

NPWS

**Hempton's Turbot Bank SAC
(site code: 2999)**

**Conservation objectives supporting document -
Marine Habitats**

**Version 1
April 2015**

Introduction

Hempton's Turbot 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).

Subtidal surveys were carried out in 2005 and 2012 (Aquafact, 2008, MERC, 2013). 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 objective and targets in the completion of such assessments is provided in Section 2.

Section 1

Principal Benthic Communities

Within Hempton's Turbot Bank SAC, two community types are recorded; their occurrence in the Annex I habitat is presented in table 1; a description of each community type is given below.

Community Type	SAC Annex I Habitat
	Sandbanks which are slightly covered by sea water all the time (1110)
Coarse sediment with platyhelminthes, nematodes and polychaetes community	✓
Cobbles and coarse sediment with polychaetes and epifauna community complex	

Table 1 The community types recorded in Hempton's Turbot Bank SAC and their occurrence in the Annex I habitat.

Estimated area of the 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 Hempton's Turbot Bank 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.

COARSE SEDIMENT WITH PLATYHELMINTHES, NEMATODES AND POLYCHAETES COMMUNITY

This community occurs extensively on the sandbank in water depths from 15 to 30m (Figure 2).

The sediment type is that of coarse sediment, with gravel and very coarse sand ranging from 0.3% to 74.1% and 3.5% to 47.5%, respectively. Coarse sand and medium sand range from 7.4% to 59.6% and 0.01% to 51.6%, respectively; the fine sand fraction is less than 4%, with negligible amounts very fine sand and silt-clay.

The sandbank is subject to strong tidal currents and periodic disturbance from storm events. The fauna of this community may be transitory in nature as a result of sediment mobility. The distinguishing species of this community include unidentified platyhelminthes, unidentified nematodes, the polychaetes *Pisione remota* and *Polygordius* spp., the chaetognath *Spadella cephaloptera* and unidentified nemerteans (Table 2).

Distinguishing species of the Coarse sediment with platyhelminthes, nematodes and polychaetes community	
Platyhelminthes spp.	<i>Polygordius</i> spp.
Nematoda spp.	<i>Spadella cephaloptera</i>
<i>Pisione remota</i>	Nemertea spp.

Table 2 Distinguishing species of Coarse sediment with platyhelminthes, nematodes and polychaetes community.

COBBLES AND COARSE SEDIMENT WITH POLYCHAETES AND EPIFAUNA COMMUNITY COMPLEX

This community occurs extensively throughout the site in the area around the sandbank (Figure 2).

The substrate type is cobbles with coarse sediment. The water depth ranges from 30 to 48m.

The fauna of this community complex may be transitory in nature as a result of sediment mobility. The epifaunal coverage of the cobbles is sparse. Species occurring on the cobbles include the hydrozoan *Sertularia cupressina*, the polychaete *Spirobranchus triqueter*, the barnacles *Verruca stroemia* and *Balanus crenatus*, the bryozoans *Tubulipora* sp., *Electra pilosa*, *Callopora lineata*, *Amphiblestrum flemingii*, *Escharella immersa*, *Escharella variolosa*, *Schizoporella* sp., *Schizomavella* sp. and *Microporella ciliata* and the ascidian *Didemnum maculosum*. The infauna associated with the coarse sediments includes the polychaetes *Polydora ciliata*, *Pisione remota*, *Polydora caeca* and *Dodecaceria* sp. and the isopod *Anthura gracilis* (Table 3).

Distinguishing species Cobbles and coarse sediment with polychaetes and epifauna community complex	
<i>Sertularia cupressina</i>	<i>Schizoporella</i> sp.
<i>Pomatoceros triqueter</i>	<i>Schizomavella</i> sp.
<i>Verruca stroemia</i>	<i>Microporella ciliata</i>
<i>Balanus crenatus</i>	<i>Didemnum maculosum</i>
<i>Tubulipora</i> sp.	<i>Polydora ciliata</i>
<i>Electra pilosa</i>	<i>Pisione remota</i>
<i>Callopora lineata</i>	<i>Polydora caeca</i>
<i>Amphiblestrum flemingii</i>	<i>Dodecaceria</i> sp.
<i>Escharella immersa</i>	<i>Anthura gracilis</i>
<i>Escharella variolosa</i>	

Table 3 Distinguishing species of Cobbles and coarse sediment with polychaetes and epifauna community complex.

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 Sandbanks which are slightly covered by sea water all the time in the Hempton’s Turbot 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.
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- 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.
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- 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: Coarse sediment with platyhelminthes, nematodes and polychaetes community.

- 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 areas of this community within the Sandbanks habitat given below is based on spatial interpolation and therefore should be considered indicative:
 - Coarse sediment with platyhelminthes, nematodes and polychaetes community - 708ha
- 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:

Aquafact (2008). Analysis of samples from the Hempton's Turbot Bank. Carried out by Aquafact International Services Ltd. on behalf of National Parks and Wildlife Service, Department of Environment, Heritage and Local Government.

MERC (2013). Subtidal Benthic Survey of the Hempton's Turbot Bank. Carried out by MERC on behalf of the Marine Institute in partnership with National Parks and Wildlife Service, Department of Environment, Heritage and Local Government.

Figure 1. Extent of Sandbanks which are slightly covered by seawater all the time in Hempton's Turbot Bank SAC.

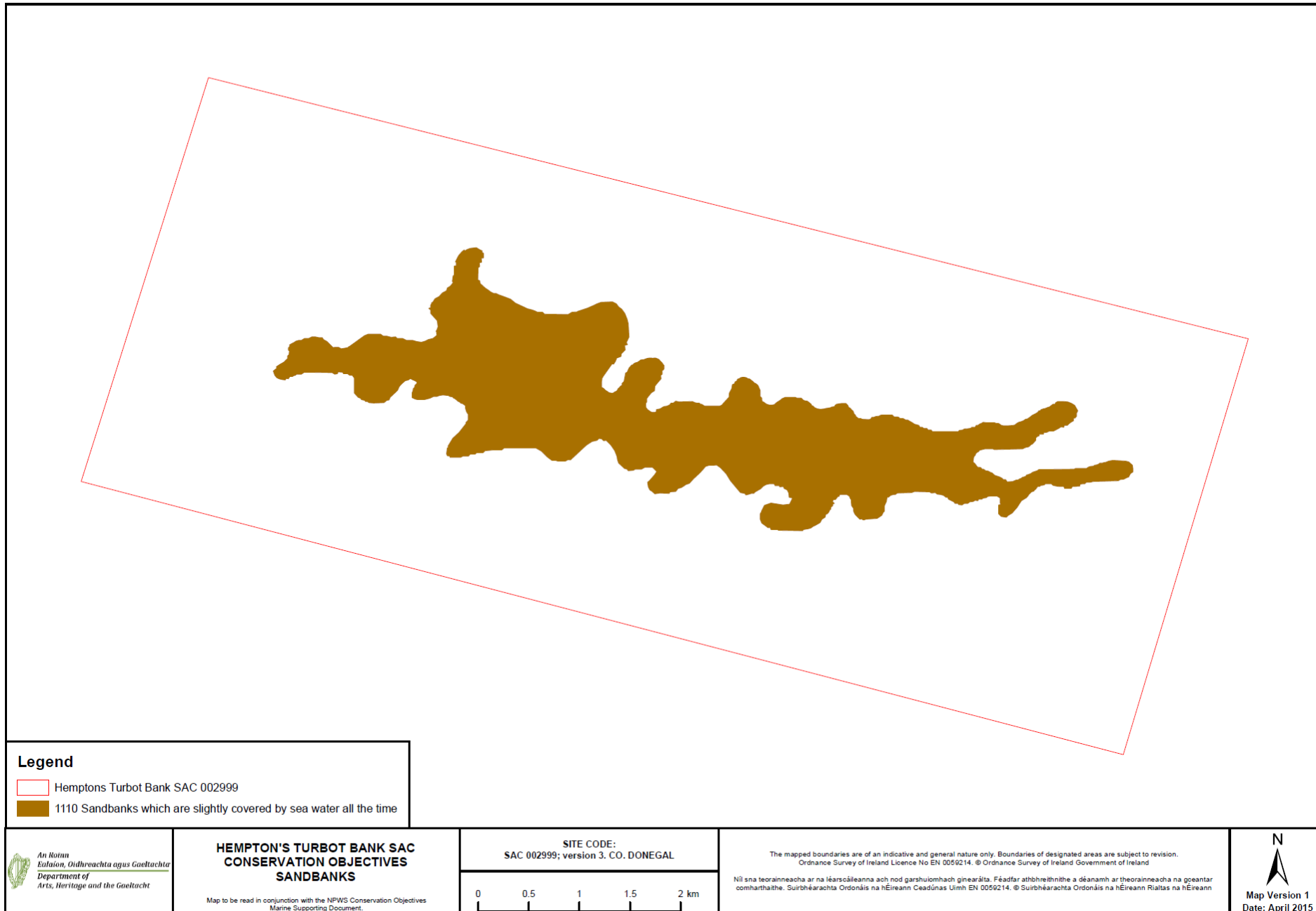


Figure 2. Distribution of community types in Hempton's Turbot Bank SAC

