Conservation and Management Advice

ASCRIB, ISAY AND DUNVEGAN SAC

MARCH 2024

This document provides advice to Public Authorities and stakeholders about the activities that may affect the protected features of Ascrib, Isay and Dunvegan Special Area of Conservation (SAC). 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 about any activities/operations which may cause deterioration of the habitats or species, or disturbance of species protected in the SAC, and the Conservation Objectives for the site. 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 Ascrib, Isay and Dunvegan Special Area of Conservation (SAC) and it is divided into eight main sections. The introduction in section 2 gives an overview of Ascrib, Isay and Dunvegan SAC 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 marine protected area. 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 site for which they are designated.

Throughout this document, the term Special Area of Conservation (SAC) is used in relation to the site name, e.g. Ascrib, Isay and Dunvegan SAC or in discussion of the specific legislation relating to the site. Otherwise the term Marine Protected Area (MPA) is used when discussing the site or the MPA network generally. The term *qualifying features* is used in the Conservation Objectives (Annex 1) to refer to habitats and species that the Ascrib, Isay and Dunvegan SAC 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 MPA designations.

2 Introduction

2.1 Purpose statement

The Ascrib, Isay and Dunvegan SAC has been designated to protect harbour seals (*Phoca vitulina*). 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 UK. The main purpose of the Ascrib, Isay and Dunvegan SAC is to contribute to the favourable conservation status of the protected features in the UK.

2.2 Conservation benefits

Ascrib, Isay and Dunvegan SAC provides conservation benefits by affording protection to harbour seals. In summary, the conservation benefits of this designation are:

- Protecting over 2% of the harbour seal UK breeding population (at time of designation).

2.3 Wider benefits

Harbour seals at Ascrib, Isay and Dunvegan SAC contribute to ecosystem services locally and across the wider marine environment. 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) and natural resources (e.g. wildlife), which in turn lead to benefits for people.

Figure 1 illustrates how the harbour seals at Ascrib, Isay and Dunvegan SAC contribute to benefits for people.

Harbour seals, especially when taken within the context of the whole MPA and/or local ecosystem, contribute to certain functions more than others, e.g. biomass production and

are fundamental to the continued supply of natural resources and benefits associated with this MPA.

In terms of resources, the MPA consists of three discrete groups of islands and skerries: the Ascrib islands in Loch Snizort; the Isay islands in outer Loch Dunvegan; and the various islands towards the head of Loch Dunvegan. The marine habitats support a variety of natural resources including fish, shellfish (including juveniles), mammal and bird species, in particular high densities of harbour seal. There appear to be several locations that are preferred by harbour seals for hauling out. In the Ascribs the southerly islands are favoured although the exact locations vary; around Isay, Sgeir nam Biast is consistently used; at the head of Loch Dunvegan most of the larger islands are regularly used.

The rich and varied natural resources present around Ascrib, Isay and Dunvegan SAC give rise to a wide range of benefits to people. The seascapes and the wildlife within the MPA provide opportunities for tourism, recreation and wildlife watching, all of which encourage local jobs and businesses. In particular wildlife watching boat trips operate out of Uig, Stein and Dunvegan. The boat trips operated by Dunvegan Castle focus exclusively on the seals. All these boat trips provide an opportunity for visitors to view the seals at close quarters without causing disturbance. Many of the accommodation providers also use seals as a draw for customers in their marketing. Fisheries and supporting businesses from local communities within and around the MPA utilise and benefit from the wildlife and the area's fish, shellfish and seaweed resources. Further benefits relating to health and well-being, food and nutrition also arise from the site's natural resources, resulting in 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 these benefits to be enhanced. This may be achieved through promoting more recreational enjoyment or study of the site, compatible with the Conservation Objectives.

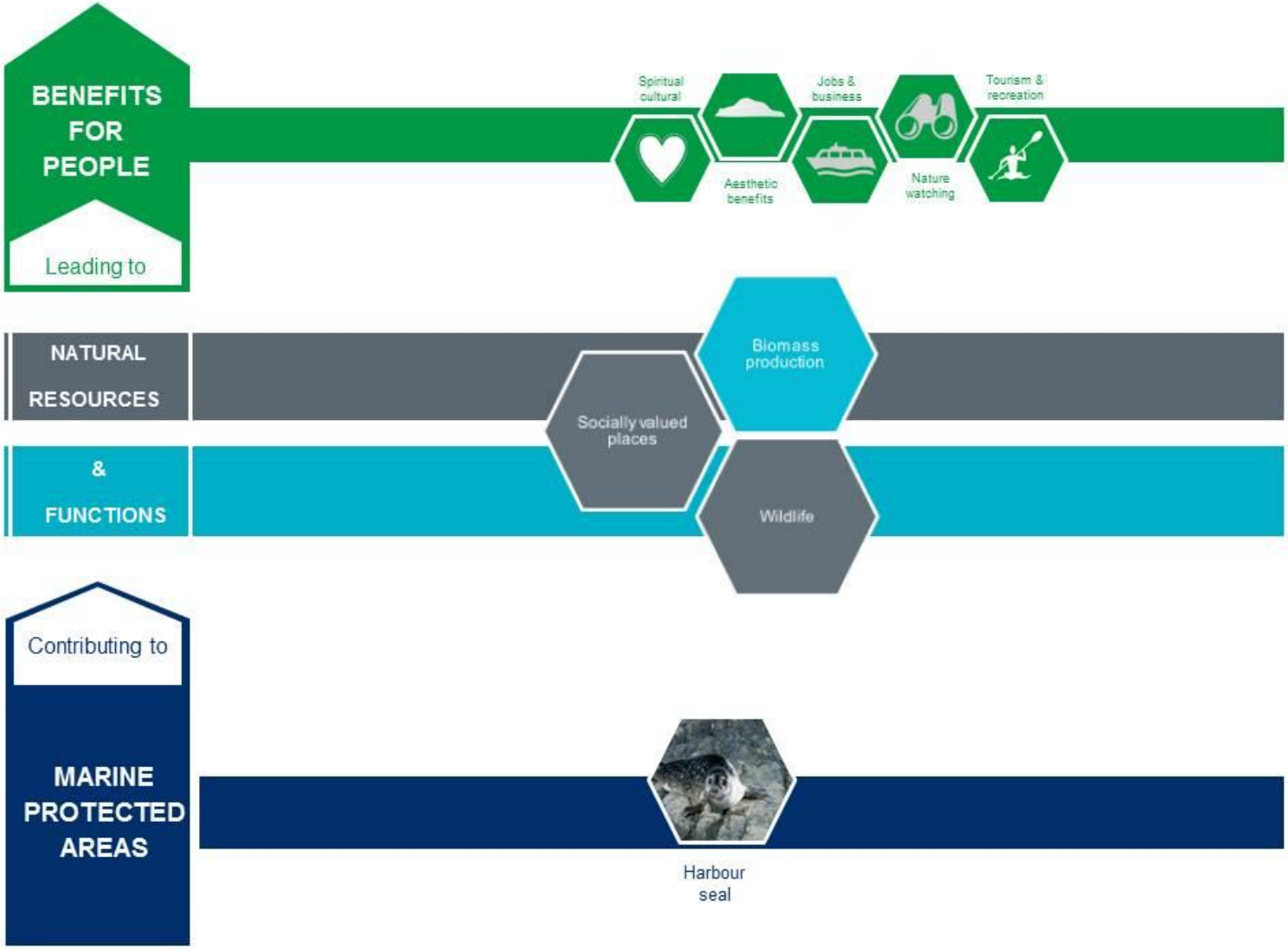

Figure 1 *Benefits to people associated with protected features of the Ascrib, Isay and Dunvegan SAC.*

2.4 Contribution to policy commitments

Managing Ascrib, Isay and Dunvegan SAC to maintain the harbour seal population in favourable condition, will ensure the continued provision of the benefits above as well as the site's contribution to:

- An ecologically coherent network of MPAs, which are well managed under the OSPAR convention and national legislation.
- Restoring Favourable Conservation Status of Annex II harbour seal in the UK.
- Progress towards achieving Good Environmental Status particularly in relation to seals.
- 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.

3 Roles

This document provides advice for Ascrib, Isay and Dunvegan SAC in relation to activities that may affect the protected feature. 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 SAC are met.

The Conservation (Natural Habitats, &c.) Regulations 1994 (as amended in Scotland) (hereafter referred to as the Habitats Regulations) transpose the EC Habitats Directive into domestic legislation. Regulation 33(2) gives NatureScot a statutory responsibility to advise other relevant authorities about any activities/operations which may cause deterioration of the habitats or species, or disturbance of species protected in the SAC, and the Conservation Objectives of the site.

It is the role of the relevant and competent authorities[1] to ensure that the activities they regulate, permit or license do not risk the achievement of the Conservation Objectives of the Ascrib, Isay and Dunvegan SAC. The management advice in this document is provided to assist authorities in managing the activities outlined in Table 2 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 decisions and measures.

4 Protected features and status

The Ascrib, Isay and Dunvegan SAC has been selected to become part of 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.

[1] Relevant authorities are defined in Regulation 5 of the Habitats Regulations and encompass those authorities that have functions in relation to land/water within or adjacent to a European Marine Site (includes marine SACs). They are nature conservation bodies, local authorities, water undertakers, navigation authorities, harbour authorities, lighthouse authorities, SEPA, district salmon fishery board and, National Park Authorities and local fisheries committees. Competent authorities include any Minister, government department, public body, or person holding public office.

Table 1 provides a summary of harbour seal, their condition within the site based on the latest NatureScot Site Condition Monitoring assessment, and their broader conservation status.

The location of the Ascrib, Isay and Dunvegan SAC is shown in Figure 2. Harbour seal distribution is not shown as the species is found throughout the site. Information on seal breeding areas and haul-outs is also available to view on Marine Scotland's seal webpages and the National Marine Plan Interactive.

Table 1. Condition status of harbour seal at Ascrib, Isay and Dunvegan SAC.
Feature condition refers to the condition of harbour seal assessed at a site level. Broader conservation status is the overall condition of the feature throughout its range.

Protected Feature	Feature condition	Assessment date	Broader conservation status*
Harbour seal	Favourable recovered	2023	UK: Unfavourable - inadequate[#] European region: Unfavourable - inadequate

* This is the conservation status of the protected features within the UK as reported in the Habitats Directive, Article 17 Report 2019 - https://jncc.gov.uk/our-work/article-17-habitats-directive-report-2019 and the Marine Atlantic Biogeographic Region in Europe as reported in Article 17 Report 2013.
[#] Seal management units on the East coast of Scotland, Moray Firth, Orkney and Shetland are still unfavourable - bad.

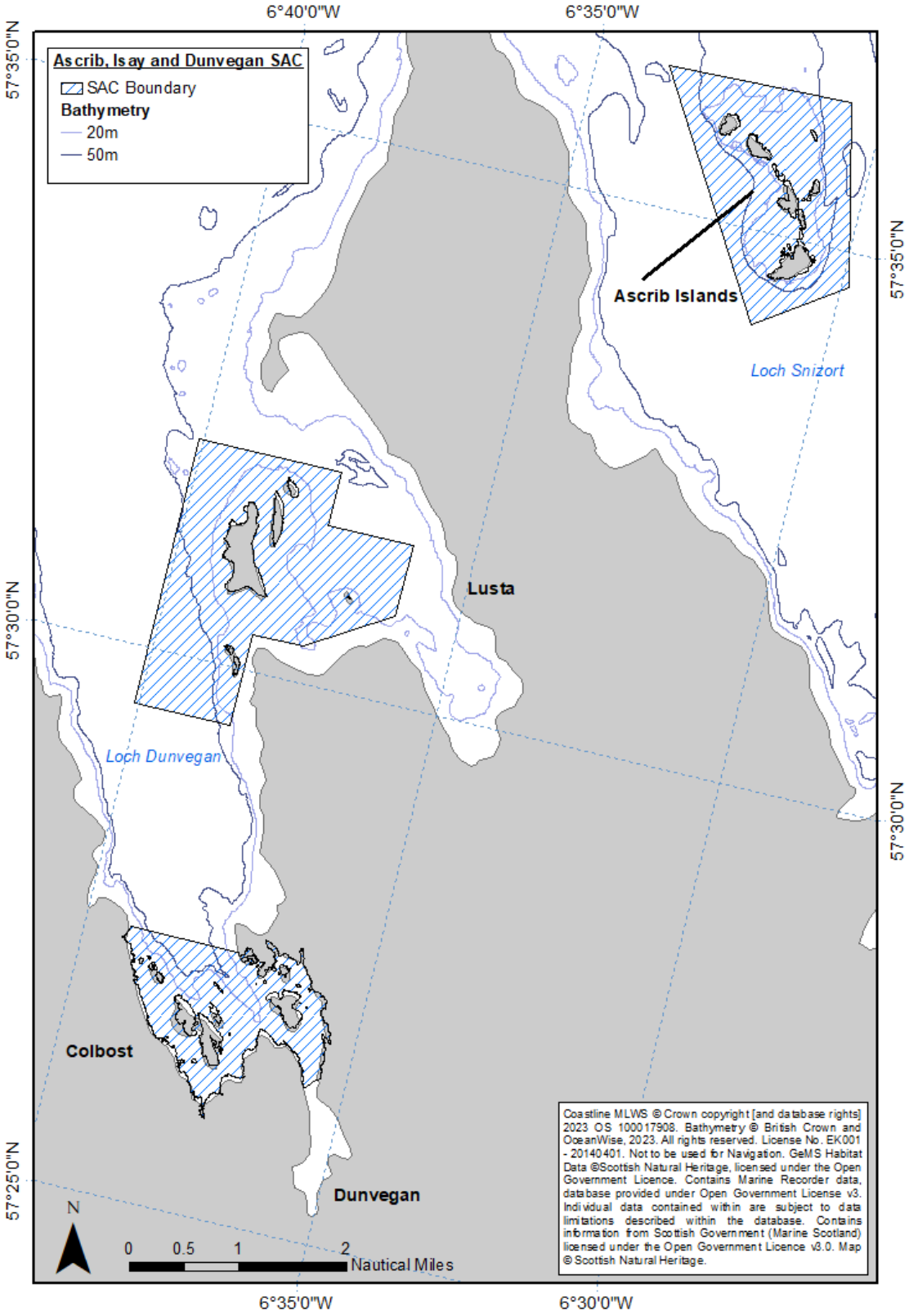

Figure 2. Location of the Ascrib, Isay and Dunvegan SAC. * Note the harbour seal protected feature is not shown on the map as they will be distributed throughout the SAC.

5 Setting Conservation Objectives

5.1 Background

Under Regulation 33(2) of the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended in Scotland) (hereafter referred to as the Habitats Regulations). Scottish Natural Heritage (now referred to as NatureScot) have responsibility for providing the Conservation Objectives for the SAC. These site-level Conservation Objectives seek to define the contribution that each site should make to the attainment of Favourable Conservation Status for the qualifying 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 Ascrib, Isay and Dunvegan SAC are provided in Annex 1.

5.2 Relationship between feature condition and Conservation Objectives

The Conservation Objectives seek to *maintain* protected SAC feature(s) where evidence exists that it 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. Where restoring the protected feature is not possible at a site level for example human intervention is not feasible or the reasons causing the unfavourable condition lie out with the site, the site specific advice seeks to ensure the conditions within the SAC are appropriate to support a recovery.

Harbour seal is in favourable condition at Ascrib, Isay and Dunvegan SAC and therefore the Conservation Objectives seek to *maintain* this condition.

5.3 Overlapping Marine Protected Areas boundaries

The following MPA overlaps with Ascrib, Isay and Dunvegan SAC:

- Inner Hebrides and the Minches SAC

There are no apparent management conflicts between the other protected features of the Inner Hebrides and the Minches SAC. Site information the Inner Hebrides and the Minches SAC, including the Conservation Objectives, are available on SiteLink.

6 Harbour seal sensitivity

Harbour seals are sensitive to disturbance when they are hauled out. They are particularly sensitive during the breeding (June – July) and moulting (July – mid September) periods when they spend more time hauled out than usual. People entering the haul-out sites on foot or boats passing close by can cause disturbance and elicit head up behaviour, followed by a stampede into the water. This disturbance reduces the time harbour seals are able to spend resting and can change their haul-out patterns. During the breeding season, disturbance from people can be particularly detrimental, interrupting lactation or causing the separation of mother and pup. Dogs that are not on a lead or under close control can be a particular source of disturbance. In the marine environment, harbour seals are also sensitive to underwater noise, entanglement and bio-accumulating toxins, notably persistent organochlorine compounds, PCBs and heavy metals.

Harbour seals can habituate to some levels of disturbance (for example the same boat passing by the haul-out every day) over time. However, novel and/or prolonged events have

the potential to affect the survival of pups and the distribution of animals within the SAC and could cause the abandonment of the haul-outs altogether.

Harbour seals are also vulnerable to exposure to oil and may be sensitive to any chemicals used to disperse an oil spills.

7 Management

7.1 Conservation Measures

The following conservation measures are currently in place or have been agreed for Ascrib, Isay and Dunvegan SAC:

- The Habitats Regulations require all plans or projects that may cause an effect on the protected features of an SAC to be assessed against the Conservation Objectives for that site. This process is known as a Habitats Regulations Appraisal (HRA). An HRA is a rigorous 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 SAC.
- Marine (Scotland) Act 2010, Part 6 Conservation of seals (as amended): makes it an offence to kill, injure or take seals without a licence and makes it illegal to harass a seal (intentionally or recklessly) at a haul-out site. Licenses for the taking or killing of seals may be granted by Scottish Ministers for limited purposes.
- The Protection of Seals (Designation of Haul-Out Sites) (Scotland) Order 2014: introduced additional protection for seals at designated haul-outs. Haul-outs are locations on land where seals come ashore to rest, moult or breed. Harassing a seal (intentionally or recklessly) is an offence. Further guidance is available from Marine Scotland.

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 feature. 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 or biological. Different activities may cause the same pressure, e.g. Acoustic Deterrent Devices at fish farms and pile driving which cause underwater noise.

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 action 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. Where management measures are required, the development of these would be undertaken through discussion and consultation with the relevant stakeholders.

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[2] (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[3] (SMWWC) and Technical Standards for Scottish Finfish Aquaculture[4].

[2] https://marinescotland.atkinsgeospatial.com/nmpi/
[3] https://www.nature.scot/professional-advice/land-and-sea-management/managing-coasts-and-seas/scottish-marine-wildlife-watching-code
[4] https://www.gov.scot/publications/technical-standard-scottish-finfish-aquaculture/

Table 2. NatureScot's advice to support management for Ascrib, Isay and Dunvegan SAC for activities which are considered capable of affecting harbour seals.

The text under the 'Advice to support management' columns provides NatureScot's management advice for harbour seals 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 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 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
	Harbour seals
Aquaculture*	**Remove or avoid pressures** (mortality, injury and disturbance) associated with new fish farms and significant modifications to existing fish farms including entanglement, the lethal control of predators, and the use of acoustic deterrent systems that increase in underwater noise and therefore disturbance within the SAC.
Boat use	**No additional management** (disturbance) for boat use associated with existing commercial and recreational activities providing the Scottish Marine Wildlife Watching Code (SMWWC) is followed by water-borne recreational users. More information on the Code can be found at www.marinecode.org. **Reduce or limit pressures** associated with new boat use activities that result in significant increased vessel traffic for defined periods. This may include seasonal restrictions to avoid sensitive time periods for harbour seals and/or; production of vessel management plans as part of the consenting/licensing process which may include agreed routes and potential speed restrictions.
Cables and pipelines*	**Reduce or limit pressures** (disturbance) associated with installation of new cable and pipeline infrastructure.
Coastal development - other	**Reduce or limit pressures** where the activity could cause disturbance and/or loss of haul-out habitat.

Activities considered capable of affecting the protected features	Advice to support management Harbour seals
Ferry routes	**No additional management** is required for existing ferry routes.
Fishing - demersal mobile/active gear*	**See netting**
Fishing – hand gathering of mussels and oysters	**No additional management** is required for existing hand-gathering. **Reduce or limit pressures** associated with any increase in hand-gathering that has the potential to increase disturbance **is recommended**.
Fishing – recreational*	**Angling – see Tourism and Recreation, and Boat use.**
Fishing – static gear*	**See netting**
Marine disposal sites*	**Reduce or limit pressures** associated with new disposal sites.
Netting - Bottom-set gill nets – including tangle and trammel nets; **Drift nets – gill nets set in water column; Purse seine and ring net; Fyke nets.**	**Reduce or limit pressures** (entanglement) associated with the use of nets **is recommended.**
Ports and harbours*	**No additional management** needed for existing operations **Reduce or limit pressures** associated with new development proposals or expansion of ports and harbours within or adjacent to the SAC**.**
Seaweed harvesting*	**No additional management** for existing seaweed hand-harvesting activities. **Reduce or limit pressures** (disturbance) associated with new seaweed harvesting developments during the breeding (June – July) and moulting (July – mid September) periods.
Scientific survey/research*	**Reduce or limit pressures**

Activities considered capable of affecting the protected features	Advice to support management Harbour seals
	Survey work that is targeted on seals should abide by the SMWWC to reduce or limit the risks of collision and disturbance.
Seismic survey*	**Reduce or limit pressures** Minimise the impact of seismic or other acoustic surveys which may cause injury or disturbance to through following the JNCC Guidelines for minimising the risk of injury to marine mammals from seismic surveys
Tourism & recreation*	**No additional management** for existing recreational activities (includes diving, surfing, yachting, angling and kayaking) providing the SMWWC is followed by water-borne recreational users and Wildlife tour operators. The SMWWC highlights why seals are sensitive to disturbance and offers practical advice on how to avoid disturbance. **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 major increase in intensity of these pursuits within the SAC.

Table 3. Activities that are considered not likely to affect harbour seals (other than insignificantly)[5]

Activity	Comments
Fishing – static gear – creels*	Creels (including lobster, crabs and *Nephrops*). Fishing using creels is widespread throughout the MPA. Whilst there is the potential for entanglement, the occurrence is rare and therefore we consider this method poses a low risk to harbour seals at Ascrib, Isay and Dunvegan SAC.
Fishing – pelagic*	Whilst pelagic fishing is a risk to harbour seals, the activity is unlikely within this SAC.
Discharges – industrial and agricultural	Discharges are considered unlikely to reach a level where they will affect harbour seal.
Discharges - sewage	Discharges are considered unlikely to reach a level where they will affect harbour seal.

[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 requirements

We recognise that there are still important gaps in our understanding and knowledge of harbour seal at this site. We will identify research and survey projects to inform our understanding of these aspects. The requirements 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 harbour seal, to help direct research and aid monitoring priorities. We would welcome discussion with the community to identify any additional research they consider of value to the Ascrib, Isay and Dunvegan SAC.

- Investigate cumulative anthropogenic noise levels in the marine environment.
- Evaluate short and long-term effects on harbour seal populations from exposure to underwater noise.
- Tagging studies to look at ‘at-sea’ foraging behaviour and range for SAC seals.
- Genetic studies to understand population origin and connectivity within and out with the seal management unit.
- Diet studies to inform understanding of prey preferences in the region.
- Investigate contaminant burden on harbour seals.

Annex 1. Ascrib, Isay and Dunvegan SAC Conservation Objectives

The box below provides the high-level Conservation Objective statements for Ascrib, Isay and Dunvegan SAC. The full Conservation Objectives, which includes site-specific advice and information on the qualifying feature for this SAC, 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 harbour seal, e.g. what the supporting features are for a species.

Information is also provided below on how minor changes should be considered and the influence of environmental change on harbour seal, particular in relation to climate change. Temporary impacts on harbour seals resulting from plans or projects can only be permitted where there is certainty that harbour seals will be able to quickly recover. Further details on the potential for harbour seals 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).

A map of the SAC and the place names mentioned in the site-specific information is provided in Figure 2.

Ascrib, Isay and Dunvegan SAC
Qualifying feature: harbour seal (*Phoca vitulina*)
1. To ensure that harbour seals at Ascrib, Isay and Dunvegan SAC are in favourable condition and make an appropriate contribution to achieving Favourable Conservation Status. 2. To ensure that the integrity of Ascrib, Isay and Dunvegan SAC is maintained in the context of environmental changes by meeting objectives 2a, 2b and 2c: 2a. The population of harbour seal is a viable component of the site. 2b. The distribution of harbour seal throughout the site is maintained by avoiding significant disturbance of harbour seal. 2c. The supporting habitats relevant to harbour seal are maintained.

1. To ensure that harbour seals at Ascrib, Isay and Dunvegan SAC are in favourable condition and make an appropriate contribution to achieving Favourable Conservation Status.

Favourable Conservation Status (FCS) is assessed across the UK. Harbour seal is currently assessed as having an overall conservation status of 'unfavourable – inadequate' (2019).

When carrying out appraisals of plans and projects against these Conservation Objectives, it is not necessary to understand the status of harbour seal within each individual SAC in the UK. The focus of the appraisal should be to understand whether the integrity of the Ascrib, Isay and Dunvegan SAC (see Conservation Objective 2) would be maintained. If this is the case then its contribution to FCS across the UK will continue to be met. Similarly, when determining whether management measures may be required to ensure that the Conservation Objectives for this site are achieved, the focus should be on maintaining the contribution that this site makes to FCS. Further advice on how these appraisals should be focused in relation to maintaining site integrity is provided by Conservation Objective 2 (including parts a, b and c). If broader information (status, trends) on harbour seal 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 Ascrib, Isay and Dunvegan SAC is maintained in the context of environmental changes by meeting objectives 2a, 2b and 2c for each qualifying feature:

When carrying out appraisals of plans or projects, or determining whether management measures are required, the focus is maintaining site integrity, specifically by meeting the objectives outlined in 2a, 2b and 2c. If these are met then site integrity will continue to be maintained. Note that not all of these may be relevant for every activity being considered. Any impacts on the objectives shown in 2a, 2b or 2c must not persist so that they prevent the maintenance of site integrity.

Environmental changes

The Conservation Objectives recognise that harbour seals are part of a complex, dynamic and multi-dimensional marine environment and that marine habitats and species are exposed to a wide range of drivers of change. 'Environmental changes' for the purpose of this Conservation Objective means any change to harbour seals reflecting their natural cycle, and also broader environmental changes, i.e. those related to climate change and environmental variability that are beyond the scope of the site. The impact of human activities on the site 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. 9

Some site-level changes are natural and are not a direct result of human influences (e.g. population fluctuations/shifts or habitat changes resulting from natural processes). Changes in the distribution and use of the site by harbour seals, which are brought about by natural processes, directly or indirectly, are normally considered compatible with the SAC'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 (such as sea level rise, sea temperature rise, increased storm events) could affect harbour seal within the site. These changes cannot be prevented at a site level, so the Conservation Objectives seek to take account of them and where possible, improve the 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 tolerance and ability of harbour seal 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 harbour seal in this site (either by making a positive contribution or by having a negative impact). Wider scale impacts may affect the ability of harbour seals 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 harbour seals at Ascrib, Isay and Dunvegan SAC, 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 species' resilience to climate change, and conversely climate change impacts may start to hinder the their ability to recover from human activities.

- **Harbour seals** – Sea levels are predicted to rise as a result of global warming and this could lead to the loss of preferred haul outs within the SAC although these might be replaced with parts of the SAC that are currently too high above sea level to be suitable haul outs. Harbour seals are a widely distributed species and are unlikely to be physically constrained by currently predicted changes in water temperatures. However, several of their prey species such as fish are sensitive to water temperature changes and it is likely that their distribution will change and diversity and availability will decrease. Harbour seals are generalists and can switch prey in these circumstances, however, they have a high metabolism which requires them to feed for a large part of their day. Therefore, there is potential for their numbers and distribution to be altered as a result of a change in distribution of their prey i.e. numbers of seals are likely to decline if prey availability is reduced within their foraging range. Increased storm events are also likely, as a result of climate change, and if these occur during the breeding season (June – July) this could result in reduced nursing time and increased mother - pup separation and therefore increased pup mortality possibly resulting in a decline in seal numbers in the SAC.

2a. The population of harbour seal is a viable component of the site.

This objective seeks to minimise the risk to harbour seal from ***significant*** mortality or injury posed by activities. It specifically protects the species from significant risk of incidental killing and, injury within the site. Impacts and effects are considered 'significant' where they could result in a permanent reduction or continued decline in the population and consequently, reduction in the contribution Ascrib, Isay and Dunvegan SAC makes to the maintenance of harbour seal in their natural range in the UK. It should be ensured that the harbour seal are protected from human-induced pressures that could lead to a decline in numbers using the site, such that recovery cannot be expected. Ensuring the capacity of Ascrib, Isay and Dunvegan SAC to support all the essential behaviours and activities required to support a viable population of the harbour seal 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. 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 feature has historically been more abundant than the stated site reference population, the ongoing capacity of the site to accommodate the feature at such higher levels in future should also be taken into account.

Temporary short-term changes in the population 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 population of harbour seal can fully recover. Factors limiting the recovery of harbour seal include: the average generation time of harbour seal, population growth rates, availability of prey and the timing and duration of the activity around vulnerable stages of their life cycles such as during breeding season (June and July) and moult (July to mid-September).

Site specific advice	Site specific information
Maintain harbour seal numbers at a stable or increasing trend relative to the site reference population.	The site reference population for harbour seals at Ascrib, Isay and Dunvegan SAC is the current population of 710 individuals (2017). The most recent count is used on the basis that there are regular population estimates. The number of harbour seals present has been counted since 1996 (Sea Mammal Research Unit (SMRU)). Counts at Ascrib, Isay and Dunvegan SAC have been highly variable between years although overall the population is considered stable, corresponding with counts in most of the West Scotland seal management region also remaining stable (SCOS, 2022). Counts are conducted during the August moult when adults are more land-bound. SMRU August moult counts: 656 (1996), 968 (2000), 664 (2004), 648 (2005), 719 (2007), 434 (2014), 712 (2017)(Morris *et al.,* 2021).

2b. The distribution of harbour seal throughout the site is maintained by avoiding significant disturbance of harbour seal.

This objective seeks to ensure that harbour seal continue to have access and use all areas of the site by avoiding significant disturbance.

Harbour seals typically return to their natal breeding site to pup. Ascrib, Isay and Dunvegan SAC is a complex of skerries, islets, undisturbed mainland shores and offshore islands. Preferred locations for breeding appear to be the same as those favoured at other times of the year (South Ascrib & Eilean Garave in Loch Snizort; Sgeir nam Biast in Loch Bay and a wide range of islands at the head of Loch Dunvegan). It is important that harbour seals continue to have access to all of these areas for hauling out, particularly during pupping. Harbour seals prefer to haul out on gently shelving rocky shores and are not often observed on pebbly or sandy beaches in the site.

During the breeding season (June and July) nursing mothers are more reluctant to enter the water as their pups will follow. Entering the water during breeding reduces the amount of time spent nursing which has the potential to decrease pup survival. If disturbed, can result in the separation of mum and pup following in pup abandonment, which would mean the pup would not survive. During the moult (July – mid September) blood flow to the skin of the adults is increased to allow new fur growth. This increases the amount of heat lost by the adults and therefore they are reluctant to enter the water where they will incur an increased calorie demand (and potential reduction in body condition) to maintain their body temperature.

Disturbance of harbour seals at the haul out can result from human activity on the shore or on boats close by. Seals in the water can also be disturbed as a result of activities that cause underwater noise. Recent work (Paterson *et al* 2019) shows that if disturbance is transitory harbour seals return to the haul out quite quickly. However long term disturbance may lead to harbour seals being displaced from the affected area. The type of disturbance, its timing, duration and the area over which harbour seals are likely to be impacted are important considerations in any assessment of disturbance.

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

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

Harbour seals can habituate to some levels of disturbance over time (for example the same boat passing by the haul-out every day) but novel and/or prolonged events have the potential to affect distribution within the SAC and abandonment of the breeding site altogether.

Temporary short-term disturbances for example a localised disturbance out with the breeding season may be considered not to compromise the Conservation Objectives provided it can be demonstrated with a high degree of certainty that the population can fully recover.

2c. The supporting habitats relevant to harbour seal are maintained.	
Site specific advice	**Site specific information**
Maintain the extent, quality, and distribution of the supporting habitats required by harbour seals.	This objective seeks to maintain the current extent, quality and distribution of supporting habitats within the site. Supporting habitat, in this context, means the characteristics of the shore used by harbour seals for hauling out during the breeding season. Harbour seals appear to prefer gently sloping rocky shore and are not often observed on the pebble or sandy beaches in the SAC. Regular haul-outs are distributed throughout the site. In the Ascribs the southerly islands are favoured although the exact locations vary; around Isay, Sgeir nam Biast is consistently used; at the head of Loch Dunvegan most of the larger islands are regularly used. There is also likely to be good foraging habitat within 50km of the site (the maximum routine foraging distance for female harbour seals from breeding sites during pupping) and beyond the boundary of the SAC. Satellite tracking of harbour seals caught in this site suggested that most of their foraging occurred in the Minch and around the northwest coast of Skye between Loch Bracadale and Waternish Point. Harbour seals are generalists feeding on fish and crustacea. The abundance of different prey within the site is unlikely to affect their distribution at the SAC significantly as long as there are sufficient amounts of prey present within 50km of the site. 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.

Annex 2. Supporting information

Factors determining the potential for harbour seal to recover from temporary impacts

Female harbour seals return to their natal breeding site to pup in June. Based on photo identification in Loch Dunvegan, seals pup around mid-June, with the first pup usually appearing by the 18th of June. Females are joined by males once the pups are weaned towards the end of July and start mating.

Seals moult at different times depending on their age and reproductive status. Yearlings (1 year olds) moult first, with signs of moulting around mid-July when some females are still pupping. The majority of adults moulting between August and mid-September with females moulting once their pups are weaned.

Pups are normally reluctant to enter the water during suckling since their blubber layer is not yet complete. Pups are able to swim almost immediately after they are born, however, disturbance at this critical time may result in the flushing of the mother, or the mother and pup. The pup may be left behind, or there may be identity confusion when in the water. This could lead to failure in the mother pup bond resulting in pup abandonment.

Adults are reluctant to enter the water during the moult since the blood flow to the skin is increased. Therefore, the seals are very sensitive to disturbance during pupping and moulting and impacts that occur during this period are more likely to be significant and limit the species ability to recover. If significant disturbance occurs during breeding and the adults abandon the haul out and select another, very few individuals are likely to return to the original haul out the following year (the adults will be discouraged from doing so and the pups will have been reared at a new haulout so will return there). In addition, disturbance during the breeding season will probably reduce the survival of pups therefore there will be fewer pups to return to the natal breeding site the following year and in subsequent years.

Glossary for Conservation Objectives

Conservation Objective term	**Definition**
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 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.
Favourable Conservation Status	This is a measure of the condition of habitats and species listed in Annex I or II of the Habitats Directive and is assessed across the UK. It is achieved when a habitat or species throughout the zone is maintained in size and range and the conditions for its long-term existence are in place. Habitats and species within Scottish SACs contribute to achieving favourable conservation status within the UK.
Maintain	Where a qualifying feature of the SAC 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.
Restore	Where a qualifying feature of the SAC 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.
Supporting environment	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.
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: • 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.

Conservation Objective term	Definition
	• 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.

References

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