NPWS

Streedagh Point Dunes SAC
(site code: 1680)

Conservation objectives supporting document -
Marine Habitats

Version 1

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Introduction

Streedagh Point Dunes SAC is designated for the marine Annex I qualifying interest of Mudflats and sandflats not covered by seawater at low tide (Figure 1).

An intertidal survey was undertaken in 2011 (MERC, 2012) 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 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 Streedagh Point Dunes SAC, two community types are recorded within the Annex I habitat. Their occurrence is presented in table 1; a description of each community type is given below.

	Habitat
	Mudflats and sandflats not covered by seawater at low tide (1140)
Sand with *Pygospio elegans* and *Cerastoderma edule* community complex	✓
Mobile sand with *Haustorius arenarius* and polychaetes community complex	✓

Table 1 The community types recorded in Streedagh Point Dunes SAC and their occurrence the Annex I habitat for which the site is designated.

Estimated areas of each community type within the Annex I habitat, based on interpolation, are 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 Streedagh Point Dunes 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.

SAND WITH *PYGOSPIO ELEGANS* AND *CERASTODERMA EDULE* COMMUNITY COMPLEX

This community complex is recorded to the east of the sand dunes from Dernish Island in the northeast to Rinroe in the southwest (Figure 2). It occurs in the intertidal to the shallow subtidal (<1m).

The sediment is that of fine to medium sand (ranging from 58.2% to 80.8% and 14.3% to 37.0%, respectively); coarse material is negligible and silt-clay is not recorded here.

The distinguishing fauna of this community complex are the polychaetes *Pygospio elegans*, *Hediste diversicolor* and *Capitella* sp., the bivalves *Cerastoderma edule* and *Angulus tenuis* and the gastropod *Peringia ulvae*. The oligochaete *Tubificoides benedii*, the polychaete *Heteromastus filiformis* and the decapod *Crangon crangon* and the bivalve *Scrobicularia plana* are also recorded here (Table 2).

Distinguishing species Sand with *Pygospio elegans* and *Cerastoderma edule* community complex	
Pygospio elegans	*Hediste diversicolor*
Cerastoderma edule	*Angulus tenuis*
Peringia ulvae	*Capitella* sp.

Table 2 Distinguishing species of Sand with *Pygospio elegans* and *Cerastoderma edule* community complex

MOBILE SAND WITH *HAUSTORIUS ARENARIUS* AND POLYCHAETES COMMUNITY COMPLEX

This community complex occurs in intertidal sediments at Back Strand to the west of the dune system and at Trawgar in the southwest of the site (Figure 2). The sediment is that of mobile fine to medium sand (ranging from 4.9% to 81.7% and 1.9% to 94.7%, respectively).

The community has few species and these occur in low abundances and are highly variable in their distribution. The distinguishing species include the amphipod *Haustorius arenarius* and the polychaetes *Nephtys cirrosa* and *Scolelepis (Scolelepis) squamata*. The amphipods *Bathyporeia guilliamsoniana* and *Eurydice pulchra* and the bivalve *Donax vittatus* are also recorded here (Table 3).

Distinguishing species Mobile sand with *Haustorius arenarius* and polychaetes community complex	
Haustorius arenarius	*Scolelepis (Scolelepis) squamata*
Nephtys cirrosa	

Table 3 Distinguishing species of species Mobile sand with *Haustorius arenarius* and polychaetes 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 Mudflats and sandflats not covered by seawater at low tide in Streedagh Point Dunces 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 a 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	Conserve the following community types in a natural condition: Sand with *Pygospio elegans* and *Cerastoderma edule* community complex; Mobile sand with *Haustorius arenarius* and polychaetes community complex.

- A semi-quantitative description of these community types has been provided in Section 1.
- An interpolation of their likely distribution is provided in figure 2.
- The estimated areas of these community types within the Mudflats and sandflats not covered by seawater at low tide habitat given below are based on spatial interpolation and therefore should be considered indicative:
  - Sand with *Pygospio elegans* and *Cerastoderma edule* community complex – 295ha
  - Mobile sand with *Haustorius arenarius* and polychaetes community complex – 42ha

- Significant continuous or ongoing disturbance of communities should not exceed an approximate area of 15% of the interpolated area of each 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 communities 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 (2012). Intertidal benthic surveys of Streedagh Point Dunes SAC. Carried out by MERC on behalf of the Marine Institute in partnership with National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

Figure 1. Extent of Mudflats and sandflats not covered by seawater at low tide in Streedagh Point Dunes SAC

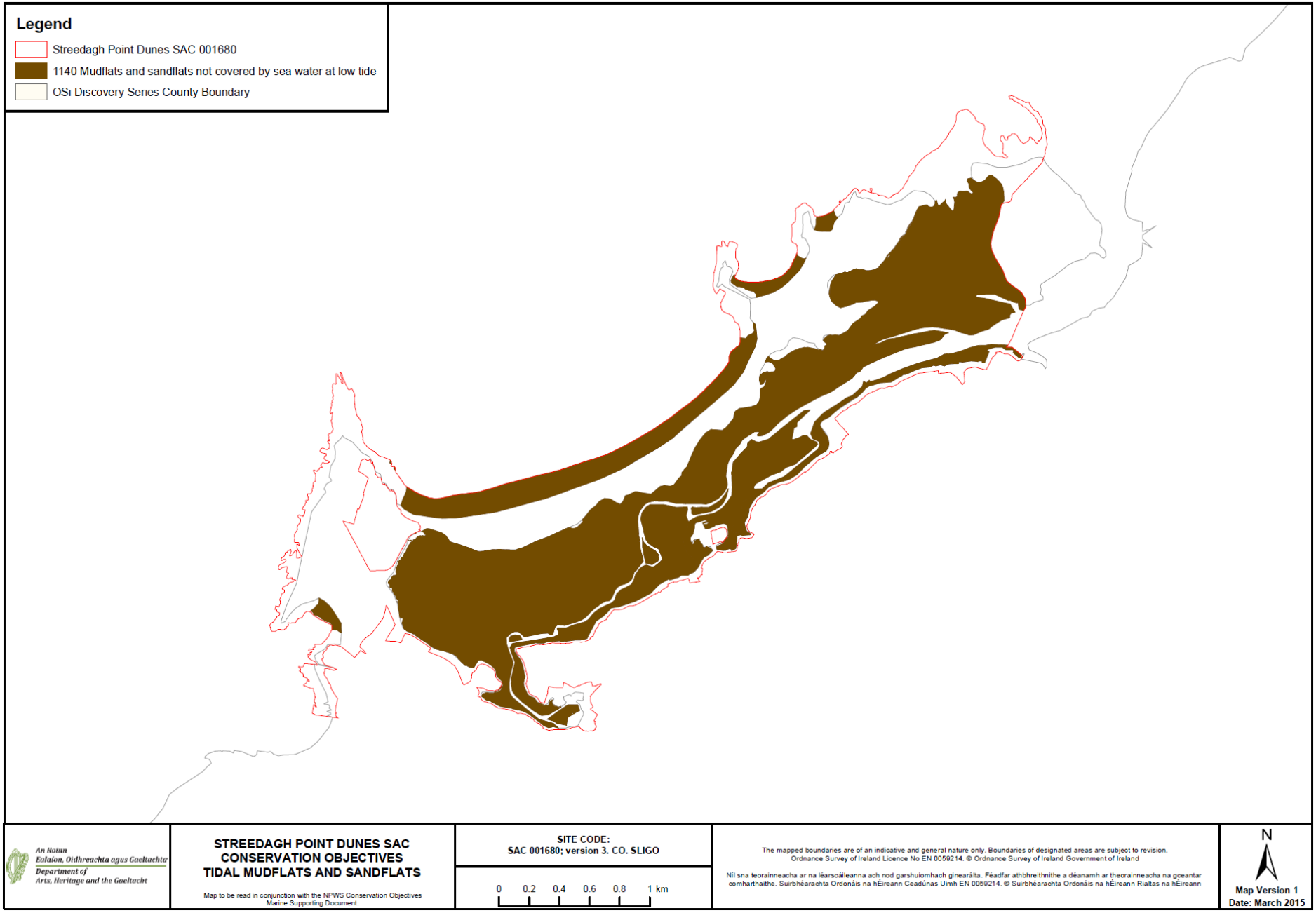

Figure 2. Distribution of community types in Streedagh Point Dunes SAC