

**Hampshire &  
Isle of Wight**

Wildlife Trust

The background of the slide is a photograph of a rocky coastline. The foreground is dominated by dark, wet rocks covered in vibrant green seaweed. A person wearing a red jacket is visible on the rocks in the middle ground. In the background, there is a blue sea, a pier, and a green hillside under a clear sky.

# The UK Blue Belt: HPMAs and Blue Carbon

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# Why is the Marine Environment Important?

## Biodiversity

- Fundamental importance
- Provides resilience and adaptability
- The “motherlode” of evolution
- UK seas **are** important globally

## Environmental stability

- Heat – 90% of all the heat associated with climate change
- Carbon Dioxide – almost a third of global CO<sub>2</sub> emissions
- Nutrients – Organic (sewage), Nitrates (agriculture)
- Pollution – 85% of marine pollution originates from the land
- Weather – Coastal State with maritime climate (78% of population lives within 50 km of the sea)

## Ecosystem Services

- Food – primary animal protein for 1 bn people
- Coastal defences – up to 1.3 m level rise by 2100
- Recreation – our wellbeing



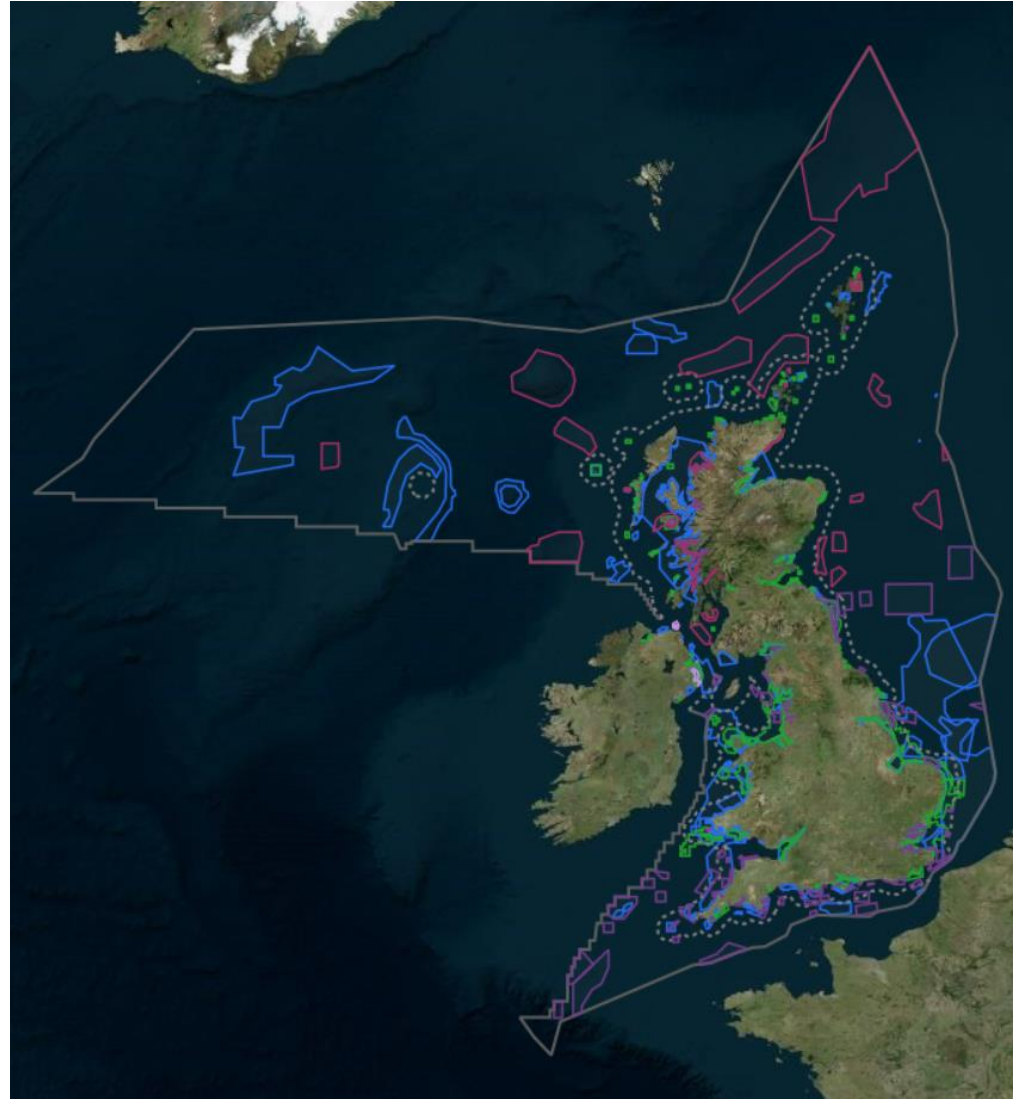
# What do we mean by ‘Highly Protected Marine Areas’ (HPMAs)?

*Don't we have enough already?*

## What we have at the moment - MPAs:

- **Sites of Special Scientific Interest (SSSIs)** important basis for many coastal areas and underpin...
- **Special Areas for Conservation (SACs)** - EU Habitats Directive
- **Special Protection Areas (SPAs)** - EU Birds Directive
- **Marine Conservation Zones (MCZs)** - UK Marine and Coastal Access Act and equivalents in Scotland, Wales and Northern Ireland - MACCA, 2009.

**But all “feature based” designations, with “spatial management”**



<https://jncc.gov.uk/mpa-mapper/?zoom=5&center=-10.119,56.606&layerIds=43,44,67,74,45,46&baseLayerId=-2&activeFilters=>

# What do we mean by 'Highly Protected Marine Areas' (HPMAs)?

- **Benyon Review has recommended that the Government implement HPMAs** Initially five pilot sites, located within existing MPAs
- **All habitats and species within an HPMa are protected** – including mobile and migratory species
- **Management prohibits all extractive, damaging and depositional activities** - e.g. fishing and aggregates
- **Very few activities permitted** - most recreation, science, right to anchor in emergency etc.

**'Whole site approach' to management conserve all habitats and species**



## Benyon Review Into Highly Protected Marine Areas

**Final Report**

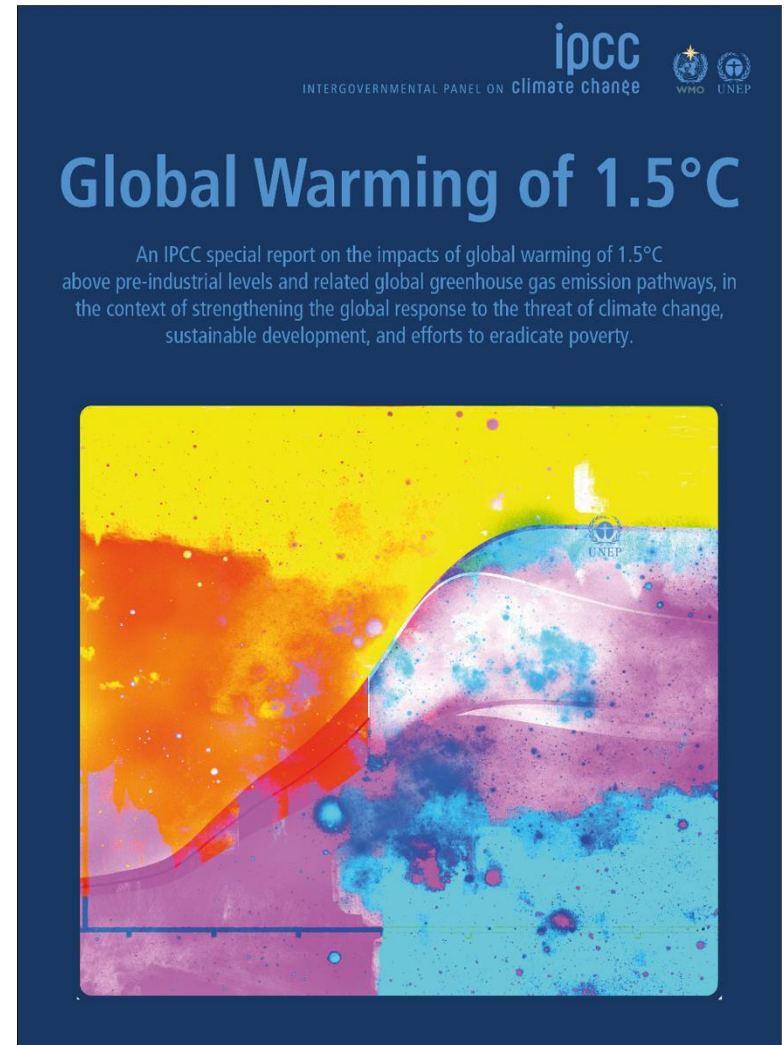
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# The Importance of Blue Carbon

## Can we “plant trees” in the sea?

- The Oceans absorb nearly 30% of our excess CO<sub>2</sub>
- Some marine habitats are particularly good at absorbing and storing Carbon
- Marine habitats which perform this function are often key habitats supporting many species, fisheries and providing other ecosystem services

**Blue Carbon is a new idea, but one with great potential**



# Some key Blue Carbon Habitats

## Saltmarsh

- Photosynthesis captures Carbon
- Saltmarshes accrete dead plant and other material
- Can lock away 2 tonnes C/Ha/yr
- Saltmarsh being lost at a rate of 100 Ha/yr

## Seagrass

- Photosynthesis captures carbon
- Accrete dead plant and other material
- Can lock away hundreds of Kg C/Ha/yr
- NE Atlantic has lost 90%+ of seagrass beds
- Globally seagrass

## Marine sediments

- Marine sediments capture organic carbon from phytoplankton and other sources
- Sediments lock Carbon away (geological scales)
- Disturbed sediments can release their stored Carbon



# Seagrass Restoration?

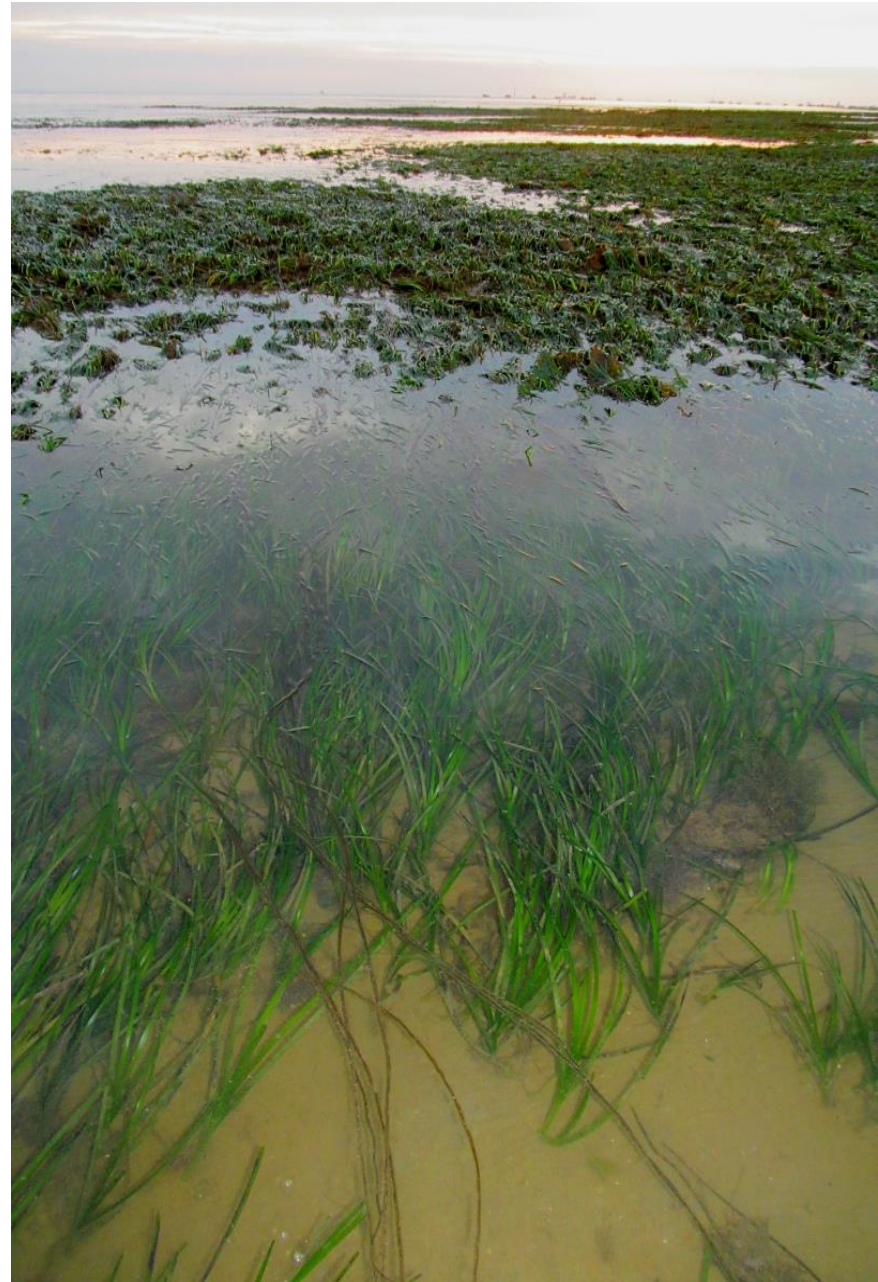
## Methods

- Seeding
- Transplanting shoots as plugs or cores
- Transplant shoots with bare roots
- Transplant seedlings
- Transplant rhizome

## Lessons Learnt

- Size matters (threshold size, +’ve feedback, spread of risks)
- Ideally, seagrass already present
- Choose a historic seagrass location
- Remove pressures (often problematic)

**An exciting time as new methods are being developed, refined and tested: restoration becoming a reality!**



# Blue Carbon and Marine Protected Areas

*“Government must set conservation objectives for HPMAs that allow full recovery of the marine environment and its ecological processes.”*

Benyon Report, Recommendation no. 3

- Habitats which are good for Blue Carbon function best when they are in good ecological condition, able to grow and expand naturally.
- These same habitats are currently lost, declining or disturbed, reducing their Blue Carbon function
- Restoration and recovery is possible
- HPMAs, and all MPAs in a well-managed Blue Belt can provide the right conditions for us to build our Blue Carbon reserves and restore other ecosystem services.





# The Wildlife Trusts' marine conservation team and how councils can help us

## A Vision of Living Seas:

*“A sustainable society and economy needs productive and healthy seas. Yet for many years pollution, unsustainable development and the way we fish have damaged and depleted our seas. Our vision is for Living Seas - where better protection and management of our seas means that species which have declined can become common again.”*

- Contact us if you have plans or issues over "Blue Carbon" proposals or ideas
- We often have extensive local knowledge/data at local Trust level
- Access to expertise at national level
- May be able to help with surveys
- Experience working with developers, marine managers and government
- Experience working with local groups and marine stakeholders





**Thank You**

**The Wildlife Trusts (National)**

<https://www.wildlifetrusts.org/about-us/vision-and-mission/living-seas>

**Natural Solutions to Climate Change**

<https://www.wildlifetrusts.org/what-we-do/natural-solutions-climate-change>

**Hampshire and Isle of Wight Wildlife Trust (my Trust)**

<https://www.hiwwt.org.uk/we-protect-our-coast-and-sea>

**A short film about HPMAs**

<https://www.facebook.com/watch/?v=690696788149860&extid=QkOGxwubHYdTE1ru>