

National Parks and Wildlife Service

Conservation Objectives Series

Broadhaven Bay SAC 000472



An Roinn
Ealaíon, Oidhreachta agus Gaeltachta

Department of
Arts, Heritage and the Gaeltacht



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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*

000472	Broadhaven Bay SAC
1140	Mudflats and sandflats not covered by seawater at low tide
1160	Large shallow inlets and bays
1170	Reefs
1330	Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>)
8330	Submerged or partially submerged sea caves

Please note that this SAC overlaps with Blacksod Bay/Broadhaven Bay SPA (004037). It is adjacent to Mullet/Blacksod Bay Complex SAC (000470), Glenamoy Bog Complex SAC (000500), Erris Head SAC (001501) and West Connaught Coast SAC (002998). See map 2. The conservation objectives for this site should be used in conjunction with those for overlapping and adjacent sites 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 :	2007
Title :	Surveys of sensitive subtidal benthic communities
Author :	MERC
Series :	Unpublished report to NPWS
Year :	2009
Title :	Saltmarsh monitoring project 2007-2008
Author :	McCorry, M.; Ryle, T.
Series :	Unpublished report to NPWS
Year :	2014
Title :	Broadhaven Bay SAC (site code: 472) Conservation objectives supporting document- coastal habitats V1
Author :	NPWS
Series :	Conservation objectives supporting document
Year :	2014
Title :	Broadhaven Bay SAC (site code: 472) Conservation objectives supporting document- marine habitats V1
Author :	NPWS
Series :	Conservation objectives supporting document

Other References

Year :	1997
Title :	The BioMar biotope viewer: a guide to marine habitats, fauna and flora in Britain and Ireland
Author :	Picton, B.E.; Costello, M.J.
Series :	Environmental Science Unit, Trinity College Dublin
Year :	1998
Title :	The saltmarshes of Ireland: an inventory and account of their geographical variation
Author :	Curtis, T.G.F.; Sheehy Skeffington, M.J.
Series :	Biology and Environment, Proceedings of the Royal Irish Academy 98B: 87-104
Year :	2010
Title :	Subtidal benthic investigations in Broadhaven Bay cSAC (site code: IE000472) and Blacksod/Broadhaven SPA (site code: IE004037)
Author :	Aquafact
Series :	Unpublished report to the Marine Institute and NPWS
Year :	2010
Title :	Reef investigations in Broadhaven Bay cSAC (site code: IE000472) Co. Mayo
Author :	Aquafact
Series :	Unpublished report to the Marine Institute and NPWS
Year :	2013
Title :	Benthic survey services framework. Blacksod Bay intertidal surveys 2009 & 2010
Author :	RPS
Series :	Unpublished report to the Marine Institute and NPWS

Spatial data sources

Year :	Interpolated 2014
Title :	1994 BioMar Survey; 2009 and 2010 intertidal surveys; 2007 and 2010 subtidal surveys
GIS Operations :	Polygon feature classes from marine community types base data sub-divided based on interpolation of marine survey data. Expert opinion used as necessary to resolve any issues arising
Used For :	1140, 1170, marine community types (maps 3, 5 and 6)
Year :	2005
Title :	OSi Discovery series vector data
GIS Operations :	High Water Mark (HWM) polyline feature class converted into polygon feature class; clipped to SAC boundary. EPA WFD transitional waterbody data erased from extent. Expert opinion used as necessary to resolve any issues arising
Used For :	1160 (map 4)
Year :	Derived 2014
Title :	Coast of Ireland Oblique Imagery Survey 2003
GIS Operations :	Point dataset created from visual inspection of survey
Used For :	8330 (map 4)
Year :	2005
Title :	OSi Discovery series vector data
GIS Operations :	High water mark (HWM) and low water mark (LWM) polyline feature classes converted into polygon feature classes and combined; EU Annex I Saltmarsh and Coastal data erased out if present
Used For :	Marine community types base data (map 6)
Year :	Revision 2010
Title :	Saltmarsh Monitoring Project 2007-2008. Version 1
GIS Operations :	QIs selected; clipped to SAC boundary; overlapping regions with Coastal CO data investigated and resolved with expert opinion used
Used For :	1330 (map 7)

Conservation Objectives for : Broadhaven Bay SAC [000472]

1140 Mudflats and sandflats not covered by seawater at low tide

To maintain the favourable conservation condition of Mudflats and sandflats not covered by seawater at low tide in Broadhaven Bay SAC, which is defined by the following list of attributes and targets:

Attribute	Measure	Target	Notes
Habitat area	Hectares	The permanent habitat area is stable or increasing, subject to natural processes. See map 3	Habitat area was estimated using OSi data as 495ha
Community distribution	Hectares	Conserve the following community types in a natural condition: Coarse sediment to sandy mud with <i>Pygospio elegans</i> community complex; Sand with <i>Angulus tenuis</i> community complex. See map 6	Based on intertidal surveys in 2009 and 2010 (RPS, 2013). See marine supporting document for further information

Conservation Objectives for : Broadhaven Bay SAC [000472]

1160 Large shallow inlets and bays

To maintain the favourable conservation condition of Large shallow inlets and bays in Broadhaven Bay SAC, which is defined by the following list of attributes and targets:

Attribute	Measure	Target	Notes
Habitat area	Hectares	The permanent habitat area is stable or increasing, subject to natural processes. See map 4	Habitat area was estimated as 8,674ha using OSi data and the Transitional Water Body area as defined under the Water Framework Directive
Community extent	Hectares	Maintain the extent of the <i>Zostera</i> -dominated community, subject to natural processes. See map 6	Based on a dive survey undertaken in 2007 (MERC, 2007). See marine supporting document for further details
Community structure: <i>Zostera</i> density	Shoots per m ²	Conserve the high quality of <i>Zostera</i> -dominated community, subject to natural processes	Based on diver observation and underwater viewer (MERC, 2007). See marine supporting document for further details
Community distribution	Hectares	Conserve the following community types in a natural condition: Coarse sediment to sandy mud with <i>Pygospio elegans</i> community complex; Sand with <i>Angulus tenuis</i> community complex; Sand to coarse sediment with crustaceans and <i>Polyophthalmus pictus</i> community complex; Subtidal sand with polychaetes community complex; Furoid-dominated reef community complex; Subtidal reef community complex. See map 6	Based on a BioMar survey in 1994 (Picton and Costello, 1997), a sensitive species survey in 2007 (MERC, 2007), intertidal and subtidal surveys in 2009 and 2010 (Aquafact, 2010; RPS, 2013) and an intertidal walkover undertaken in 2013. See marine supporting document for further information

1170 Reefs

To maintain the favourable conservation condition of Reefs in Broadhaven Bay SAC, which is defined by the following list of attributes and targets:

Attribute	Measure	Target	Notes
Habitat area	Hectares	The permanent habitat area is stable or increasing, subject to natural processes. See map 5	Habitat area estimated as 1,103ha from 1994 BioMar survey (Picton and Costello, 1997) and intertidal and subtidal reef surveys in 2009 (Aquafact, 2010)
Distribution	Occurrence	The distribution of reefs remains stable, subject to natural processes. See map 5 for mapped distribution	Based on information from 1994 BioMar survey (Picton and Costello, 1997) and intertidal and subtidal reef surveys in 2009 (Aquafact, 2010). See marine supporting document for further details
Community structure	Biological composition	Conserve the following community types in a natural condition: Furoid-dominated reef community complex; Subtidal reef community complex. See map 6	Reef mapping based on information from 1994 BioMar survey (Picton and Costello, 1997) and intertidal and subtidal reef surveys in 2009 (Aquafact, 2010) and an intertidal walkover undertaken in 2013. See marine supporting document for further details

Conservation Objectives for : Broadhaven Bay SAC [000472]

1330 Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*)

To maintain the favourable conservation condition of Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) in Broadhaven Bay SAC, which is defined by the following list of attributes and targets:

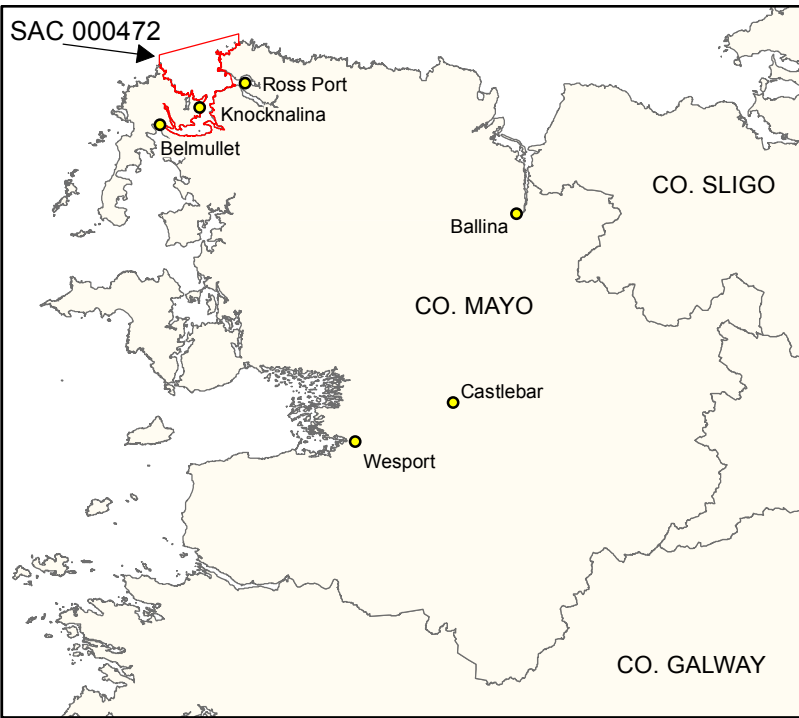
Attribute	Measure	Target	Notes
Habitat area	Hectares	Area stable or increasing, subject to natural processes, including erosion and succession. Potential area mapped: 13.46ha. See map 7	Based on data from Saltmarsh Monitoring Project (SMP) (McCorry and Ryle, 2009). Although the site was not physically surveyed, 13.46ha of potential habitat were identified through an examination of orthophotographs (OSi 2005 Series). NB further unsurveyed areas maybe present within the site. See coastal habitats supporting document for further details
Habitat distribution	Occurrence	No decline or change in habitat distribution, subject to natural processes. See map 7 for potential distribution	Based on data from Curtis and Sheehy Skeffington (1998) McCorry and Ryle (2009). Two saltmarsh sites are known to occur at Tallagh and Barnatra. Both sites are in sheltered locations in the inner part of the bay. See coastal habitats supporting document for further details
Physical structure: sediment supply	Presence/ absence of physical barriers	Maintain natural circulation of sediments and organic matter, without any physical obstructions	Based on data from NPWS internal files. The natural functioning of the saltmarsh at Tallagh has been affected by a long established road. Some reclamation works have also been carried out at this site in the past. See coastal habitats supporting document for further details
Physical structure: creeks and pans	Occurrence	Maintain/restore creek and pan structure, subject to natural processes, including erosion and succession	Pools and channels occur at the saltmarshes at Barnatra and Tallagh. See coastal habitats supporting document for further details
Physical structure: flooding regime	Hectares flooded; frequency	Maintain natural tidal regime	See coastal habitats supporting document for further details
Vegetation structure: zonation	Occurrence	Maintain range of coastal habitats including transitional zones, subject to natural processes including erosion and succession	Based on data from NPWS internal files. At both Barnatra and Tallagh, the saltmarshes merge into wet pasture and bog habitats. See coastal habitats supporting document for further details
Vegetation structure: vegetation height	Centimetres	Maintain structural variation within sward	Based on data from NPWS internal files. The structure of the saltmarshes at Barnatra and Tallagh has been affected by grazing, which is heavy in places. See coastal habitats supporting document for further details
Vegetation structure: vegetation cover	Percentage cover at a representative number of monitoring stops	Maintain more than 90% area outside creeks vegetated	See 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 SMP (McCorry and Ryle, 2009)	Based on data from NPWS internal files. Turf fucoids are present. See coastal habitats supporting document for further details
Vegetation structure: negative indicator species - <i>Spartina anglica</i>	Hectares	There is no record of common cordgrass (<i>Spartina anglica</i>) in this SAC. Prevent establishment of cordgrass	<i>Spartina</i> is thought to be absent from the SAC. See coastal habitats supporting document for further details

Conservation Objectives for : Broadhaven Bay SAC [000472]


8330 Submerged or partially submerged sea caves

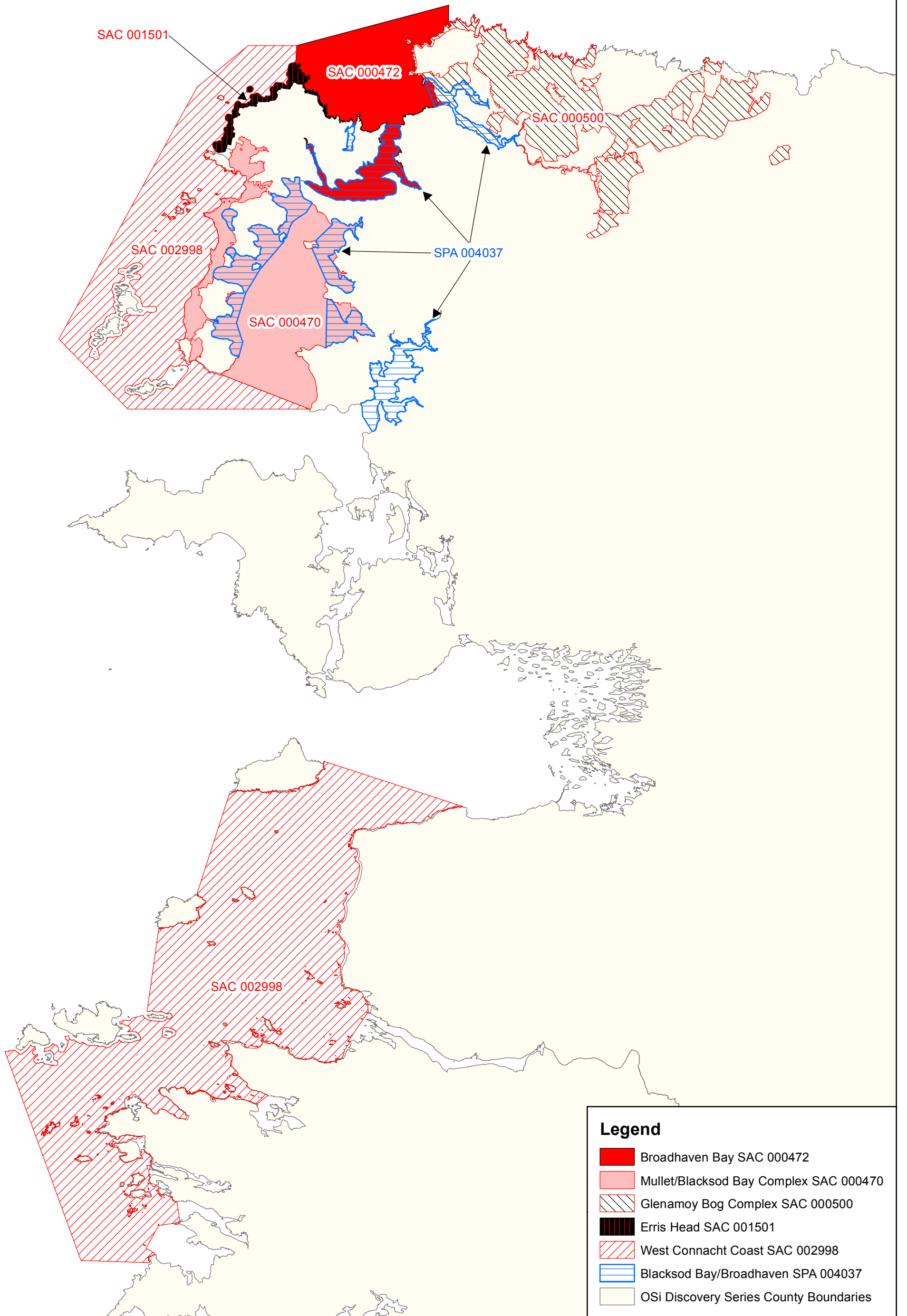
To maintain the favourable conservation condition of Submerged or partially submerged sea caves in Broadhaven Bay SAC, which is defined by the following list of attributes and targets:

Attribute	Measure	Target	Notes
Distribution	Occurrence	The distribution of sea caves remains stable, subject to natural processes. See map 4 for known caves	Sea cave distribution at this site was derived from an oblique aerial survey and therefore only detects the presence of sea caves visible intertidally in the flight path. NB other sea caves may occur within the SAC
Community structure	Biological composition	Human activities should occur at levels that do not adversely affect the ecology of sea caves in this SAC	



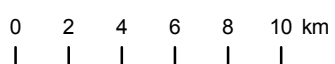
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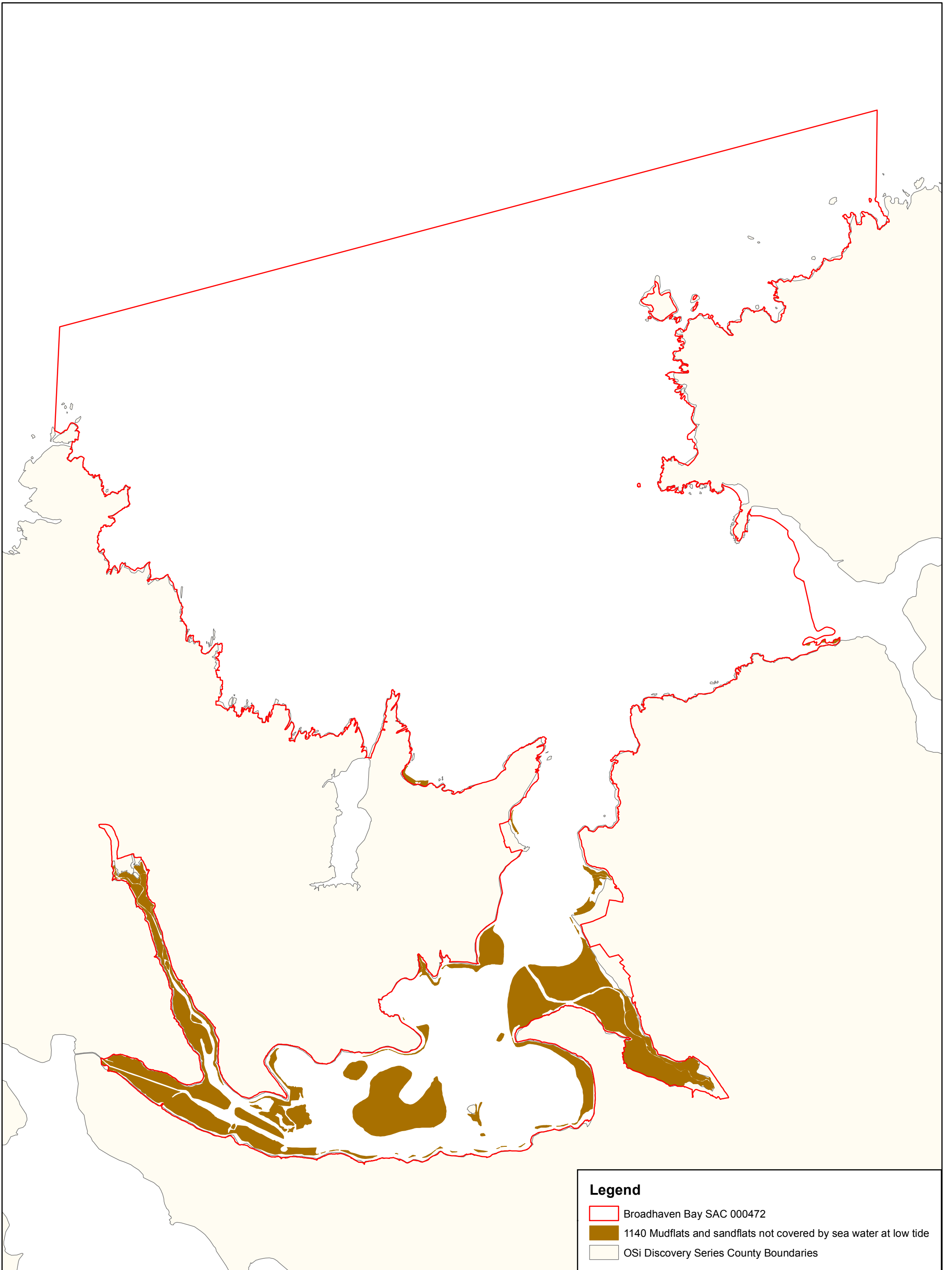
 Broadhaven Bay SAC 000472



Legend

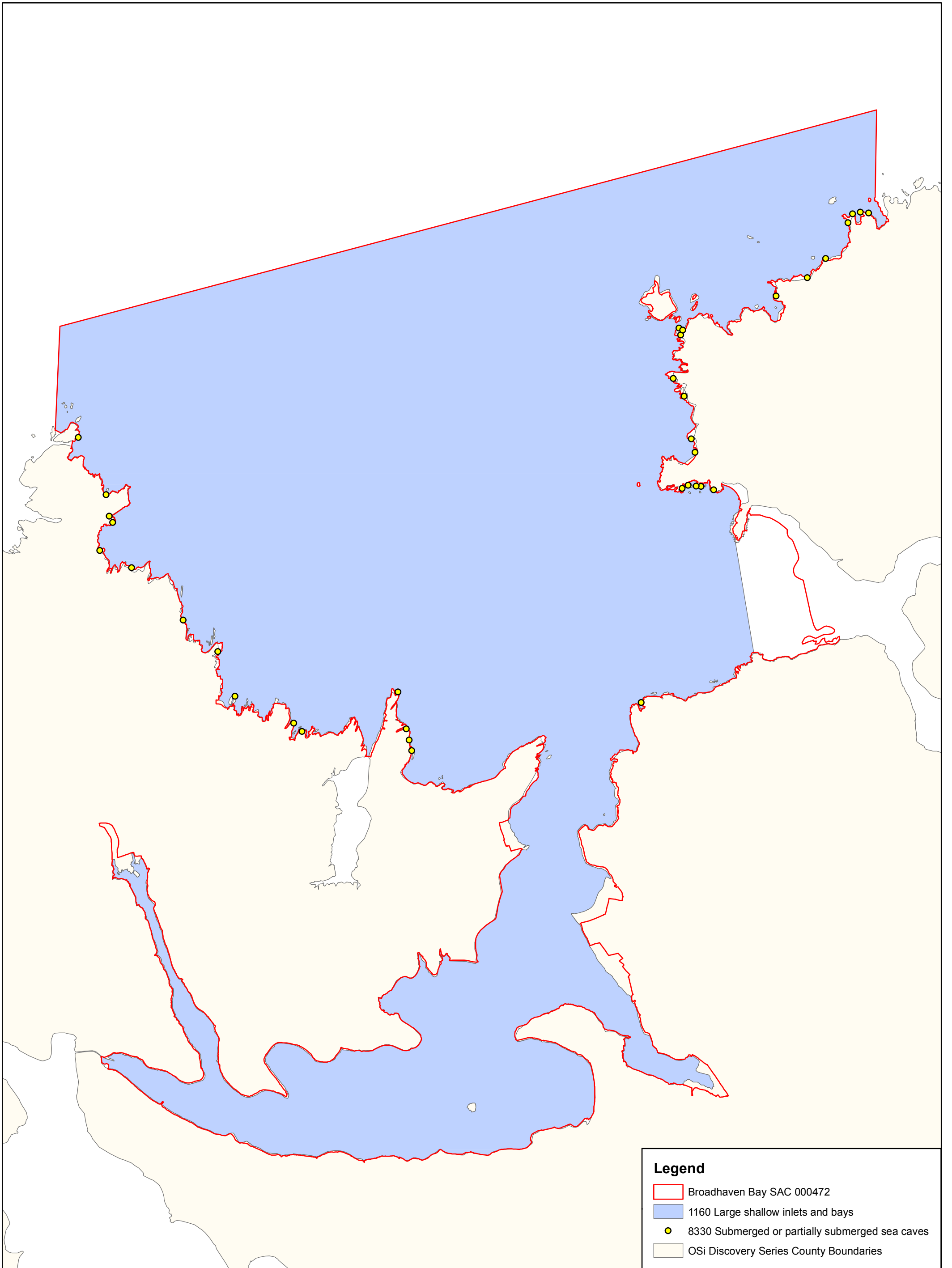
- Broadhaven Bay SAC 000472
- Mullet/Blacksod Bay Complex SAC 000470
- Glenamoy Bog Complex SAC 000500
- Erris Head SAC 001501
- West Connacht Coast SAC 002998
- Blacksod Bay/Broadhaven SPA 004037
- OSi Discovery Series County Boundaries





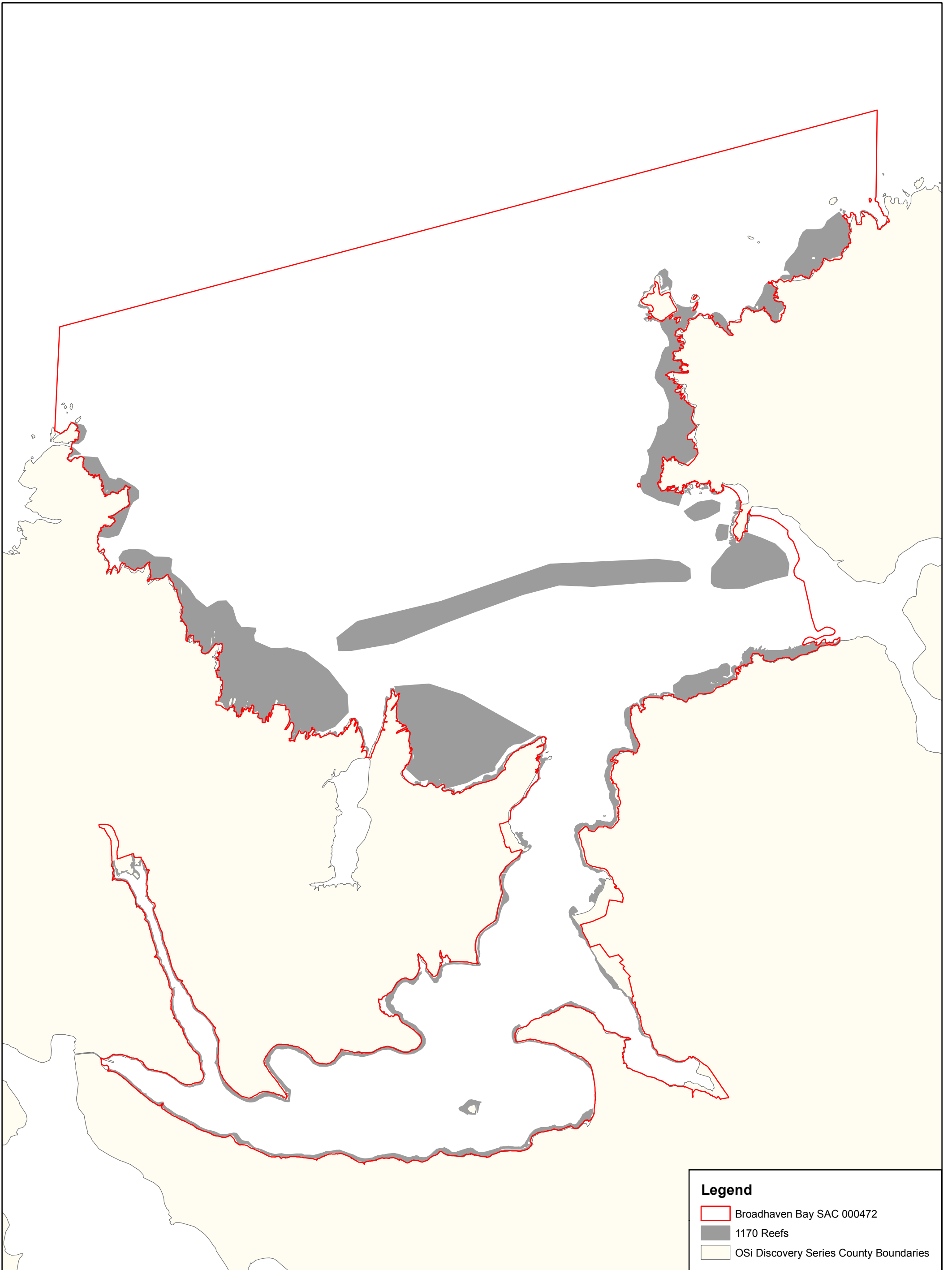
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- Broadhaven Bay SAC 000472
- 1140 Mudflats and sandflats not covered by sea water at low tide
- OSi Discovery Series County Boundaries



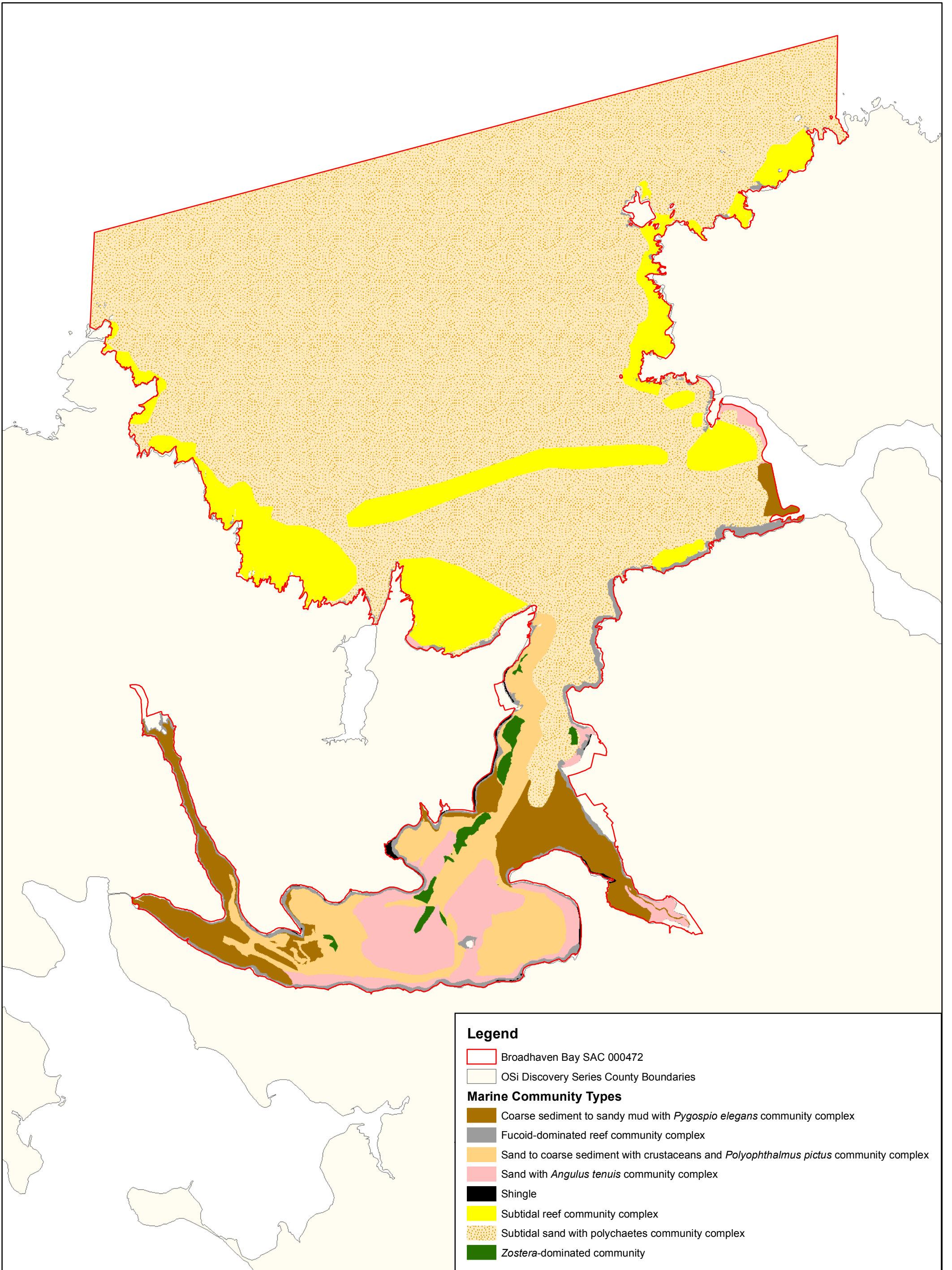
Legend

- Broadhaven Bay SAC 000472
- 1160 Large shallow inlets and bays
- 8330 Submerged or partially submerged sea caves
- OSi Discovery Series County Boundaries



Legend

- Broadhaven Bay SAC 000472
- 1170 Reefs
- OSi Discovery Series County Boundaries

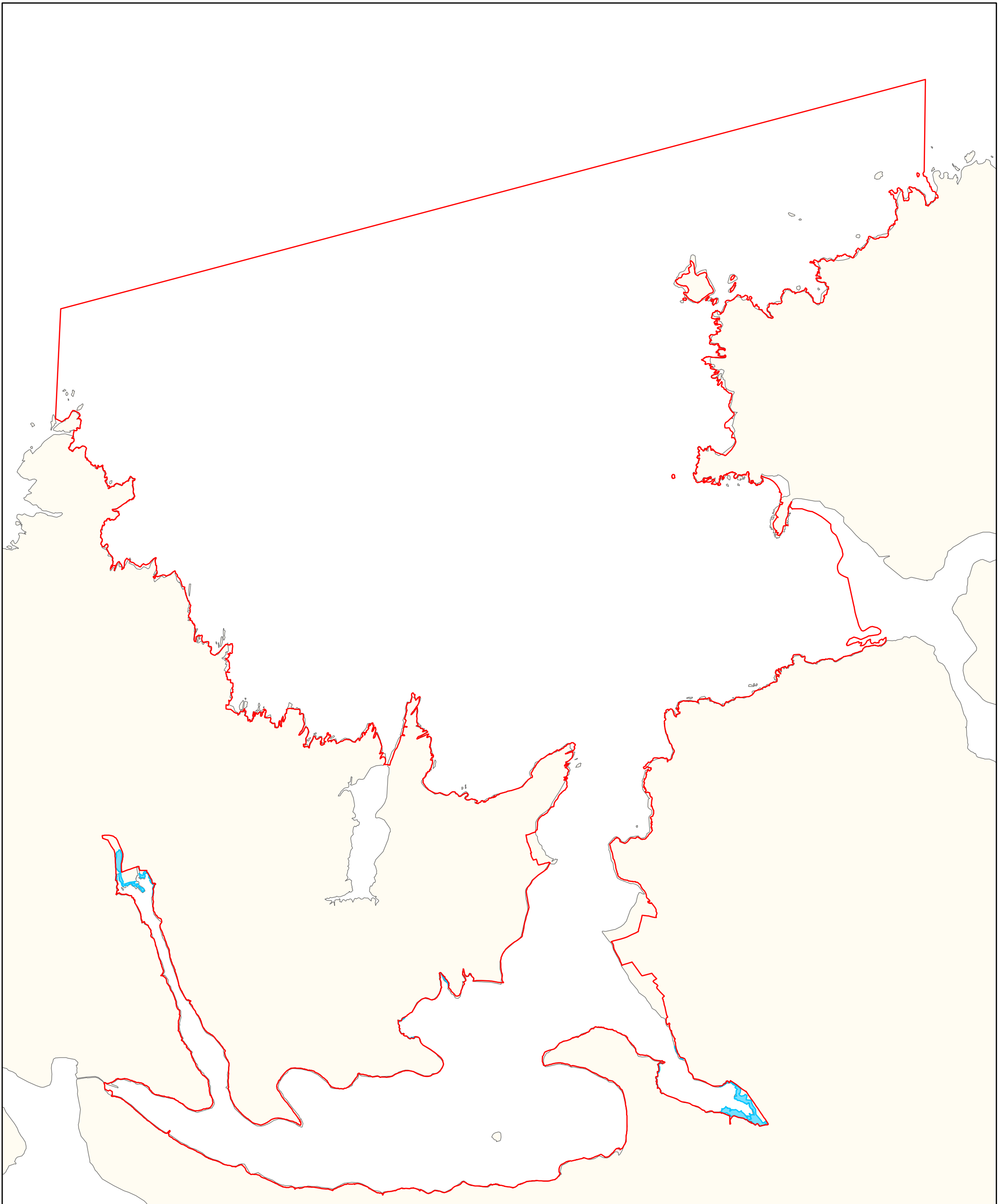


Legend


- Broadhaven Bay SAC 000472
- OSi Discovery Series County Boundaries

Marine Community Types

- Coarse sediment to sandy mud with *Pygospio elegans* community complex
- Furoid-dominated reef community complex
- Sand to coarse sediment with crustaceans and *Polyophthalmus pictus* community complex
- Sand with *Angulus tenuis* community complex
- Shingle
- Subtidal reef community complex
- Subtidal sand with polychaetes community complex
- Zostera*-dominated community



Legend

 Broadhaven Bay SAC 000472

 OSi Discovery Series County Boundaries

Saltmarsh Habitats

 Potential 1330 / 1410 Atlantic salt meadows (*Glauco-Puccinellietalia maritima*) / Mediterranean salt meadows (*Juncetalia maritimi*)

