

**Coastal Futures 2020 - Review and Future Trends**  
**15<sup>th</sup> & 16<sup>th</sup> January - The Royal Geographical Society, London**

For all presentations please see the following link:

<http://coastal-futures.net/archive>

**DAY 1 – Wednesday 15<sup>th</sup> January**

**The Climate Emergency and How We All Respond – Coasts on the Front Line**

**SESSION 1**

**9.30 Opening address: Coasts on the front line**

**Emma Howard Boyd**

In 2019 the Environment Agency consulted on its [draft National Flood and Coastal Erosion Risk Management Strategy](#) which sets a vision for how the UK can be a nation ready for, and resilient to, flooding and coastal change – today, tomorrow and to the year 2100. The Environment Agency has also set itself the goal of becoming a net-zero organisation by 2030 – we all need to play our part in responding to the climate emergency and we want to help show other organisations what is possible. Also last year, the Global Commission on Adaptation published its flagship report, [Adapt Now](#), which calls on the international community to accelerate adaptation to deliver human, environmental and economic resilience to climate change.

**9.50 Climate change and the ocean – A call to action**

**Professor Ralph Rayner**

This talk was about engineering and how it needs to pre-empt sea level rise and coastal impacts more thoroughly and effectively eg use greater margins for error. We must rise with the tide!

We stand at a critical point in responding to the existential threat posed by climate change. The ocean plays a central role in determining the extent of the risk to human populations and the terrestrial ecosystem as the repository for more than 90% of the excess heat in the climate system and the sink for up to 30% of anthropogenic carbon dioxide emissions since the 1980s. The ocean is also the location of possible irreversible tipping points in the climate system. Actions over the coming decade will be pivotal in avoiding the risk of irreversible change and will determine the balance between mitigation and adaptation, including large scale geoengineering, as means of managing climate change impacts.

**10.10 Unstoppable sea level rise demands adaptation now**

**John Englander**, President, Rising Seas Institute

- Why sea-level rise can no longer be stopped
- 5 Flood Factors + Erosion are different issues
- Planning for multi-meter sea level rise this century

Coastal planning now requires bold thinking. Regardless of our efforts to address climate change, rising sea level has passed the tipping point. Multi-meter sea level rise is now in our future. The rate of acceleration is increasing. The flooding effects from coastal storms, heavy rainfall, runoff, extreme tides, and rising seas, are easily confused. Smart solutions require that we understand them as different issues. Englander offers his “9 box matrix” as a useful framework for planning and adaptation with a margin of safety.

**10.35 How Do We Communicate Climate Change**

**Chris Rose**, Campaign Strategy

Don't just do green things. Turn your behaviour into an influencing campaign. The new climate movement led by Greta Thunberg has turned 'climate' from an issue about the fate of the planet to the fate of our children. Its underlying power lies in the emotional leverage of children on parents.

We know a lot about what 'works' in climate communications. Once the challenge was to convince people it existed but now it's happening and people are convinced. Today's challenge is to drive change through proving feasibility not just urgency, and all our individual choices can help do that by proving public acceptance of change.

### **10.55 How can psychology help with coastal and marine issues?**

**Professor Sabine Pahl**, School of Psychology, University of Plymouth,

Many environmental problems are entirely the consequence of human decisions and behaviours. The presentation discussed how psychological insights and methods can help us understand drivers of behaviour such as motivations, perceptions, emotions and values that are arguably more powerful than knowledge or economic incentives alone.

Key messages:

- Decisions and resulting behaviours are key to change
- Change needs to happen at individual, community and system level.

### **11.15 Climate Change – can we do more? Your Views**

**Emma McKinley**, Cardiff University

**Rick Stafford**, Bournemouth University

**Bob Earll**, CMS – Communications & Management for Sustainability

As the conversation around climate change and climate action becomes increasingly urgent, there is a need to understand how individual and collective action can be harnessed to address some of the challenges facing the natural world.

In the run up to Coastal Futures 2020, CMS and researchers from the Cardiff and Bournemouth Universities collaborated to understand how the Coastal Futures, and wider CMS, audience are responding to climate change and the calls for urgent action. Drawing on the findings from an expert questionnaire (sent to the CMS Network with a total of 420 respondents), this session was interactive explored the views of an informed audience, examining current actions being taken by those most likely to be considered to be part of the ‘converted’ and highlighting challenges and barriers experienced by those within the Coastal Futures community.

## **SESSION 2**

### **12.15 Coastal Governance and Partnership Working**

**Nicola Radford**

Senior Commissioning Officer (Regeneration), Lincolnshire County Council & Coastal Communities Alliance

The presentation was about the background and purpose of the Coastal Communities Alliance and the current discussions around the Triumvirate. Three major coastal fora currently exist in the UK – Coastal Partnerships Network, Coastal Communities Alliance and Local Government Association Coastal Special Interest Group. In 2017, we started to talk about what a joined up approach to coastal working might look like. We discussed how we could share knowledge, support each other’s work by aligning messages and supporting strategies and collaborate on an annual national event to bring our members and audiences together to enable a truly integrated approach to solving issues shared across coastal communities throughout England.

### **12.30 The Coastal Based Approach (CoBA)**

**Amy Pryor, Bob Earll, Natasha Bradshaw & Peter Barham**

#### **The Proposal**

The Coastal Based Approach (CoBA) is an idea for an approach to coastal governance drawn from the Catchment Based Approach (CaBA). The Catchment Based Approach was introduced by Government in 2010 to help deliver improvements to the water environment arising from the Water Framework Directive and other Government programmes. The benefits have been proven - it has facilitated better communication and delivery with stakeholders on a catchment scale and mobilised community engagement. With funding from Defra and support from the Environment Agency it has provided systematic coverage for all English catchments. The Coastal Partnerships, which have evolved since the early 1990s, were one of the models for partnership working that CoBA was based on.

The Coastal Based Approach would:

- provide a systematic approach to the whole coast of England
- strengthen partnership working to cover and build natural, social and economic capital

- use the existing governance framework to strengthen the way coastal agencies and organisations work together
- enable the considerable expertise and lessons of the Coastal Partnerships, Coastal Groups, Catchment Based Approaches and the Marine Pioneers (amongst others) to be applied to routine communication, programme delivery and collaboration.

This will provide clear benefits to Government and its agencies in the delivery of a wide variety of policies and programmes. These fall into three main categories:

- i) Communication
- ii) Delivery of Government policies and programmes
- iii) Collaboration using partnerships to deliver projects with multiple benefits

### **12.45 Shoreline Management Planning and Action**

**Nick Hardiman**, Senior Coastal Adviser, Environment Agency FCRM Directorate

**Catherine Wright**, Director, Digital and Skills, Environment Agency FCRM Directorate

Managing coastal risk at the shoreline has received increasing profile across and beyond Government in the last year. High profile assessments by the Adaptation Sub-Committee of the Committee on Climate Change, the House of Lords Regenerating Seaside Towns Committee and the EFRA Committee review of coastal adaptation have complemented earlier strategic thinking by the National Infrastructure Commission, RSPB and National Trust on coastal management in a changing climate.

The national FCRM Strategy being drawn together by the Environment Agency now sets out the principles and measures we must collectively take to manage flood and erosion risk, and seeks to reflect the strong messages on planning, adaptation and resilience at the coast these many assessments have sent out.

A renewed FCRM investment programme will be an important element of delivering this Strategy. But the ambitious capital programme is only part of the story. Adaptation and resilience at the coast requires a concerted and sustained effort in strategic planning, engagement, research and monitoring. It also requires investment of a different kind: in some cases shaping a different future for a stretch of coast will require relocation, roll back, decommissioning or remedial work for the natural environment. This, as with so much set out in the Strategy, will need to be a truly joint effort across many parties.

The linchpin between the FCRM Strategy and this spectrum of activity at the coast is the Shoreline Management Plan. Twenty such plans provide the framework for decisions we make now about how we manage coastal risk – and therefore shape our coastal places – in England into the next century. Developed in 2006-2012, they are now undergoing a significant refresh to make sure they reflect the local and national priorities we now work to, and the evidence we have today. The Environment Agency is co-ordinating this work on behalf of the coastal risk management community embodied in Coastal Groups, as a commitment to ensure we maintain the SMPs as a living resource that everyone can engage with.

Involving new supplementary guidance on a range of issues, SMP-level 'health checks' and analysis on the governance and effectiveness of SMPs – all to be provided in July 2020.

### **13.05 Coastal Local Authorities and the Climate Emergency**

**Fernanda Balata**, New Economics Foundation

This talk covered the challenges and opportunities for coastal Local Authorities in responding to the climate emergency; and why addressing power inequalities is imperative to deliver the urgent and fair transition that is needed. Through a political economic lens, the talk looked at how coastal areas are disadvantaged in the UK; what previous/current coastal policies and strategies, or lack of, have not got right; and how proactive, bold, locally-led industrial planning on the coast can help positively address climate, ecological, economic and social issues simultaneously. Coastal communities seem to be 'out of sight, out of mind' to the UK economy, which has trapped coastal areas in a cycle of disadvantage.

Webpage for NEF's Centre for Coastal Economies:

<https://neweconomics.org/campaigns/blue-new-deal>

### **13.25 Place Based Funding at the Coast: Principles and Practice**

**Bruce Horton**, Environmental Policy Consulting

This session provided an overview of and background to the key concepts around place-based finance and delivery of multiple benefits. It highlighted:

- Integrated, place-based initiatives (e.g. delivering flood, water and biodiversity objectives) provides multiple benefits
- Working collaboratively in partnership and pooling resources means getting 'more for less'
- This applies to range of contexts (e.g. upland restoration, flood mitigation)

It set out some of the principles around financing, including the need to identify and articulate the range of benefits, the beneficiaries (who the benefits accrue to), who can/should fund schemes, and some of the funding options available. Funding needs to identify:

- Private / public benefits.
- An asset
- Future revenue stream

### **13.45 Ganging up on the problem: the benefits, and challenges, of collaboration**

**Katherine Yates** Lecturer, Global Ecology and Conservation, NERC Knowledge Exchange Fellow, University of Salford

Collaborations are fundamental to addressing marine and coastal management challenges, which are often immensely complicated, spanning multiple research disciplines, numerous management organisations, and diverse stakeholders' groups that frequently have competing interests. Adequate knowledge of the interconnected complexities of the system is essential to developing sustainable solutions and anticipating the possible consequences of different management options. Gaining, and importantly sharing, this knowledge generally requires bringing together diverse groups of expertise across the researcher – practitioner – stakeholder spectrum. Yet collaboration is not straightforward. Individuals and organisations have many different reasons for seeking collaborations, there are barriers that impede potential collaborations from ever starting, and collaborations require ongoing investment to succeed.

The talk looked at the barriers and incentives to collaboration, examples to highlight what motivates attempts to develop collaborations and how easily those motivations can be diminished. This understanding of why researchers do or don't engage with practitioners, and vice versa, is central to improving the way we develop collaboration in the future. Barriers can be both the obvious and the unseen, and suggestions were given to help maximise incentives and combat barriers.

## **SESSION 3**

### **15.05 Future development and growth in the offshore wind sector**

**Will Apps**, Head of Energy Development, The Crown Estate

Not relevant to CDC

### **15.25 Is the projected scale of offshore wind development sustainable?**

**Tania Davey**, Living Seas Sustainable Development Officer, The Wildlife Trusts

Not relevant to CDC

### **15.45 Offshore Seaweed and mussel farming; the possibilities of co-location with offshore wind, Martin Syvret, Aquafish Solutions Limited - [www.aquafishsolutions.com](http://www.aquafishsolutions.com)**

In 2013/14 a shellfish aquaculture study was undertaken by a Project Team led by Aquafish Solutions Ltd. on behalf of the Shellfish Association of Great Britain regarding the potential for co-location with offshore wind farms (OWFs). This Welsh EFF project was designed to investigate the co-location potential taking into consideration the needs and requirements of all marine users.

### **16.05 Marine Climate Change Impacts: Report Card 2020**

**Ella Howes**, Marine Climate Change Impacts Partnership

The United Kingdom Marine Climate Change Impacts Partnership (MCCIP) brings together scientists, government, its agencies and NGOs to provide co-ordinated, impartial information and advice on climate change impacts and adaptation around UK coast and seas.

The MCCIP Report Card 2020, launching at Coastal Futures, provides the latest update on scientific understanding of climate change impacts on UK coasts and seas. 26 topics over three themes - 'Climate of the Marine Environment', 'Impacts on Healthy and Biodiverse Seas' and 'Impacts of Climate Change on Society'. For the first time, MCCIP reports on the impacts of climate change on oxygen, cultural heritage, and transport and infrastructure. The talk highlighted the work of MCCIP and described some of the key headlines and emerging issues from the newly launched report card. See following link to:

[MCCIP Report Card 2020](#)

#### **16.25 Reducing Plastic Pollution: A Collaborative Approach from Source to Sea**

**Jessica Hickie**, Programme Manager Plastics & Sustainability, Environment Agency

In 2018 the Environment Agency set up a new team to tackle plastic pollution, based in the SW with a National remit. They are now over halfway through the initial 3 year project. The talk described the work of the Environment Agency on reducing plastic pollution with a focus on the first 18 months of the Plastics and Sustainability team's work, outcomes and future plans.

#### **16.45 Changing the Soundtrack of the Anthropocene**

**Prof. Steve Simpson**, Professor of Marine Biology & Global Change, Biosciences, University of Exeter, UK

Not relevant to CDC

#### **17.10 The view from Greenland, “ground-zero” for sea level rise**

**John Englander**, President, Rising Seas Institute

Not relevant to CDC

### ***DAY 2 – Thursday 16<sup>th</sup> January***

#### **Ocean Recovery and Restoration – The New Agenda**

The day was introduced by Rebecca Pow, Environment Minister. Follow this link to read [Rebecca Pow's speech to Coastal Futures 2020](#)

### **SESSION 4**

#### **9.50 What do we want from our marine environment? Are we doing enough to deliver ocean recovery and resilience?**

**Mark Duffy**

Principal Adviser Fishers, Natural England.

E: [mark.duffy@naturalengland.org.uk](mailto:mark.duffy@naturalengland.org.uk)

We currently enjoy a spectrum of “goods & services” provided by our seas e.g., minerals, fishing, energy, carbon sequestration, recreation etc. and seek to utilise them in a sustainable manner. Lack of integrated delivery across sectors leads to unnecessary competition and invariable suboptimal use of our marine resources. All of these actions combined are not delivering the marine ecosystem recovery needed.

The talk focussed on the need to do something different if we are serious about ecosystem recovery. Against a backdrop of our historic dependency on MPAs to “fix the marine environment” we now need to re-evaluate this philosophy and recognize that in isolation this network will never attain that goal. We must operate at a much wider scale hence the requirement to integrate conservation measures with exploitative actions. Sediment stores were used as an example.

#### **What do we want from our marine environment (cont)? Are we doing enough to deliver ocean recovery and resilience?**

**Alec Taylor**, Head of Marine Policy, WWF UK

2019 was the year that the world increasingly woke up to the fundamental ways in which the ocean has been changed by climate change and direct human pressures, and the profound consequences, including for the UK, of failing to address this for the future.

The IPCC's Special Report on the Ocean and Cryosphere in a Changing Climate (SROCC)'s Summary for Policymakers states: *“Realising this potential [for ocean climate resilience] depends on transformative change. This highlights the urgency of prioritising timely, ambitious, coordinated and enduring action. (very high confidence)”*.

This is a fundamental challenge to “business as usual” marine management in the UK, and requires a change in mind-set from relying on the ocean to support us if we get it right eventually to needing to act now and at scale.

### **10.10 Independent Review into Highly Protected Marine Areas**

**Richard Benyon**, Chair of the HPMA Review

The UK is at the forefront of marine protection and now has more than 40% of English waters designated as marine protected areas (MPAs). Although Government has made progress in applying management measures in inshore waters there has been continued interest in the concept of HPMA's.

HPMA's would represent the upper end of environmental protection we could put in place in our waters. They could play a role in allowing areas of England's seas to recover and thus provide a benchmark against which to measure this environmental recovery following removal of damaging human practices.

### **10.30 UK Marine Strategy assessment of biodiversity**

**Dr Ian Mitchell**, MSFD Species Senior Advisor, JNCC,

In October 2019, Defra published the most comprehensive assessment of the state of the UK's seas to-date: [Marine Strategy part one: UK updated assessment and Good Environmental Status](#). The report concluded that the UK has “made good progress towards achieving Good Environmental Status (GES)”.

For marine biodiversity, the report concluded that “there is a mixed picture for marine mammals, fish populations, seabed habitats and food webs” and “more is needed to understand and protect bird populations.” I will present results from the indicators that that were developed and assessed as part of the UK Marine Strategy. Further details on the UK assessments can be found on the new [Marine Online Assessment Tool](#) (MOAT) portal.

### **10.50 How super is 2020? Defra bills and global deals**

**Richard Benwell**, CEO, Wildlife & Countryside Link

The Government intends to play a leadership role in delivering strong environmental deals in 2020. Global goals for marine biodiversity, targets for protection of the High Seas, and new ambition for blue carbon storage and sequestration are all on the table.

The session focussed on the Environment Bill as the centrepiece of the Government's post-Brexit environmental legislation. It will ask whether key provisions on targets, enforcement and principles are robust enough to provide the Government with the considerable authority and political capital needed to make a success of 2020.

### **11.10 The Welsh National Marine Plan (WNMP) - a perspective on marine planning**

**Phil Coates**, Marine plan Implementation and Evidence manager, Welsh Government.

Marine planning has come about due to the increasing congestion of our seas and through the need to plan more systematically about what we might like to see and where, rather than rely upon “first come, first served”; and to inform and be informed about marine policy making.

The presentation will *briefly* outline the content and intent of the Welsh National Marine Plan (WNMP) with further information and links provided in the delegate notes for those that wish to know more.

### **11.30 Learning about marine planning... whether you want to or not!**

**Rhona Fairgrieve**, Principal Environmental Consultant, Atkins,

To mis-quote Malvolio in Shakespeare's 'Twelfth Night', "Some are born marine planners, some achieve marine planning, and some have marine planning thrust upon them." In whichever camp you find yourself, remember the first part of this amended exhortation: "Be not afraid of marine planning!"

As Maritime Spatial Planning (MSP) has developed in the last decade, so have the ways of explaining it to stakeholders. The **MSP Challenge** is an attempt to address the complexities of marine planning at a spatial scale using an interactive and 'game-based' approach. Within a fictionalised shared sea basin, the tool enables consideration of economic, ecological and social drivers in pursuit of the sustainable development of marine resources.

## **SESSION 5**

### **12.55 The importance of UK kelp forests for fisheries habitat, biodiversity, carbon cycling and regional economies**

**Dan Smale**, Marine Biological Association of the United Kingdom, The Laboratory, Citadel Hill, Plymouth PL1 2PB, UK

Kelp forests are distributed along a quarter of the world's coastlines. In the UK alone, kelp stands are found along ~12,000 miles of coastline and occupy an area of up to 19,000 km<sup>2</sup>, comparable to the combined area occupied by seagrass meadows, salt marshes and native trees on land. As ecosystem engineers, kelps support high levels of primary productivity, elevated biodiversity and provide complex and extensive habitat for a wide range of organisms including fisheries species, sea birds and mammals. Despite some pioneering ecological studies conducted in the 1960s and 1970s, kelp forests in the UK have been historically understudied, which has resulted in critical knowledge gaps pertaining to management, conservation, carbon cycling and responses to environmental change.

See [Snapshots on Climate Change](#)

### **13.15 Challenges in Scotland: Doubling of fish farming, mechanical kelp harvesting & future of fisheries management**

**Calum Duncan** - Head of Conservation Scotland, Marine Conservation Society

A series of reports in 2019 highlighted that we are in the midst of inter-linked climate, nature and ocean emergencies and that doing business as usual has led us to this point. The next decade must have ecosystem, including ocean, restoration at the core of all decision-making and nothing short of transformative change in how we do business in and around the sea, from fisheries and aquaculture management to plastics manufacture and transport, is needed to deliver that at the scale necessary.

The talk provided a context for fisheries management in Scottish waters in a global legislative setting.

### **13.35 The Fisheries Bill & sustainable fisheries – where are we and where do we need to go?**

**Helen McLachlan**, Fisheries Programme Manager, WWF UK

The presentation identifies how poorly we have been managing our marine environment, revealing that we are failing to meet 11 of the 15 indicators of the Marine Strategy and the achievement of Good Environment Status (GES). The importance of ocean health for combatting climate resilience came unto sharper focus. The Intergovernmental Panel on Biodiversity and Ecosystem Services (IPBES) report identified that biodiversity and ecosystem services were deteriorating worldwide and that overfishing represented the biggest human impact on our oceans. It is clear that if we are to build climate resilience and recover ocean health we need to integrate the management of fisheries into the wider ocean agendas and make systemic changes with urgency and ambition in order to deliver climate smart fishing and effective protection of key marine areas, habitats and species.

Existing UK marine legislation is fragmented, fails to reflect the ocean's role in the climate fight and does not have a clear obligation to achieve recovery of our oceans. In addition our marine environment is not prioritised in the way that other environmental concerns are embraced by policy teams. The draft Environment Bill doesn't specifically cover marine while fisheries management is siloed from other marine management with little consideration given to its wider ecological impacts. Options were discussed, but it was made clear that business as usual cannot be an option.

### **13.55 Low Impact Fisheries**

**Chris Williams**, New Economics Foundation (NEF)

The presentation focussed on NEF research and advocacy since 2011 on social, environmental and economic criteria, applied to fisheries in the EU and UK. NEF have recently been awarded a Defra contract to ‘co-design the principles for defining low impact fishing’ with the English fishing industry, which will also be presented.

A wide variety of fishing gears are used to catch fish and shellfish in the UK and these gears are constantly evolving, with a focus on trying to reduce fuel use, catches of non-target species and any negative impacts on marine habitats. The impacts of fishing gears on seabed ecosystems are a central component in *ecosystem-based fisheries management* and the *ecosystem approach* to fisheries management (guiding objectives of both the Fisheries White Paper and the 25 Year Environment Plan). The impacts on seabed features and species of different gear types is also a key consideration in the development of management measures and byelaws for Marine Conservation Zones (MCZs) and other Marine Protected Areas (MPAs).

### **14.15 Inshore Fisheries – mapping the future**

**Kirsten Milliken**, Economics Project Manager, Seafish

A collaborative approach is underway to reshape UK Inshore Fisheries Management. October 2019 marked the first staging post of the journey. A pivotal event was held in London and attended by the fishing industry, recreational fishers, government agencies, NGOs and the research community to discuss issues and possible solutions in inshore fisheries management. Drawing on the expert knowledge, personal experience and ideas of the events participants the Project Steering Group are now preparing a set of recommendations for a future blueprint of UK inshore fisheries management.

This initiative marks a step-change, not only in what we manage but how we manage our inshore fisheries. Drawing lessons from examples of successful fisheries co-management from around the world the group aim to bring together stakeholders to pilot alternative approaches and reform inshore fisheries management in the UK.

### **14.35 The developing programme of inshore fisheries and conservation management**

#### **Delivering effective inshore fisheries and conservation management in the Southern IFCA District**

**Robert Clark**, Chief Officer, Southern Inshore Fisheries and Conservation Authority (IFCA).

The talk covered progress by Southern IFCA to transform management of Inshore in the coastal waters of Hampshire, Dorset and the Isle of Wight. The progress made by the Authority in the management of Marine Protected Areas and the lessons learnt from this process were presented.

The role and importance of policy, community engagement and compliance was highlighted with regards to the need to implement strategies to reconcile economic incentives and conservation objectives. In the context of the progress made by the IFCA, I will reflect upon the ongoing and forthcoming challenges and opportunities associated with, amongst other things; changes in the wider fisheries management regime, the nature and extent of IFCA resources and the continued opportunities for collaboration (and in particular co-management).

#### **Background**

The Marine and Coastal Access Act, 2009 amongst other things, established a new system for the management of inshore fisheries and in 2011, in English coastal waters (to six nautical miles), IFCAs were formed. There are ten IFCAs in England; the IFCAs are committees, or joint committees (as is the case in Southern IFCA) of local government. The IFCAs are governed by Members who are either appointed by the local authorities that fund the IFCA, appointed as representatives of statutory bodies (Natural England, Environment Agency or the Marine Management Organisation), or appointed as General Members on their individual merit, for their skills or knowledge relevant to inshore fisheries and conservation management.

The vision of IFCAs is to “lead, champion and manage a sustainable marine environment and inshore fisheries, by successfully securing the right balance between social, environmental and economic benefits to ensure healthy seas, sustainable fisheries and a viable industry.”

## **SESSION 6**

### **15.50 Net Gain – How can this be translated into practice?**

**Peter Barham**, Seabed User and Developer Group (SUDG)

SUDG is looking at ways in which net gain could be adopted as a principle which will both benefit marine industries and the environment. Their thinking is predicated on the understanding that if net gain is going to become part of the development process, then it is better for industry to be involved in developing how that should take place.

An option that SUDG is trying to develop is not one where mitigation and compensation (the mitigation hierarchy) are kept distinct from net gain, but towards one where net gain is treated as an opportunity to provide more than compensation, so that the environment is not just protected but improved regardless of whether work takes place in designated areas or outside them. Logically, this should also apply on an ecosystem wide basis, acknowledging that some species require access to terrestrial, marine and intertidal habitats for complete well-being. We are increasingly referring to this as 'ecosystem enhancement'.

None of what is suggested replaces the existing legislative obligations; instead, it creates an opportunity where development can contribute to better ecosystem management through delivery of the mitigation hierarchy and subsequent net gain in a proportionate manner. Such an approach could ensure that development has a material and significant impact in helping to meet GES and other agreed environmental targets and avoid the potential for net gain to be described as 'greenwash'; where actions would simply be delivered without context and without addressing clearly understood issues.

### **16.10 REACH Programme, Restoring Estuarine and Coastal Habitats in the North East Atlantic**

**Roger Proudfoot & Ben Green**, Environment Agency

A cross Defra initiative, ReMeMaRe (Restoring Meadow, Marsh and Reef) is underway across the Defra Marine Outcome System and the salty 6 (Environment Agency, Management Organisation, Natural England, Joint Nature Conservation Committee, Centre of Environment, Fisheries and Aquaculture Science and Defra) with support from the Crown Estate and IFCAs to draw together current activity attempting to restore estuarine and coastal habitats in England. The initiative also has a UK and international dimension through the REACH conference (Restoring Estuarine and Coastal Habitats in the NE Atlantic).

The presentation will update delegates on progress to date and the developing plan for the future. The focus is on practical intervention rather than natural restoration through reduced pressure, though providing the right water quality and morphological conditions, both now and in the future, is recognised as being of major importance in ensuring restoration successful.