NPWS

Wicklow Reef SAC (site code: 2274)

Conservation objectives supporting document - Marine Habitat

Version 1

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Introduction

Wicklow Reef SAC is designated for the marine Annex I qualifying interest of Reefs (Figure 1).

A subtidal reef survey of the site was carried out in 2013 (MERC, 2013) and these data were used to determine the physical and biological nature of this SAC.

Aspects of the biology and ecology of the Annex I Habitat is provided in Section 1. The corresponding site-specific conservation objective will facilitate Ireland delivering on its surveillance and reporting obligations under the EU Habitats Directive (92/43/EC).

Ireland also has an obligation to ensure that consent decisions concerning operations/activities planned for Natura 2000 sites are informed by an appropriate assessment where the likelihood of such operations or activities having a significant effect on the site cannot be excluded. Further ancillary information concerning the practical application of the site-specific objectives and targets in the completion of such assessments is provided in Section 2.

Section 1

Principal Benthic Communities

Within the Wicklow Reef SAC, a single community type, Current-swept subtidal reef community complex, is recorded (Figure 2).

Estimated area of this community type within the Annex I habitat, based on interpolation, is given in the objective targets in Section 2.

The development of a community complex target arises when an area possesses similar abiotic features but records a number of biological communities that are not regarded as being sufficiently stable and/or distinct temporally or spatially to become the focus of conservation efforts. In this case, examination of the available data from Wicklow Reef SAC identified a number of biological communities whose species composition overlapped significantly. Such biological communities are grouped together into what experts consider are sufficiently stable units (i.e. a complex) for conservation targets.

CURRENT-SWEPT SUBTIDAL REEF COMMUNITY COMPLEX

This community complex is recorded throughout this site (Figure 2) in depths ranging from 6m on the western margin of the site to up to 40m at its eastern extreme. The shallower and more level areas of the sea bed are composed of cobble and boulder with pockets of gravelly sand and shell. An area of sloping bedrock runs in a northwest-southeast direction in the centre of the site, here the sea floor drops sharply to deeper water; smaller areas of this reef form occur to the west of here. Currents of up to 6 knots were recorded within this site, with no significant period of slack water.

The distinguishing fauna of this complex are the serpulid polychaete *Spirobranchus triqueter* and the hydroids *Tubularia indivisa* and *Sertularia argentea*. *S. triqueter* occurs widely within the site. Similarly *T. indivisa* occurs throughout the site; however a dense bed is recorded in the southeast of the site at the edge of a steep slope. *S. argentea* generally occurs in the southern part of the site. In the north-eastern extreme of the site a dense bed of the brittle star *Ophiothrix fragilis* is recorded. The anemone *Urticina felina* and the ascidian *Clavelina lepadiformis* are also recorded within this complex.

Despite the shallow nature of the reef, particularly in the western area of the site, algae species were not recorded; this is likely due to the high turbidity due to the strong currents in the area.

While the reef-forming polychaete *Sabellaria alveolata* has been recorded from this area in the past, and Wicklow Reef SAC was designated *inter alia* for this feature, it appears that its

occurrence within this site may be questionable. Current knowledge suggests that the highly dynamic nature of this area is unlikely to support a stable biogenic reef composed of *S. alveolata* for any length of time.

Species associated with the Current-swept subtidal reef community complex	
Spirobranchus triqueter	*Urticina felina*
Tubularia indivisa	*Ophiothrix fragilis*
Sertularia argentea	*Clavelina lepadiformis*

Table 1 Species associated with the Current-swept subtidal reef community complex.

The bryozoan *Phaeostachys spinifera*, which is only known from five localities within Ireland and for which there is no previous records from the Irish Sea, has been recorded here. The amphipod *Unciola crenatipalma* which is only known from two other locations and the polychaete *Eulalia ornata* which is only known from one other location within Ireland, are both recorded here.

Section 2

Appropriate Assessment Notes

Many operations/activities of a particular nature and/or size require the preparation of an environmental impact statement of the likely effects of their planned development. While smaller operations/activities (i.e. sub threshold developments) are not required to prepare such statements, an appropriate assessment and Natura Impact Statement is required to inform the decision-making process in or adjacent to Natura 2000 sites. The purpose of such an assessment is to record in a transparent and reasoned manner the likely effects on a Natura 2000 site of a proposed development. General guidance on the completion of such assessments has been prepared and is available at www.npws.ie.

Annex I Habitats

It is worth considering at the outset that in relation to Annex I habitat structure and function, the extent and quality of all habitats varies considerably in space and time and marine habitats are particularly prone to such variation. Habitats which are varying naturally, i.e. biotic and/or abiotic variables are changing within an envelope of natural variation, must be considered to have favourable conservation condition. Anthropogenic disturbance may be considered significant when it causes a change in biotic and/or abiotic variables in excess of what could reasonably be envisaged under natural processes. The capacity of the habitat to recover from this change is obviously an important consideration (i.e. habitat resilience) thereafter.

This Department has adopted a prioritized approach to conservation of structure and function in marine Annex I habitats.

1. Those communities that are key contributors to overall biodiversity at a site by virtue of their structure and/or function (keystone communities) and their low resilience should be afforded the highest degree of protection and any significant anthropogenic disturbance should be avoided.
2. In relation to the remaining constituent communities that are structurally important (e.g. broad sedimentary communities) within an Annex I marine habitat, there are two considerations.
    2.1. Significant anthropogenic disturbance may occur with such intensity and/or frequency as to effectively represent a continuous or ongoing source of disturbance over time and space (e.g. effluent discharge within a given area). Drawing from the principle outlined in the European Commission's Article 17 reporting framework that disturbance of greater than 25% of the area of an Annex I habitat represents unfavourable conservation status, this Department takes the view that licensing of activities likely to cause continuous disturbance of each community type should not exceed an approximate area of 15%. Thereafter, an increasingly cautious approach

is advocated. Prior to any further licensing of this category of activities, an inter-Departmental management review (considering *inter alia* robustness of available scientific knowledge, future site requirements, etc) of the site is recommended.

2.2. Some activities may cause significant disturbance but may not necessarily represent a continuous or ongoing source of disturbance over time and space. This may arise for intermittent or episodic activities for which the receiving environment would have some resilience and may be expected to recover within a reasonable timeframe relative to the six-year reporting cycle (as required under Article 17 of the Directive). This Department is satisfied that such activities could be assessed in a context-specific manner giving due consideration to the proposed nature and scale of activities during the reporting cycle and the particular resilience of the receiving habitat in combination with other activities within the designated site.

The following technical clarification is provided in relation to specific conservation objectives and targets for Annex I habitats to facilitate the appropriate assessment process:

Objective **To maintain the favourable conservation condition of Reefs in Wicklow Reef SAC, which is defined by the following list of attributes and targets**

Target 1	The permanent area is stable or increasing, subject to natural processes.

- The area of this habitat represents the minimum estimated area of reef at this site and underestimates the actual area due to the many areas of sheer and steeply sloping rock within the reef habitat.
- This target refers to activities or operations that propose to permanently remove habitat from the site, thereby reducing the permanent amount of habitat area. It does not refer to long or short term disturbance of the biology of a site.
- Early consultation or scoping with the Department in advance of formal application is advisable for such proposals.

Target 2	The distribution of reefs is stable or increasing, subject to natural processes.

- The likely distribution of reef habitat in this SAC is indicated in figure 1.
- This target refers to activities or operations that propose to permanently remove reef habitat, thus reducing the range over which this habitat occurs within the site. It does not refer to long or short term disturbance of the biology of reef habitats.
- Early consultation or scoping with the Department in advance of formal application is advisable for such proposals.

Target 3	Conserve the following community type in a natural condition: Current-swept subtidal reef community complex

- A semi-quantitative description of the community has been provided in Section 1.
- An interpolation of its likely distribution is provided in figure 2.
- The estimated area of the community within the Reefs habitat given below is based on spatial interpolation and therefore should be considered indicative. In addition, as this habitat contains significant areas of sheer and steeply sloping rock, the mapped community extents will be underestimated:
  - Current-swept subtidal reef community complex - 1533ha
- This target relates to the structure and function of the reef and therefore it is of relevance to those activities that may cause disturbance to the ecology of the habitat.
- Significant continuous or ongoing disturbance of the community should not exceed an approximate area of 15% of the interpolated area of the community type, at which point an inter-Departmental management review is recommended prior to further licensing of such activities.
- Proposed activities or operations that cause significant disturbance to the community but may not necessarily represent a continuous or ongoing source of disturbance over time and space may be assessed in a context-specific manner giving due consideration to the proposed nature and scale of activities during the reporting cycle and the particular resilience of the receiving habitat in combination with other activities within the designated site.

Bibliography:

MERC (2013). Survey of Wicklow Reef SAC (Site code 0002274). Produced by MERC on behalf of the Marine Institute in partnership with National Parks & Wildlife Service.

Figure 1. Extent of Reefs in Wicklow Reef SAC

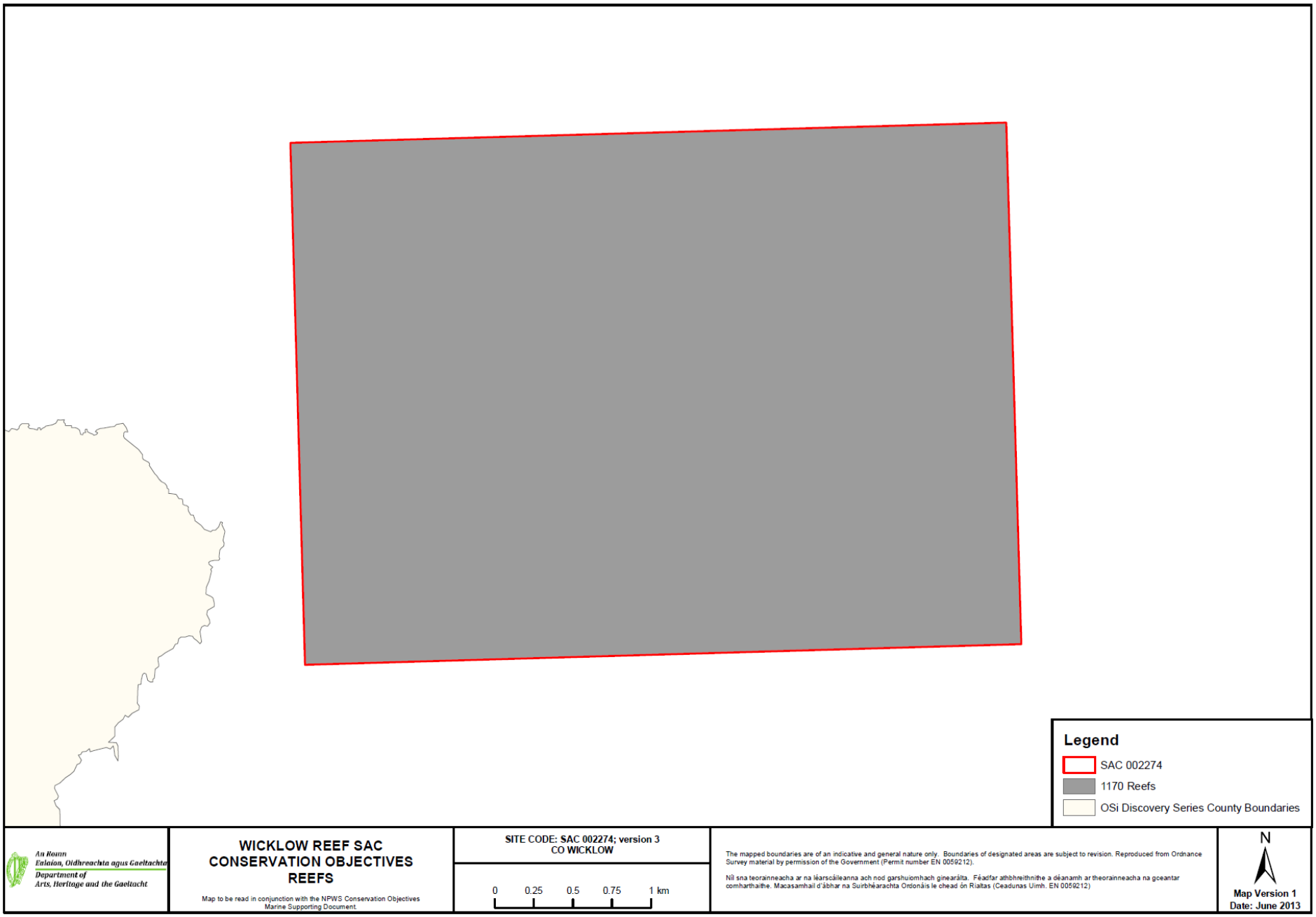

Figure 2. Distribution of community types in Wicklow Reef SAC