

# National Parks and Wildlife Service

---

## *Conservation Objectives Series*

---

Courtmacsherry Estuary SAC 001230



*An Roinn  
Ealaíon, Oidhreachta agus Gaeltachta*  

---

*Department of  
Arts, Heritage and the Gaeltacht*



**National Parks and Wildlife Service,  
Department of Arts, Heritage and the Gaeltacht,  
7 Ely Place, Dublin 2, Ireland.  
Web: [www.npws.ie](http://www.npws.ie)  
E-mail: [nature.conservation@ahg.gov.ie](mailto:nature.conservation@ahg.gov.ie)**

**Citation:**

**NPWS (201 ) Conservation Objectives: Courtmacsherry Estuary SAC 001230.  
Version 1. National Parks and Wildlife Service, Department of Arts, Heritage  
and the Gaeltacht.**

**Series Editor: Rebecca Jeffrey  
ISSN 2009-4086**

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

---

001230	Courtmacsherry Estuary SAC
1130	Estuaries
1140	Mudflats and sandflats not covered by seawater at low tide
1210	Annual vegetation of drift lines
1220	Perennial vegetation of stony banks
1310	<del>Upland heath</del> and other annuals colonising mud and sand
1330	Atlantic salt meadows ( <i>Glauco-Puccinellietalia maritimae</i> )
1410	Mediterranean salt meadows ( <i>Juncetalia maritimi</i> )
2110	Embryonic shifting dunes
2120	Shifting dunes along the shoreline with <del>Cladonia</del> (white dunes)
2130	Fixed coastal dunes with herbaceous vegetation (grey dunes)E

**Please note that this SAC overlaps with Courtmacsherry Bay SPA (004219). See map 2. The conservation objectives for this site should be used in conjunction with those for the overlapping site as appropriate.**

## 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>	1999
<b>Title :</b>	National Shingle Beach Survey of Ireland 1999
<b>Author :</b>	Moore, D.; Wilson, F.
<b>Series :</b>	Unpublished Report to NPWS
<hr/>	
<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>	2009
<b>Title :</b>	Saltmarsh monitoring project 2007-2008
<b>Author :</b>	McCorry, M.; Ryle, T.
<b>Series :</b>	Unpublished report to NPWS
<hr/>	
<b>Year :</b>	2014
<b>Title :</b>	Courtmacsherry Estuary SAC (site code 1230) Conservation objectives supporting document-coastal habitats V1
<b>Author :</b>	NPWS
<b>Series :</b>	Conservation objectives supporting document
<hr/>	
<b>Year :</b>	2014
<b>Title :</b>	Courtmacsherry Estuary SAC (site code 1230) Conservation objectives supporting document-marine 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
<hr/>	
<b>Year :</b>	2012
<b>Title :</b>	Intertidal benthic survey of Courtmacsherry Estuary SAC and Courtmacsherry Bay SPA
<b>Author :</b>	MERC
<b>Series :</b>	Unpublished report to the Marine Institute and NPWS
<hr/>	
<b>Year :</b>	2012
<b>Title :</b>	Subtidal benthic survey of Courtmacsherry Estuary SAC and Courtmacsherry Bay SPA
<b>Author :</b>	MERC
<b>Series :</b>	Unpublished report to the Marine Institute and NPWS

## Spatial data sources

<b>Year :</b>	2010
<b>Title :</b>	EPA WFD transitional waterbody data
<b>GIS Operations :</b>	Clipped to SAC boundary. Expert opinion used as necessary to resolve any issues arising
<b>Used For :</b>	1130 (map 3)
<hr/>	
<b>Year :</b>	Interpolated 2014
<b>Title :</b>	Intertidal survey survey 2011; subtidal survey 2012
<b>GIS Operations :</b>	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
<b>Used For :</b>	1140, marine community types (maps 4 and 5)
<hr/>	
<b>Year :</b>	2005
<b>Title :</b>	OSi Discovery series vector data
<b>GIS Operations :</b>	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
<b>Used For :</b>	Marine community types base data (map 5)
<hr/>	
<b>Year :</b>	Revision 2010
<b>Title :</b>	Saltmarsh Monitoring Project 2007-2008. Version 1
<b>GIS Operations :</b>	QIs selected; clipped to SAC boundary; overlapping regions with Coastal CO data investigated and resolved with expert opinion used
<b>Used For :</b>	1310, 1330, 1410 (map 6)
<hr/>	
<b>Year :</b>	2009
<b>Title :</b>	Coastal Monitoring Project 2004-2006. Version 1
<b>GIS Operations :</b>	QIs selected; clipped to SAC boundary; overlapping regions with Saltmarsh CO data investigated and resolved with expert opinion used
<b>Used For :</b>	1210, 2110, 2120, 2130 (map 7)
<hr/>	
<b>Year :</b>	Revision 2012
<b>Title :</b>	National Shingle Beach Survey
<b>GIS Operations :</b>	Clipped to SAC boundary. Expert opinion used as necessary to resolve any issues arising
<b>Used For :</b>	1220 (map 7)
<hr/>	

**1130 Estuaries**

**To maintain the favourable conservation condition of Estuaries in Courtmacsherry Estuary 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	The permanent habitat area is stable or increasing, subject to natural processes. See map 3	Habitat area was estimated as 490ha using OSi data and the defined Transitional Water Body area under the Water Framework Directive
Community distribution	Hectares	Conserve the following community types in a natural condition: Sandy mud to mixed sediments with <i>Tubificoides benedii</i> and <i>Hediste diversicolor</i> community complex; Sand to mixed sediment with oligochaetes community complex; Sand with <i>Nephtys cirrosa</i> community complex. See map 5	Based on intertidal and subtidal surveys undertaken in 2011 and 2012 (MERC, 2012). See marine habitats supporting document for further information

## Conservation Objectives for : Courtmacsherry Estuary SAC [001230]

### 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 Courtmacsherry Estuary 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 using OSi data as 442ha
Community distribution	Hectares	Conserve the following community types in a natural condition: Sandy mud to mixed sediments with <i>Tubificoides benedii</i> and <i>Hediste diversicolor</i> community complex; Sand to mixed sediment with oligochaetes community complex; Sand with <i>Nephtys cirrosa</i> community complex. See map 5	Based on an intertidal survey undertaken in 2011 (MERC, 2012). See marine supporting document for further information



**1210 Annual vegetation of drift lines**

**To maintain the favourable conservation condition of Annual vegetation of drift lines in Courtmacsherry Estuary 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 sub-site mapped: Harbour View - 0.14ha. See map 7	Based on data from the Coastal Monitoring Project (Ryle et al. 2009) Annual vegetation of driftlines was surveyed and mapped at one sub-site, giving a total estimated area of 0.14ha. 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. 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	Based on data from Ryle et al. (2009). See 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	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. Physical barriers can lead to fossilisation or over-stabilisation of dunes, as well as beach starvation resulting in increased rates of erosion. See 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). As well as the transitions between sand dune habitats, the transitions from sand dune to saltmarsh communities at Harbour View are of significant value. 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 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). See coastal habitats supporting document for further details
Vegetation composition: negative indicator species	Percentage cover	Negative indicator species (including non-natives) to represent less than 5% cover	Negative indicators include non-native species, species indicative of changes in nutrient status and species not considered characteristic of the habitat. Based on data from Ryle et al (2009). See coastal habitats supporting document for further details

**1220 Perennial vegetation of stony banks**

**To maintain the favourable conservation condition of Perennial vegetation of stony banks in Courtmacsherry Estuary 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	Current area unknown. One sub-site (Boadstrand Bay) was surveyed during the National Shingle Beach Survey (NSBS) but the extent was not mapped (Moore and Wilson, 1999). 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 mapped location	Full distribution unknown. Shingle in County Cork is typically found as small deposits. From the NSBS vegetated shingle is known to occur at one sub-site: Broadstrand Bay (Moore and Wilson, 1999). See 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	Shingle features are relatively stable in the long term. 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 Moore and Wilson (1999). At Broadstrand Bay the shingle is associated with intertidal habitats. See coastal habitats supporting document for further details
Vegetation composition: typical species and sub-communities	Percentage cover at a representative sample 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). Broadstrand Bay supports a species-rich and diverse flora, including an important population of yellow-horned poppy ( <i>Glaucium flavum</i> ). See coastal habitats supporting document for further details
Vegetation composition: negative indicator species	Percentage cover	Negative indicator species (including non-natives) to represent less than 5% cover	Negative indicators include non-native species, species indicative of changes in nutrient status and species not considered characteristic of the habitat. See coastal habitats supporting document for further details

## Conservation Objectives for : Courtmacsherry Estuary SAC [001230]

### 1310 *GUJW&fbjU* and other annuals colonising mud and sand

To restore the favourable conservation condition of *Salicornia* and other annuals colonizing mud and sand in Courtmacsherry Estuary SAC, which is defined by the following list of attributes and targets:

Attribute	Measure	Target	Notes
Habitat area	Hectares	Area increasing, subject to natural processes, including erosion and succession. For sub-site mapped: Harbour View - 1.18ha. See map 6	Based on data from Saltmarsh Monitoring Project (SMP) (McCorry and Ryle, 2009). One sub-site was mapped, giving a total estimated area of 1.18ha. NB further unsurveyed areas maybe present within the site. Losses have been reported due to spread of common cordgrass ( <i>Spartina anglica</i> ). See coastal habitats supporting document for further details
Habitat distribution	Occurrence	No decline, or change in habitat distribution, subject to natural processes. See map 6 for known distribution	Based on data from McCorry and Ryle (2009). <i>Salicornia</i> is an annual species, so its distribution can vary significantly from year to year. See coastal habitats supporting document for further details
Physical structure: sediment supply	Presence/ absence of physical barriers	Maintain, or where necessary restore, natural circulation of sediments and organic matter, without any physical obstructions	Sediment supply is particularly important for pioneer saltmarsh communities, as the distribution of this habitat depends on accretion rates. It appears that the extent of the <i>Salicornia</i> flats was previously more extensive. See coastal habitats supporting document for further details
Physical structure: creeks and pans	Occurrence	Maintain creek and pan structure, subject to natural processes, including erosion and succession	Based on data from McCorry and Ryle (2009). Creeks deliver sediment throughout saltmarsh system. Creeks and pans are well developed in parts of Harbour View. See coastal habitats supporting document for further details
Physical structure: flooding regime	Hectares flooded; frequency	Maintain natural tidal regime	This pioneer saltmarsh community requires regular tidal inundation. See 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 McCorry and Ryle (2009). Saltmarsh forms transitional communities with dune habitats and freshwater marsh. See coastal habitats supporting document for further details
Vegetation structure: vegetation height	Centimetres	Maintain structural variation within sward	Based on data from McCorry and Ryle (2009). There were signs that Harbour View was previously grazed by cattle and horses but no grazing was evident during survey. See coastal habitats supporting document for details
Vegetation structure: vegetation cover	Percentage cover at a representative number of monitoring stops	Maintain more than 90% of area outside creeks vegetated	Based on data from McCorry and Ryle (2009). See coastal habitats supporting document for details
Vegetation composition: typical species and sub-communities	Percentage cover	Maintain the presence of species-poor communities listed in SMP (McCorry and Ryle, 2009)	Based on data from McCorry and Ryle (2009). See coastal habitats supporting document for further details
Vegetation structure: negative indicator species - <i>Spartina anglica</i>	Hectares	No significant expansion of common cordgrass ( <i>Spartina anglica</i> ). No new sites for this species and an annual spread of less than 1% where it is already known to occur	Based on data from McCorry and Ryle (2009). <i>Spartina</i> is frequent at Harbour View and it forms dense swards in areas. Losses to the area of <i>Salicornia</i> mudflats have been reported due to expansion of <i>Spartina</i> . See coastal habitats supporting document for further details

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

**To restore the favourable conservation condition of Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) in Courtmacsherry Estuary 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 sub-site mapped: Harbour View - 10.79ha. See map 6	Based on data from Saltmarsh Monitoring Project (SMP) (McCorry and Ryle, 2009). One sub-site was mapped (10.79ha) and additional areas of potential saltmarsh (21.59ha) were identified for an examination of aerial photographs, giving a total estimated area of 32.38ha. NB further unsurveyed areas maybe present within the SAC. See coastal habitats supporting document for further details
Habitat distribution	Occurrence	No decline or change in habitat distribution, subject to natural processes. See map 6 for known distribution	Based on data from McCorry and Ryle (2009). 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 McCorry and Ryle (2009). See coastal habitats supporting document for further details
Physical structure: creeks and pans	Occurrence	Maintain creek and pan structure, subject to natural processes, including erosion and succession	Based on data McCorry and Ryle (2009). The efficiency of sediment circulation throughout a saltmarsh depends on the creek pattern. Creeks and pans are well developed in parts of Harbour View. 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 McCorry and Ryle (2009). Saltmarsh forms transitional communities with dune habitats and freshwater marsh. See coastal habitats supporting document for further details
Vegetation structure: vegetation height	Centimetres	Maintain structural variation within sward	Based on data from McCorry and Ryle (2009). There were signs that Harbour View was previously grazed by cattle and horses but no grazing was evident during survey. 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	Based on data from McCorry and Ryle (2009). 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)	See coastal habitats supporting document for further details
Vegetation structure: negative indicator species - <i>Spartina anglica</i>	Hectares	No significant expansion of common cordgrass ( <i>Spartina anglica</i> ), with an annual spread of less than 1% where it is known to occur	Based on data from McCorry and Ryle (2009). <i>Spartina</i> is frequent at Harbour View and it forms dense swards in areas. See coastal habitats supporting document for further details

## Conservation Objectives for : Courtmacsherry Estuary SAC [001230]

### 1410 Mediterranean salt meadows (*Juncetalia maritimi*)

**To maintain the favourable conservation condition of Mediterranean salt meadows (*Juncetalia maritimi*) in Courtmacsherry Estuary 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 sub-site mapped: Harbour View - 3.45ha See map 6	Based on data from the Saltmarsh Monitoring Project (SMP) (McCorry and Ryle, 2009). One sub-site was mapped (3.45ha) and additional areas of potential saltmarsh (3.39ha) were identified for an examination of aerial photographs, giving a total estimated area of 6.84ha. NB further unsurveyed areas maybe present within the site. See coastal habitats supporting document for further details
Habitat distribution	Occurrence	No decline, subject to natural processes. See map 6 for known distribution	Based on data from McCorry and Ryle (2009). See coastal habitats supporting document for further details
Physical structure: sediment supply	Presence/absence of physical barriers	Maintain/restore natural circulation of sediments and organic matter, without any physical obstructions	See coastal habitats supporting document for further details
Physical structure: creeks and pans	Occurrence	Maintain creek and pan structure, subject to natural processes, including erosion and succession	Based on data from McCorry and Ryle (2009). The efficiency of sediment circulation throughout a saltmarsh depends on the creek pattern. Creeks and pans are well developed in parts of Harbour View. See coastal habitats supporting document for further details
Physical structure: flooding regime	Hectares flooded; frequency	Maintain natural tidal regime	Mediterranean salt meadows is found high up in the saltmarsh but requires occasional tidal inundation. 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 McCorry and Ryle (2009). Saltmarsh forms transitional communities with dune habitats and freshwater marsh. See coastal habitats supporting document for further details
Vegetation structure: vegetation height	Centimetres	Maintain structural variation in the sward	Based on data from McCorry and Ryle (2009). There were signs that Harbour View was previously grazed by cattle and horses but no grazing was evident during survey. 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% of area outside creeks vegetated	Based on data from McCorry and Ryle (2009). 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)	See coastal habitats supporting document for further details
Vegetation structure: negative indicator species - <i>Spartina anglica</i>	Hectares	No significant expansion of common cordgrass ( <i>Spartina anglica</i> ), with an annual spread of less than 1% where it is already known to occur	Based on data from McCorry and Ryle (2009). <i>Spartina</i> is frequent at Harbour View and it forms dense swards in areas. See coastal habitats supporting document for further details

**2110 Embryonic shifting dunes**

**To maintain the favourable conservation condition of Embryonic shifting dunes in Courtmacsherry Estuary 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 sub-site mapped: Harbour View - 0.65ha. See map 7	Based on data from the Coastal Monitoring Project (CMP) (Ryle et al., 2009). Embryo dunes were surveyed and mapped at one sub-site, giving a total estimated area of 0.65ha. Habitat is very difficult to measure in view of its dynamic nature. See coastal habitats supporting document for further details
Habitat distribution	Occurrence	No decline, subject to natural processes. See map 7 for known distribution	Based on data from Ryle et al. (2009). See 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	Dunes are naturally dynamic systems that require continuous supply and circulation of sand. Physical barriers can lead to fossilisation or over-stabilisation of dunes, as well as beach starvation resulting in increased rates of erosion. See 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). As well as the transitions between sand dune habitats, the transitions from sand dune to saltmarsh communities at Harbour View are of significant value. See 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). See coastal habitats supporting document for further details
Vegetation composition: typical species and sub-communities	Percentage cover	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). See 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). 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 coastal habitats supporting document for further details

**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 Courtmacsherry Estuary SAC, which is defined by the following list of attributes and targets:**

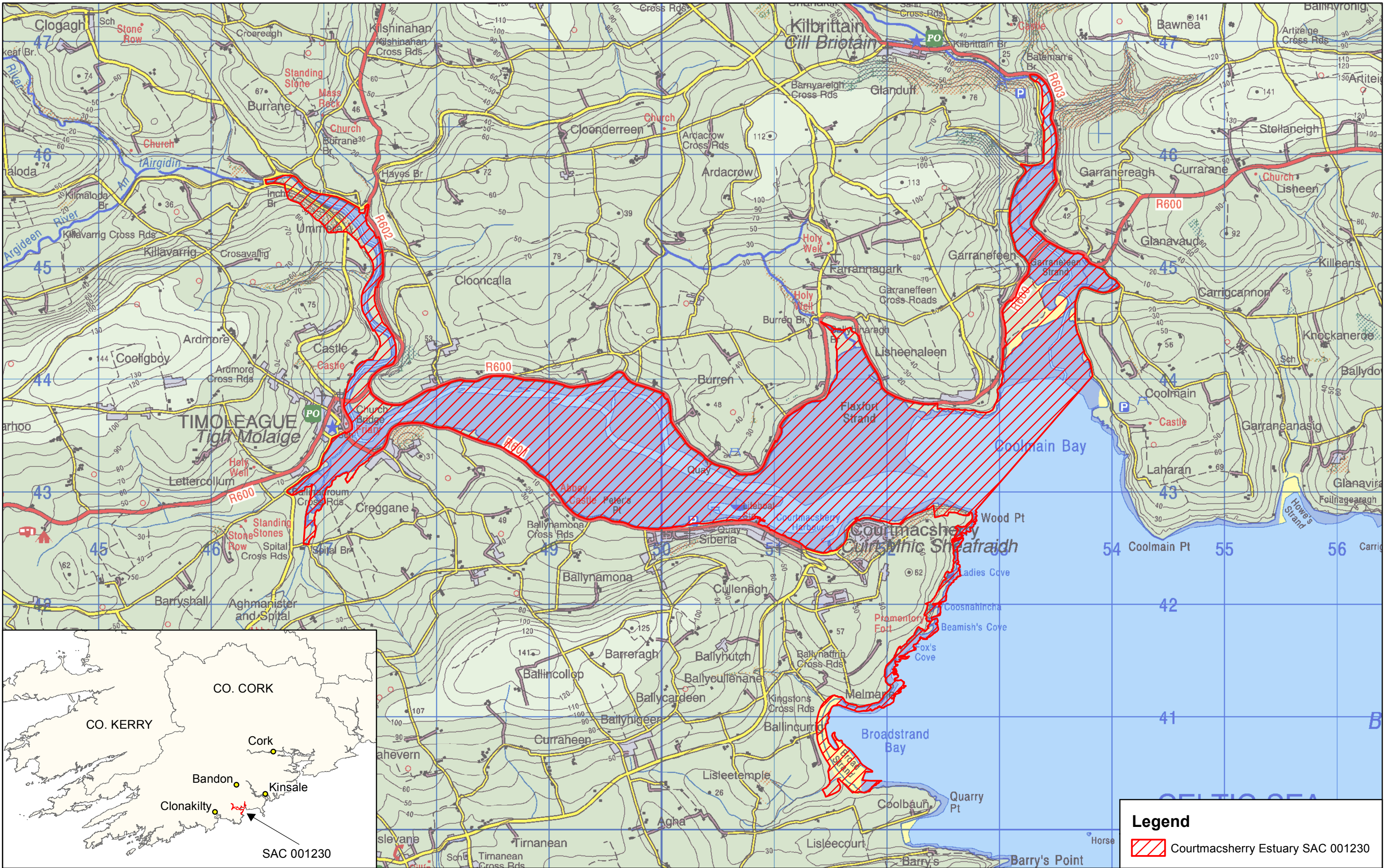
Attribute	Measure	Target	Notes
Habitat area	Hectares	Area stable or increasing, subject to natural processes including erosion and succession. For sub-site mapped: Harbour View - 0.41ha. See map 7	Based on data from the Coastal Monitoring Project (CMP) (Ryle et al., 2009). Marram dunes were surveyed and mapped at one sub-site, giving a total estimated area of 0.14ha. Habitat is very difficult to measure in view of its dynamic nature. 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 known distribution	Based on data from Ryle et al. (2009). See 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	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 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). As well as the transitions between sand dune habitats, the transitions from sand dune to saltmarsh communities at Harbour View are of significant value. See 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 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 coastal habitats supporting document for further details
Vegetation composition: negative indicator species	Percentage cover	Negative indicator species (including non-natives) to represent less than 5% cover	Based on data from Ryle et al. (2009). 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 coastal habitats supporting document for further details

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


**To maintain the favourable conservation condition of Fixed coastal dunes with herbaceous vegetation ('grey dunes') in Courtmacsherry Estuary SAC, which is defined by the following list of attributes and targets:**

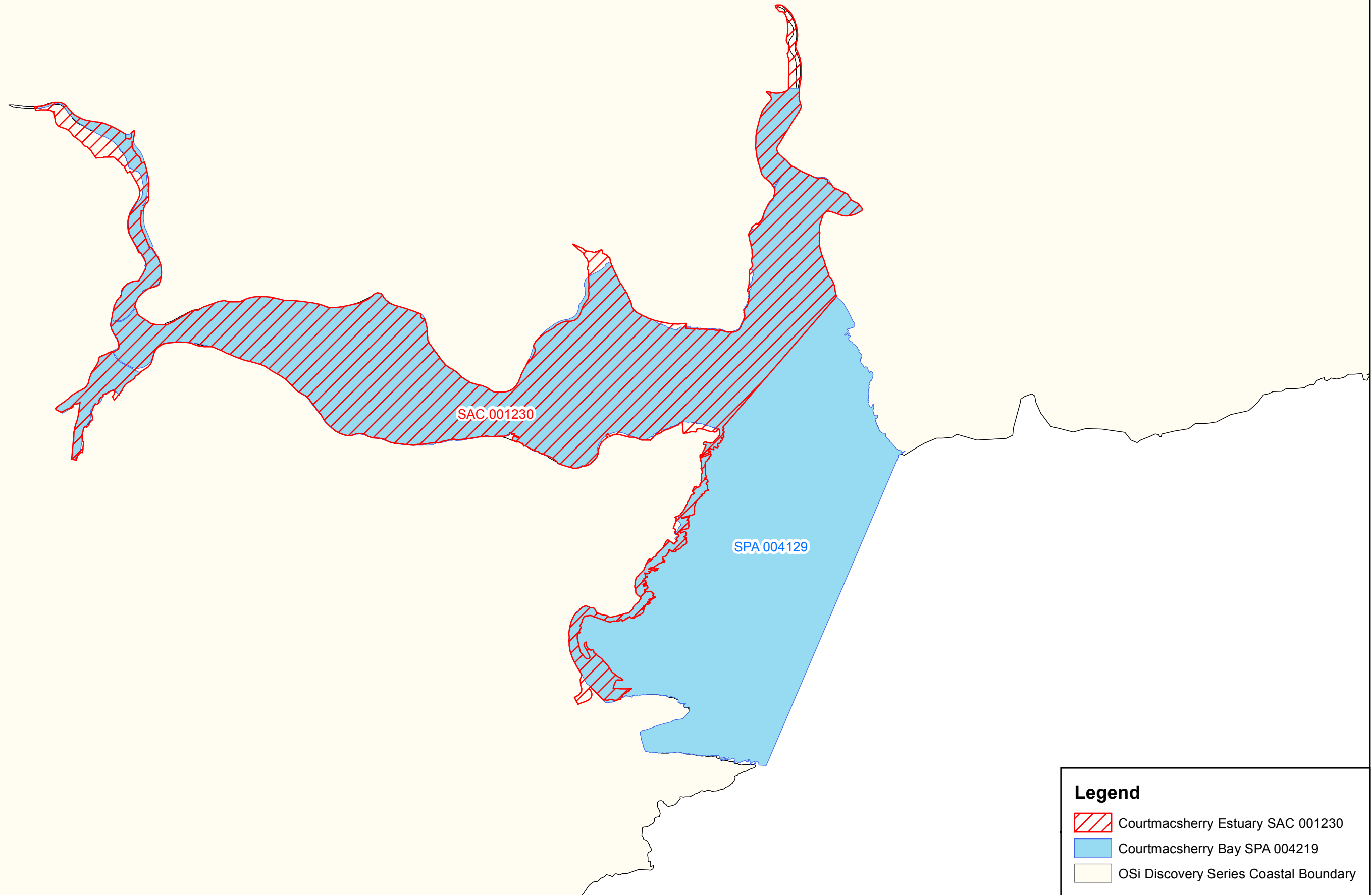
Attribute	Measure	Target	Notes
Habitat area	Hectares	Area stable or increasing, subject to natural processes including erosion and succession. For sub-site mapped: Harbour View - 4.31ha. See map 7	Based on data from Coastal Monitoring Project (CMP) (Ryle et al., 2009). Habitat was surveyed and mapped at one sub-site to give a total estimated area of 4.31ha. 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 known distribution	Based on data from Ryle et al. (2009). See 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	Physical barriers can lead to fossilisation or over-stabilisation of dunes, as well as beach starvation resulting in increased rates of erosion. See 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). As well as the transitions between sand dune habitats, the transitions from sand dune to saltmarsh communities at Harbour View are of significant value. See 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 Ryle et al. (2009). See 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). Grazing by livestock appears to be absent from this site. 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 Ryle et al. (2009)	Based on data from Gaynor (2008) and Ryle et al. (2009). See coastal habitats supporting document for further details.
Vegetation composition: negative indicator species (including <i>Hippophae rhamnoides</i> )	Percentage cover	Negative indicator species (including non-natives) to represent less than 5% cover	Based on data from Ryle et al. (2009). 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. Occasional patches of New Zealand flax ( <i>Phormium tenax</i> ) occur at this site. See 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). Scattered sycamores ( <i>Acer pseudoplatanus</i> ) were noted at this site. See coastal habitats supporting document for further details







**Legend**

 Courtmacsherry Estuary SAC 001230



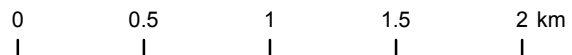
**Legend**

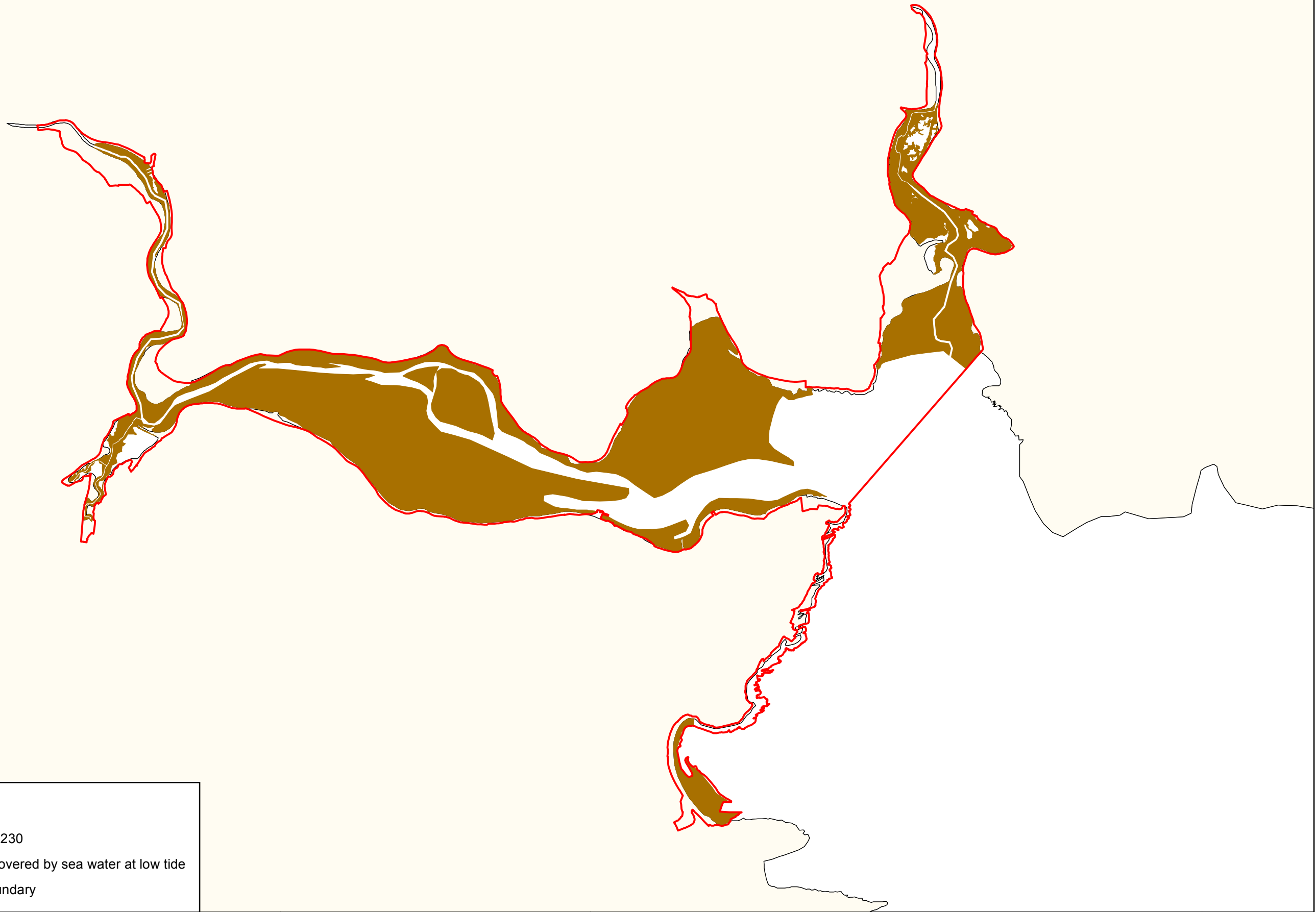
-  Courtmacsherry Estuary SAC 001230
-  Courtmacsherry Bay SPA 004219
-  OSi Discovery Series Coastal Boundary



**Legend**

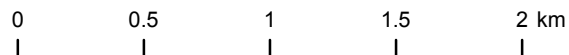
- Courtmacsherry Estuary SAC 001230
- 1130 Estuaries
- OSi Discovery Series Coastal Boundary

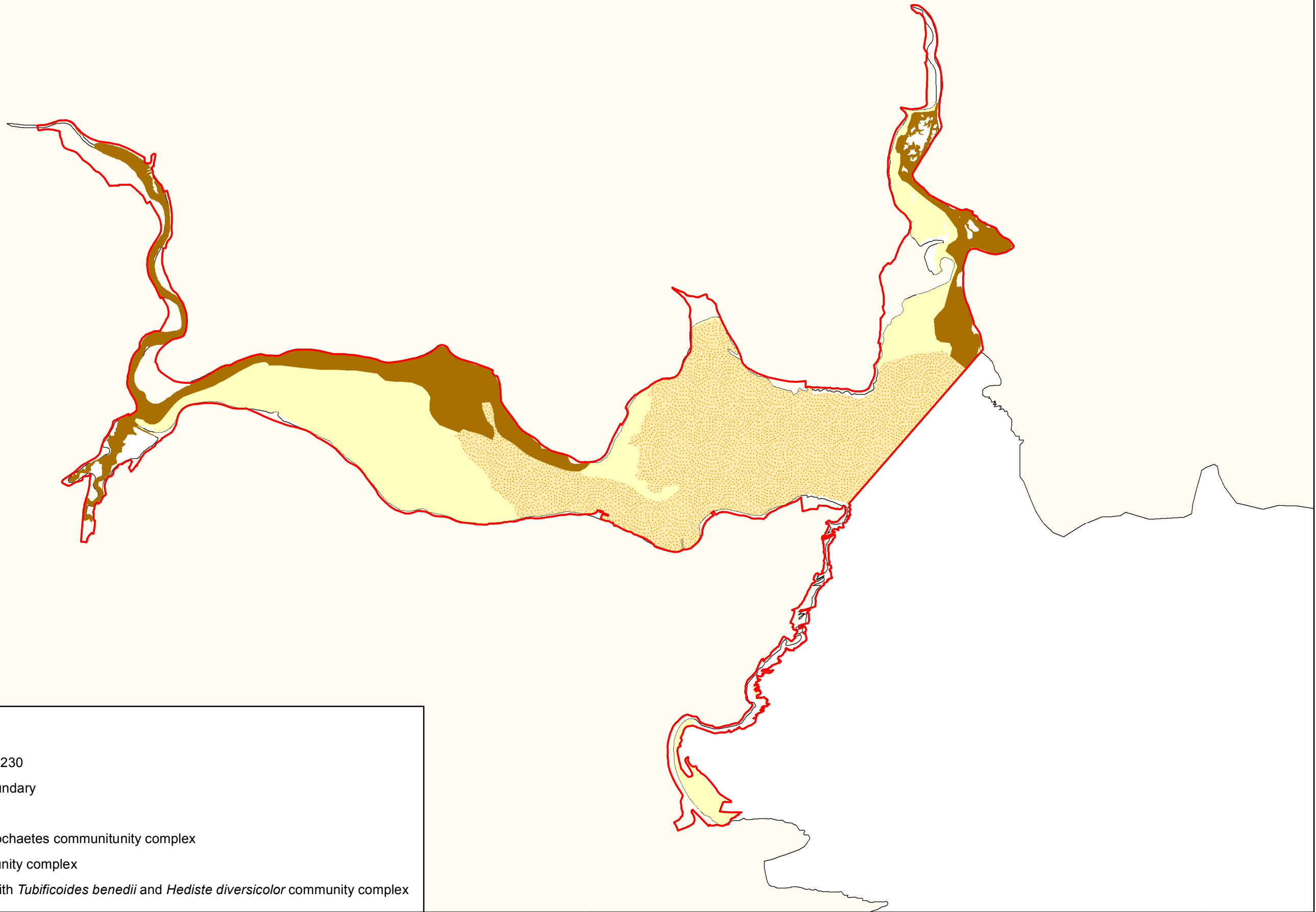






**Legend**

- Courtmacsherry Estuary SAC 001230
- 1140 Mudflats and sandflats not covered by sea water at low tide
- OSi Discovery Series Coastal Boundary






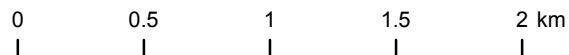


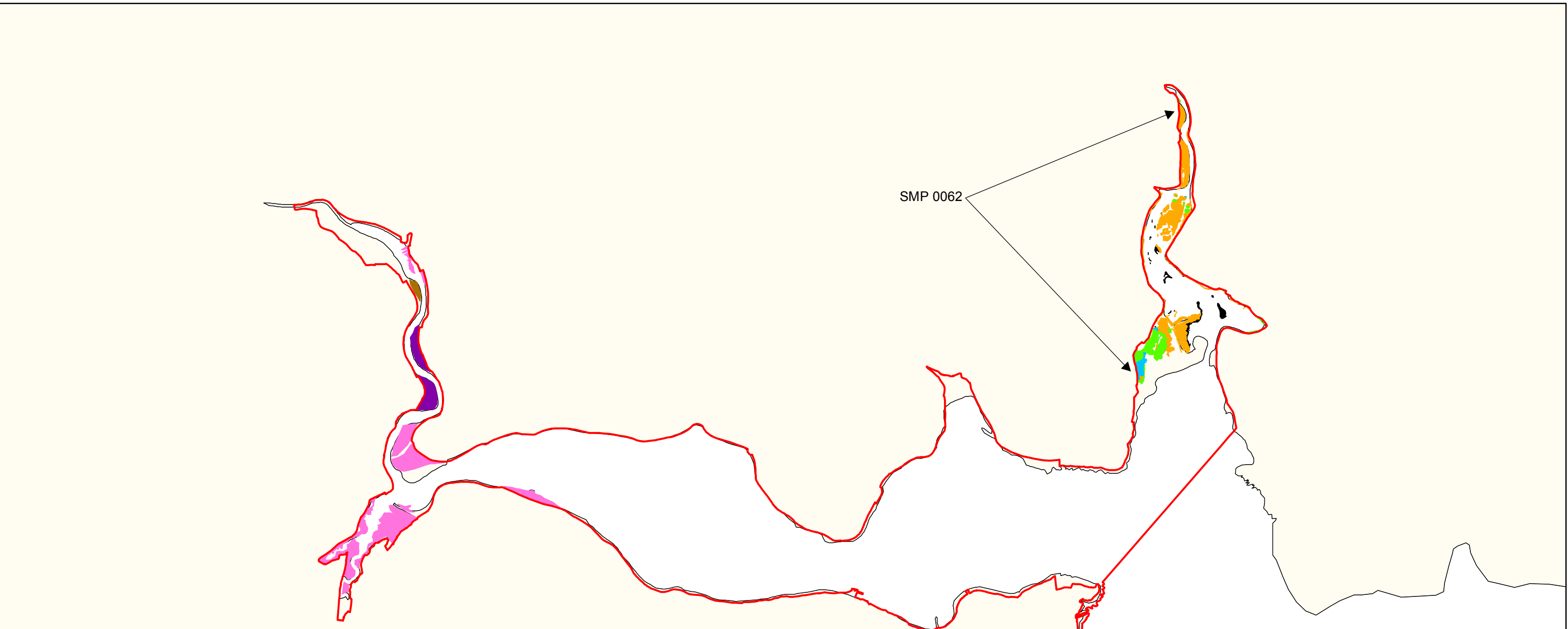
**Legend**

-  Courtmacsherry Estuary SAC 001230
-  OSi Discovery Series Coastal Boundary

**Marine Community Types**

-  Sand to mixed sediment with oligochaetes community complex
-  Sand with *Nephtys cirrosa* community complex
-  Sandy mud to mixed sediments with *Tubificoides benedii* and *Hediste diversicolor* community complex





**Legend**

Courtmacsherry Estuary SAC 001230

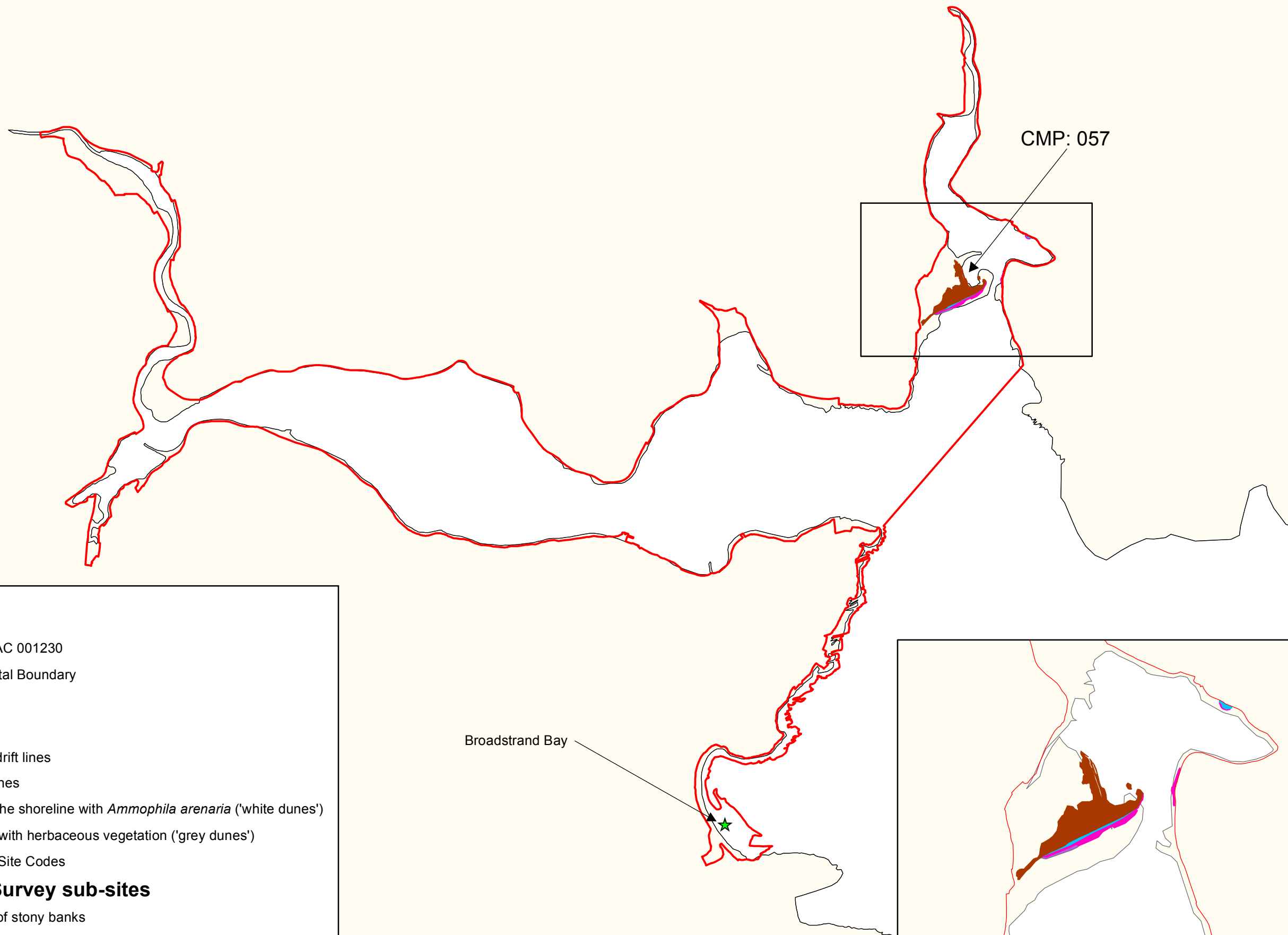
OSi Discovery Series Coastal Boundary

**Saltmarsh Habitats**

**Qualifying Interests**

- 1310 *Salicornia* and other annuals colonising mud and sand
- 1330 Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*)
- 1330 / 1410 Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) / Mediterranean salt meadows (*Juncetalia maritimi*)
- 1410 Mediterranean salt meadows (*Juncetalia maritimi*)
- Potential 1330 Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*)
- Potential 1330 / 1410, Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) / Mediterranean salt meadows (*Juncetalia maritimi*)
- Potential 1410 Mediterranean salt meadows (*Juncetalia maritimi*)

SMP 0062 Saltmarsh Monitoring Project Site Codes



**Legend**

- Courtmacsherry Estuary SAC 001230
- OSi Discovery Series Coastal Boundary

**Sand Dune Habitats**

**Qualifying Interests**

- 1210 Annual vegetation of drift lines
- 2110 Embryonic shifting dunes
- 2120 Shifting dunes along the shoreline with *Ammophila arenaria* ('white dunes')
- 2130 \*Fixed coastal dunes with herbaceous vegetation ('grey dunes')

CMP: 057 Coastal Monitoring Project Site Codes

**National Shingle Beach Survey sub-sites**

- ★ 1220 Perennial vegetation of stony banks