

NPWS

Blackwater Bank SAC (site code: 2953)

**Conservation objectives supporting document -
Marine Habitat**

Version 1

April 2013

Introduction

Blackwater Bank SAC is designated for the marine Annex I qualifying interest of Sandbanks which are slightly covered by sea water all the time (Figure 1).

Benthic surveys were undertaken here in 2005 (Roche *et al.*, 2007) and 2012 (Aquafact, 2012), 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 are 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 Blackwater Bank SAC a single community type is recorded within the Annex I habitat; namely Sand with *Nephtys cirrosa* and *Bathyporeia elegans* community complex. A description of this community type is given below.

The 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 Blackwater Bank SAC identified a number of biological communities whose species composition overlapped significantly. Such biological communities are grouped together into what experts consider is a sufficiently stable unit (i.e. a complex) for conservation targets.

SAND WITH *NEPHTYS CIRROSA* AND *BATHYPOREIA ELEGANS* COMMUNITY COMPLEX

With the exception of the south-eastern margins of the site where the sediment is coarser, this community complex occurs throughout this site; it is recorded in depths of between 0m and 30m (Figure 2).

The sediment within this complex shows a great deal of temporal and spatial variability reflecting the strong currents and hydrodynamic conditions which occur here. In 2005 the sediment was predominantly that of fine sand (65.6% to 91.2%) while in 2012 medium sand (8.0% to 88.0%) constituted the greater proportion of the sediment fractions. There are some localised areas of coarse sediment on the northeast area of the sandbank and in an area on the western margins of the site.

The distinguishing species of this community complex are the polychaetes *Nephtys cirrosa*, *Nephtys* sp., *Nephtys longosetosa* and *Scolelepis (Scolelepis) squamata* and the amphipods *Bathyporeia elegans* and *Pontocrates altamarinus*. *Bathyporeia elegans* is recorded in high abundances on the bank itself and also in deeper waters in the north eastern and western margins of the site; elsewhere it occurs in low abundances. *N. cirrosa* occurs in low abundances throughout this community complex. Where fine sand is the prevailing sediment type, *Nephtys* sp., *Nephtys longosetosa* and *Scolelepis (Scolelepis) squamata* are recorded in low abundances. *Pontocrates altamarinus* occurs in low abundances on the sandbank feature (Table 1).

Distinguishing species of Sand with <i>Nephtys cirrosa</i> and <i>Bathyporeia elegans</i> community complex	
<i>Bathyporeia elegans</i>	<i>Nephtys longosetosa</i>
<i>Nephtys cirrosa</i>	<i>Pontocrates altamarinus</i>
<i>Nephtys</i> sp.	<i>Scolelepis (Scolelepis) squamata</i>

Table 1 Distinguishing species of the Sand with *Nephtys cirrosa* and *Bathyporeia elegans* community complex.

COBBLES WITH EPIFAUNA COMMUNITY

To the south east of the sandbank, in depths of between 30m to 40m, the substrate is primarily that of cobbles and pebbles (Figure 2). This reflects the strong currents (2-10kts) which occur here.

Here, the fauna comprise serpulid polychaetes, including *Spirobranchus* sp. and *Spirobranchus lamarcki*. The polychaetes *Eumida sanguinea*, *Sphaerosyllis* sp. and *Nicolea zostericola*, unidentified nemerteans and the echinoderm *Ophiothrix fragilis* are also recorded here. These species are typical of cobble substrates where strong currents occur (Table 2).

Distinguishing species of Cobbles with epifauna community	
Serpulidae spp.	<i>Sphaerosyllis</i> sp.
<i>Spirobranchus</i> sp.	<i>Nicolea zostericola</i>
<i>Spirobranchus lamarcki</i>	Nemertea indet.
<i>Eumida sanguinea</i>	<i>Ophiothrix fragilis</i>

Table 2 Distinguishing species of the Cobbles with epifauna community.

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 the specific conservation objective and targets for the Annex I habitat to facilitate the appropriate assessment process:

Objective **To maintain the favourable conservation condition of Sandbanks which are slightly covered by sea water all the time in Blackwater Bank SAC, which is defined by the following list of attributes and targets.**

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

- 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 sandbanks is stable or increasing, subject to natural processes.

- The likely distribution of sandbank habitat in this SAC is indicated in figure 1.
- This target refers to activities or operations that propose to permanently remove sandbank 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 sandbank 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: Sand with *Nephtys cirrosa* and *Bathyporeia elegans* community complex

- A semi-quantitative description of this community has been provided in Section 1.
- An interpolation of its likely distribution is provided in figure 2.
- The estimated area of this community within the Sandbanks habitat given below is based on spatial interpolation and therefore should be considered indicative:
 - Sand with *Nephtys cirrosa* and *Bathyporeia elegans* community complex - 3488ha

- Significant continuous or ongoing disturbance of the community should not exceed an approximate area of 15% of the interpolated area of this 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:

Roche, C., Lyons, D.O., Farinas Franco, J. & O'Connor, B. (2007). Benthic surveys of sandbanks in the Irish Sea. Irish Wildlife Manuals, No. 29. National Parks and Wildlife Service, Department of Environment, Heritage and Local Government, Dublin, Ireland.

Aquafact (2012). Subtidal Benthic Investigations of the Blackwater Sandbank. Produced by Aquafact International Services Ltd on behalf of the Marine Institute in partnership with National Parks & Wildlife Service.

Figure 1. Extent of Sandbanks which are slightly covered by seawater all the time in Blackwater Bank SAC.

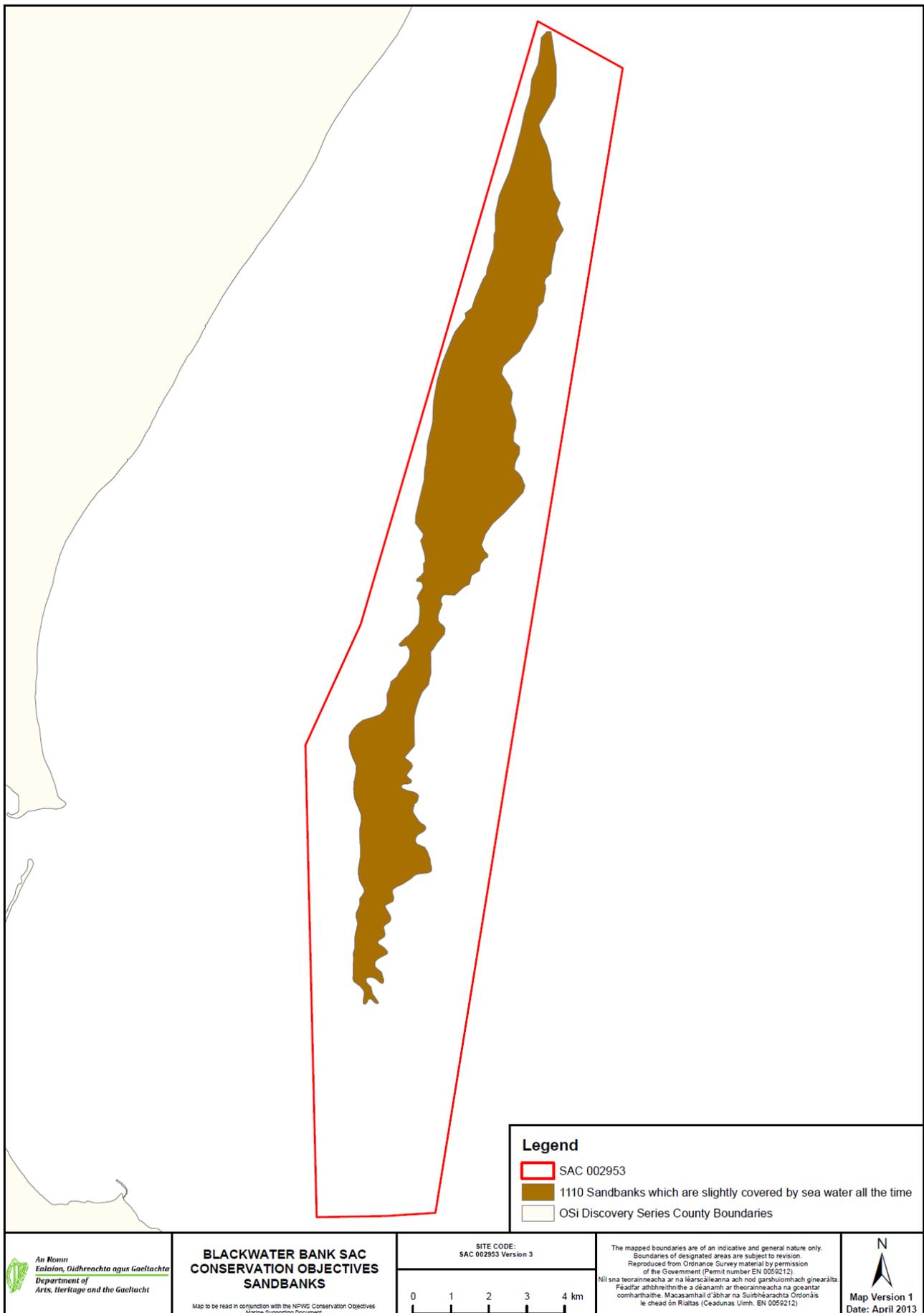


Figure 2. Distribution of community types in Blackwater Bank SAC.

