

Sustainable Shores

Summary Report

February 2018



Andy Hay (rspb-images.com)

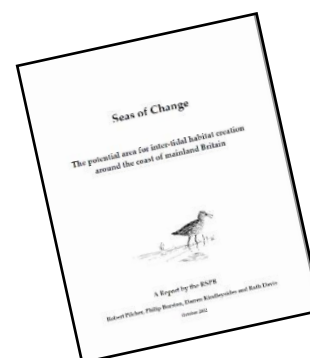
- A UK-wide review of**
- Past and future losses of coastal habitats
 - The potential opportunities for creating new habitat
 - The policy and funding context for delivering new habitat

BLANK PAGE

Introduction

Sustainable Shores is an RSPB project with the objectives of updating our knowledge on habitat losses and habitat creation opportunities at the coast; setting out the current UK policy and funding context and making recommendations for action.

Sustainable Shores builds on work undertaken as part of the RSPB Seas of Changeⁱ project between 1998 and 2002 and has benefited from input and advice from across the RSPB and from discussions with regulators and other NGOs such as the National Trust.



This Summary Report sets out the main findings and recommendations from the project. Further detail can be found in a Technical Report produced by the project, available on request.

Main Findings

The coastal habitats around the UK are of international conservation importance. More than 80% of the existing saltmarsh in the UK is protected by national and international conservation designations. Other coastal habitats, such as intertidal mud and sand flats, sand dunes, vegetated shingle and saline lagoons are also considered to be of outstanding ecological importance and consequently are also protected by national and international conservation designations. A quarter of the Birds of Conservation Concern red listⁱⁱ and over half of the amber listed species use coastal habitats for part of their life cycle, including redshank, little tern, oystercatcher and curlew.



Our coastal habitats also provide more than £48 billion of ecosystem services such as tourism and recreation, fisheries, water quality improvement, carbon sequestration/storage and flood risk mitigationⁱⁱⁱ. They provide a natural buffer significantly reducing wave energy and the height of surge waves with the flood risk management benefits alone calculated to be worth more than £4.5 billion^{iv}.

Despite this we have lost more than 15% of our intertidal habitat (>8,000ha of saltmarsh and even more mudflat) since 1945^v.

	Amount of habitat present in 1945	Amount of habitat present in 2010	Amount of habitat lost between 1945 and 2010	Percentage Loss
Sand Dunes	86,905	70,853	16,052	18%
Saltmarsh	54,836	46,631	8,205	15%
Shingle	10,875	5,852	5,023	46%
Machair	20,171	19,698	473	2%

Whilst the EU Nature Directives have been instrumental in reducing the rate of further losses arising from development projects the coastal habitat that remains is in a woeful condition as shown in the table below^{vi}. Most of the UK saltmarsh that has been assessed also fails to meet the Water Framework Directive (WFD) requirement of Good Ecological Status.

Code	Habitat name	Habitat Area	Structure & function	Area trend in UK N2k
H1130	Estuaries	Unknown	Bad	Unknown
H1140	Mudflats and sandflats not covered by seawater at all times	Unknown	Bad	Unknown
H1150	Coastal lagoons	Favourable	Inadequate	Stable
H1210	Annual vegetation of drift lines	Inadequate	Bad	Decrease
H1220	Perennial vegetation of stony banks	Inadequate	Bad	Decrease
H1230	Vegetated sea cliffs of the Atlantic and Baltic coasts	Inadequate	Bad	Stable
H1310	Salicornia and other annuals colonising mud and sand	Inadequate	Bad	Decrease
H1320	Spartina swards (<i>Spartinion maritimae</i>)	Bad	Bad	Decrease
H1420	Mediterranean and thermo-Atlantic halophilus scrubs (<i>Sarcocornetea fruticosa</i>)	Inadequate	Bad	Stable
H2110	Embryonic shifting dunes	Inadequate	Bad	Decrease
H2120	Shifting dunes along the shoreline with <i>Ammophila arenaria</i> ('white dunes')	Inadequate	Bad	Decrease
H2130	Fixed dunes with herbaceous vegetation ('grey dunes')	Inadequate	Bad	Stable
H2150	Atlantic decalcified fixed dunes (<i>Calluno-Ulicetea</i>)	Favourable	Bad	Decrease
H2160	Dunes with <i>Hippophae rhamnoides</i>	Favourable	Bad	Stable
H2170	Dunes with <i>Salix repens</i> ssp. <i>argentea</i> (<i>Salicion arenariae</i>)	Inadequate	Bad	Decrease
H2190	Humid dune slacks	Inadequate	Bad	Decrease
H1160	Large Shallow inlets and bays	Favourable	Bad	Stable
H1330	Atlantic salt meadows	Inadequate	Bad	Decrease

Looking forward the latest predictions brought together for the first time by this project, and shown in the table below, indicate that we will continue to lose at least a further 60ha of protected intertidal habitat per year across the UK due to climate change, sea level rise and coastal squeeze, unless action on the ground is taken. There will also be additional losses of non-designated habitat outside of protected sites. These future losses will impact many of our most important sites for overwintering birds such as the Thames Estuary and the Severn Estuary.

Projected Cumulative Loss of Habitat (ha)			
	By ~2025	By ~2050	By ~2100
England	1021	>1874	>3922
Wales	105	578	1571
Scotland	N/A	267	487
Northern Ireland	N/A	28	N/A
Total	1126	>2747	>5980

For England and Wales this represents losses in intertidal habitat within Natura 2000 sites as a result of coastal squeeze. For Scotland this represents erosion (natural and/or coastal squeeze related) to SPA sites, using the current erosion rate scenario, habitat type is not defined and figures do not take into consideration any accretion occurring elsewhere within the SPA which may offset this loss. In Northern Ireland this represents the projected loss of saltmarsh by 2060 using a simple extrapolation of recent loss rates.

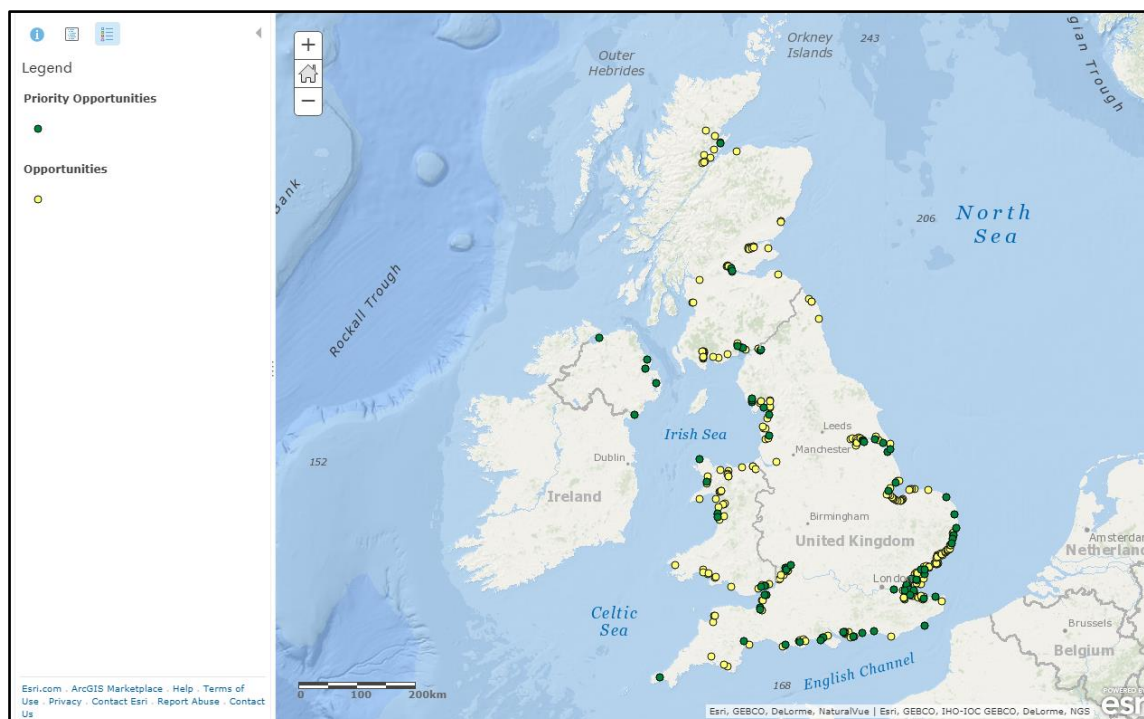
To avoid double counting, losses for the Severn Estuary have been included in the England total but removed from the Welsh total, losses in the Dee Estuary are included in the Welsh but not the England totals. There should not be any double-counting between the English and Scottish accounts. England loss predictions do not include losses after 2025 in the North West, East Anglia and the North East or losses after 2050 on the Humber.



However, through more than 70 managed realignment and regulated tidal exchange schemes undertaken in the last 25 years^{vii}^{viii} we have built up experience in the UK of how to undertake habitat creation on the coast, particularly intertidal habitat. The RSPB has been at the heart of this working with partners like the Environment Agency, to deliver and manage more than 33% of the coastal habitat created in the UK (some 880ha). As our experience has increased so projects have become larger with schemes such as Medmerry, Steart and Wallasea Island Wild Coast providing landscape scale benefits for wildlife and people.

However, the 2,500ha created in the last 25 years falls far short of what has been already lost, let alone what will be lost in the future. With new coastal habitat creation projects taking up to 10 years to implement it is crucial that there is a pipeline of new projects coming through. The National Habitat Compensation Programmes (NHCP) in England and Wales (led by the Environment Agency and National Resources Wales) are vital in this regard. The programme in England is helping keep pace with the ongoing rate of protected habitat loss due to coastal squeeze where it is linked to flood management assets but we need to see similar programmes established in Scotland and Northern Ireland.

As part of the Sustainable Shores project we updated the RSPB’s Seas of Change opportunity mapping from 1998-2002 transferring it to a GIS platform and adding new information on constraints and drivers and insights from discussions with local RSPB teams. We identified opportunities that could provide 34,250 ha of new coastal habitat (see map below) including 13,550 ha across 52 locations that we see as the best, priority opportunities.



Potential opportunities identified by RSPB for coastal habitat creation around the UK (priority opportunities shown in green)

What is clear from the updated analysis undertaken for Sustainable Shores is that there remain sufficient good opportunities around our coast to more than address what might be lost over the next century – see table below.

Region	Area of potential habitat	Area of Priority Opportunities	Projected Loss of Intertidal by ~2020	Projected Cumulative Loss of Intertidal by ~2050
East Anglia	11,500	3,200	21	>21*
South East England	7,000	3,700	202	492
North East England	3,000	1,700	274	>433*
North West England	2,000	600	162	>162*
South West England	3,000	1,700	362	766
Wales	2,500	900	105**	578**
Scotland	4,500	900	N/A	267***
Northern Ireland	750	750	N/A	28****
TOTAL	34,250	13,450	1,126	>2,747

Comparing Cumulative Projected Losses with Potential Area for Habitat Creation

*There are currently no assessments for Epoch 2 for East Anglia, the North West and the North East outside of the Humber Estuary.

**Excludes losses in the Severn Estuary which are included under South West England.

***Losses to SPA designated area-habitat type not specified.

****Losses to saltmarsh based on extrapolation of recent loss rates.

Unfortunately, despite knowing what we need to restore; why we need to do it; how we could do it and where we could do it this knowledge is not translating into sufficient action on-the-ground. Crucially, we are failing to implement our Shoreline Management Plan (SMP) policies which should play a major role in adapting our coast to climate change, addressing increasing flood risk and would deliver more than 6,000ha of intertidal habitat by 2030^x. This failure was flagged Adaptation Sub-Committee of the Climate Change Committee in 2013. In the 2017 Climate Change Risk Assessment for Government flooding and coastal change risks to infrastructure, communities and businesses was identified as the number 1 risk for the UK^x.

Recommendations

The RSPB will continue to work with partners to restore and sustain our precious coastal habitats through projects that work for people and wildlife, but more needs to be done. A number of recommendations are made in the Sustainable Shores project with the headline recommendations being:

- Protection of the Habitats Regulations post-Brexit. They have been crucial in slowing the rate of loss of coastal habitat due to development and forcing governments to address coastal squeeze losses of protected coastal habitat.
- Clear milestones, responsibilities and funding for climate change adaptation on the coast and for implementing Shoreline Management Plan flood risk policies and National Adaptation Programmes.
- New National Habitat Creation Programmes in Scotland and Northern Ireland with all UK programmes to consider what is needed to get our protected site network into favourable condition alongside what is needed to offset future loss due to coastal squeeze.
- A greater focus by regulators on the quality of both existing coastal habitat, and the new habitat created, to ensure that it is providing suitable ecological structure and function.
- Greater effort to meet the requirement of the Water Framework Directive to get saltmarsh into Good Ecological Status.
- Support for further exploration of innovative ways that coastal adaptation and habitat creation can be delivered and financed, including through the use of a natural capital approach.

ⁱ The RSPB 2002. Seas of Change. The potential area of inter-tidal habitat creation around the coast of mainland Britain.

ⁱⁱ Birds of Conservation Concern (2015) <https://www.bto.org/science/monitoring/psob>

ⁱⁱⁱ UK National Ecosystem Assessment (2011). The UK National Ecosystem Assessment Technical Report. UNEP-WCMC, Cambridge.

^{iv} Beaumont, N. J., Jones, L., Garbutt, A., Hansom, J. D., and Toberman, M. 2014. The value of carbon sequestration and storage in coastal habitats. *Estuarine, Coastal and Shelf Science*, 137, 32-40.

^v Office for National Statistics (2016). Scoping UK coastal margin ecosystem accounts.

^{vi} UK General Implementation Report. Annex A of the 2013 UK Article 17 EU Habitats Directive Report

^{vii} ABPmer. 2017. UK Marine Habitat Creation Schemes – A summary of completed managed realignment and regulated tidal exchange projects (1991-2016). White Paper. Ref. 2781.

^{viii} ABPmer Online Marine Registry. (2014) Database of international shoreline adaptation projects (latest update 30 July 2014) [Online] Available from www.omreg.net [Accessed on 14 July 2017]

^{ix} Adaptation Sub-Committee. 2013. Managing the land in a changing climate. Progress Report.

^x <https://www.theccc.org.uk/wp-content/uploads/2016/07/UK-CCRA-2017-Synthesis-Report-Committee-on-Climate-Change.pdf>

For further information on the Sustainable Shores project or to obtain a copy of the Technical Report please contact Nathan Richardson at RSPB (nathan.richardson@rspb.org.uk).