



Integrating management of marine, freshwater and terrestrial environments

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Throughout much of history, the terrestrial and freshwater landscape has been viewed as discrete from tidal waters. Yet in reality, from ponds to lakes, streams to rivers and estuaries to ocean, freshwater, tidal and marine environments are all connected. Species such as seabass and salmon move between the two to spawn their young and land based pollution flows from our soil, through our rivers, into our estuaries and the ocean beyond. Despite this, most of our legislation and management practices have tended to conform to the false dichotomy that they are separate entities. To recover our ocean and rivers and protect our coastline we must reverse this trend and begin connecting the dots.

What is the current state of play?

England is an island nation with 2,748 miles of coastline¹ which plays a vital contribution to the economy and is a critically important part of our natural environment. Domestic and day trip coastal tourism is collectively valued at £8bn to the English economy² and 95%³ of all imports are transported by sea to ports on our coastal shores. They are also a natural defense against rising seas and storm surges caused by climate change, so much so that £15bn worth of damages a year are expected⁴ if urgent action isn't taken to protect and restore the habitats and tackle the climate crisis.

Despite their value our coasts and water systems are on a downwards trend. Just 14% of rivers were considered to be in 'good ecological health'⁵ in 2018 and only 4 out of 15 indicators for healthy seas were achieved by the UK Governments in 2019⁶; As of June 2020, the UK was ranked the 6th worst in Europe for bathing water quality, with only two thirds of water bodies classified as 'excellent'⁷; Water companies released raw sewage into rivers and waterways 200,000 times in 2019⁸; Mussel colonies are absorbing microplastics and other pollutants which are passed to humans when eaten⁹. 80% of UK salt marshes have been lost in the last 200 years¹⁰ due to agriculture, sea defences and property development. This means not only have we overfished stocks but we have removed essential fish habitats, spawning and nursery grounds, on a massive scale leading to an estimated reduction in fish

¹ <https://www.gov.uk/government/collections/england-coast-path-improving-public-access-to-the-coast>

² <https://coastaltourismacademy.co.uk/resource-hub/resource/2016-coastal-tourism>

³ Maritime UK, State of the maritime nation report 2019

⁴ 2020, Global Futures Technical Report

⁵ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/709493/State_of_the_environment_water_quality_report.pdf

⁶ <https://www.wcl.org.uk/sos-for-sea-life.asp>

⁷ <https://www.eea.europa.eu/highlights/quality-of-europes-bathing-waters>

⁸ <https://www.theguardian.com/environment/2020/jul/01/water-firms-raw-sewage-england-rivers>

⁹ Catarino, L.A et al; 2018; Low levels of microplastics (MP) in wild mussels indicate that MP ingestion by humans is minimal compared to exposure via household fibres fallout during a meal. Environmental Pollution. Volume 237. Pages 675 - 684. [Available here.](#)

¹⁰ E. McLeod, G.L. Chmura, S. Bouillon, R. Salm, M. Bjork, C.M. Duarte, C.E. Lovelock, W.H. Schlesinger, B.R. Silliman
A blue print for blue carbon: toward an improved understanding of the role of vegetated coastal habitats in sequestering CO₂. Front. Environ. Ecol., 9 (2011), pp. 552-560



production capacity of up to 66%¹¹; In addition, with the rise of overseas tourism and the loss of key industries, coastal communities are now some of the poorest in England.^{12, 13}

The 25 Year Environment Plan states that *'Beyond our coastlines, we must do more to protect the seas around us and marine wildlife'* yet currently our coastlines are falling between the gaps in a number of areas.

The Water Framework Directive and the UK Marine Strategy monitoring regimes are not aligned to monitor water quality and environmental impacts across the land - sea interface limiting our understanding of coastal and basin level impacts.

The Marine Policy Statement aims to ensure *'that marine and land planning will address the whole of the marine and terrestrial environments respectively, and not be restricted by an artificial boundary at the coast.'*¹⁴ In reality however, terrestrial planning is led by Local Authorities whilst Marine Planning is managed by the Marine Management Organisation. This has led to a siloed approach, with coastal habitats such as saltmarshes and seagrass forests left vulnerable to development or terrestrial pollution. Attempts have been made to connect the pathwork of organisations involved in the management of our coasts, such as Catchment Partnerships, the voluntary Coastal Concordat¹⁵ and Estuary Management Plans but these have all lacked sufficient funding to be delivered effectively.

Managing the coastal environment is challenging due to the various threats it faces, the existing governance frameworks at play and the communities, stakeholders and governing bodies involved in the area. These challenges have been used as a reason to not progress key protection measures. For example, the Richard Benyon report recommended that no HPMA's be piloted in estuary sites due to their complex nature.¹⁶ Yet no take zones, effectively HPMA's, already exist in the Medway estuary¹⁷ in Kent and are supported by the local fishing community.

Our coasts are on the front line against climate change so it is imperative that we restore them now to protect critical habitats, coastal communities, and avoid huge cost further down the line. To do this, Government must urgently level-up support for our coasts with existing protections on land and sea.

What does success look like?

Coastal plans are developed and nested within existing terrestrial and marine plans. These should be developed by a coastal planner based in each coastal Local Authority who works with the terrestrial

¹¹ McLusky D.S., Bryant D.M. & Elliott M. (1992) The impact of land-claim on macrobenthos, fish and shorebirds on the Forth estuary, eastern Scotland. *Aquatic Conservation: Marine and Freshwater Ecosystems* 2, 211–222.

¹² Social Market Foundation. 2017. *Living on the edge: Britain's coastal communities*. [Available here](#)

¹³ Lords Select Committee. Select committee on regenerating seaside towns and communities .2019. *The future of seaside towns*. [Available here](#)

¹⁴ Marine Policy Statement. 2011

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/69322/pb3654-marine-policy-statement-110316.pdf

¹⁵ <https://www.gov.uk/government/publications/a-coastal-concordat-for-england>

¹⁶ <https://www.gov.uk/government/publications/highly-protected-marine-areas-hpmas-review-2019>

¹⁷ <https://www.kentandsex-ifca.gov.uk/im-interested-in/mpas/medway-nursery-area>



planning teams, the MMO and the local Coastal Based Approach networks to design and implement the plans. These plans would complement existing plans, including shoreline management plans, to ensure estuaries, rivers and other coastal environments are fully protected.

Funding and support is given to implement a Coastal Based Approach (CoBA). The CoBa would bring coastal stakeholders together to inform management, engage communities and better protect our coastal ecosystems. It would fill the gaps where no other collaborative partnerships currently exist and support Government in their policy delivery and engagement with communities. This would complement the existing Catchment Based Approach, previously financed and supported by Defra, by providing matching support further downstream on the coast.

The Water Framework Directive, UK Marine Strategy and Bathing Water directives are improved and better aligned. Monitoring and programmes of measures must be aligned from source to sea to address bacterial, chemical, nutrient and plastic pollution. The same contaminants should be monitored in freshwater and marine environments, as ultimately rivers are a major source of pollutants to the sea. The list of contaminants monitored for UKMS should include all contaminants also included in the WFD and monitoring for plastics should be included in freshwater monitoring programmes in addition to those established for coastal and marine. The lists should also be expanded to include a larger range of emerging contaminants to ensure future threats are caught early to avoid unintended consequences.

HPMAs in estuaries are designated to protect and restore fish stocks for local fishing communities, key habitats for wildlife and carbon sinks to mitigate against climate change. Estuaries are complex environments but it is for this precise reason that they should be protected with such measures.

A coastal minister is in place to level up support for coastal communities and environments. With coastal communities already the most deprived in England, the impacts of covid-19 have hit them especially hard. The coastal minister would sit across departments to develop and deliver policies that rejuvenate these communities and the environments around them. This should start with implementing the recommendations from the Lords Select Committee on regenerating seaside towns.¹⁸

Resources required

Levelling-up support for coastal communities and environments will require the following resources:

- Seed funding for Catchment Based Approach (CaBA) – the matching CaBA project has shown that for every £1 of Government funding, an additional £6.50 has been raised by non government departments. This funding has helped the CaBa engage over 27,000 stakeholders, create, 2,000ha of habitats and implement 167 projects tackling diffuse pollution and water

¹⁸ Lords Select Committee. Select committee on regenerating seaside towns and communities .2019. The future of seaside towns. [Available here](#)



quality.¹⁹ The finding from the CaBa show that seed funding from Government can kick start a self sustaining network of support. With our seas and coasts under threat from economic recession and the climate and ecological crises, such funding is a logical investment.

- Review existing resource provisions to decipher whether existing funds could be used for recovering and protecting our coasts. This could include funds from the Environment Agencies Flooding and Coastal Erosion Risk Management Strategy being used to support saltmarsh creation and managed realignment.

¹⁹ CaBA. 2018. CaBA Monitoring & Evaluation 2017/2018: CaBA Benefit Assessment Working Group, September 2018. [Available here](#)