

# National Parks and Wildlife Service

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## *Conservation Objectives Series*

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### Cahore Polders and Dunes SAC 000700



An Roinn Ealaíon, Oidhreachta,  
Gnóthaí Réigiúnacha, Tuaithe agus Gaeltachta

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Department of Arts, Heritage,  
Regional, Rural and Gaeltacht Affairs



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## Introduction

The overall aim of the Habitats Directive is to maintain or restore the favourable conservation status of habitats and species of community interest. These habitats and species are listed in the Habitats and Birds Directives and Special Areas of Conservation and Special Protection Areas are designated to afford protection to the most vulnerable of them. These two designations are collectively known as the Natura 2000 network.

European and national legislation places a collective obligation on Ireland and its citizens to maintain habitats and species in the Natura 2000 network at favourable conservation condition. The Government and its agencies are responsible for the implementation and enforcement of regulations that will ensure the ecological integrity of these sites.

A site-specific conservation objective aims to define favourable conservation condition for a particular habitat or species at that site.

The maintenance of habitats and species within Natura 2000 sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level.

Favourable conservation status of a habitat is achieved when:

- its natural range, and area it covers within that range, are stable or increasing, and
- the specific structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future, and
- the conservation status of its typical species is favourable.

The favourable conservation status of a species is achieved when:

- population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats, and
- the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future, and
- there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

### **Notes/Guidelines:**

1. The targets given in these conservation objectives are based on best available information at the time of writing. As more information becomes available, targets for attributes may change. These will be updated periodically, as necessary.
2. An appropriate assessment based on these conservation objectives will remain valid even if the targets are subsequently updated, providing they were the most recent objectives available when the assessment was carried out. It is essential that the date and version are included when objectives are cited.
3. Assessments cannot consider an attribute in isolation from the others listed for that habitat or species, or for other habitats and species listed for that site. A plan or project with an apparently small impact on one attribute may have a significant impact on another.
4. Please note that the maps included in this document do not necessarily show the entire extent of the habitats and species for which the site is listed. This should be borne in mind when appropriate assessments are being carried out.
5. When using these objectives, it is essential that the relevant backing/supporting documents are consulted, particularly where instructed in the targets or notes for a particular attribute.



## Supporting documents, relevant reports & publications

Supporting documents, NPWS reports and publications are available for download from: [www.npws.ie/Publications](http://www.npws.ie/Publications)

### NPWS Documents

<b>Year :</b>	2009
<b>Title :</b>	Coastal Monitoring Project 2004-2006
<b>Author :</b>	Ryle, T.; Murray, A.; Connolly, K.; Swann, M.
<b>Series :</b>	Unpublished report to NPWS
<hr/>	
<b>Year :</b>	2013
<b>Title :</b>	Monitoring survey of Annex I sand dune habitats in Ireland
<b>Author :</b>	Delaney, A.; Devaney, F.M.; Martin, J.M.; Barron, S.J.
<b>Series :</b>	Irish Wildlife Manual No. 75
<hr/>	
<b>Year :</b>	2016
<b>Title :</b>	Cahore Dunes and Polders SAC (site code: 700) Conservation objectives supporting document- coastal habitats V1
<b>Author :</b>	NPWS
<b>Series :</b>	Conservation objectives supporting document

### Other References

<b>Year :</b>	2008
<b>Title :</b>	The phytosociology and conservation value of Irish sand dunes
<b>Author :</b>	Gaynor, K.
<b>Series :</b>	Unpublished PhD thesis, National University of Ireland, Dublin

## Spatial data sources

**Year :** 2013

**Title :** Sand Dune Monitoring Project 2011. Version 1

**GIS Operations :** QIs selected; clipped to SAC boundary. Expert opinion used as necessary to resolve any issues arising

**Used For :** 1210, 2110, 2120, 2130 (map 3)

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**1210 Annual vegetation of drift lines**

**To restore the favourable conservation condition of Annual vegetation of drift lines in Cahore Polders and Dunes SAC, which is defined by the following list of attributes and targets:**

Attribute	Measure	Target	Notes
Habitat area	Hectares	Area stable or increasing, subject to natural processes, including erosion and succession	Based on data from the Coastal Monitoring Project (CMP) (Ryle et al., 2009) and the Sand Dunes Monitoring Project (SDM) (Delaney et al., 2013). This habitat is very difficult to measure in view of its dynamic nature which means that it can appear and disappear within a site from year to year. During the CMP, 0.19ha of annual vegetation of drift lines was recorded. No annual vegetation of drift lines was recorded in 2011 during the SDM (Delaney et al., 2013). However, this was the result of natural succession to embryonic dunes. The availability of locally recycled sediment and the accretion of sand dune habitats in the central and southern parts of the site suggest that annual strandline vegetation may be expected to appear in future years. See the Cahore Polders and Dunes SAC conservation objectives supporting document for coastal habitats for further details
Habitat distribution	Occurrence	No decline in habitat distribution, subject to natural processes	Based on data from Delaney et al. (2013). No annual vegetation of drift lines was recorded in during the SDM. However, this was the result of natural succession to embryonic dunes and was not associated with human activity. See the coastal habitats supporting document for further details
Physical structure: functionality and sediment supply	Presence/absence of physical barriers	Maintain the natural circulation of sediment and organic matter, without any physical obstructions	Based on data from Ryle et al. (2009) and Delaney et al. (2013). Dunes are naturally dynamic systems that require continuous supply and circulation of sand. Accumulation of organic matter in tidal litter is essential for trapping sand and initiating dune formation. Coastal protection in the form of timber groynes has been employed at Cahore, but has proved to be largely ineffective. These physical barriers may impact sediment supply. See the coastal habitats supporting document for further details
Vegetation structure: zonation	Occurrence	Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession	Based on data from Ryle et al. (2009) and Delaney et al. (2013). There are transitional communities between a range of sand dune habitats with fixed dunes grading eastwards to mobile dunes and embryo dunes. See the coastal habitats supporting document for further details
Vegetation composition: typical species and sub-communities	Percentage cover at a representative number of monitoring stops	Maintain the presence of species-poor communities with typical species: sea rocket ( <i>Cakile maritima</i> ), sea sandwort ( <i>Honckenya peploides</i> ), prickly saltwort ( <i>Salsola kali</i> ) and oraches ( <i>Atriplex</i> spp.)	Based on data from Ryle et al. (2009) and Delaney et al. (2013). See the coastal habitats supporting document for further details
Vegetation composition: negative indicator species	Percentage cover	Negative indicator species (including non-native species) to represent less than 5% cover	Based on Gaynor (2008), Ryle et al. (2009) and Delaney et al. (2013). Negative indicators include non-native species, species indicative of changes in nutrient status and species not considered characteristic of the habitat. See the coastal habitats supporting document for further details

## Conservation Objectives for : Cahore Polders and Dunes SAC [000700]

### 2110 Embryonic shifting dunes

To restore the favourable conservation condition of Embryonic shifting dunes in Cahore Polders and Dunes SAC, which is defined by the following list of attributes and targets:

Attribute	Measure	Target	Notes
Habitat area	Hectares	Area stable or increasing, subject to natural processes, including erosion and succession. For the sub-site mapped: Cahore Point North - 4.66ha. See map 3	Based on data from the Sand Dunes Monitoring Project (SDM) (Delaney et al., 2013). Embryonic shifting dunes was mapped at the sub-site Cahore Point North (SDM site ID: 028) to give a total estimated area of 4.66ha within Cahore Polders and Dunes SAC. This habitat is very difficult to measure in view of its dynamic nature. See the Cahore Polders and Dunes SAC conservation objectives supporting document for coastal habitats for further details
Habitat distribution	Occurrence	No decline or change in habitat distribution, subject to natural processes. See map 3 for known distribution	Based on data from Ryle et al. (2009) and Delaney et al. (2013). The embryonic dunes form a continuous strip along the length of the SAC and are up to 25m wide in the south. There has been erosion at the north end of the SAC and active growth in the southern sections. See the coastal habitats supporting document for further details
Physical structure: functionality and sediment supply	Presence/absence of physical barriers	Maintain the natural circulation of sediment and organic matter, without any physical obstructions	Based on data from Ryle et al. (2009) and Delaney et al. (2013). Dunes are naturally dynamic systems that require continuous supply and circulation of sand. See the coastal habitats supporting document for further details
Vegetation structure: zonation	Occurrence	Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession	Based on data from Ryle et al. (2009) and Delaney et al. (2013). The dunes display good zonation, with embryo dunes grading westwards to mobile dunes and fixed dunes. See the coastal habitats supporting document for further details
Vegetation composition: plant health of foredune grasses	Percentage cover	More than 95% of sand couch grass ( <i>Elytrigia juncea</i> ) and/or lyme-grass ( <i>Leymus arenarius</i> ) should be healthy (i.e. green plant parts above ground and flowering heads present)	Based on data from Ryle et al. (2009) and Delaney et al. (2013). See the coastal habitats supporting document for further details
Vegetation composition: typical species and sub-communities	Percentage cover at a representative number of monitoring stops	Maintain the presence of species-poor communities with typical species: sand couch grass ( <i>Elytrigia juncea</i> ) and/or lyme-grass ( <i>Leymus arenarius</i> )	Based on data from Ryle et al. (2009) and Delaney et al. (2013). The embryonic shifting dunes include species such as sand couch ( <i>Elytrigia juncea</i> ), marram grass ( <i>Ammophila arenaria</i> ), sea holly ( <i>Eryngium maritimum</i> ) and curled dock ( <i>Rumex crispus</i> ). See the coastal habitats supporting document for further details
Vegetation composition: negative indicator species	Percentage cover	Negative indicator species (including non-native species) to represent less than 5% cover	Based on data from Gaynor (2008), Ryle et al. (2009) and Delaney et al. (2013). Negative indicators include non-native species, species indicative of changes in nutrient status and species not considered characteristic of the habitat. Sea buckthorn ( <i>Hippophae rhamnoides</i> ) should be absent or effectively controlled. See the coastal habitats supporting document for further details



**2120 Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes)**

**To restore the favourable conservation condition of Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes) in Cahore Polders and Dunes SAC, which is defined by the following list of attributes and targets:**

Attribute	Measure	Target	Notes
Habitat area	Hectares	Area stable or increasing, subject to natural processes, including erosion and succession. For the sub-site mapped: Cahore Point North - 14.41ha. See map 3	Based on data from the Sand Dunes Monitoring Project (SDM) (Delaney et al., 2013). Shifting dunes along the shoreline with <i>Ammophila arenaria</i> was mapped at the sub-site Cahore Point North (SDM site ID: 028) to give a total estimated area of 14.41ha within Cahore Polders and Dunes SAC. This habitat is very difficult to measure in view of its dynamic nature. See the Cahore Polders and Dunes SAC conservation objectives supporting document for coastal habitats for further details
Habitat distribution	Occurrence	No decline or change in habitat distribution, subject to natural processes. See map 3 for known distribution	Based on data from Ryle et al. (2009) and Delaney et al. (2013). The mobile dunes are quite extensive and occupy a wide section of the eastern part of the SAC. At the northern end of the system, where erosion is causing the dunes to retreat, some of the mobile dunes are only sparsely vegetated and may represent only a temporary build-up. See the coastal habitats supporting document for further details
Physical structure: functionality and sediment supply	Presence/absence of physical barriers	Maintain the natural circulation of sediment and organic matter, without any physical obstructions	Based on data from Ryle et al. (2009) and Delaney et al. (2013). Dunes are naturally dynamic systems that require continuous supply and circulation of sand. Marram grass ( <i>Ammophila arenaria</i> ) reproduces vegetatively and requires constant accretion of fresh sand to maintain active growth encouraging further accretion. See the coastal habitats supporting document for further details
Vegetation structure: zonation	Occurrence	Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession	Based on data from Ryle et al. (2009) and Delaney et al. (2013). The dunes display good zonation, with fixed dunes grading eastwards to mobile dunes and embryo dunes. See the coastal habitats supporting document for further details
Vegetation composition: plant health of dune grasses	Percentage cover	More than 95% of marram grass ( <i>Ammophila arenaria</i> ) and/or lyme-grass ( <i>Leymus arenarius</i> ) should be healthy (i.e. green plant parts above ground and flowering heads present)	Based on data from Ryle et al. (2009) and Delaney et al. (2013). See the coastal habitats supporting document for further details
Vegetation composition: typical species and sub-communities	Percentage cover at a representative number of monitoring stops	Maintain the presence of species-poor communities dominated by marram grass ( <i>Ammophila arenaria</i> ) and/or lyme-grass ( <i>Leymus arenarius</i> )	Based on data from Ryle et al. (2009) and Delaney et al. (2013). The shifting dunes are almost entirely dominated by marram grass ( <i>Ammophila arenaria</i> ). See the coastal habitats supporting document for further details
Vegetation composition: negative indicator species	Percentage cover	Negative indicator species (including non-native species) to represent less than 5% cover	Based on data from Gaynor (2008), Ryle et al. (2009) and Delaney et al. (2013). Negative indicators include non-native species, species indicative of changes in nutrient status and species not considered characteristic of the habitat. Sea buckthorn ( <i>Hippophae rhamnoides</i> ) should be absent or effectively controlled. See the coastal habitats supporting document for further details

**2130 Fixed coastal dunes with herbaceous vegetation (grey dunes)**

**To restore the favourable conservation condition of Fixed coastal dunes with herbaceous vegetation (grey dunes)\* in Cahore Polders and Dunes SAC, which is defined by the following list of attributes and targets:**


<b>Attribute</b>	<b>Measure</b>	<b>Target</b>	<b>Notes</b>
Habitat area	Hectares	Area stable or increasing, subject to natural processes, including erosion and succession. For the sub-site mapped: Cahore Point North - 96.44ha. See map 3	Based on data from the Sand Dunes Monitoring Project (SDM) (Delaney et al., 2013). Fixed dunes with herbaceous vegetation was mapped at the sub-site Cahore Point North (SDM site ID: 028) to give a total estimated area of 96.44ha within Cahore Polders and Dunes SAC. See the Cahore Polders and Dunes SAC conservation objectives supporting document for coastal habitats supporting for further details
Habitat distribution	Occurrence	No decline or change in habitat distribution, subject to natural processes. See map 3 for known distribution	Based on data from Ryle et al. (2009) and Delaney et al. (2013). The fixed dunes consist of a single continuous expanse of habitat along the length of the SAC, interrupted only by an access road in the southern half of the SAC. See the coastal habitats supporting document for further details
Physical structure: functionality and sediment supply	Presence/absence of physical barriers	Maintain the natural circulation of sediment and organic matter, without any physical obstructions	Based on data from Ryle et al. (2009) and Delaney et al. (2013). Physical barriers can lead to fossilisation or over-stabilisation of dunes, as well as beach starvation, resulting in increased rates of erosion. See the coastal habitats supporting document for further details
Vegetation structure: zonation	Occurrence	Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession	Based on data from Ryle et al. (2009) and Delaney et al. (2013). The dunes display good zonation, with fixed dunes grading eastwards to mobile dunes. See the coastal habitats supporting document for further details
Vegetation structure: bare ground	Percentage cover	Bare ground should not exceed 10% of fixed dune habitat, subject to natural processes	Based on data from Gaynor (2008), Ryle et al. (2009) and Delaney et al. (2013). There are numerous well-worn tracks throughout the fixed dunes. See the coastal habitats supporting document for further details
Vegetation structure: sward height	Centimetres	Maintain structural variation within sward	Based on data from Ryle et al. (2009) and Delaney et al. (2013). The fixed dunes are largely suffering from undergrazing but intensive grazing is also occurring in other areas. The sward is generally tall in height and quite rank in places. See the coastal habitats supporting document for further details
Vegetation composition: typical species and sub-communities	Percentage cover at a representative number of monitoring stops	Maintain range of sub-communities with typical species listed in Delaney et al. (2013)	The mature fixed dune vegetation includes a good diversity of typical fixed dune species. See the coastal habitats supporting document for further details
Vegetation composition: negative indicator species	Percentage cover	Negative indicator species (including non-native species) to represent less than 5% cover	Based on data from Ryle et al. (2009) and Delaney et al. (2013). Negative indicators include non-native species, species indicative of changes in nutrient status and species not considered characteristic of the habitat. Sea buckthorn ( <i>Hippophae rhamnoides</i> ) should be absent or effectively controlled. Large areas of the fixed dune grassland are heavily invaded by bracken ( <i>Pteridium aquilinum</i> ), sea buckthorn, gorse ( <i>Ulex europaeus</i> ) and bramble ( <i>Rubus fruticosus</i> agg.). Sea buckthorn is becoming well-established in places. Other negative indicator species noted were common ragwort ( <i>Senecio jacobaea</i> ), creeping thistle ( <i>Cirsium arvense</i> ), common nettle ( <i>Urtica dioica</i> ) and perennial ryegrass ( <i>Lolium perenne</i> ). Conifers have been planted and are self-seeding in the dunes. See the coastal habitats supporting document for further details


Vegetation composition: scrub/trees	Percentage cover	No more than 5% cover or under control	Based on data from Ryle et al. (2009) and Delaney et al. (2013). As mentioned above, some of the fixed dune has been encroached by scrub. A number of non-native tree and shrub species, such as sycamore ( <i>Acer pseudoplatanus</i> ) cabbage palm ( <i>Cordyline australis</i> ) and spruce ( <i>Picea</i> sp.) have been noted. See the coastal habitats supporting document for further details
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**Legend**

 Cahore Polders and Dunes SAC 000700



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 Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs

**MAP 1:**  
**CAHORE POLDERS AND DUNES SAC CONSERVATION OBJECTIVES SAC DESIGNATION**

Map to be read in conjunction with the NPWS Conservation Objectives Document.

**SITE CODE:**  
**SAC 000700; version 3. CO. WEXFORD**

0      0.3      0.6      0.9      1.2 km

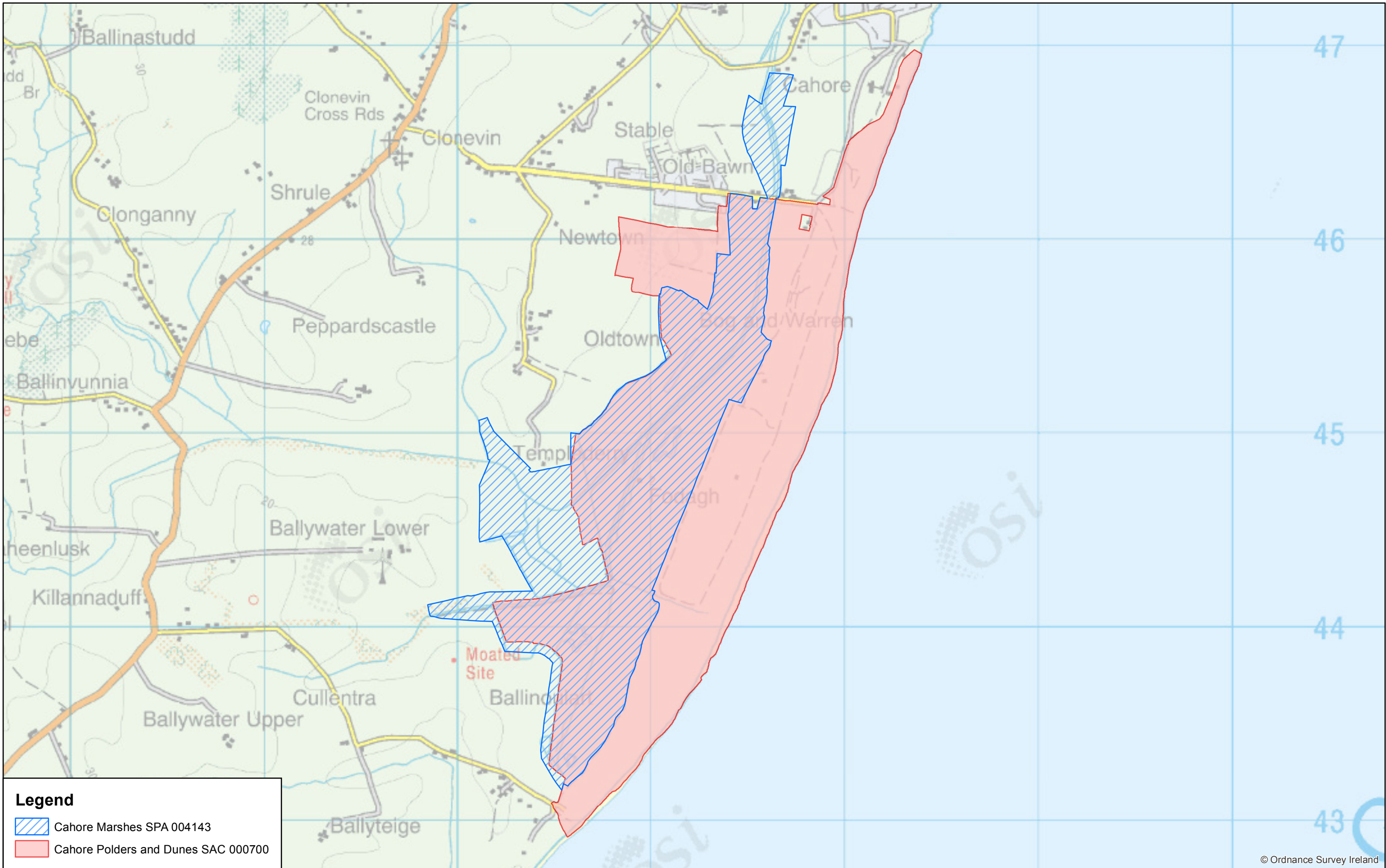
The mapped boundaries are of an indicative and general nature only. Boundaries of designated areas are subject to revision.  
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Níl sna teorainneacha ar na léarscáileanna ach nod garshuíomhach ginearálta. Féadfar athbhreithniú a déanamh ar theorainneacha na gceantar comharthaithe. Suirbhéarachta Ordonáis na hÉireann Ceadúnas Uimh EN 0059216. © Suirbhéarachta Ordonáis na hÉireann Rialtas na hÉireann.



**Map Version 1**  
**Date: Nov 2016**

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**Legend**

- Cahore Marshes SPA 004143
- Cahore Polders and Dunes SAC 000700

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 Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs

**MAP 2:**  
**CAHORE POLDERS AND DUNES SAC CONSERVATION OBJECTIVES ADJACENT / ADJOINING AND OVERLAPPING DESIGNATIONS**

Map to be read in conjunction with the NPWS Conservation Objectives Document.

**SITE CODE:**  
**SAC 000700; version 3. SPA 004143; version 3.**  
**CO. WEXFORD**



0      0.3      0.6      0.9      1.2 km

The mapped boundaries are of an indicative and general nature only. Boundaries of designated areas are subject to revision.  
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Níl sna teorainneacha ar na léarscáileanna ach nod garshuíomhach ginearálta. Féadfar athbheithníthe a déanamh ar theorainneacha na gceantar comharthaithe. Suirbhéarachta Ordonáis na hÉireann Ceadúnas Uimh EN 0059216. © Suirbhéarachta Ordonáis na hÉireann Rialtas na hÉireann.

**Map Version 1**  
**Date: Nov 2016**




**Legend**

-  Cahore Polders and Dunes SAC 000700
-  Sand Dune Monitoring Project Survey Area

**Qualifying Interests**

-  2110 Embryonic shifting Dunes
-  2120 Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes)
-  2130 Fixed coastal dunes with herbaceous vegetation (grey dunes)

**Non-qualifying Interests**

-  2170 Dunes with *Salix repens* spp. *argentea* (*Salicion arenariae*)
-  2190 Humid dune slacks
-  OSi Discovery Series County Boundary

