

Supplementary Advice on Conservation Objectives for Wyville Thompson Ridge Special Area of Conservation UK0030355

May 2026



The information provided in this document sets out JNCC's supplementary advice on the conservation objectives set for Wyville Thompson Ridge Special Area of Conservation (SAC), hereafter referred to as 'the site'. This document forms part of JNCC's formal conservation advice package for the site and must be read in conjunction with all parts of the package as listed below:

- **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;
- **Conservation Objectives and Management Advice** document setting out the broad ecological aims for the site and JNCC's advice on;
 - qualifying feature condition;
 - conservation benefits that the site can provide if managed effectively; and
 - conservation measures that JNCC consider are required to support achievement of the conservation objectives stated for the site.
- **Advice on Operations** providing information on those human activities that, if taking place within or near the site, can adversely affect the site's integrity, presenting a risk of not achieving the conservation objectives stated for the site.

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

The advice presented here describes the ecological characteristics or 'attributes' of the site's qualifying Annex I feature: **Reefs (stony and bedrock)**, specified in the site's conservation objectives. These attributes include extent and distribution, structure and function and supporting processes. **Figure 1** below illustrates the concept of how a qualifying feature's attributes are interlinked: with impacts on one potentially having knock-on effects on another e.g. the impairment of any of the supporting processes on which a feature relies can result in changes to its extent and distribution and structure and function.

Collectively, the attributes set out in **Table 1** below, along with the objectives set for each of them, describe the desired ecological condition (favourable) for the site's qualifying features. The condition of each feature contributes to its favourable conservation status more widely, as well as the site's integrity. All attributes listed in **Table 1** must be taken into consideration when assessing impacts from an activity.

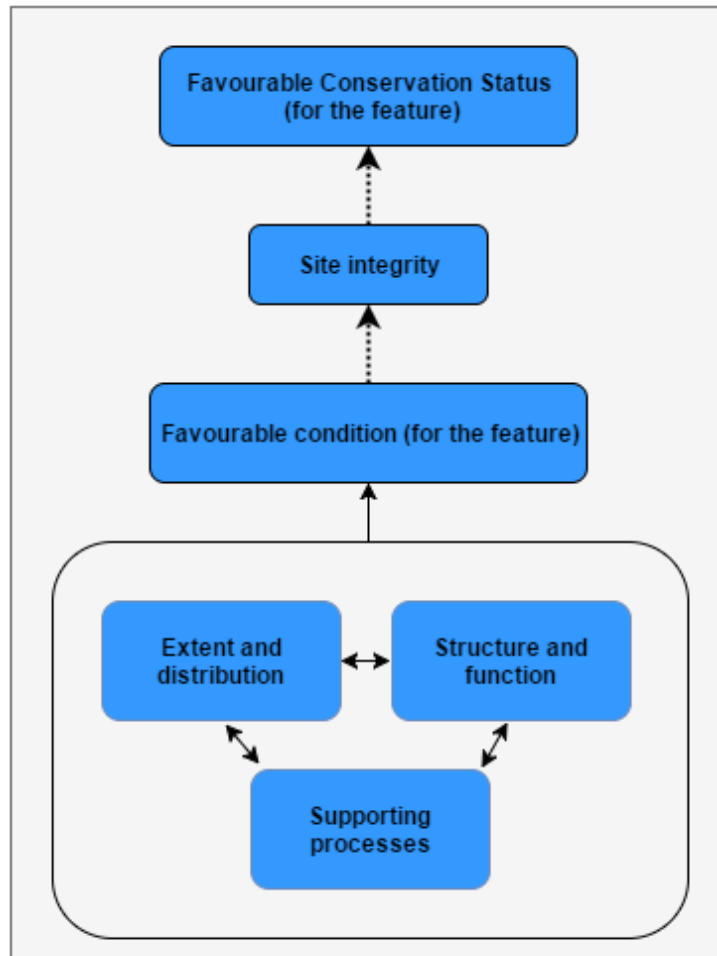


Figure 1. Conceptual diagram showing how qualifying feature attributes are interlinked, describing favourable condition and contribute to site integrity and more widely a qualifying feature’s favourable conservation status.

In **Table 1** below, the attributes for the Annex 1 Reefs qualifying feature are listed. An objective of restore or maintain is set for each qualifying feature attribute, reflecting our current understanding of available evidence e.g. whether it indicates some of a qualifying feature’s extent is lost and needs to be restored or that extent is not lost and needs to be maintained to ensure the qualifying feature is in overall favourable condition. Where a restore objective is advised and there is considerable uncertainty as to whether restoration is possible, this will be noted alongside the objective.

The rationale for setting an objective is provided in the summary of evidence column and supporting references listed in the reference section at the end of this document.

Note: when a maintain objective is set, this does not preclude the need for management, now or in the future to ensure a qualifying feature remains in favourable condition.

Table 1: Supplementary Advice on Conservation Objectives for Annex I Reefs qualifying feature of the site

In summary, the Annex I Reefs qualifying feature of the site is considered to be in unfavourable condition and needs to be restored. This assessment is driven by the potential impacts that pressures associated with mobile demersal fishing activity may have had upon the structure and function of the qualifying reef feature of the site. It is important to recognise that fisheries management measures have been brought into force that prohibit use of all mobile demersal fishing activity within the site, but that insufficient time has elapsed for recovery to have taken place.

Please see the Conservation Objectives and Management Advice document available in the [conservation advice section of the SIC](#) for JNCC's advice on the management of activities which JNCC consider is needed to restore the Annex I Reefs qualifying feature of the site. Further information on activities capable of affecting the qualifying feature of the site can be found in the Advice on Operations workbook available also in the [conservation advice section of the SIC](#).

Attribute	Summary of evidence	View of attribute condition & objective	Confidence in attribute condition
Extent and distribution	<p>The extent and distribution of the Annex I Reefs is defined by the composition (particle size), energy level and biological assemblages of the feature.</p> <p>The extent of rocky and stony bedrock reef within the Wyville Thompson Ridge (WTR) SAC has been well defined through multiple surveys, based on analysis of side scan sonar, camera still and video tows (Bett 2012; Howell <i>et al.</i> 2007; Morris <i>et al.</i> 2014; Voerman <i>et al.</i> 2025).</p> <p>Covering the vast majority of the SAC area, the qualifying Reef feature is composed of extensive areas of stony reef interspersed with gravel and bedrock reef, formed by iceberg plough marks. The site rises from 1000 m deep up to <400 m at the central reef ridge feature of the site, with biological assemblages varying greatly on the different sides of the ridge due to different currents present.</p>	Favourable – needs to be maintained	<p>Moderate</p> <p>A number of primary data collection surveys have been carried out at the site since 1996 (Bett 2012; Howell <i>et al.</i> 2007; Morris <i>et al.</i> 2014; Voerman <i>et al.</i> 2025). These surveys employed appropriate sampling techniques to accurately map the extent and distribution of the qualifying feature within the site.</p> <p>Evidence for impact is primarily indirect, based on our understanding of the sensitivity of Annex I Reefs and their associated biological communities to pressures associated with human activities known to be taking place in the site; in this case bottom-contacting</p>

Attribute	Summary of evidence	View of attribute condition & objective	Confidence in attribute condition
	<p>Vessel monitoring system (VMS) data (2009 to 2021) indicates that low levels of demersal trawling has occurred overlapping with the qualifying feature, at levels of up to 35 hrs/yr (2018 demersal trawl by non-UK vessels). This data is also supported by direct evidence of trawl mark scars identified within the site from surveys conducted in 2012 and in 2017-18.</p> <p>EU fisheries regulations (2016/2336 and 2019/1241) have limited the extent of demersal activity taking place within the site, and additional offshore Scottish byelaws implemented in October 2025 ban all demersal trawling within the site (Marine Directorate, 2025).</p> <p>Two telecommunications cables are present passing across the east to west of the central reef feature, both having been deployed well before site SAC designation. Of these cables one has been decommissioned, with the other (Atlantic Crossing-1 (AC-1)) remaining in active use, though with no evidence of external protections or mattressing being deployed (KISORCA, 2025)</p> <p>JNCC considers that the pressures associated with the relatively low levels of demersal trawling aren't capable of impacting, other than insignificantly, the overall extent and distribution of the qualifying Reef feature within the site. Similarly, the presence of telecoms cables are not considered capable of impacting the extent and distribution attribute for the feature, based on existing evidence.</p>		<p>fishing gear and telecoms cables (Tyler-Walters <i>et al.</i>, 2023 and JNCC, 2018). However, overall confidence underpinning this assessment is scored as moderate owing to direct evidence of trawl scars from survey.</p> <p>This assessment could be improved by further information on human activities. Best available evidence in relation to fishing activities only extends to 2021.</p>

Attribute	Summary of evidence	View of attribute condition & objective	Confidence in attribute condition
	<p>JNCC concludes that the extent of the qualifying Reef feature of the site is in favourable condition and needs to be maintained.</p>		
<p>Structure and function</p>	<p>The structure and function of Annex I Reefs is defined both by the physical structure (finer scale topography) and biological structure (key and influential species, and characteristic communities) present within the feature, alongside underlying the ecological processes carried out by these structures within the environment.</p> <p>Primary data collection undertaken within the site have sought to characterise the benthic habitats and communities present across the qualifying Reef feature and assess condition.</p> <p>While the community composition varies on the north and south of the Wyville-Thomson Ridge, as a result of the presence of different current patterns, water masses and changes in depth, encrusting biological communities are present throughout the whole site. These communities include the regular presence of deep-sea sponge aggregations and deep-water corals including the species' <i>Lophelia pertusa</i> and <i>Madrepora oculata</i>. These encrusting and erect communities are very sensitive to physical pressures associated with human activities and are known to exhibit slow recovery rates if impacted associated with slow recovery (Pham.<i>et al</i>, 2019. Tyler-Walters, 2025).</p> <p>The two telecoms' cables present across the qualifying feature of the site are not believed to be associated with</p>	<p>Unfavourable - needs to be restored</p>	<p>Moderate – based on the same evidence as for Extent and distribution.</p>

Attribute	Summary of evidence	View of attribute condition & objective	Confidence in attribute condition
	<p>any detrimental pressures impacting the structure and function of the qualifying Reef habitat.</p> <p>However, even relatively low levels of physical disturbance can have a negative impact on the structure and function of Annex I reef communities. VMS data (2009 to 2021) indicates that low levels of demersal trawling has occurred overlapping the qualifying feature, at levels of up to 35 hrs/yr (2018 demersal trawl by non-UK vessels). This is supported by direct evidence of trawl mark scars identified within the site from surveys conducted in 2012 and in 2017-18.</p> <p>EU fisheries regulations (2016/2336 and 2019/1241) have limited the extent of demersal activity taking place within the site, and additional offshore Scottish byelaws implemented in October 2025 ban all demersal trawling within the site (Marine Directorate, 2025).</p> <p>Whilst the fisheries byelaws now prevent demersal mobile fishing gear use across the site, the historic abrasive and penetrative pressures associated with the activity are known to have impacted the structure and function of the biological communities and will not have had sufficient time to recover from impact.</p> <p>JNCC therefore concludes that the structure and function attribute of the qualifying reef feature of the site is in unfavourable condition and needs to be restored.</p>		

Attribute	Summary of evidence	View of attribute condition & objective	Confidence in attribute condition
Supporting processes	<p>Supporting processes associated with Annex I Reefs are defined by both hydrodynamic regime and water quality.</p> <p>The hydrodynamic regime at the Wyville-Thomson Ridge is unique, with the Faroe current acting on the north of the site, and Atlantic current acting on the southern aspect of the site (McKenna <i>et al.</i> 2016). There is no evidence to suggest that human activities are having an adverse impact on the typical hydrodynamic regime to which the site is exposed. Work is ongoing to better characterise the scale of influence these regimes play on the reef communities and processes at the Wyville-Thomson Ridge (Voerman <i>et al.</i>, 2025).</p> <p>The site is located in the Wider Atlantic and Arctic regions (OSPAR region V and I), which is assessed as having insufficient data available to examine contaminant status or water and sediment quality (Larson <i>et al.</i>, 2022).</p> <p>Overall, there is no evidence to suggest that supporting processes that operate at this site are being impeded with respect to supporting the conservation status of Annex I Reefs. JNCC therefore concludes that the supporting processes of the qualifying Reef feature of the site are in favourable condition and need to be maintained.</p>	Favourable – needs to be maintained	<p>Low</p> <p>The evidence-base supporting JNCC's assessment for water and sediment quality draws upon data from the Wider Atlantic and Arctic (OSPAR Region V and I) (Larson <i>et al.</i>, 2022) rather than any evidence available from within, or in close proximity to, the site itself. This lack of data within the site limits our assessment. Moreover, there is a lack of time series data about water quality and on how human activities may have impacted this.</p>

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