

Jonathan Cox Associates were commissioned to undertake the following Habitat Assessment to inform the North Solent Shoreline Management Plan policy appraisal process and Appropriate Assessment.

Habitat Assessment: Designated wildlife sites (SPA/SAC/Ramsar) behind existing past defence structures

Landward of the coast defences, the habitat along much of the coastline is designated not only as SPA, but also Ramsar site and in a few instances SAC. These designations reflect the value of these habitats as wetlands of international importance and are most comprehensively described using the Ramsar habitat classification. This provides a convenient method for describing the range of wetland habitats present within a Ramsar site. The assessment table has columns for each of the Ramsar habitats likely to be present. The appropriate columns have been ticked for each site to reflect the habitats that dominate in each section of the shoreline. An appropriate assessment of possible coast defence policy options should be made against these habitat types. These habitat types can also be related to the UK Biodiversity Action Plan (BAP) habitats present within each section of the coast. The predominant BAP habitats present in each section of coast have been provided in the habitat assessment table. The presence of rare species is a further qualifying criterion for Ramsar site designation. Information on the presence of rare species has not been collated in any comprehensive way and should be undertaken to make a comprehensive assessment of policy options, however, where presence of important species is known, information on these has been provided in the table.

For each coastal section, the question is asked whether the conservation objectives of the site would be met if the defence fails? In most instances, the answer to this is 'no'. In these cases compensation would be required to offset the lost habitat. The next column of the table considers what habitats would require compensation. The final column of the table considers the time frame in which it would be possible to recreate lost habitats. These time estimates would need to be subject to further research to verify and are based on best judgement. It is clear that new or recreated habitats will accrue increased nature conservation value over time. The rate at which this develops will change over time so that there might be rapid increase in value over an initial period of years followed by a much more gradual accrual over a longer period of time. The compensatory habitat is unlikely to reach the full diversity of the lost habitat for many years but there is likely to be a point at which sufficient structure and function has been developed for it to have met the requirements of compensation. The time assessments have been set at levels where functional habitats will have developed even if they are not full replacements to those that have been lost.

Designated wildlife sites (SPA/Ramsar) behind existing coast defence structures

| | M -- Permanent rivers/ streams/ creeks | Xf- Freshwater tree dominated wetlands | J- Coastal brackish/ saline lagoons | Ss -- Seasonal/ intermittent saline/ brackish/ alkaline marshes/ pools | Sp- Permanent saline/ brackish marshes/ pools | Tp- Permanent freshwater marshes/ pools | 4 -- Seasonally flooded agricultural land | 9 -- Canals and drainage channels, ditches | BAP habitat | Saline/ Fresh influence | Rare plant score and species (where known) | Will conservation objectives be met if defence fails | | Time scale to re-create (years) |
|--|--|--|-------------------------------------|--|---|---|---|--|--------------------------------|-------------------------|--|--|--|---------------------------------|
| | | | | | | | | | | | | Yes/No | Comments | |
| Hurst Spit and Keyhaven | | | | | | | | | | | | | | |
| Saltgrass Lane | | | | ✓ | ✓ | | | | Coastal grazing marsh | Saline | ? | Yes | Derelict grazing marsh in area where very difficult to manage. Change to intertidal may improve habitat. | |
| Avon Water | ✓ | | | | ✓ | ✓ | | | Reed bed | Saline to Fresh | 3 Alop. bulb | No | Displaced reed beds and fresh/brackish pasture may need to be compensated | 5-20 yrs |
| Keyhaven_ Pennington_a | | | ✓ | ✓ | ✓ | | ✓ | ✓ | Coastal grazing marsh/ Lagoons | Saline to Fresh | 3 Carex punct/ C. divisa | No | Saline lagoons, Brackish pasture/Atlantic saltmeadow | 50 yrs + |
| Keyhaven_ Pennington_b | | | ✓ | ✓ | ✓ | | ✓ | ✓ | Coastal grazing marsh/ Lagoons | Saline to Fresh | 3 Carex punct/C. divisa | No | Saline lagoons, Brackish pasture/Atlantic saltmeadow | 50 yrs + |
| Lymington and Pitts Deep and Sowley | | | | | | | | | | | | | | |
| Lymington Reedbed | ✓ | | | | ✓ | ✓ | | | Reed bed | Fresh + some saline | ?? | No | Reed beds and freshwater grazing marshes | 5-20 yrs |
| Beaulieu | | | | | | | | | | | | | | |
| Warren Needs Ore a | | | | ✓ | ✓ | | ✓ | ✓ | Coastal grazing marsh | Saline | ?? | No | Brackish pasture, pools and reed bed changed to intertidal flats and saltmarsh. NAI may not require compensation. | 50 yrs + |
| Beaulieu Warren | | | ✓ | ✓ | ✓ | | ✓ | ✓ | Coastal grazing marsh/ Lagoons | Saline- Fresh | 3 C. divisa | No | Brackish pasture, pools and reed bed changed to intertidal flats and saltmarsh. NAI may not require compensation. | 50 yrs + |
| Warren Needs Ore b | | | | ✓ | ✓ | | ✓ | ✓ | Coastal grazing marsh | Saline- Fresh | 3 C. divisa/Blup. ten | Yes | Brackish pasture, pools and reed bed changed to intertidal flats and saltmarsh. NAI may not require compensation. | |
| Beaulieu River_b | ✓ | ✓ | ✓ | | ✓ | ✓ | | | Reed bed | Fresh + some saline | 4 Eleo. parv | No | reed beds and brackish open water. Hydrological model needed to assess likely changes to Beaulieu Mill Pond and sluices. | 50 yrs + |

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|--------------------------|--|--|-------------------------------------|--|---|---|---|--|---------------------------------|-------------------------|--|--|---|---------------------------------|
| | | | | | | | | | | | | Yes/No | Comments | |
| Calshot | | | | | | | | | | | | | | |
| Darkwater | ✓ | | | ✓ | ✓ | ✓ | | | Coastal grazing marsh | Saline – Fresh | ?? | No | Partly designated, Brackish and freshwater fen, grassland and reed bed would be replaced by intertidal and should be replaced within Natura 2K/Ramsar | 5-20 yrs |
| Stansore Point | | | ✓ | | ✓ | | | | Saltmarsh | Saline + some fresh | | 1 Yes | Small and rather degraded wetland valley and associated shingle pools and saltmarshes. Change to intertidal habitats may not be an adverse effect. | |
| Stanswood Valley | | | | ✓ | | ✓ | | ✓ | FP grazing marsh | Fresh + some saline | | 1 N/A | Not covered by European designation. Freshwater marshes and pastures with scrub invasion. Change to intertidal may not be an adverse effect. | 5-20 yrs |
| Southampton Water | | | | | | | | | | | | | | |
| Titchfield Haven | ✓ | | | | ✓ | ✓ | ✓ | ✓ | FP grazing marsh/ Reed bed | Fresh + some saline | | 1 No | Extensive area of fresh flood plain wet grassland, reed beds and open water. Change to intertidal should be compensated within new N2k/Ramsar | 5-20 yrs |
| Hamble | | | | | | | | | | | | | | |
| Hook Lake | ✓ | ✓ | | | ✓ | ✓ | | | Coastal grazing marsh/ Reed bed | Fresh + saline | 3 Blup. ten | No | Brackish pastures and saline lagoons. Would need compensation within new N2K/Ramsar | 5-20 yrs |
| Langstone Harbour | | | | | | | | | | | | | | |
| Farlington Marshes | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | FP grazing marsh/ Reed bed | Fresh – saline | | 4 No | Epoch 1: retain for wader roost and allow time to develop compensation options brackish to fresh grazing marsh with reed beds and saline lagoons. | 50 yrs + |
| Southmoor | | | | | | ✓ | ✓ | ✓ | Coastal grazing marsh | Fresh + saline | ?? | No | Fresh and brackish marshes and open water | 50 yrs + |

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| | | | | | | | | | | | | Yes/No | Comments | |
| Chichester Harbour | | | | | | | | | | | | | | |
| Warblington | | | | | | | ✓ | ✓ | Coastal grazing marsh | Fresh + saline | 4 – rich flora | No | Fresh to slightly saline marshes need compensation | 50 yrs + |
| Northney Farm | | | | | | | ✓ | ✓ | Coastal grazing marsh | Saline - Fresh | 3 C. divisa | No | Extensive coastal grazing marsh (brackish to fresh coastal grassland with ditches). | 50 yrs + |
| Verner Common a | | | | ✓ | ✓ | | ✓ | ✓ | Coastal grassland and grazing marsh with saltmarsh on eastern tip | Saline - terrestrial | 3. C. divisa | No | Extensive coastal grassland/grazing marsh and Atlantic saltmeadow needs compensation | 50 yrs + |
| Tournebury | | | | ✓ | ✓ | | ✓ | ✓ | Coastal grazing marsh | Saline - fresh | 3. C. divisa | No | Extensive coastal grazing marsh (brackish to fresh coastal grassland with ditches) and Atlantic saltmeadow needs compensation. | 50 yrs + |
| Thorney Island a | | | | ✓ | ✓ | | ✓ | ✓ | Coastal grazing marsh | Fresh - saline | ? | N/A | Not covered by European designation. Coastal grazing marsh area only, not for arable | |
| Thorney Island b | | | ✓ | ✓ | ✓ | | ✓ | ✓ | Coastal grazing marsh and Reed bed | Saline - Fresh | 3. Salicornia pusilla; significant flora interest on eastern sea wall; Coleophora vibicella (UK BAP Priority micro-moth) | No | Complex of reed beds, fresh to brackish grazing marsh and open water (similar to Farlington) | 50 yrs + |

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| | | | | | | | | | | | | Yes/No | Comments | |
| Thorney Island c | | | | ✓ | ✓ | | ✓ | ✓ | Coastal grazing marsh | ? | ? | N/A | Not covered by European designation. Complex of reed beds, fresh to brackish grazing marsh and open water (similar to Farlington) | |
| Nutbourne | | | | ✓ | ✓ | | ✓ | ✓ | coastal grazing marsh; wet grassland | fresh-saline | low botanical interest in fields along harbours edge, but high value in Nutbourne Marsh SSSI | Yes | Only part of the area is SSSI/ SPA/Ramsar. (This area is coastal grazing marsh and wet grassland.) | |
| West Chidham a+b | | | | | | | ✓ | ✓ | arable now to temporary grass ley | Fresh - saline | ? | N/A | Not covered by European designation. Arable now to temporary grass ley | |
| West Wittering | | | | ✓ | ✓ | | | ✓ | reedbed; coastal grazing marsh | saline | ? | No | Reedbed and coastal grazing marsh | 50 yrs + |
| Horse Pond | | | | ✓ | ✓ | | | ✓ | coastal grazing marsh; open channels | saline | Existing tidal exchange - valuable habitat already in existence | No | Site is very low lying if tidal exchange is increased existing habitats will be lost and likely to revert to mudflat | 50 yrs + |
| Fishbourne a | | | | | | | ✓ | ✓ | reedbed; coastal grazing marsh | mainly freshwater | ? | No | Part of site is covered by European Designation. Coastal grazing marsh and reedbed | 50 yrs + |
| Pagham Harbour | | | | | | | | | | | | | | |
| Medmerry | | | | | | ✓ | | ✓ | None | Fresh-Saline | ? | N/A | Not covered by European designation | |
| Pagham South | | ✓ | | | | | | | None | Terrestrial | ? | N/A | Not covered by European designation | |
| Church Norton | | | ✓ | ✓ | ✓ | | | ✓ | None | Fresh-Saline | ? | Yes | | |

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| | | | | | | | | | | | | Yes/No | Comments | |
| Keynor Rife | | | | | | ✓ | | ✓ | None | Fresh-Saline | ? | Yes | | |
| Bremere and Pagham Rife | | | | ✓ | ✓ | ✓ | | ✓ | Coastal grazing marsh | Fresh-Saline | ? | Yes for Ramsar habitats/ No for bird interest | Compensation not required for Ramsar habitats but bird interests will need compensation | 50 yrs + |