



Nature conservation and a dynamic coast: *The RSPB perspective*

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for birds • for people • for ever

Inter-tidal Habitat - *a resource for nature conservation*

- **UK holds an internationally significant amount of NW European saltmarsh resource.**
- **UK's estuaries support over 2 million migratory wildfowl and wading birds each winter.**
- **Saltmarshes provide high tide refuges and breeding sites for waders, gulls and terns and a source of food for passerine birds particularly in autumn and winter.**
- **Most of the saltmarsh and mudflat in the UK is protected under European and national law.**



Inter-tidal Habitat - *the case for coastal re-alignment*

- Saltmarsh and mudflats are being lost at an unprecedented rate (@ 100Ha per annum.
- Climate change and sea level rise will accelerate this making change on the coast inevitable.
- The loss of inter-tidal habitat reduces effectiveness of remaining sea-defences.
- Managed re-alignment and regulated tidal exchange offer the only, long term solutions to offsetting loss.



Inter-tidal Habitat - *Drivers for coastal re-alignment*

- **Habitats Directive and Birds Directive provide clear legislative driver for maintaining Natura 2000 site integrity.**
- **Water Framework Directive (WFD) defines status of coastal and estuarine water bodies with reference to angiosperm (saltmarsh) communities.**
- ***Making Space for Water* points to a policy of less intervention and a move towards working with natural processes.**



Managed *vs.* Unmanaged Realignment

- **Re-alignment is not an entirely benign process, risks include:**
 - Increase in tidal prism, reducing inundation of designated features.
 - Disruption of navigation channels.
 - Increased erosion and instability of coastal defences.
- **These risks must be managed to deliver the desired nature conservation and wider socio-economic outcomes including statutory obligations**

If properly managed the risks posed by realignment is likely to outweigh any resulting impacts.



The RSPB Taking Action

- Only 411 hectares of inter-tidal habitat created in past 10 years
- RSPB report *Seas of Change* identified 30,000 ha of potential re-alignment
- 6000ha in the south east outside designated areas
- RSPB taking action on sites such as Nigg Bay and Frieston Shore



Coastal Freshwater Habitats – *a resource worth protecting?*

- Freshwater habitats are a natural feature of the coast however the transition is truncated by defences.
- Freshwater wetlands have suffered dramatic decline in extent and quality in the wider countryside.
- Defended freshwater wetlands provide a valuable



key species
tled wainsc



RSPB Sea Level Action Plan

Objective 1

Coastal habitats should be protected in-situ where this will not damage or impede the maintenance, restoration or re-creation of other priority habitats and species.



RSPB Sea Level Action Plan

Objective 2

New inter-tidal habitats should be created to offset expected and historic losses caused by coastal erosion, sea level rise and climate change



RSPB Sea Level Action Plan

Objective 3

Replacement freshwater habitats should be created in sustainable locations to offset current and future loss resulting from coastal erosion or managed re-alignment, and to contribute to UK biodiversity targets.



Taking Action

Defending freshwater habitats

- **Defence standards should reflect:**
 - Habitat and species resilience
 - Recovery time
 - Targets for time in favourable status (habitat and species not compromised by inundation or recovery)
- **For example, if a habitat takes 5 years to recover and the favourable status target is set at 95% probability, a 1:100 standard of defence is required.**

Clearly it will not be possible to protect all coastal habitats in-situ in perpetuity....



Taking Action

Planning for Change₍₁₎

- **Decisions on re-alignment should be based on strategic appropriate assessment that identifies:**
 - Likely losses of coastal and freshwater habitat
 - Compensatory habitat requirements.
 - Suitable location of compensatory habitat/
- **Decisions should be compliant with Habitats and Birds Directive and the WFD.**
- **Alternative re-alignment scenarios should be assessed through SEA/RBMP framework.**



Taking Action

Planning for Change₍₂₎

- **Where freshwater habitat is identified as at risk , or in an area that must be re-aligned the habitats should be maintained in the interim until replacement habitat is functional provided:**
 - The costs of maintenance are not disproportionate to the features under threat and;
 - It does not affect legal obligations under the Habitats Directive.
- **This includes carrying out emergency works if the defences fail during the interim period**



Old Hall Marshes



Old Hall Marshes

BUT..

- **Blackwater estuary saltmarsh is experiencing rapid erosion (around 200ha in last 25 years)**
- **85% of the sea-wall is concrete tile revetment with little or no saltmarsh fronting.**
- **All the saltmarsh in from of Old Hall defences is eroding and likely to be lost in next 50 years.**
- **Any attempt to improve defences will increase their footprint and damage SSSI,SPA,cSAC I& Ramsar interest**



Old Hall Marshes

A way forward?

- **Identify ecological impacts**
 - Not all will be replaceable e.g. anthills & unimproved grassland (at least in the short term).
- **Replace freshwater & transitional habitats ahead of loss.**
 - Replacement may be required on a range of sites
 - Time-scales may be 10s of years
 - Defence must be maintained
- **Phase re-alignment**
 - Potentially huge increase in tidal prism
 - Need to understand hydrodynamics of system



Taking Action

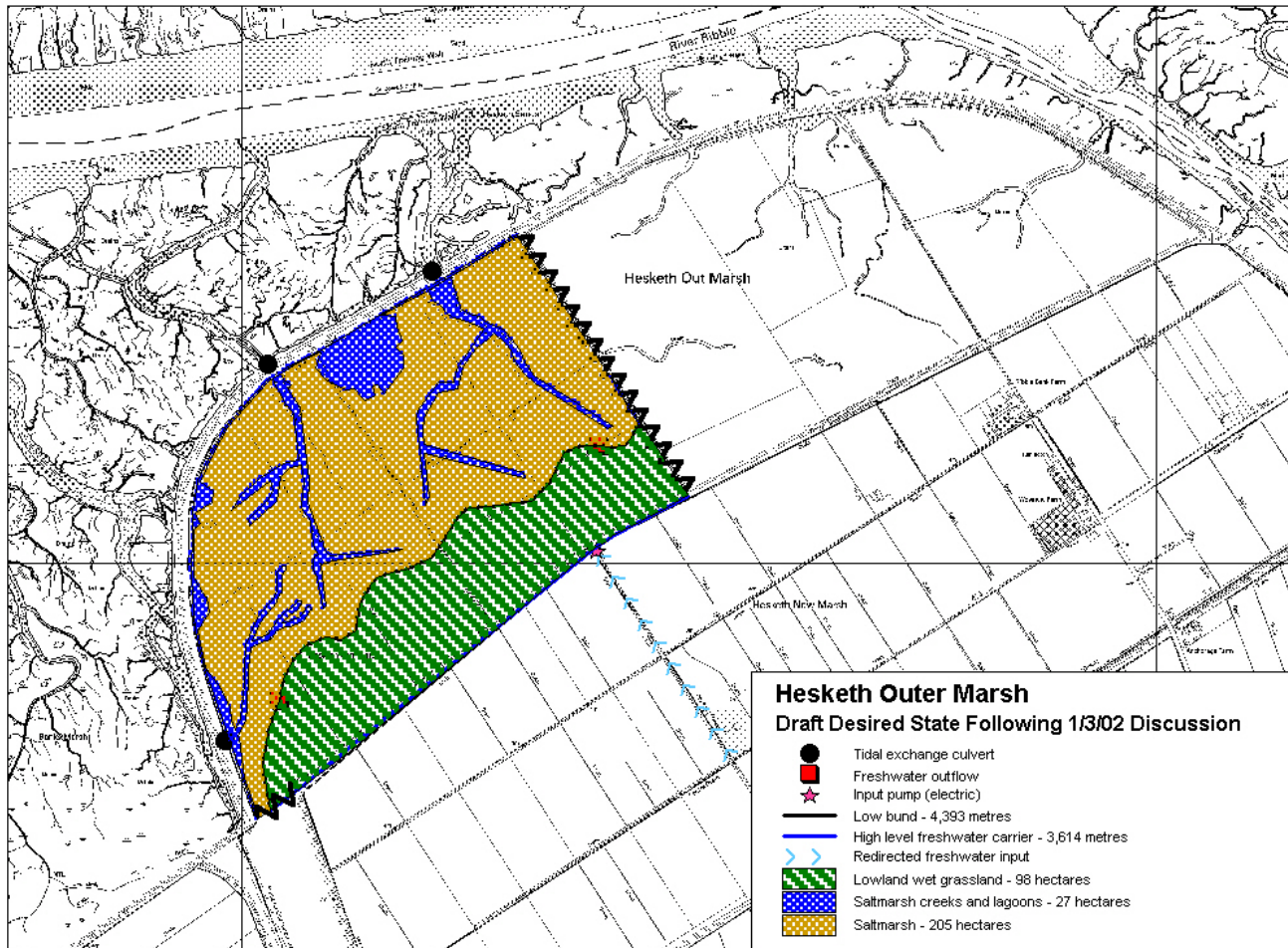
Creating new freshwater habitats⁽¹⁾

- **The RSPB is not interested in creating new obstacles to managed re-alignment however:**
 - Not all UK saltmarsh is eroding.
 - There are opportunities for freshwater habitat creation that will deliver in the short-medium term.
 - Alternative may see low grade agricultural land farmed or abandoned for many decades.
 - The design and management of new freshwater habitats can be keyed into a more natural approach to re-alignment, recreating ecotones between fresh and coastal systems.



Taking Action

Creating new freshwater habitats (2)



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Delivering biodiversity on a changing coast: *Key Points*

- Freshwater habitats should be recognised as a national asset, not a soft target.
- Change is not a matter of trading coastal and freshwater habitats against each other.
- It is about balancing the risk posed to freshwater and coastal habitats and
- Managing change to further the conservation of both inter-tidal AND freshwater habitats & species.

