

Conservation Objectives and Management Advice for the Wyville Thomson Ridge Special Area of Conservation

UK0030355

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What the conservation advice package includes

The information provided in this document sets out:

- The conservation objectives for the qualifying feature of the site;
- The conservation benefits which the site can provide if managed effectively;
- JNCC's current view of qualifying feature condition; and
- The conservation measures that JNCC consider are required to support achievement of the site's conservation objectives.

This document forms part of JNCC's formal conservation advice package for the site and must be read in conjunction with:

- **Background document** explaining where to find the advice package, JNCC's role in the provision of conservation advice, how the advice has been prepared, when to refer to it and how it can be applied;
- **Supplementary Advice on Conservation Objectives (SACO)** providing more detailed and site-specific information on the conservation objectives of the qualifying feature of the site; and
- **Advice on Operations** providing information on those human activities that, if taking place within or near to the site, could impact it, adversely affecting the site's integrity and presenting a risk of not achieving the conservation objectives stated for the site.

The most up-to-date conservation advice package for this site can be downloaded from the [conservation advice section of the Site Information Centre](#) on JNCC's website.

Conservation objectives

This site has been designated to protect [Annex I habitat](#) Reefs (stony and bedrock).

The conservation objectives for the Wyville Thomson Ridge MPA are for *the qualifying feature; Annex I Reefs to be in favourable condition thus ensuring site integrity in the long term and contribution to Favourable Conservation Status. This is achieved by maintaining or restoring as needed, subject to natural change, the qualifying feature's:*

- Extent and distribution within the site;
- Structure and function within the site; and

- The supporting processes on which it relies.

Conservation benefits

Maintaining or restoring the qualifying feature of the site at or to favourable condition, will contribute to delivering:

- Favourable Conservation Status of Annex I Reefs in the Atlantic North-West Approaches & Scottish Continental Shelf, which is a requirement set out in the [Conservation of Offshore Marine Habitats and Species Regulations, 2017](#).
- Strategic objectives and policies within [Scotland's National Marine Plan](#), particularly 5 (climate change) and 9 (natural heritage);
- [Scottish Biodiversity Strategy's](#) Big Step 6 (Marine and coastal ecosystems restored) Priority Project 12 (Increase environmental status of our seas);
- An ecological network of areas of special conservation interest under the [Convention of European Wildlife and Natural Habitats](#) (Bern Convention)
- Good Environmental Status under the [UK Marine Strategy](#); and
- An ecologically coherent network of MPAs which are well managed under the Convention for the Protection of the Marine Environment of the North-east Atlantic [OSPAR Convention](#), specifically OSPAR Regions I (Arctic sea) and V (Wider Atlantic);
- Target 3 of [The Kunming-Montreal Global Biodiversity Framework](#), known as the 30by30 target is a global commitment to effectively conserve and manage by 2030 at least 30% of terrestrial and inland water areas, and of marine and coastal areas through an ecologically representative, well-connected and equitably governed systems of protected areas and other effective areas-based conservation measures.

The types of ecosystem services that can be provided by the qualifying feature of the site are listed below:

Ecosystem Services and Natural Capital

MPAs are typically designated for the conservation and/or recovery of specific habitats and/or species features. Management measures help maintain or improve feature condition. This condition underpins how features function in the ecosystem and therefore the breadth of benefits they can provide across provisioning, cultural and regulation and maintenance services.

The [uASM](#) (universal Asset Service Matrix) evidence linkages between natural assets (habitats and species) and the ecosystem services they potentially provide. Examples of ecosystem services that could be provided by the qualifying feature of Wyville Thomson Ridge SAC's (Reefs) are listed below with the full list of ecosystem services with a "high" or "medium" delivery supply score provided in **Annex 1**.

The ecosystem services which available evidence indicates could be delivered by the Reef feature's component habitats; Deep-sea rock and artificial hard substrata (A6.1), and Deep-sea mixed substrata (A6.2) alongside identified level 4 biotopes; Deep-sea bedrock (A6.11), Boulders on the deep-sea bed (A6.14) , and Deep-sea sponge aggregations (A6.62) are:

Provisioning services such as the provision of 'Genetic material from all biota (including seed, spore or gamete production)'.

Regulation and maintenance services which include 'Lifecycle maintenance, habitat and gene pool protection', 'Regulation of soil quality' (sediments in a marine context), 'Regulation of baseline flows and extreme events' and 'Pest and disease control'.

There are also **cultural services** provided by these habitats such as 'The things in nature that we want future generations to enjoy or use', and 'Other biophysical characteristics of species or ecosystems that are appreciated in their own right by people'.

Managing activities to restore the qualifying feature to favourable condition will support the provision of ecosystem services which provide wider benefits to the environment, society and the economy and will help fulfil the policy and legal obligations listed above.

Qualifying feature Condition

Table 1 below sets out JNCC's view on the condition of the site's qualifying feature. This view is based on JNCC's assessment of qualifying feature condition using best available information at the time of writing and which is summarised in the SACO available from the [conservation advice section of the Site Information Centre](#) on JNCC's website. The SACO sets out our understanding of the condition of a feature's attributes as listed in the conservation objective for the site; extent and distribution, structure and function and supporting processes.

In summary, a qualifying feature is in unfavourable condition either where evidence indicates one or more of its attributes need to be restored. Conversely, a qualifying feature is in favourable condition where evidence indicates none of the attributes are being adversely affected.

Table 1. JNCC’s view on the condition of the qualifying feature in the site.

Qualifying feature	View of condition and qualifying feature objective
Annex 1 Reefs (Stony and Bedrock)	Unfavourable, restore to favourable condition

The condition of the feature’s attributes in the SACO has been determined by an assessment of the effects of pressures associated with activities occurring within the site.

The conservation measures listed below set out JNCC’s advice regarding management which should be implemented to restore the qualifying feature of the site to or at favourable condition.

Conservation measures

Based on JNCC’s understanding of the pressures associated with human activities taking place within, or in close proximity to the site and the sensitivity of the qualifying feature to those pressures, we conclude that the qualifying feature of the site needs to be restored to favourable condition.

JNCC advise the following conservation measures are adopted to support restoration to favourable condition and reduce the risk of the site not achieving its conservation objectives to the lowest possible level:

Annex I Reefs (Stony and Bedrock)

The Advice on Operations for this site is accessible via the [conservation advice section of the Site Information Centre](#). It provides information on the sensitivity of the qualifying features of the site to pressures associated with activities that JNCC consider may conceivably take place within, or in close proximity to, the site. This should be used when undertaking an initial assessment of whether a proposed plan or project (or ongoing activity) may have an impact on the qualifying feature and therefore integrity of the site.

- **No new licensable activities capable of impacting** (either directly or indirectly) the protected feature Annex I Reefs or hindering its recovery, **should be permitted**. More information about how activities can impact the protected feature can be found in the Advice on Operations workbook and should be read in conjunction with information provided in the Supplementary Advice on Conservation Objectives.
- Any new activities, whether located within or outwith the site, must look to avoid or, as far as is practicable to do so, **minimise the introduction of contaminants to ensure compliance with sedimentary and water Environmental Quality Standards** within the site.
- JNCC recognise that Marine Directorate have brought into force management to protect the Annex I Reef protected features of the site. The management prohibits demersal mobile gear from one zoned area and prohibits demersal mobile gear and demersal static gear in another zoned area. Compliance with the management should support the recovery of the protected feature within the site from impacts associated with these gear types. As such, **both demersal mobile and static effort within the site should be monitored to ensure compliance. For the zoned management areas, JNCC advises that demersal mobile and static effort within the site is monitored and the effects of ongoing use on the conservation status of the protected features is kept under review.**
- Under normal operations, **pelagic gears** are not expected to interact with the protected features and therefore should not present a risk to the achievement of the conservation objectives of the site. **Therefore, no additional management of this gear type is advised.**

References

Cordingley A., Anderson L., Matthews S., Beach M., Molloy L., Whittaker L., Van Rein H., McNulty J., Reeve N., Parsons J. & Morgan V.(2023) . The universal Asset Service Matrix (uASM). electronic dataset. *Marine Life Information Network. Plymouth: Marine Biological Association of the United Kingdom*. Joint Nature Conservation Committee. [accessed 14th January 2025] Available from <https://www.marlin.ac.uk/asm>

Potts, T., Burdon, D., Jackson, E., Atkins, J., Saunders, J., Hastings, E. & Langmead, O. (2014). Do marine protected areas deliver flows of ecosystem services to support human welfare? *Marine Policy*, 139-148.

Rees, S.E., Ashley, M., Cameron, A., Mullier, T., Ingle, C., Oates, J., Lannin, A., Hooper, T. & Attrill, M.J. (2022). A marine natural capital asset and risk register. Towards securing the benefits from marine systems and linked ecosystem services. *Journal of Applied Ecology* (4), 1098-1109.

Teixeira, H., Lillebo, A.I., Culhane, F., Robinson, L., Trauner, D., Borgwardt, F., Kuemmerlen, M., Barbosa, A., McDonald, H., Funk, A., O'Higgins, T., Van der Wal, J.T., Piet, G., Hein, T., Arevalo-Torres, J., Iglesias-Campos, A., Barbieri, J. & Nogueira, A. (2019). Linking biodiversity to ecosystem services supply: Patterns across aquatic ecosystems. *Science of The Total Environment* (20), 517-534.

Tempera F., C. Liqueste & A.C. Cardoso (2016). Spatial distribution of marine ecosystem service capacity in the European seas. EUR 27843. Luxembourg (Luxembourg): Publications Office of the European Union. doi:10.2788/753996

Annex 1

The uASM (universal Asset Service Matrix) provides a qualitative rating system to assess the level of service provided by a habitat or species and can be used to indicate the wider benefits to the environment, society and the economy that marine protected areas (MPAs) provide. The uASM is a tool, and like all tools, the outputs are only as useful as the evidence and data that is input. Some linkages of ecosystem services and assets, while known in the wider literature, may not yet been included in the tool. There are also geographically specific sources of information that can provide MPA-specific context and evidence for ecosystem services. The tool does not take into consideration the condition of assets, only their potential to provide ecosystem services. Therefore, the information should be used in conjunction with MPA-specific evidence to provide a rounded view and bespoke advice.

Table 2 provides the asset ecosystem service linkages for the component habitats of Wyville Thomson Ridge; Deep-sea rock and artificial hard substrata (A6.1), and Deep-sea mixed substrata (A6.2) alongside identified level 4 biotopes; Deep-sea bedrock (A6.11), Boulders on the deep-sea bed (A6.14) , and Deep-sea sponge aggregations (A6.62). The JNCC Level of Ecosystem Service (ES) Supply score is a qualitative rating system to assess the level of service provided by a specific asset. The generated score is unitless and provides a relative comparison only and so cannot be used to quantitatively compare different assets on their ability to provide an ecosystem service. Rather, it is a tool used to quickly identify key linkages between assets and ecosystem services for further investigation. Confidence scores help users to make quick and informed decisions about the available data. The score describes the level of confidence the author has in the asset-to-ecosystem service link. In Table 2 below only the ecosystem services in which we have relatively higher confidence (i.e. medium to high supply level and medium to high confidence) are presented, at CICES level 3.

Table 2: Bespoke ASM for habitats (EUNIS level 3 sub features) in Wyville Thomson Ridge SAC, exported on 10/01/26. Data extracted from the universal Asset Service Matrix (uASM) (Cordingley et al. 2023, Tempera *et al.*, 2016, Rees *et al.*, 2022, Potts *et al.*, 2014, Teixeira *et al.*, 2019, Scottish Natural Heritage). Only the ecosystem services in which we have relatively higher confidence (i.e. medium to high supply level and medium to high confidence) are presented, at CICES level 3, in the table. White boxes are present in the table when the score was low, negligible or data deficient for ecosystem service supply or confidence.

Colour scheme key:

Confidence ↓	ES-Delivery	
	High	Medium
High	□	□
Medium	□	□

Category	Group	CICES_V5.2 Ecosystem service	Wyville Thomson Ridge SAC (habitat sub-features)				
			A6.1	A6.11	A6.14	A6.2	A6.62
1.x.x.x - Provisioning (Biotic/Biophysical)	1.2.x.x - Genetic material from all biota (including seed, spore or gamete production)	1.2.2 - Genetic material from animals					
2.x.x.x - Regulation & Maintenance (Biotic/Biophysical)	2.1.x.x - Transformation of biochemical or physical inputs to ecosystems	2.1.1 - Reduction of nutrient loads and mediation of wastes or toxic substances of anthropogenic origin by living processes					
	2.3.x.x - Regulation of physical, chemical, biological conditions	2.3.2 - Lifecycle maintenance, habitat and gene pool protection					
		2.3.3 - Pest and disease control					
		2.3.4 - Regulation of soil quality					
4.x.x.x - Provisioning (Abiotic/Geophysical)	4.2.x.x - Non-aqueous natural abiotic ecosystem outputs	4.2.1 - Mineral substances used for nutrition, materials or energy					

Category	Group	CICES_V5.2 Ecosystem service	Wyville Thomson Ridge SAC (habitat sub-features)				
			A6.1	A6.11	A6.14	A6.2	A6.62
5.x.x.x - Regulation & Maintenance (Abiotic/Geophysical)	5.1.x.x - Transformation of biochemical or physical inputs to ecosystems	5.1.x - Transformation of biochemical or physical inputs to ecosystems					
	5.2.x.x - Regulation and maintenance of geophysical	5.2.1 - Regulation of baseline flows and extreme events					
		5.2.x - Regulation and maintenance of geophysical					
6.x.x - Cultural (Abiotic/geophysical)	6.x.x - Cultural (Abiotic/geophysical)	6.x.x - Cultural (Abiotic/geophysical)					