining access to, and availability of, supporting habitats and prey within the site (to be considered under Conservation Objective 2c).

Where known, the populations of the qualifying features should be maintained at or above site reference populations, as detailed below. The site reference population may be revised from the baseline at designation where a) there is evidence to show that a population's size has significantly changed as a result of natural factors or management measures and has been stable at or above a new level over a considerable period (generally equivalent to at least one generation length for the given species) and/or b) to reflect any wider strategic objectives for the species (e.g. national or international species action plan). Where there is evidence to show that a qualifying feature has historically been more abundant than the stated minimum target and current level, the ongoing capacity of the site to accommodate the feature at such higher levels in future should also be taken into account.

All qualifying features are protected throughout the whole site, throughout the year. This means that irrespective of the season for which they are designated, the qualifying features are protected during both their breeding and non-breeding seasons when using the SPA.

Temporary short-term changes in the populations due to human activity may be considered not to compromise the Conservation Objectives within the site provided it can be demonstrated that the populations of any affected qualifying features can fully recover. Factors limiting the recovery of the qualifying features include: the average generation times, population growth rates, availability of prey and the timing and duration of the activity around vulnerable stages of their life cycles such as during moulting or chick-rearing period.

Direct mortality can arise from: collision (above and underwater); entanglement (incidental bycatch); predation, flooding events, disease, and pollution. Indirect mortality can arise from loss of or damage to prey or prey-supporting habitats (e.g. through harvesting; physical removal of or damage to seabed; nutrient enrichment; changes to water temperature, salinity, or flows; introduction of invasive non-native species (INNS); pollution; modification of intertidal or coastal habitat). Indirect mortality can arise from reduced ability to capture or access prey arising from e.g. increased water turbidity or displacement from foraging areas.

The site-specific information includes a site reference population that is considered the most appropriate for assessments of plans and projects. Where this is based on the citation population at classification or recent surveys, the site reference population is rounded using standard procedures (Stroud *et al.* 2001).

Feature	Site-specific advice	Site-specific information
Red-throated diver	Maintain the breeding population of red-throated divers at a stable or increasing trend relative to the reference population.	The site reference population for red-throated divers at Rum SPA is 13 pairs, representing 1% of the GB breeding population. Rum NNR annual monitoring reports record between 8 and 20 pairs between 1996 and 2021. The national survey (2006) is the most recent survey of breeding red-throated divers in Scotland and indicated that across Scotland as a whole the long-term trend in population size had remained broadly stable since 1983 (Dillon *et al.* 2009).

	and Ensure red-throated divers are not at significant risk from injury or mortality. ***and*** Ensure red-throated divers can move safely between the site and important areas of functionally linked land and sea outwith the site.	The predicted number of red-throated divers using the marine extension waters is 18 pairs. This represents the numbers of breeding pairs within a 10km range of the Rum SPA. Nesting territories are reported present on surrounding islands every year. It should be noted that this figure does not represent the numbers of red-throated divers that might be anticipated to be foraging within the Rum SPA at any one time but rather the number of breeding pairs that may potentially use parts of the site for foraging during the breeding season. Assessments of plans or projects within the Rum SPA should consider potential impacts on usage of this marine site by foraging red-throated divers from Rum SPA. The long-term maintenance of the species in the SPA is intrinsically linked to their ability to access and use habitats in areas of functionally linked sea outwith the SPA and to be able to return safely to their breeding sites on land. When assessing the effects of plans or projects consideration should therefore also be given to whether impacts outwith the SPA could affect achievement of this Conservation Objective.
Manx shearwater	Maintain the breeding population of Manx shearwater at a stable or increasing trend relative to the current site reference population. ***and*** Ensure Manx shearwaters are not at significant risk from injury or mortality. ***and***	The site reference population for Manx shearwaters at Rum SPA is 61,000 pairs (1992 citation). The last count at Rum SPA (in 2021) estimated the Manx shearwater population to be around 290,000 (however confidence in this population estimate is low). There is insufficient information on Manx shearwater to assess a long-term UK trend (JNCC, 2021) however, recent census suggests that the population has increased by 134% (Burnell *et al.,* 2023). The long-term maintenance of Manx shearwaters in Rum SPA is intrinsically linked to their ability to access and use habitats in areas of functionally linked sea outwith the SPA. When assessing the effects of any plan or project consideration should therefore also be given to whether impacts on the population whilst outwith the SPA could affect achievement of this Conservation Objective.

	Ensure Manx shearwaters can move safely between the site and important areas of functionally linked sea outwith the site.	
Common guillemot	Ensure the breeding population of common guillemot has the ability to recover to the site reference population. ***and*** Ensure common guillemots are not at significant risk from injury or mortality. ***and*** Ensure common guillemots can move safely between the site and important areas of functionally linked sea outwith the site.	The site reference population for guillemots at Rum SPA is 4000 individuals. The latest count data available for Rum SPA shows this number has decreased to around 1,800 individuals (2021 count). Guillemot populations in the UK decreased by 8% since Seabird 2000 (1998-2002) and 31% in Scotland (Burnell *et al.,* 2023). No factors at the breeding colony appear to be the cause of this decline and thus the decline is likely to relate to their food supply in the marine environment. Site condition monitoring shows that the nesting habitat appears unchanged. Other species within the Rum seabird breeding assemblage are also showing declines so competition for habitat by other species can also be ruled out. As the Rum population appears to be declining more steeply than the national population of guillemots it suggests that there could be on-site factors contributing towards the decline. Possible factors affecting their decline could be: raptor predation (white-tailed eagles), rat predation of eggs and young (no direct evidence of this has been recorded for guillemots though), along with off-colony influences such as reduction in fish prey. The long-term recovery of common guillemot in Rum SPA is intrinsically linked to their ability to access and use habitats in areas of functionally linked sea outwith the SPA. When assessing the effects of any plan or project consideration should therefore also be given to whether impacts on the population whilst outwith the SPA could affect achievement of this Conservation Objective.
Black-legged kittiwake	Ensure the breeding population of kittiwake have the ability to	The site reference population for kittiwakes at Rum SPA is 1500 pairs (1992 citation). The latest count data available for Rum SPA has shown a dramatic decrease of kittiwakes to 700 pairs

	recover to the site reference population. ***and*** Ensure kittiwake within are not at significant risk from injury or mortality. ***and*** Ensure black-legged kittiwakes can move safely between the site and important areas of functionally linked sea outwith the site.	(2021). Kittiwake populations have declined in both Scotland and the UK, with decreases of 42% in their UK population since Seabird 2000 (1998-2002) and 57% in Scotland (Burnell *et al.,* 2023). It is acknowledged that due to the steep national decline in kittiwakes it will be difficult to recover the kittiwake population to the site reference population. Reasons for the decline in kittiwakes at the Rum SPA, are not fully understood but are likely to be related to off-colony factors affecting their food supply. Wider pressures on kittiwakes, such as climate change or disease, may also limit the potential for kittiwakes to achieve Favourable Conservation Status. No loss or deterioration of suitable nesting habitat (sea-cliffs) has been noted at Rum SPA. Other possible on-site factors may include raptor predation (white-tailed eagles are known to nest close to some kittiwakes sites), or rat predation of eggs and young, although no direct evidence of the latter has been recorded for kittiwakes. Therefore, when assessing the effects of any plan or project, consideration should be given to ensuring that the plan or project will not hinder the ability to recover. This will help ensure resilience within the wider kittiwake population. Plans or projects should also ensure that kittiwakes are not at significant risk from injury or mortality either within or outwith the SPA. The long-term recovery of kittiwakes at Rum SPA is also intrinsically linked to their ability to access and use habitats in areas of functionally linked sea outwith the SPA. When assessing the effects of any plan or project consideration should therefore also be given to whether impacts on the population whilst outwith the SPA could affect achievement of this Conservation Objective.
Golden eagle	Maintain the breeding population of golden eagle at a stable or increasing trend relative to the current site reference population.	The site reference population for golden eagle at Rum SPA is four pairs (1992 citation). The last count at Rum SPA (in 2013) counted three pairs nesting on the island. In 2013, all pairs made breeding attempts, two of which were successful. The cause of failure for the third pair could not be determined. A complete survey of golden eagles in 2015 found that the UK population has increased by 15% since 2003 to 508 territorial pairs (Hayhow *et al*. 2017). The long-term maintenance of golden eagles in Rum SPA is intrinsically linked to their ability to access and use habitats in areas of functionally linked land outwith the SPA, for example for their

	and Ensure golden eagles are not at significant risk from injury or mortality. ***and*** Ensure golden eagle can move safely between the site and important areas of functionally linked land outwith the site.	foraging in nearby Canna. When assessing the effects of any plan or project consideration should therefore also be given to whether impacts on the population whilst outwith the SPA could affect achievement of this Conservation Objective.

2b. The distribution of the qualifying features is maintained throughout the site by avoiding significant disturbance of the species at Rum SPA
This objective seeks to ensure that the qualifying features can continue to use and access all areas within the Rum SPA used for feeding, moulting, roosting, loafing, shelter and other maintenance activities. Changes in the distribution of the qualifying features are most likely to be brought about through disturbance, therefore this objective relates to avoiding significant disturbance. Changes in distribution may also result from shifts in prey distributions; this is considered under objective 2c. Disturbance associated with human activity may take a variety of forms including: noise, light, sound, vibration, trampling, presence of people, animals and structures, as well as displacement and barrier effects on the species. The type of disturbance, its duration and the area over which the qualifying features are likely to be affected are important considerations in any appraisal of disturbance. Disturbance can, for example, result in changes to feeding or roosting behaviour, increased energy expenditure due to increased time spent moving to avoid stressors , abandonment of nest sites and desertion of supporting habitat (both within or outside the protected area where appropriate). This may affect successful chick rearing in the subsequent breeding season (related to poor winter condition of adult birds), feeding and/or roosting, and/or may reduce the availability of suitable habitat as birds are displaced and their distribution within the site contracts.

'Significant disturbance' should be interpreted to mean disturbance that affects the integrity of the site through alteration of the distribution of the qualifying features such that recovery cannot be expected or effects can be considered long term. It is expected that significant disturbance will lead to more than a transient effect on the distribution of the qualifying features. It may result in the following types of effect:

- Contributes to the long-term decline in the use of the site by the qualifying features.
- Changes to the distribution of the qualifying features on a continuing or sustained basis.
- Changes to the qualifying features behaviour such that it reduces the ability of the species to survive, breed or rear their young.

There are two main ways in which the qualifying features' continued access to suitable resources could be restricted and distribution affected and this is where assessments should be focussed:
1. Large scale physical barriers, or;
2. Significant disturbance which alters their distribution within the site or disrupts important behaviours.

Temporary short-term disturbances due to human activity may be considered not to compromise the Conservation Objectives within the site provided it can be demonstrated that the population can fully recover with a high degree of certainty. Factors limiting the recovery of the qualifying features include the timing, frequency and duration of the activity around vulnerable stages of their life cycle such as during moulting or chick-feeding period.

All qualifying features are protected throughout the whole site, throughout the year. We anticipate that some locations within the Rum SPA will be more, or less, important than others for individual species. Distributions within the site may also change over time in response to a range of abiotic and biotic factors (e.g. changes in abundance or quality of prey resources at particular locations, numbers of each qualifying feature within the site as a whole, seasonal fluctuations or trends in prevailing weather conditions etc.). In some cases detailed bespoke surveys of bird numbers and distributions, to determine qualifying features' current usage of particular locations within a proposals area of influence, may be required to complete the necessary assessments.

Direct displacement/redistribution of the qualifying features can arise from: barriers to movement to and between foraging and roosting locations; and visual disturbance (e.g. associated with vessel movements). Indirect displacement/redistribution can arise from loss of or damage to prey or prey-supporting habitats (e.g. through harvesting; physical removal of or damage to seabed; nutrient enrichment; changes to water temperature, salinity, or flows; introduction of INNS; pollution (e.g. light, noise, chemical)).

For all qualifying features: Disturbance to foraging birds may reduce the time spent feeding or cause them to move to different areas that are less energetically profitable. Disturbance that creates an avoidance response or disrupts/reduces incubation, chick-rearing, foraging or resting behaviour can also put increased energetic demands on birds during an already energetically expensive season. Ensuring safe movement within and between the breeding colony and those areas used for foraging, roosting and other maintenance behaviours (see also 2c) is important to meet the energetic demands required to achieve or maintain body condition needed to support migration and successful

breeding and for subsequent winter survival,. Barriers to movement may reduce access to preferred foraging habitat and cause sub-optimal foraging.		
Feature	**Site-specific advice**	**Site-specific information**
Red-throated diver	Ensure red-throated divers continue to have access to and can utilise all optimal habitats suitable for all relevant aspects of their life cycle associated with the site. ***and*** Avoid significant disturbance to red-throated divers and ensure individuals can move safely between marine foraging areas and terrestrial breeding sites within the site.	Breeding red-throated divers at the Rum SPA commute between their freshwater breeding sites, typically nesting on the margins or, or on small islands within freshwater lochs or pools, to foraging grounds in adjacent coastal waters within 10km of their nest site (Black *et al.* 2014). The main breeding season for red-throated divers in Scotland extends from May to mid-September, although birds may attend breeding sites from April. Breeding red-throated divers are distributed throughout the Rum SPA when foraging in marine waters. There are a number of freshwater breeding lochs used by red-throated divers in Rum SPA distributed across the whole island. There are a number of pairs (at least 5), using the marine foraging area within Rum SPA that breed on nearby islands including Canna. Undisturbed access at both the breeding site and to productive foraging areas is of particular importance to breeding red-throated divers during the chick-rearing period; the first chicks hatch from early June, with replacement clutches hatching well into July such that chicks may be present from June to mid-September (Hulka, 2010). A breeding pair may make as many as 10-18 foraging trips every 24 hours (Black *et al.* 2014). The largest concentrations of red-throated divers were recorded in shallow and sheltered bays, voes, sea lochs and sounds (Black *et al.* 2014). Dive depths are typically less than 9 m, with a maximum of 21m (McCluskie *et al.* 2012; Robbins, 2017).
Common guillemot	Ensure guillemots continue to have access to and can utilise all optimal habitats suitable for all relevant aspects of their life cycle associated with the site. and Avoid significant disturbance to guillemots and ensure individuals can move safely	Guillemots remain near their breeding colonies throughout the year and will continue to attend their breeding sites at Rum SPA frequently during the non-breeding period, particularly from February onwards. Their breeding season is from April until mid-August. From the beginning of August to mid-October they undergo a flightless moult period, typically in marine waters near to their colony. Guillemots will nest on bare cliff ledges at Rum SPA in dense colonies. The majority of the seabird cliffs on Rum are found on the east and south coast from Kinloch to Papadil, with some colonies also found along the west coast from Papadil to Bloodstone. They use areas close to the coast as well as offshore waters in which to forage, rest, and carry out other maintenance activities. In the breeding period, the foraging range of guillemot has a mean maximum of 73.2 ± 80.5 km, with a maximum range of 338km (Woodward *et al.* 2019). Guillemots forage both at the seabed (demersal) and within the water column (pelagic), primarily during daylight hours (Wakefield *et al.* 2017). They have an average dive depth of 42m, though can forage up to 200m depth (Ropert-Coudert *et al.* 2018).

	between these areas within the site.	Guillemots may fly in small groups and will often form large rafts on the sea close in the colony before heading out on a foraging trip. When ready to fledge the chick will leave the nest site and joins the male of the pair on the sea, where they travel further out to sea together and remain close for around two months (Harris & Wanless, 2003).
Black-legged kittiwake	Ensure kittiwakes continue to have access to and can utilise all optimal habitats suitable for all relevant aspects of their life cycle associated with the site. ***and*** Avoid significant disturbance to kittiwakes and ensure individuals can move safely between these areas within the site.	Kittiwakes are migratory species with the vast majority of adults from North Atlantic colonies such as the Rum SPA appearing to winter in the west Atlantic between Newfoundland and the mid-Atlantic ridge with the relatively small numbers wintering in the North Sea and west of the British Isles. Kittiwakes are present at the Rum SPA during their breeding period from mid-April to end of August. However feeding aggregations may still be seen around the Scottish coast until late October/early November. They will therefore be present during both the breeding and non-breeding seasons. On the Rum SPA kittiwakes will nest on steep, coastal cliffs and offshore stacks, and require access to areas of freshwater which they require for bathing. The majority of the seabird cliffs on Rum are found on the east and south coast from Kinloch to Papadil, with some colonies also found along the west coast from Papadil to Bloodstone. For roosting, they may use manmade walls and sandy shores. Kittiwakes at Rum SPA will use both inshore waters within 1km of their colony for loafing, preening, bathing and other important maintenance behaviours, and further offshore waters and shelf waters for foraging. In the breeding period, the mean maximum foraging range for kittiwakes is 156.1+/- 144.5km, though they will forage further, with a maximum range of 770km (Woodward *et al.* 2019). After breeding, kittiwakes will also use sandy beaches near their breeding grounds to moult in large flocks of individuals.
Manx shearwater	Ensure Manx shearwater continue to have access to and can utilise all optimal habitats suitable for all relevant aspects of their life cycle associated with the site. ***and***	Breeding Manx shearwaters will be present at the Rum SPA from April to the middle of October. They will then migrate further south to winter off the Atlantic coast of South America. Non-breeding birds may still visit breeding colonies during the breeding season. Manx shearwaters at the Rum SPA will nest in burrows which may be within grass or amongst boulder scree, and predominantly nest in the higher slopes on Rum including around Hallival, Askival, Barkeval, and Trallval. Burrows within grass have been previously found to be between 70cm-3m long (Brooke, 1990). Burrows tend to be close together and may be lined with vegetation. Manx shearwaters will use the marine waters for foraging, loafing, preening, bathing, and other important maintenance behaviours. Manx shearwaters have a mean maximum foraging range of

	Avoid significant disturbance to Manx shearwater and ensure individuals can move safely between these areas within the site.	1346.8+/- 1018.7km when associated with a breeding colony, but the maximum foraging distance recorded is 2890km in the breeding period (Woodward *et al.* 2019). Manx shearwaters forage by pursuit-plunging from around 1-2m and pursuit diving, either alone or in small flocks. Manx shearwaters have been recorded diving up to 55m, with a mean maximum of 31m (Shoji *et al.* 2016). Manx shearwaters at Rum SPA form large rafts near their breeding colonies in the evening before the birds return to their burrows at night. As the evening progresses the rafting birds tend to come closer inshore (Wilson *et al.* 2008).
Golden eagle	Ensure golden eagle continue to have access to and can utilise all optimal habitats suitable for all relevant aspects of their life cycle associated with the site. ***and*** Avoid significant disturbance to golden eagle and ensure individuals can move safely between these areas within the site.	Golden eagles are resident on Rum throughout the year. They will use the wide range of flatter and mountainous, largely open habitats present, with nesting occuring on cliff ledges. The breeding season lasts from February to August. In winter, both adult and young golden eagles occupy areas that are similar to the breeding season. Young are likely to disperse to the mainland in their first winter but it is not known if, or when they return to the island again. As a predator and scavenger that feeds on a range of live prey and carrion, golden eagle foraging area is likely to be large and include the entirety of the Rum SPA and part of the nearby island of Canna. Golden eagles have a core foraging range of 6km from their nests, with a maximum foraging range being up to 9km. As a remote island, golden eagles within the Rum SPA are generally unlikely to be habituated to any level of disturbance, although the territory in Kinloch Glen may have some habituation to vehicles driving past and some walkers in the vicinity. During the breeding season the alert disturbance (the distance at which alert behaviour is displayed) is estimated to be between 400 to 625 m whilst the flight initiation distance (the distance at which escapee behaviour is initiated) is estimated to be between 10 to 1500 m (Goodship & Furness, 2019). For golden eagles a 1km buffer is generally used for terrestrial disturbance distances (Ruddock & Whitfield, 2007).

2c. The supporting habitats and processes relevant to qualifying features and their prey/food resources are maintained, or where appropriate, restored at Rum SPA.
This objective seeks to maintain, or where appropriate restore, the current extent, quality and distribution of supporting habitats within the site as well as ensure a sufficient food supply within the site. This objective recognises that the populations of breeding kittiwake and guillemot are in unfavourable condition and that this may, in part, be due factors at their breeding colonies.

The qualifying features require suitable habitat for breeding, shelter, roosting, foraging, loafing, moulting and other maintenance activities. The variety, quality, abundance and availability of food resources on which the qualifying features depend is important for ensuring adult fitness, survival and breeding success. The supply of food resources is supported by environmental processes.

In the marine environment, supporting habitats refer to the characteristics of the seabed and water column relevant to their use by the qualifying features. Supporting processes relates to wider oceanographic processes such as up-wellings, tidal flows, hydrological movements which may be necessary for the habitat, and thus affects nutrient cycling and prey distribution.

In the terrestrial environment, supporting habitats refer to the characteristics of the cliffs, freshwater lochans and upland habitats, relevant to their use by the qualifying features. Supporting processes relates to wider processes such as factors affecting coastal erosion, factors affecting vegetation formation, and nutrient flow into freshwater lochs, all of which will influence the habitat types and prey distribution available for the qualifying features.

Maintenance of prey species and their supporting habitats is important to maintain the conditions required to support the qualifying features populations.

Temporary short-term changes in supporting habitat and/or food resources due to human activity may be considered not to compromise the Conservation Objectives within the site provided it can be demonstrated with a high degree of certainty that the populations of any affected qualifying features can fully recover. The species-specific information includes a summary of available information on food resources and where known, the distribution of the key supporting habitats and associated processes within the Rum SPA.

The overall water body condition status relevant to the Rum SPA was assessed as “High” in 2020.[6] This assessment includes consideration of water chemistry, pollutants, the physical condition of the water body, plant and animal communities, including plankton, and the risk from invasive non-native species.

There is currently insufficient information to support quantitative advice on the environmental processes associated with the supporting habitats and prey of the qualifying features at Rum SPA.

Feature	Site-specific advice	Site-specific information
Red-throated diver	Maintain the extent and distribution of the supporting habitats for red-throated divers within the site.	Breeding red-throated divers require suitable habitat within the Rum SPA for breeding within the freshwater lochans and foraging within the marine waters. In Scotland, red-throated divers travel within 10km of their inland nest sites at freshwater lochs to feed at sea, with the largest concentrations of foraging birds

[6] https://www.sepa.org.uk/data-visualisation/water-classification-hub/

	and Maintain the variety and abundance of food resources and the condition of supporting habitats and associated processes. ***and*** Existing water quality should be maintained and any increase in nutrients, turbidity or contaminants where this could reduce supporting habitats and/or prey, should be avoided.	being recorded within shallow and sheltered bays, sea lochs and sounds (Black *et al*. 2014). Red-throated diver chick diet in Scotland comprises small marine fish, in particular gadoids (including saithe), sandeels (*Ammodytes* species) and clupeids. Adults seize prey with their bill in underwater pursuit, typically diving less than 9m, with a maximum dive depth of around 21m (McCluskie *et al*. 2012; Robbins, 2017). Prey species composition varies among locations, over time and among pairs. There is limited site-specific data on red-throated diver diets within the Rum SPA. The key supporting process for red-throated divers at the Rum SPA in the terrestrial environment is the freshwater water quality at their breeding lochs, and the surrounding vegetation. The key supporting processes for red-throated divers at the Rum SPA in the marine waters are water quality (nutrients and turbidity), tidal cycles, and water flow. There is an association between diver abundance and the edges of estuarine frontal zones, particularly during times at high and low tide when they are dominated by slack water (Skov *et al*., 2016). Birds follow the trailing edge of the coastal current and abundance may also be linked to shallow areas, high $chlorophyll_a$ and low sea surface temperature and salinity (Skov & Prins, 2001). In the German Bight, Skov & Prins (2001) did not record any divers in waters with a surface salinity above 34 psu[7], suggesting salinity could also affect their distribution.
Common guillemot	Maintain or enhance the extent and distribution of the supporting habitats for common guillemots within the site. ***and***	Guillemots at the Rum SPA require suitable habitat for breeding, foraging, resting, and other maintenance activities. They will use cliff ledges as their nesting habitat. Guillemots use areas close to the coast as well as offshore waters in which to forage and rest. Guillemots forage both at the seabed (demersal) and within the water column (pelagic) up to 200m, primarily during daylight hours (Wakefield *et al.* 2017).

[7] Practical Salinity Unit (a measure of the salt concentration in sea water)

	Ensure the variety and abundance of food resources and the condition of supporting habitats and associated processes have the ability to recover. ***and*** Existing water quality should be maintained and any increase in eutrophication or water turbidity, where this could reduce supporting habitats and/or prey, should be avoided.	Breeding guillemot feed on small schooling fish including sandeels, clupeids, capelin, sprats and juvenile herring and cod (Wakefield *et al.* 2017). They may also consume molluscs, marine worms, squid, crustaceans and amphipods. The key supporting processes for guillemots at Rum SPA in the terrestrial environment will relate to the suitable cliff-nesting habitat. The key supporting processes for guillemots at the Rum SPA in the marine waters are water quality (nutrients and turbidity), tidal cycles, and water flow. As they are a species that feeds in the water column, they can be potentially affected by any increase in turbidity that would affect their ability to successfully forage for their prey (Cook & Burton, 2010). Guillemots have been shown to show a weak preference for frontal regions and for substrate containing a relatively low proportion of gravel (Wakefield *et al.* 2017). Guillemots have also been observed to forage in riptides (Wanless *et al.* 1990). Studies have also demonstrated guillemots foraging in areas at fronts between thermally distinct bodies of water (BirdLife International, 2019).
Black-legged kittiwake	Maintain or enhance the extent and distribution of the supporting habitats for common guillemots within the site. ***and*** Ensure the variety and abundance of food resources and the condition of supporting habitats and associated processes have the ability to recover. ***and*** Existing water quality should be maintained and any increase in eutrophication or water turbidity, where this could reduce supporting	Kittiwakes at the Rum SPA will use steep, coastal cliffs and offshore stacks for nesting. Their nest is made of compacted mud, grass, feathers and occasionally tide-wrack (Snow & Perrins, 1998). Kittiwakes require access to areas of freshwater for bathing and for roosting they may use manmade walls and sandy shores. Kittiwakes at Rum SPA will use both inshore waters within 1km of their colony for loafing, preening, bathing and other important maintenance behaviours, and further offshore waters and shelf waters for foraging. Kittiwakes may also use sandy beaches to moult in flocks of individuals. Kittiwakes are omnivorous, with a diet consisting predominantly of shoaling marine fish and invertebrates (e.g. squid and shrimps) obtained just below or under (up to 4m) the sea surface. During the breeding season they may also feed on intertidal molluscs, crustaceans (e.g. crayfish), earthworms and plant matter (del Hoyo *et al.* 1996) and may use seaweed for foraging due to the association of seaweed with benthic infauna (Goodship & Furness, 2019). Sandeel are a particularly important prey item, as well as sprat, rockling and gadids. When fishing, they will often feed in small flocks.

	habitats and/or prey, should be avoided.	Information is lacking on the supporting processes for kittiwakes at Rum SPA, but may relate to processes that enable suitable cliff nesting habitat. In the marine environment the supporting processes may relate to water quality (nutrients and turbidity) and water flow.
Manx shearwater	Maintain the extent and distribution of the supporting habitats for Manx shearwaters within the site. ***and*** Maintain the variety and abundance of food resources and the condition of supporting habitats and associated processes. ***and*** Existing water quality should be maintained and any increase in nutrients, turbidity or contaminants where this could reduce supporting habitats and/or prey, should be avoided.	Manx shearwater require suitable habitat for breeding, foraging, loafing, preening, and other maintenance activities within the Rum SPA. Manx shearwaters require grass or boulder scree for nesting habitat. Burrows tend to be close together and may be lined with vegetation (Snow & Perrins, 1998). Manx shearwaters use marine foraging areas both close to their breeding sites and further offshore (Guilford *et al.* 2009). Manx shearwater form large rafts near their breeding colonies at Rum SPA in the evening before the birds return to their burrows at night. Manx shearwaters forage by pursuit-plunging from around 1-2m and pursuit diving, either alone or in small flocks. Manx shearwaters have been recorded diving up to 55m (Shoji *et al.* 2016). This species feeds predominantly during the day (Snow & Perrins, 1998). Manx shearwaters feed mainly on small shoaling fish (e.g. clupeids and sandeels), but also squid (including members of the family Ommastrephidae, Cranchiidae, Gonatidae, Onychoteuthidae and Mastigoteuthidae), crustaceans and offal (BirdLife International, 2019). The key supporting processes within the Rum SPA for Manx shearwaters may relate to the availability of grassy and boulder-rich slopes and suitable soil for their burrows. Should erosion of soil occur this could reduce the availability of suitable burrowing habitat for this species. Supporting processes within the marine environment may include water quality (nutrients) and water flow. Studies have shown the importance of fronts to Manx shearwaters, indicating that these are important features for this species to forage along and at (Shoji *et al.* 2016)

Golden eagle	Maintain the extent and distribution of the supporting habitats for golden eagles within the site. ***and*** Maintain the variety and abundance of food resources and the condition of supporting habitats and associated processes.	Golden eagles require suitable habitat for feeding, breeding, rearing their young and other maintenance activities within the Rum SPA. Golden eagles require open, upland landscapes and most birds nest on remote crags and cliffs well away from human disturbance. The nest or eyrie is often a substantial structure of branches, twigs and heather; lined grass wool and green foliage and can become very large as they are built up year after year. Each pair can have several alternative nest sites within their territory. Each pair can produce up to two young per year although previous breeding records from Rum SPA suggest one chick being produced is more likely. After the young leave their parents' territory, they disperse over wide areas until, after about four years, they settle on a breeding territory. On Rum SPA, there are no rabbits or hares, which are common live prey items for golden eagles, so on the island it is thought their diet relies on heavily on carrion from e.g. deer or feral goat carcasses. Carrion is known to be particularly important food resource during the winter months (Whitfield *et al*. 2008). Golden eagles may also take live red grouse, seabirds, feral goat kids, or rats, although the proportional importance of these different live prey items are not yet known. Golden eagles from Rum SPA are also known to take rabbits from the nearby island of Canna. Studies have demonstrated that there is a positive link between abundance of live prey and golden eagle breeding success (Whitfield *et al.* 2008). Information is lacking on the supporting processes for golden eagle at Rum SPA, but may relate to the availability of suitable cliff nesting habitat and carrion. The highest productivity for golden eagles has been found in areas with less arable land and improved grassland, but instead with an abundance of rocks and cliffs combined with larger areas of heather moorland (Whitfield *et al.* 2008). Whilst golden eagles have successfully adapted to a wide range of climatic conditions, the effects of weather on golden eagle productivity has been documented (Fielding & Haworth, 2014), which may be relevant to the oceanic-influenced western highlands and Islands.

Annex 2. Supporting information

Factors determining the potential for feature recovery.

Feature	Factors determining the potential for feature recovery
Red-throated diver	Red-throated diver estimated generation length is 8.2 years, with the maximum longevity estimated as around 24 years (Bird *et al.* 2020). Age of first breeding is uncertain but has been estimated as being 2.5 years (Bird *et al.* 2020). Clutch size is 2 (1-3) eggs (Cramp & Simmons, 2004) and Horswill & Robinson (2015) give national average productivity of 0.571 (±0.222 SD). However, productivity is known to vary depending on region and on the year, from 0.13 (Orkney in 2017) to 0.91 (southern Finland). In past years, Shetland had a mean productivity of 0.45 chicks fledged per breeding pair per year (Gomersall, 1986) but over the past two decades, the number of successful pairs in Shetland has been declining (O'Brien *et al.* 2018). Horswill & Robinson (2015) give an estimated adult (3+years) survival rate of 0.840 (±0.074 SE). Most mortality is thought to occur in the non-breeding season (Schmutz, 2014). Juvenile (0-1year) and immature (1-2 year) survival rates have been estimated as 0.600 and 0.620 (Horswill & Robinson, 2015). As for other species with apparently high adult survival rates, relatively large impacts on population trends may arise from changes to adult survival. Red-throated divers breeding in Scotland winter over a substantial area including both east and west coasts of Britain and Ireland (Okill, 2002). Birds from breeding grounds in Scandinavia and the Baltic states are thought to migrate mainly to the southern North Sea in winter (Wright *et al*. 2012; O'Brien *et al*. 2008); while birds from Greenland have been recovered in Scotland (Wernham *et al.* 2002). Recent tracking studies of wintering birds captured in the German North Sea indicate that individual birds exhibit high levels of consistency in migration routes, breeding, wintering & moulting areas (Kleinschmidt *et al.* 2017) which may limit individual ability to adapt to changes within wintering areas and hence potential for population recovery from perturbations.. Red-throated divers may be particularly sensitive to disturbance during their post-breeding flightless moult period, commencing sometime between late September and December (Cramp & Simmons, 2004). Pressures in wintering areas at sea (e.g. displacement from offshore wind farms) could limit the potential of populations to recover from impacts arising in breeding grounds.
Manx shearwater	Estimated generation length for Manx shearwater is 19.8 years (Bird *et al.* 2020), which is a long generation time, meaning they may be less resilient to any negative effects on their population. Manx shearwaters have been recorded as reaching 50 years old (Bird *et al.* 2020), though average age has been purported to be around 10 years old (Brooke, 1990). Age at first breeding is around 5 years old (Horswill & Robinson, 2015) but can be as old as 8 or 9 years (Brook, 1990). Similar to other procelliforms, Manx shearwater lay a single egg with only one clutch per year possible, meaning they have a very low reproductive rate. Their incubation (47-55 days) and chick rearing (62-76) periods are also long, even in comparison to other seabird species (Snow & Perrins, 1998). Adult survival rates have been estimated at 0.925 (Bird *et al.* 2020), and

	average productivity as 0.697 (Horswill & Robinson, 2015). This high survival rate means that any effect on adult mortality could potentially have serious effects on the population. Manx shearwater are transequatorial migrants wintering off the Atlantic coast of South America below the equator (BirdLife International, 2019; Guilford *et al.* 2009). Pressures in the Manx shearwater wintering grounds (e.g. bycatch in fisheries) could limit potential for populations to recover from impacts arising in breeding areas. Non-breeding birds may still visit breeding colonies during the breeding season (Newton *et al.* 2004) and from late February their calls can be heard at their breeding colonies again (Brooke, 1990). This species is known to be site faithful (Brooke, 1990). High site fidelity may limit individual ability to adapt to changes within breeding areas and hence potential for population recovery from perturbations. Pressures at the breeding colony itself (e.g. mammalian predation) could also limit potential for populations to recover from impacts airing in the marine foraging areas. The physiology of the Manx shearwater with their legs being placed so far back along their body means they are not good at walking on land (Brooke, 1990), which makes them vulnerable to predation from mammalian or large gull predators. At their breeding sites, Manx shearwaters rely on being able to hear their mate or chick calling in the burrow to know which burrow is theirs, in combination with their burrow's smell (Snow & Perrins, 1998). Any disruptions to them being able to hear their mate or chick calling could have implications for their breeding attempt. Manx shearwaters are sensitive to light pollution, particularly attracting younger shearwaters leading to collisions, predation or starvation (Syposz *et al.* 2018). This may have a subsequent effect on recruitment into the population. Manx shearwaters forage by pursuit plunging and pursuit diving. Whilst foraging close to their breeding rounds is common, Manx shearwaters have the ability to forage much further afield in the breeding period (Woodward *et al.* 2019), which means they may be more resilient to changes in prey abundances close to their breeding colonies. Manx shearwater will form large rafts near breeding colonies in the evening before the birds return to their burrows at night (Brooke, 1990; McSorley *et al.* 2008). Any pressure which would detrimentally affect their evening rafts, could have an effect on their return to their burrow.
Common guillemot	Guillemot estimated generation length is 14.8 years and age of first breeding is 4 years (Bird *et al.* 2020). Guillemots can live in excess of 40 years (Fransson *et al.* 2010), though the average lifespan is likely to be less than 25 years. Guillemots lay a single egg and will not relay if the egg is lost (Snow & Perrins, 1998), meaning they have a slow reproductive rate. As with many species, productivity of first time breeders is relatively low, and for guillemots stabilises from the fifth breeding attempt (Crespin *et al.* 2006). When ready to fledge the chick will leave the nest site and joins the male of the pair on the sea, where they then travel further out to sea together and remain close for around two months (Harris & Wanless, 2004). In this post-fledgling period, the chicks will be vulnerable to predation at this lifestage being less able to escape predators (from late July-end of August during fledging). Adult survival is estimated as being 0.935 (Bird *et al.* 2020) and average productivity 0.672 (Horswill & Robinson, 2015). Any effect on adult

	mortality can potentially have serious effects on breeding numbers. As with other long-lived seabird species, the adult will balance parental investment into their current breeding attempt with their own need to survive, and future reproductive attempts. The majority of common guillemots in UK waters during the non-breeding season are likely to be from UK colonies (Furness, 2015). Few adults move beyond UK waters, although immatures range more widely during the non-breeding season (Furness, 2015). Non-breeding adults tend to remain near their breeding colonies throughout the year and attend their nest ledges, except during their flightless moult period from beginning of August to mid-October. Pressures during this moult period, where adults will be flightless for 1-2 months, could have a subsequent effect on reproduction or survival. Guillemots are not particularly agile in the air and they find take-off from water difficult (Bédard, 1985), which may limit their ability to avoid e.g. fast moving vessels. A guillemot's foraging technique means that they only carry one fish back to their chick at a time, whereas other auk species can carry multiple fish. This limits the quantity of prey they can bring back to their chick each day. As guillemots can dive deeply, they can feed both at the seabed (on demersal prey) and in the water column (on pelagic prey) (Wakefield *et al.* 2017), meaning they may have more flexibility in the prey items they can forage on, depending on their availability. Guillemots, as with other auk species, have a high wing loading, meaning that there is a high energetic cost of flight (Thaxter *et al.* 2010). This may mean if they have to travel further to find food they may suffer energetically (Masden *et al.* 2010).
Black-legged kittiwake	Kittiwake estimated generation length is 9.8 years and age of first breeding is 4 years old (Bird *et al.* 2020). Maximum age recorded is around 29 years (Fransson *et al.* 2010). Kittiwake clutch size is 2 (1-3) (Snow & Perrins, 1998). Fledglings typically depart colonies between late July and mid-August, dispersing rapidly from colonies, leaving the area about 10 days on average after their first flight (Coulson, 2011). Adult survival rates vary with period and colony but range from 0.8-0.93, with an average survival of 0.854 (Coulson, 2011; Horswill & Robinson, 2015). Any effect on adult mortality can potentially have serious effects on breeding numbers. As a long-lived seabird species, the adult will balance parental investment into their current breeding attempt with their own need to survive, and future reproductive attempts. A wide-scale tracking study found that the vast majority of adults from North Atlantic colonies appear to winter in the west Atlantic between Newfoundland and the mid-Atlantic ridge with the relatively small numbers wintering in the North Sea and west of the British Isles coming mostly from colonies in the British Isles or in the Barents Sea (Furness, 2015). Feeding aggregations may be seen around the Scottish coast until late October/early November (Forrester *et al.* 2007). Numbers of kittiwakes passing through UK waters in spring and autumn vary strongly from year to year apparently in relation to weather conditions (Furness, 2015). Pressures in these wintering or passage grounds could limit potential for populations to recover from impacts arising in breeding areas.

	Adult moult may begin during the breeding season but in general will occur after breeding. This species will often moult in large flocks of several thousand individuals on sandy beaches between the breeding grounds and the open sea (BirdLife International, 2019). Any pressure (e.g. disturbance) to these moulting flocks may have subsequent effects on their energy expenditure and hence their survival. Kittiwakes are surface feeders and are therefore limited to those prey found in the upper 1m of the sea (Snow & Perrins, 1998). Kittiwakes have a high reliance on sandeel as their main prey (Daunt *et al.* 2008), and as such are judged to be one of the most vulnerable species in terms of breeding success in relation to sandeel abundance (Furness & Tasker, 2000). This means they may be less resilient to a loss of sandeel prey resource, and thus their recovery would be compromised.
Golden eagle	Golden eagles can live to 20-30 years, with the maximum age recorded being 40 years (Bird *et al.* 2020). The age at first breeding is 5 years old with their clutch size being between 1-3 eggs, but usually 1 or 2. Average breeding productivity recorded from Rum NNR is between 0.40 (between 1983-2000) and 0.71 (between 2000-2013), but productivity in golden eagles can vary annually. Average productivity across Scotland as a whole is around 0.46 young per occupied territory (Whitfield *et al.* 2008). Adult survival for golden eagles has been estimated as being between 0.909 (Bird *et al.* 2020) and 0.950 (Robinson, 2005). There is variation in immature survival and survival can also be influenced by persecution. For the population to be maintained it requires good adult and sub-adult survival, coupled with productivity of at least 0.30 (Whitfield *et al.* 2008). The golden eagle is one of the largest avian predators and occupies nearly all mountain landscapes across its extensive northern hemisphere breeding range. As a long-lived raptor that exhibits delayed maturity and low annual productive rates, the golden eagle is particularly vulnerable to ongoing persecution caused by perceived conflict with people's use of upland habitat (Hayhow *et al.* 2017). This can have impacts at both the immature and adult life stages. Other key factors affecting the species include the quality of habitat and availability of live prey (Whitfield *et al.* 2007; 2008), in addition to level of recruitment of young birds into new areas. As golden eagles occupy their territory year round and may conduct courtship displays and construct new or improve existing nest sites throughout the winter, they are potentially susceptible to breeding disturbance throughout the entire year.

Annex 3: Glossary for Conservation Objectives and References

Glossary for Conservation Objectives

Conservation Objective term	Definition
Distribution	The “distribution” is how the qualifying feature is spread out within the site.
Favourable condition	This refers to the assessed condition of a feature through Site Condition Monitoring. Features considered to be in favourable condition for the purposes of these Conservation Objectives are those that have an assessed condition of either: • Favourable Declining - The attribute targets set for the natural feature have been met, but evidence suggests that its condition will worsen unless remedial action is taken. • Favourable Maintained - the attribute targets set for the natural features have been met, and the natural feature is likely to be secure on the site under present conditions. • Favourable Recovered - the condition of the natural feature has recovered from a previous unfavourable condition, and attribute targets are now being met.
Generation length	Generation length is “the average age of parents of the current cohort”. Generation length therefore reflects the turnover rate of breeding individuals in a population (IUCN, 2019).
Maintain	Where a qualifying feature of the SPA is assessed as being in favourable condition the conservation objective is ‘maintain’. This means that the various attributes of the feature should be kept at that favourable level. This can include increasing/improving condition as well, but not a permanent decline.
Marine birds	This term encompasses true seabirds and waterfowl (seaducks, divers, and grebes).
Metapopulation	A group of connected populations of a species within a defined area, where the individual populations may interact with one another.
Restore	Where a qualifying feature of the SPA is assessed as being in unfavourable condition the conservation objective is ‘restore’. This means that the various attributes of the feature should be returned to the favourable level by increasing/improving condition.
Site integrity	The integrity of a site is defined in general terms as the coherence of its ecological structures and function, across its whole area, which enables it to sustain the habitat, complex of habitats and and/or the levels of populations of the species for which it was designated.
Site reference population	This refers to the estimated population figure for the site and should be used to form the basis of carrying out HRAs. In most cases, the site reference population will be the baseline population (figure at designation). However, where recent surveys show a population to have increased or stayed stable, the current population is considered the most appropriate population figure to use for HRA’s.

Conservation Objective term	Definition
Supporting habitats and processes	This includes the following environmental conditions (but is not limited to) which are important for maintaining/restoring the protected features, e.g. hydrography and supporting water currents, chemical water quality parameters, suspended sediment levels, radionuclide levels.
Unfavourable condition	This refers to the assessed condition of a feature through Site Condition Monitoring. Features considered to be in unfavourable condition for the purposes of these Conservation Objectives are those that have an assessed condition of either: • Unfavourable recovering - One or more of the attribute targets have not been met on the site, but management measures are in place to improve the condition. • Unfavourable no change - One or more of the attribute targets have not been met, and recovery is unlikely under the present management and activity on the site. • Unfavourable declining - One or more of the attribute targets have not been met, evidence suggests that condition will worsen unless remedial action is taken.
Waterfowl	Encompasses seaducks, grebes and divers.

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