

National Parks and Wildlife Service

Conservation Objectives Series

Lady's Island Lake SAC 000704



An Roinn Cultúir,
Oidhreacht agus Gaeltachta
Department of Culture,
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*

000704	Lady's Island Lake SAC
<hr/>	
1150	Coastal lagoonsE
1170	Reefs
1220	Perennial vegetation of stony banks

Please note that this SAC overlaps with Lady's Island Lake SPA (004009) and is adjacent to Tacumshin Lake SAC (000709) and Carnsore Point SAC (002269). See map 2. The conservation objectives for this site should be used in conjunction with those for the 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 :	Inventory of Irish coastal lagoons (version 2)
Author :	Oliver, G.
Series :	Unpublished report to NPWS
Year :	2016
Title :	Ireland Red List No. 10: Vascular Plants
Author :	Wyse Jackson, M.; FitzPatrick, Ú.; Cole, E.; Jebb, M.; McFerran, D.; Sheehy Skeffington, M.; Wright, M.
Series :	Ireland Red List Series, NPWS
Year :	2017
Title :	Survey and assessment of vegetated shingle and associated habitats at 30 coastal sites in Ireland
Author :	Martin, J.R.; Daly, O.H.; Devaney F.M.
Series :	Irish Wildlife Manuals, No. 98
Year :	2019
Title :	Lady's Island Lake SAC (000704) Conservation objectives supporting document- coastal habitats V1
Author :	NPWS
Series :	Conservation objectives supporting document
Year :	2019
Title :	Lady's Island Lake SAC (000704) Conservation objectives supporting document- coastal lagoons V1
Author :	NPWS
Series :	Conservation objectives supporting document
Year :	2019
Title :	Lady's Island Lake SAC (000704) 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 :	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
Year :	2013
Title :	Intertidal and subtidal reef survey of Lady's Island Lake SAC
Author :	MERC
Series :	Unpublished report to the Marine Institute and NPWS

Spatial data sources

Year :	Revision 2011
Title :	Inventory of Irish Coastal Lagoons. Version 3
GIS Operations :	Clipped to SAC boundary. Expert opinion used as necessary to resolve any issues arising
Used For :	1150 (map 3)
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 4)
Year :	Interpolated 2013
Title :	1994 BioMar survey; 2012 subtidal and intertidal reef survey
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 :	Marine community types, 1170 (maps 4, 5)
Year :	2017
Title :	Vegetated Shingle Monitoring Project
GIS Operations :	QI selected; clipped to SAC boundary. Expert opinion used as necessary to resolve any issues arising
Used For :	1220 (map 6)

Conservation Objectives for : Lady's Island Lake SAC [000704]

1150 Coastal lagoons

To restore the favourable conservation condition of Coastal lagoons* in Lady's Island Lake 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: 299.6ha. See map 3	Area calculated from spatial data derived from Oliver (2007) for Lady's Island Lake (site code IL006). See the Lady's Island Lake 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 Lady's Island Lake lagoon (site code IL006) in Oliver (2007). See the lagoons supporting document for further details
Salinity regime	Practical salinity units (psu)	Annual median salinity and temporal variation within natural range	Lady's Island Lake is recorded as a meso-euhaline lagoon. See the lagoons supporting document for further details
Hydrological regime	Metres	Annual water level fluctuations and minima within natural ranges	The maximum depth of Lady's Island Lake lagoon is recorded as 6m. See the lagoons supporting document for further details
Barrier: connectivity between lagoon and sea	Permeability	Appropriate hydrological connections between lagoon and sea, including where necessary, appropriate management	Lady's Island Lake is described as a natural sedimentary lagoon with a sand-gravel barrier. See the lagoons supporting document for further details. See also the conservation objective for perennial vegetation of stony banks (1220) in this volume
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 lagoons 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 lagoons 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 lagoons supporting document for further details
Depth of macrophyte colonisation	Metres	Macrophyte colonisation to at least 2m depth	Where a lagoon is less than 2m deep, it is expected that macrophyte colonisation would extend to the full depth. See the lagoons 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 lagoons supporting document for further details
Typical animal species	Number	Maintain listed lagoonal specialists, subject to natural variation	Species listed in Oliver (2007). See the lagoons 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 accelerated encroachment by reedbeds. See the lagoons supporting document for further details

Conservation Objectives for : Lady's Island Lake SAC [000704]

1170 Reefs

To maintain the favourable conservation condition of Reefs in Lady's Island Lake 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 1ha from a 1994 BioMar survey (Picton and Costello, 1997) and a 2012 reef survey (MERC, 2013). See the Lady's Island Lake SAC conservation objectives supporting document for marine habitats for further details
Distribution	Occurrence	The distribution of reefs is stable or increasing, subject to natural processes. See map 4 for mapped distribution	Based on information from a 1994 BioMar survey (Picton and Costello, 1997) and a 2012 reef survey (MERC, 2013). See the marine habitats supporting document for further details
Community structure	Biological composition	Conserve the following community type in a natural condition: Intertidal reef community complex. See map 5	The likely area of the marine community was derived from a 1994 BioMar survey (Picton and Costello, 1997) and a 2012 reef survey (MERC, 2013). See the marine habitats supporting document for further details

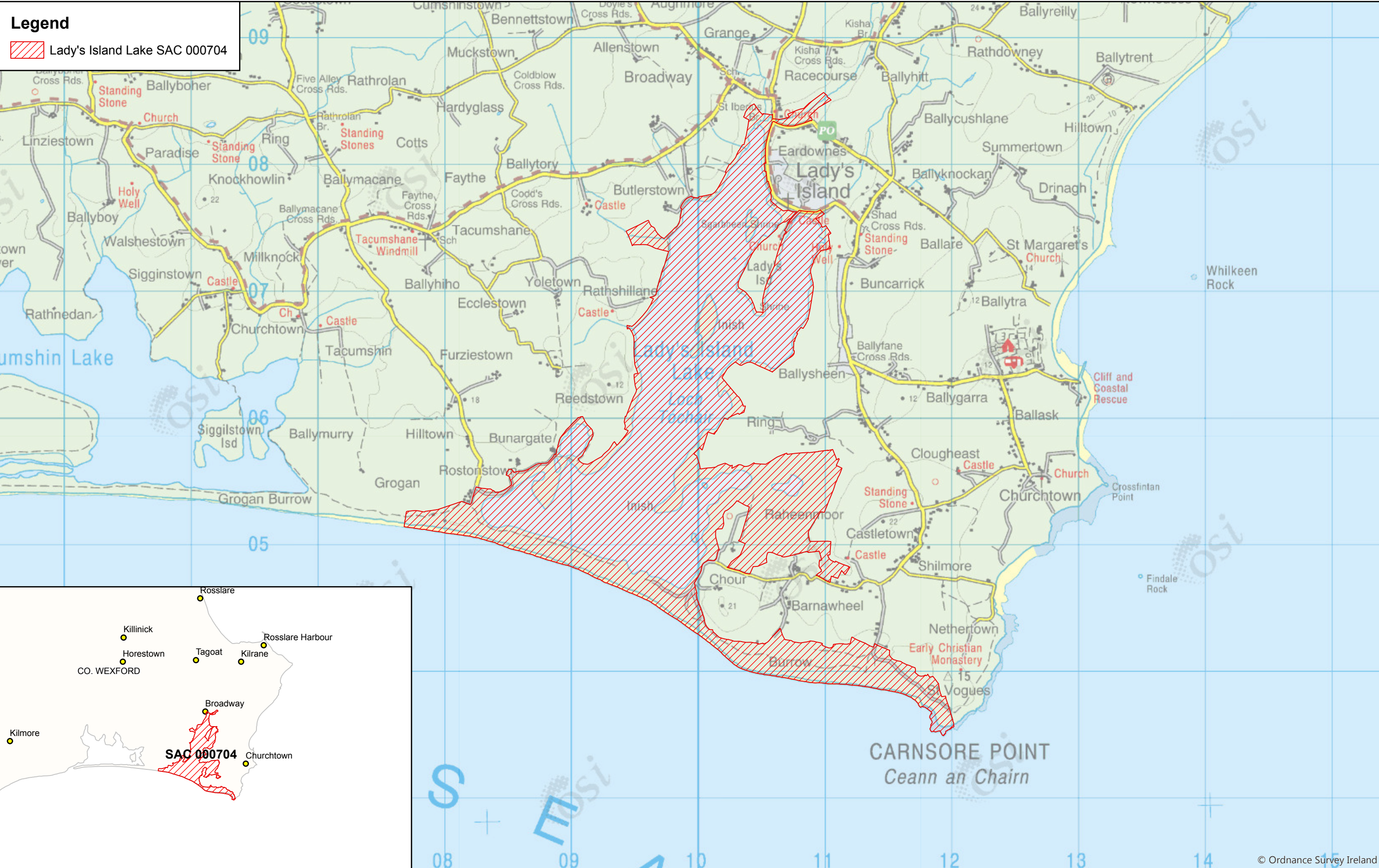
Conservation Objectives for : Lady's Island Lake SAC [000704]

1220 Perennial vegetation of stony banks

To restore the favourable conservation condition of Perennial vegetation of stony banks in Lady's Island Lake SAC, which is defined by the following list of attributes and targets:

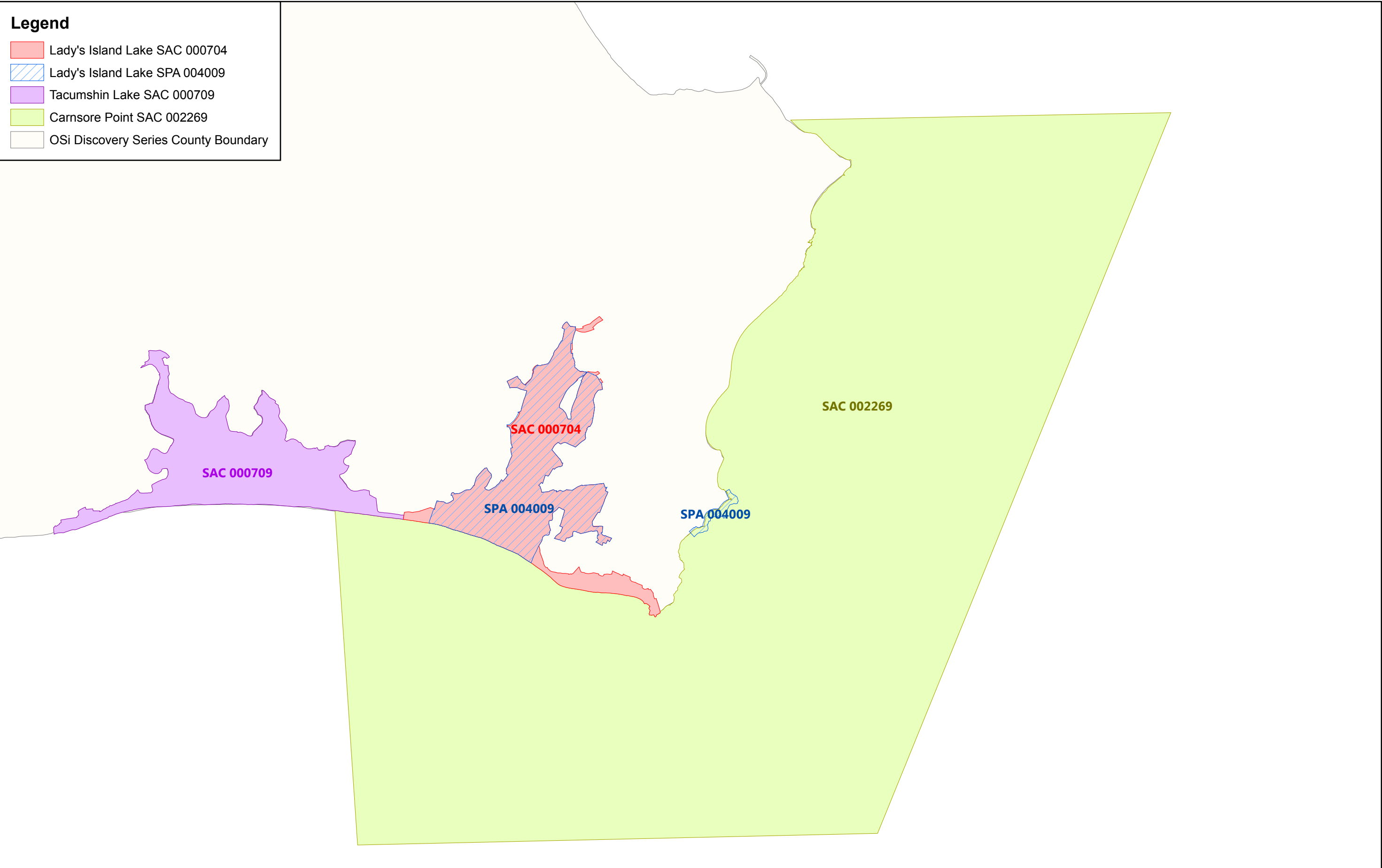
Attribute	Measure	Target	Notes
Habitat area	Hectares	Area stable or increasing, subject to natural processes, including erosion and succession. For the sub-site mapped: Lady's Island Lake - 0.97ha. See map 6	Based on data from the Vegetated Shingle Monitoring Project (VSM) (Martin et al., 2017). Perennial vegetation of stony banks was surveyed and mapped in the sub-site Lady's Island Lake (VSM site code 024) to give a total estimated area of 0.97ha within Lady's Island Lake SAC. NB further unsurveyed areas may be present within the SAC. See the Lady's Island Lake 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, including erosion and succession. See map 6 for recorded distribution	Based on data from Martin et al. (2017). The habitat is located south of Lady's Island Lake and west of Carnsore Point in the SAC. See the coastal habitats supporting document for further details. NB further unsurveyed areas may be present within the SAC
Physical structure: functionality and sediment supply	Presence/absence of physical barriers	Maintain, or where necessary restore, the natural circulation of sediment and organic matter, without any physical obstructions	Based on data from Martin et al. (2017). Shingle extraction was recorded as a negative impact on the habitat in the Lady's Island Lake sub-site. See the coastal habitats supporting document for further details
Physical structure: disturbance	Percentage	No more than 20% of the habitat affected by disturbance	Based on data from Martin et al. (2017). Disturbance can include damage from heavy trampling, vehicle damage and removal of substrate. 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 Martin et al. (2017). Habitats that are associated with the vegetated shingle in Lady's Island Lake SAC include sand dune habitats and a lagoon. See the coastal habitats supporting document for further details
Vegetation composition: communities and typical species	Occurrence	Maintain the typical species within the range of vegetated shingle communities	Based on data from Martin et al. (2017) where information on the vegetated shingle communities and associated typical species lists are presented. See the coastal habitats supporting document for the list of typical species recorded in the pioneer community of the habitat in the Lady's Island Lake sub-site during the VSM. The Near Threatened species yellow-horned poppy (<i>Glaucium flavum</i>) (Wyse Jackson et al., 2016) was also recorded in the habitat during the VSM
Vegetation composition: negative indicator species	Percentage	Negative indicator species cover in any individual monitoring stop should not be more than 25%; no negative indicator species should be present in more than 60% of monitoring stops	Based on data from Martin et al. (2017) where the list of negative indicator species for the habitat is also presented. Negative indicators include species indicative of changes in nutrient status and species not considered characteristic of the habitat. The negative indicator species common ragwort (<i>Senecio jacobaea</i>) was recorded within one monitoring stop in the Lady's Island Lake sub-site during the VSM, but at less than 1% cover. See the coastal habitats supporting document for further details

Vegetation composition: non-native species	Percentage	Non-native species cover in any individual monitoring stop should not be more than 1%; non-native species should not be present in more than 20% of monitoring stops; cover of non-native species across the whole site should not be more than 1%	Based on data from Martin et al. (2017). No non-native species were recorded within the shingle habitat in the Lady's Island Lake sub-site during the VSM. However, sea-buckthorn (<i>Hippophae rhamnoides</i>) was recorded in the fixed dune habitat surveyed by the VSM in the SAC (Martin et al., 2017) and invasion is a threat to the vegetated shingle habitat. See the coastal habitats supporting document for further details
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Legend

- Lady's Island Lake SAC 000704
- Lady's Island Lake SPA 004009
- Tacumshin Lake SAC 000709
- Carnsore Point SAC 002269
- OSi Discovery Series County Boundary

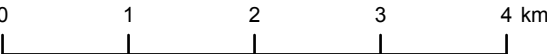


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MAP 2:
LADY'S ISLAND LAKE SAC
CONSERVATION OBJECTIVES
ADJACENT AND OVERLAPPING
DESIGNATIONS

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

SITE CODE: SAC 000704; version 3.
SAC 000709; version 3.01. SAC 002269; version 3.01
SPA 004009; version 3.
CO. WEXFORD



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 athbhreithnithe a déanamh ar theorainneacha na gceantar comharthaithe. Suirbhéarachta Ordonáis na hÉireann Ceadúnas



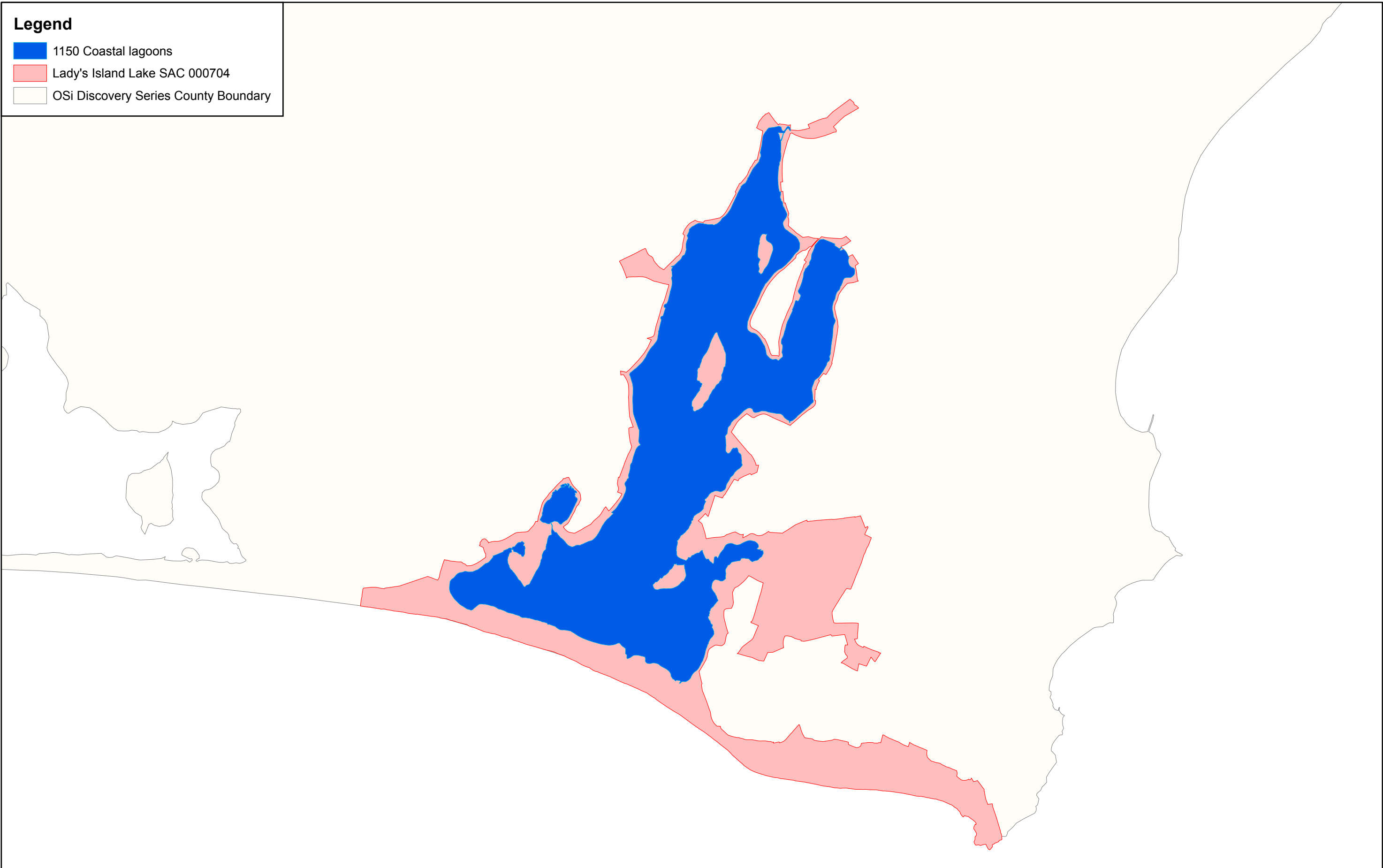
Map Version 1
Date: Mar 2019



Legend

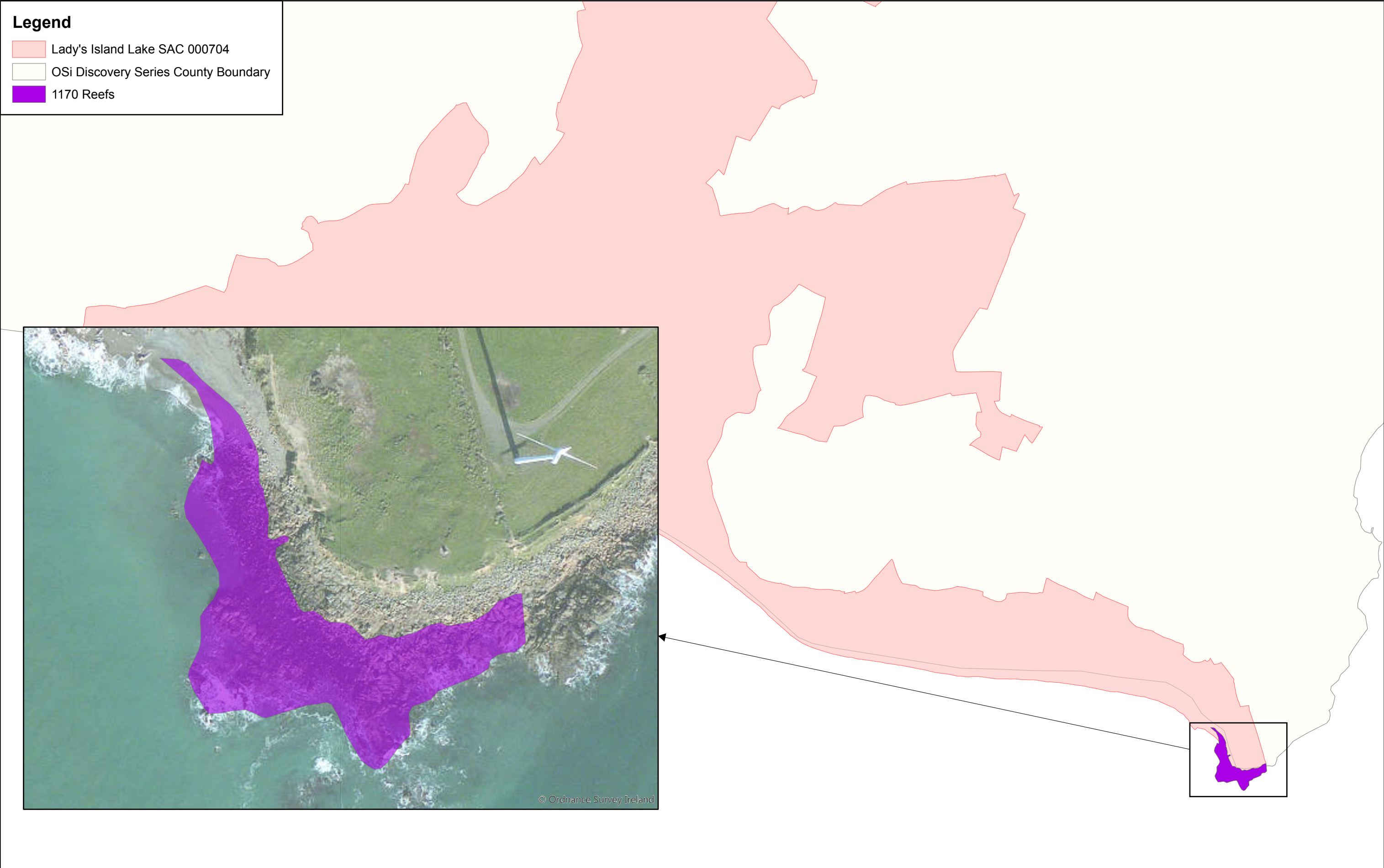
1150 Coastal lagoons

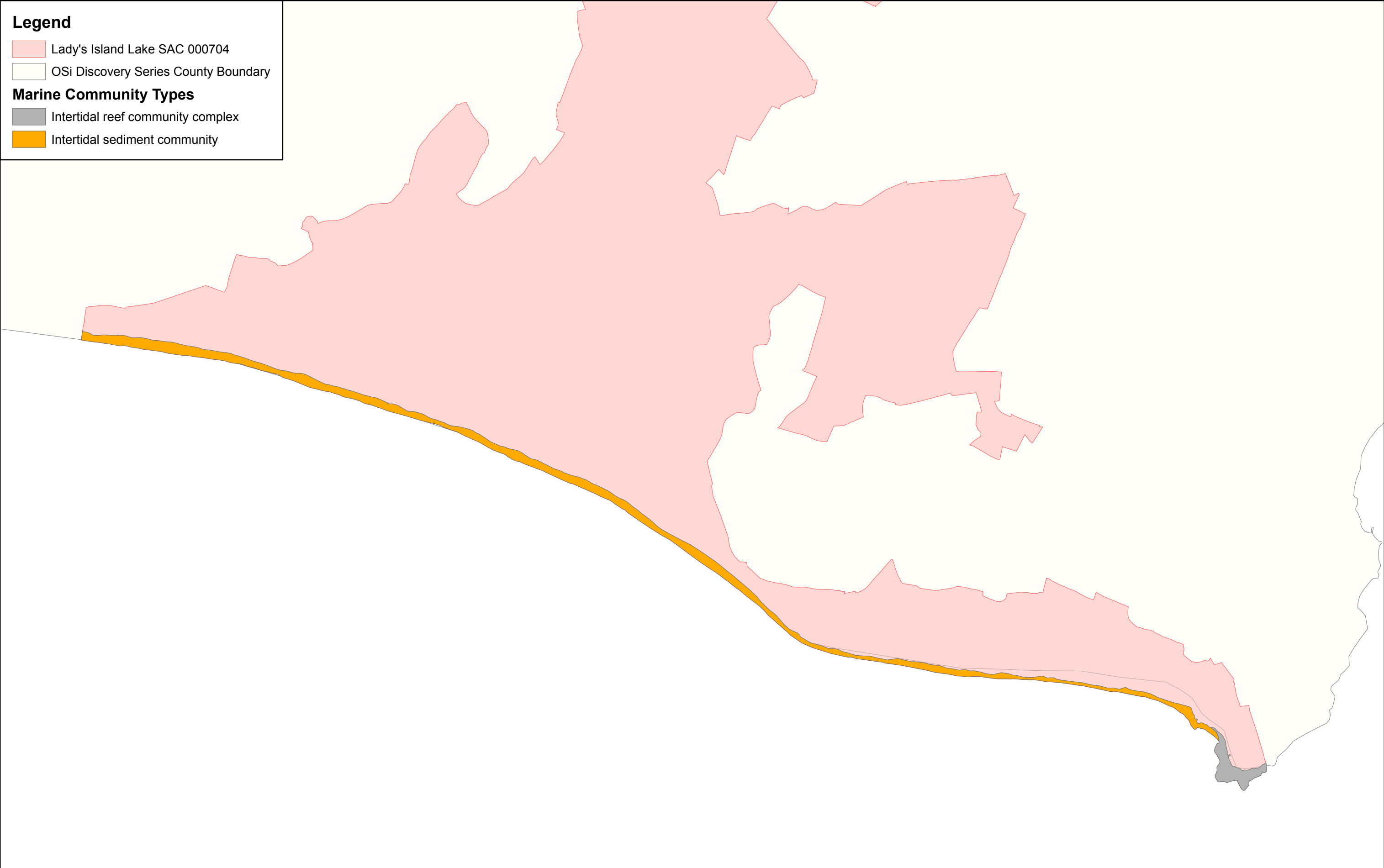
Lady's Island Lake SAC 000704

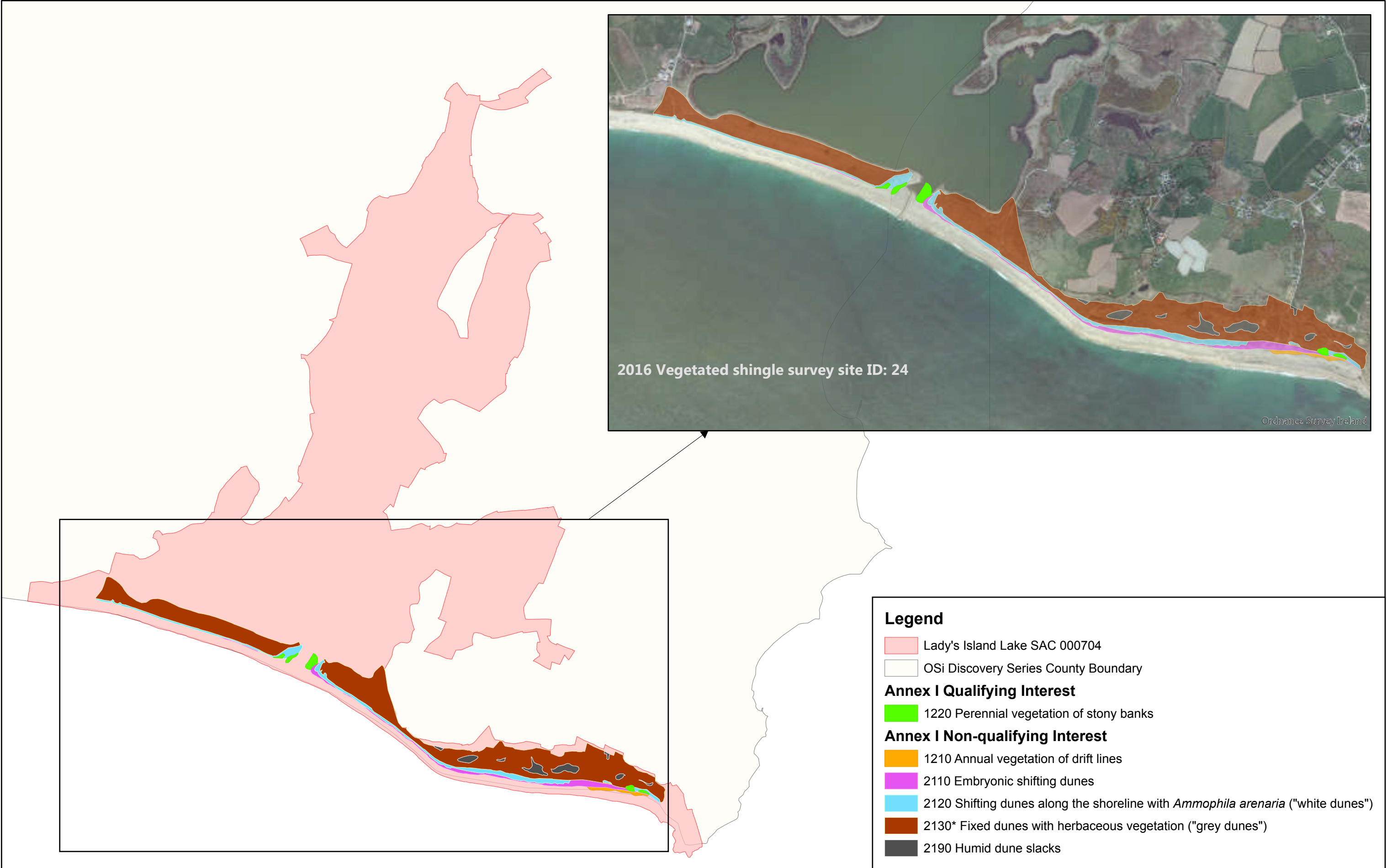
OSi Discovery Series County Boundary



 <div>An Roinn Cultúir, Oidhreacht agus Gaeltachta Department of Culture, Heritage and the Gaeltacht</div>	<p>MAP 3: LADY'S ISLAND LAKE SAC CONSERVATION OBJECTIVES COASTAL LAGOON</p> <p>Map to be read in conjunction with the NPWS Conservation Objectives Document.</p>	<p>SITE CODE: SAC 000704; version 3. CO.WEXFORD</p>	<p>The mapped boundaries are of an indicative and general nature only. Boundaries of designated areas are subject to revision. Ordnance Survey of Ireland Licence No EN 0059216. © Ordnance Survey of Ireland Government of Ireland</p> <p>Níl sna teorainneacha ar na léarscáileanna ach nod garshuíomhach ginearálta. Féadfar athbhreithnithe a déanamh ar theorainneacha na gceantar comharthaithe. Suirbhéarachta Ordonáis na hÉireann Ceadúnas</p>	 <p>Map Version 1 Date: Mar 2019</p>
		<p>0 0.5 1 1.5 km</p>		







Legend

- Lady's Island Lake SAC 000704
- OSi Discovery Series County Boundary

Annex I Qualifying Interest

- 1220 Perennial vegetation of stony banks

Annex I Non-qualifying Interest

- 1210 Annual vegetation of drift lines
- 2110 Embryonic shifting dunes
- 2120 Shifting dunes along the shoreline with *Ammophila arenaria* ("white dunes")
- 2130* Fixed dunes with herbaceous vegetation ("grey dunes")
- 2190 Humid dune slacks