

National Parks and Wildlife Service

Conservation Objectives Series

Lough Cahasy, Lough Baun and Roonah Lough SAC
001529



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

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.

Qualifying Interests

** indicates a priority habitat under the Habitats Directive*

001529	Lough Cahasy, Lough Baun and Roonah Lough SAC
1150	Coastal lagoonsE
1220	Perennial vegetation of stony banks
2120	Shifting dunes along the shoreline with Cl { [] @ } ^ ^ } ^ ^ (white dunes)

Please note that this SAC adjoins West Connacht Coast SAC (002998). See map 2. The conservation objectives for this site should be used in conjunction with those for the adjacent site as appropriate.

Supporting documents, relevant reports & publications

Supporting documents, NPWS reports and publications are available for download from: www.npws.ie/Publications

NPWS Documents

Year :	1999
Title :	National Shingle Beach Survey of Ireland 1999
Author :	Moore, D.; Wilson, F.
Series :	Unpublished Report to NPWS
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Year :	2007
Title :	Inventory of Irish coastal lagoons (version 2)
Author :	Oliver, G.
Series :	Unpublished report to NPWS
<hr/>	
Year :	2009
Title :	Coastal Monitoring Project 2004-2006
Author :	Ryle, T.; Murray, A.; Connolly, K.; Swann, M.
Series :	Unpublished report to NPWS
<hr/>	
Year :	2013
Title :	Monitoring survey of Annex I sand dune habitats in Ireland
Author :	Delaney, A.; Devaney, F.M.; Martin, J.M.; Barron, S.J.
Series :	Irish Wildlife Manual No. 75
<hr/>	
Year :	2017
Title :	Lough Cahasy, Lough Baun and Roonah Lough SAC (site code: 1529) Conservation objectives supporting document- coastal lagoons V1
Author :	NPWS
Series :	Conservation objectives supporting document
<hr/>	
Year :	2017
Title :	Lough Cahasy, Lough Baun and Roonah Lough SAC (site code: 1529) Conservation objectives supporting document- coastal habitats V1
Author :	NPWS
Series :	Conservation objectives supporting document

Other References

Year :	2008
Title :	The phytosociology and conservation value of Irish sand dunes
Author :	Gaynor, K.
Series :	Unpublished PhD thesis, National University of Ireland, Dublin
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Year :	2013
Title :	Monitoring and assessment of Irish lagoons for the purposes of the EU Water Framework Directive, 2009-2011. Parts 1 and 2
Author :	Roden, C.M; Oliver, G.A.
Series :	Unpublished report to the Environmental Protection Agency

Spatial data sources

Year :	Revision 2011
Title :	Inventory of Irish Coastal Lagoons. Version 3
GIS Operations :	Clipped to SAC boundary
Used For :	1150 (map 3)
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Year :	Revision 2012
Title :	National Shingle Beach Survey
GIS Operations :	Clipped to SAC boundary. Expert opinion used as necessary to resolve any issues arising
Used For :	1220 (map 4)
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Year :	2009
Title :	Coastal Monitoring Project 2004-2006. Version 1
GIS Operations :	QIs selected; clipped to SAC boundary. Expert opinion used as necessary to resolve any issues arising
Used For :	1220, 2120 (map 4)
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1150 Coastal lagoons

To restore the favourable conservation condition of Coastal lagoons* in Lough Cahasy, Lough Baun and Roonah Lough SAC, which is defined by the following list of attributes and targets:

Attribute	Measure	Target	Notes
Habitat area	Hectares	Area stable, subject to slight natural variation. Favourable reference area: 40.2ha. See map 3	Area calculated from spatial data derived from Oliver (2007) for Roonah Lough (site code IL072). See the Lough Cahasy, Lough Baun and Roonah Lough SAC conservation objectives supporting document for coastal lagoons for further details
Habitat distribution	Occurrence	No decline, subject to natural processes. See map 3 for mapped lagoon	Site Roonah Lough (site code IL072) in Oliver (2007). See the lagoon supporting document for further details
Salinity regime	Practical salinity units (psu)	Median annual salinity and temporal variation within natural ranges	Roonah Lough is recorded as an oligohaline lagoon. See the lagoon supporting document for further details
Hydrological regime	Metres	Annual water level fluctuations and minima within natural ranges	The maximum depth of Roonah Lough lagoon is recorded as less than 1m. See the lagoon supporting document for further details
Barrier: connectivity between lagoon and sea	Permeability	Appropriate hydrological connections between lagoons and sea, including where necessary, appropriate management	Roonah Lough is described as a sedimentary lagoon with a cobble barrier. See the lagoon supporting document for further details
Water quality: Chlorophyll <i>a</i>	µg/L	Annual median chlorophyll <i>a</i> within natural ranges and less than 5µg/L	Target based on Roden and Oliver (2013). See the lagoon supporting document for further details
Water quality: Molybdate Reactive Phosphorus (MRP)	mg/L	Annual median MRP within natural ranges and less than 0.1mg/L	Target based on Roden and Oliver (2013). See the lagoon supporting document for further details
Water quality: Dissolved Inorganic Nitrogen (DIN)	mg/L	Annual median DIN within natural ranges and less than 0.15mg/L	Target based on Roden and Oliver (2013). See the lagoon supporting document for further details
Depth of macrophyte colonisation	Metres	Macrophyte colonisation to maximum depth of lagoon	Where the lagoon is less than 2m deep, it is expected that macrophyte colonisation would extend to the full depth. See the lagoon supporting document for further details
Typical plant species	Number and m ²	Maintain number and extent of listed lagoonal specialists, subject to natural variation	Species listed in Oliver (2007). See the lagoon supporting document for further details
Typical animal species	Number	Maintain listed lagoon specialists, subject to natural variation	Species listed in Oliver (2007). See the lagoon supporting document for further details
Negative indicator species	Number and percentage cover	Negative indicator species absent or under control	Low salinity, shallow water and elevated nutrient levels increase the threat of unnatural encroachment by reedbeds. See the lagoon supporting document for further details

Conservation Objectives for : Lough Cahasy, Lough Baun and Roonah Lough SAC [001529]

1220 Perennial vegetation of stony banks

To maintain the favourable conservation condition of Perennial vegetation of stony banks in Lough Cahasy, Lough Baun and Roonah Lough 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	During the National Shingle Beach Survey (NSBS) (Moore and Wilson, 1999) perennial vegetation of stony banks was recorded as being present, but its extent was not mapped, from two sub-sites, White Strand (NSBS site ID: 0054) and Sruhir Strand (NSBS Site ID: 0055). Thus, the current area of the qualifying habitat within Lough Cahasy, Lough Baun and Roonah Lough SAC is unknown. During the Coastal Monitoring Project (CMP) (Ryle et al., 2009), an area of vegetated shingle was noted within the sub-site Lough Cahasy (CMP site ID: 109). NB further unsurveyed areas may be present within the SAC. See the Lough Cahasy, Lough Baun and Roonah Lough 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 4 for recorded locations	The full distribution of perennial vegetation of stony banks within the SAC is unknown at present, although the habitat has been recorded at White Strand and Sruhir Strand by Moore and Wilson (1999) and within the Lough Cahasy sub-site by Ryle et al. (2009). See map 4 for the NSBS point locations. NB further unsurveyed areas may be present within 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 Moore and Wilson (1999) and Ryle et al. (2009). The shingle beaches at White Strand and Sruhir Strand consist of an extensive and high boulder/shingle ridge along much of the shoreline, most of which is largely unvegetated. 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 Moore and Wilson (1999). 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 typical vegetated shingle flora including the range of sub-communities within the different zones	Based on data from Moore and Wilson (1999) and Ryle et al. (2009). The shingle beaches at White Strand and Sruhir Strand have sparse vegetation due to the exposed location and dynamic nature. The occurrence of typical species was infrequent, only occurring as scattered individuals. 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 Moore and Wilson (1999). Negative indicators include non-native species indicative of changes in nutrient status and species not considered characteristic of the habitat. See the coastal habitats supporting document for further details

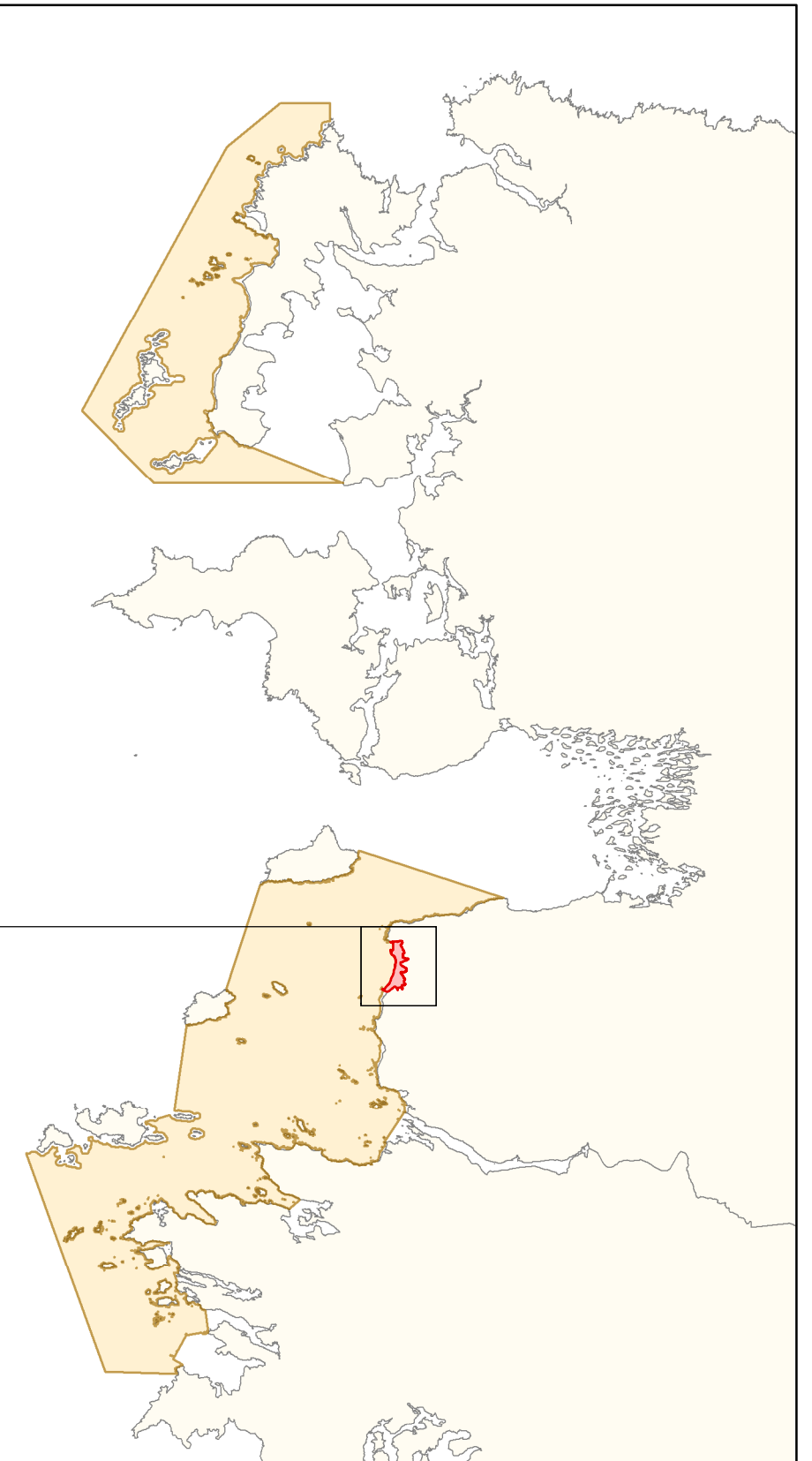
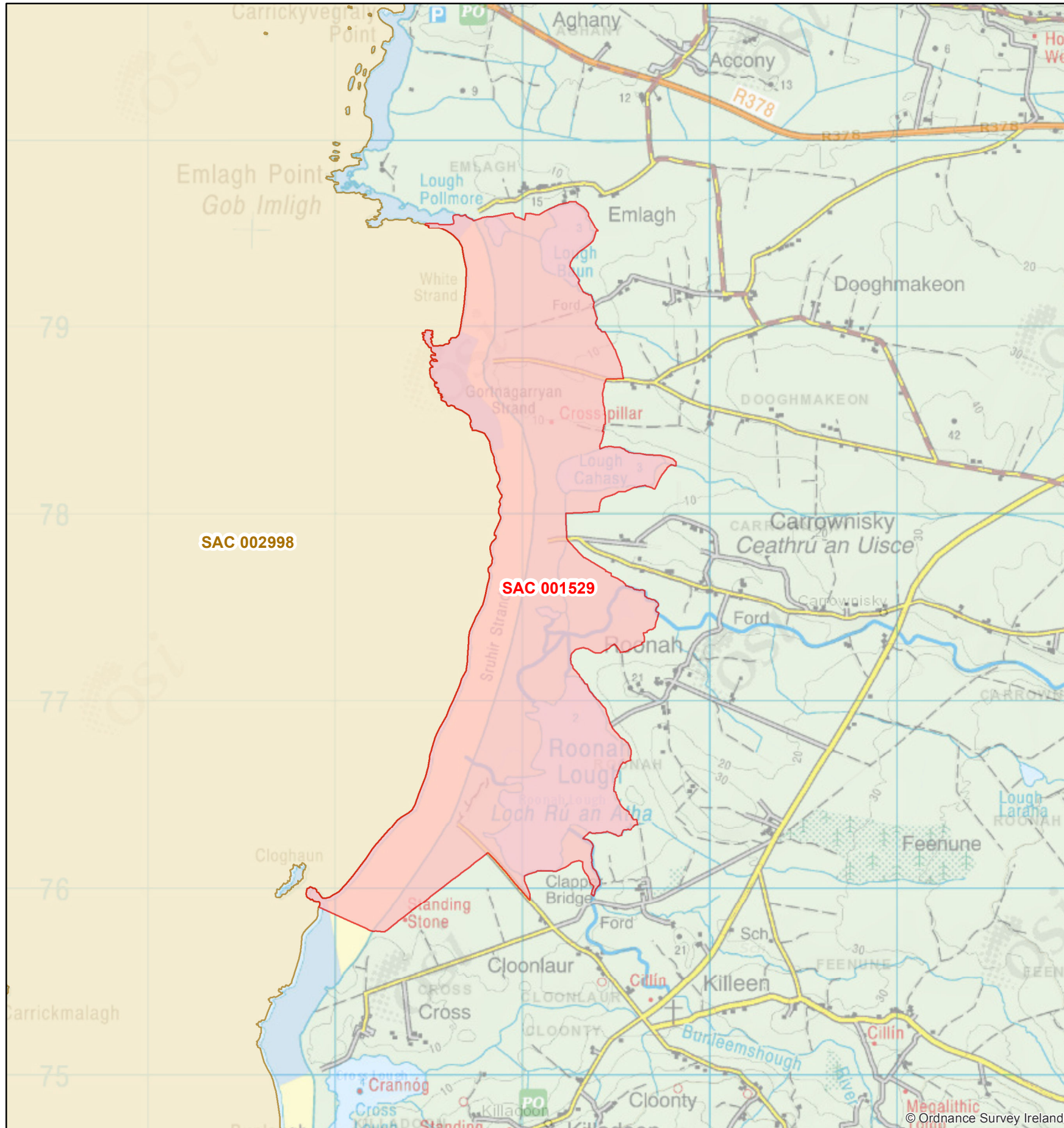
Conservation Objectives for : Lough Cahasy, Lough Baun and Roonah Lough SAC [001529]

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

To maintain the favourable conservation condition of Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes) in Lough Cahasy, Lough Baun and Roonah Lough SAC, which is defined by the following list of attributes and targets:

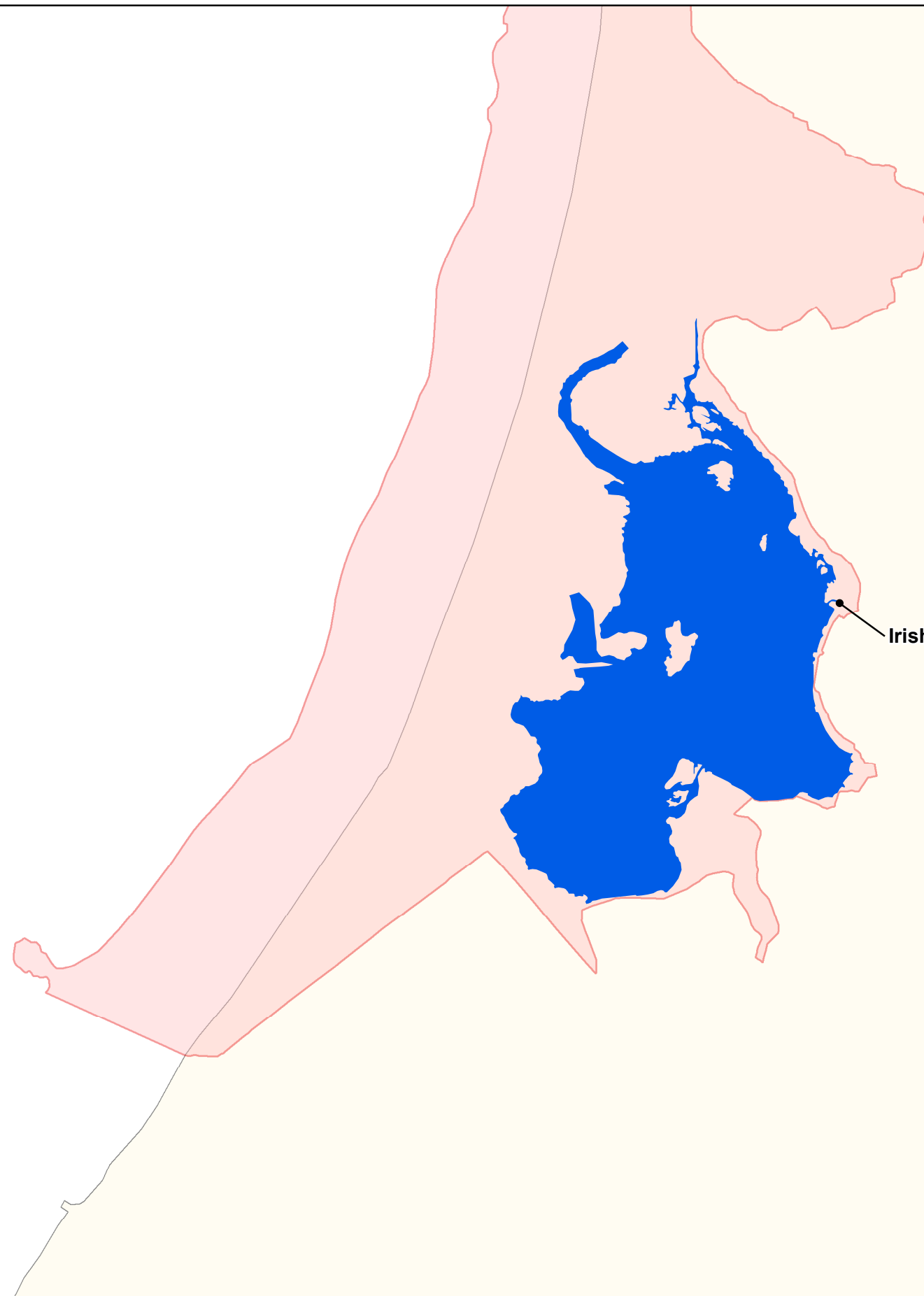
Attribute	Measure	Target	Notes
Habitat area	Hectares	Area stable or increasing, subject to natural processes, including erosion and succession. For the sub-site mapped: Lough Cahasy - 0.9ha. See map 4	Based on data from the Coastal Monitoring Project (CMP) (Ryle et al., 2009). Shifting dunes along the shoreline with <i>Ammophila arenaria</i> was mapped at the sub-site Lough Cahasy (CMP site ID: 109) to give a total estimated area of 0.9ha within Lough Cahasy, Lough Baun and Roonah Lough SAC. The habitat is very difficult to measure in view of its dynamic nature. See the Lough Cahasy, Lough Baun and Roonah Lough 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 4 for known distribution	Based on data from Ryle et al. (2009). The mobile dunes are not extensive and are mainly confined to a narrow band along Gortnagarryan Strand. 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). 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. The CMP considers that the mobile dunes in the SAC will persist owing to the continuous input of fresh sand from longshore drift. 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 Gaynor (2008) and Ryle et al. (2009). 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). 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). 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. The occurrence of the negative indicator species common ragwort (<i>Senecio jacobea</i>) in the mobile dunes in the SAC was negligible. See the coastal habitats supporting document for further details





Legend

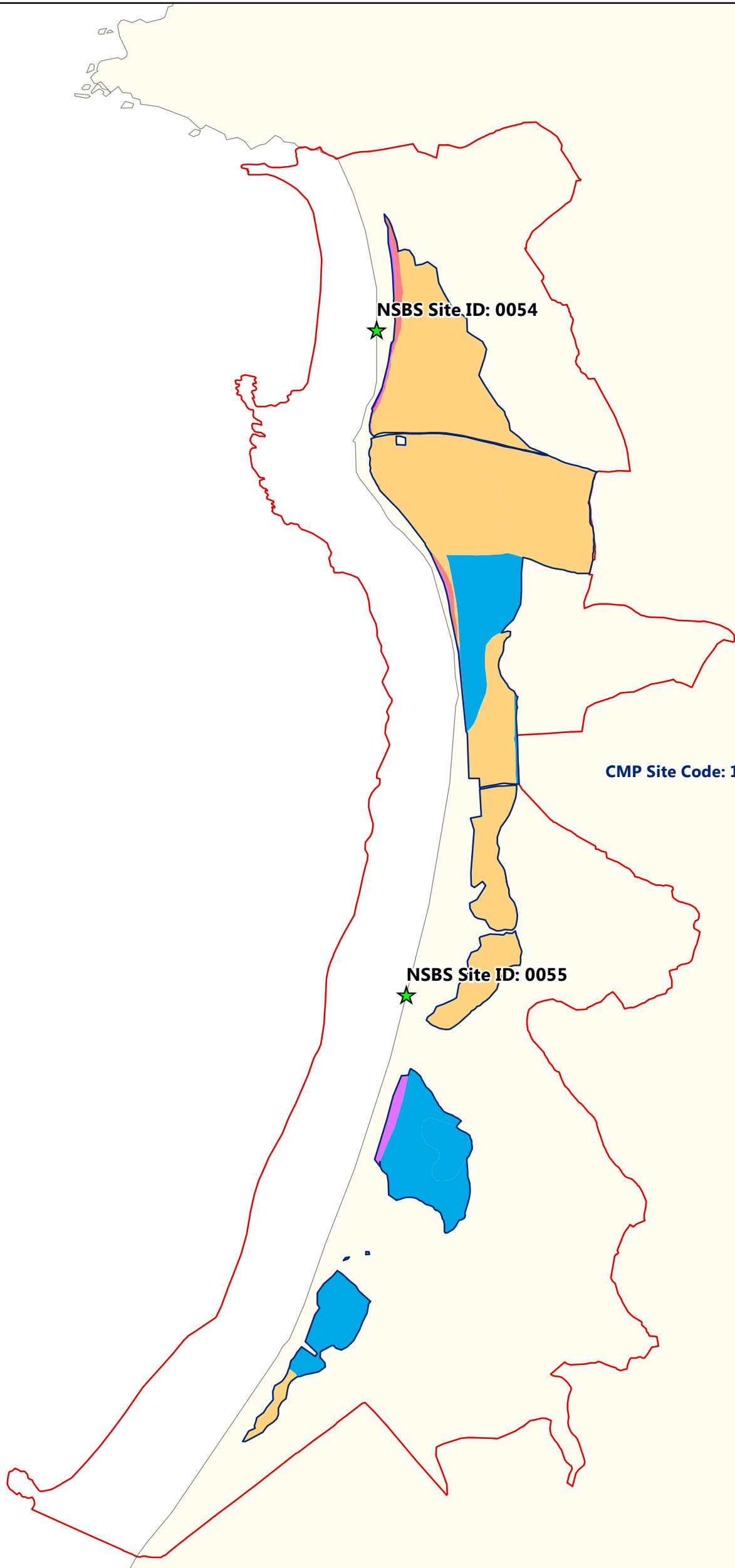
- Lough Cahasy, Lough Baun and Roonah Lough SAC 001529
- West Connacht Coast SAC 002998



Irish Lagoon Inventory, SITE CODE: IL072

Legend

- Lough Cahasy, Lough Baun and Roonah Lough SAC 001529
- 1150 *Coastal lagoons



Legend

- Lough Cahasy, Lough Baun and Roonah Lough SAC 001529
- Coastal Monitoring Project Survey Area
- Annex I Qualifying Interests**
- ★ 1220 Perennial vegetation of stony banks
- 2120 Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes)
- Annex I Non-qualifying Interests**
- 1210 Annual vegetation of drift lines
- 2110 Embryonic shifting dunes
- 2130 *Fixed dunes with herbaceous vegetation ('grey dunes')
- 21AO *Machair
- OSi Discovery Series County Boundary