



**Our Ocean and Coastal Future** for the Next Decade



## Coastal Futures Conference SESSION 5

## **BALANCING ACT: Strategic Compensation and Spatial Prioritisation**

CHAIR Peter Barham MBE, Seabed User and Developer Group

25th & 26th January, 2023 Royal Geographical Society, London & online









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## Coastal Futures Conference SESSION 5

## **BALANCING ACT: Strategic Compensation and Spatial Prioritisation**

Joly Macleod, Defra

Domestic Marine Policy – **Update on progress** 

25th & 26th January, 2023 Royal Geographical Society, London & online









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# Domestic Marine Policy Update

**Coastal Futures Conference 25-26 January 2023** 

Joly Macleod, Domestic Marine Joly.macleod@defra.gov.uk







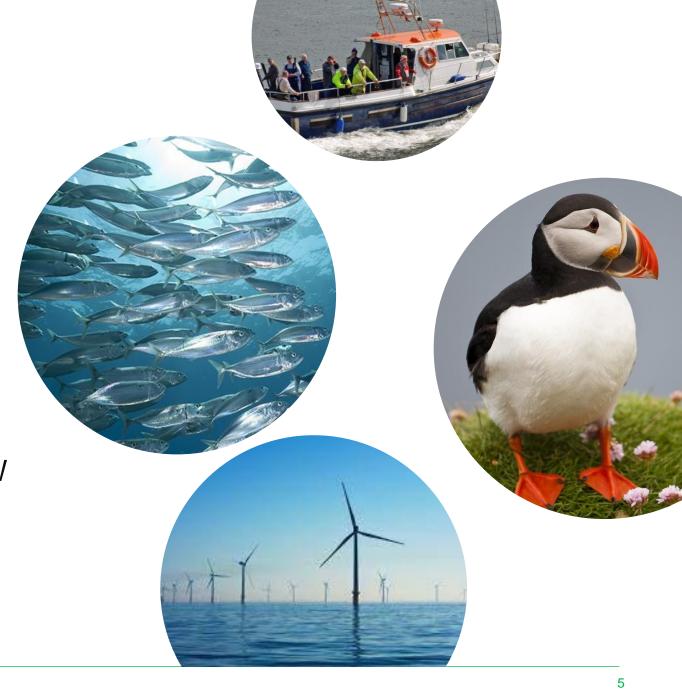
## Context

#### **Approach and commitments**

- UK Marine Strategy
- 25 Year Environment Plan
- Net Zero
- 30 by 30

#### New in 2022:

- British Energy Security Strategy 50 GW
- Nature Recovery Green Paper
- MPA statutory target



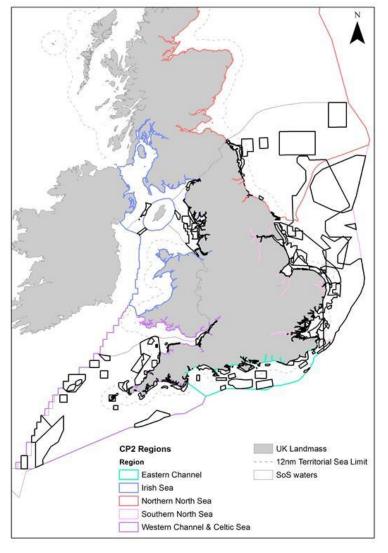
## Marine Nature Conservation

#### **Marine Protected Areas (MPAs):**

- MPA network completed 2019
- 60% of 178 English MPAs protected from damaging fishing
- First offshore byelaws
- Current MMO consultations on next steps

#### **Highly Protected Marine Areas (HMPAs):**

- Consultation on 5 candidate sites closed
   September 2022 over 900 respondents
- Sites designated by 6<sup>th</sup> July 2023



**English MPA Network** 



# Offshore Wind Environmental Improvement Package

British Energy Security Strategy (2022)

- Reform and streamline HRAs for offshore wind
- Measures to compensate impacts at a strategic level
- Set up a Marine Recovery Fund
- Deliver offshore wind environmental standards
- Deliver a strategic approach to environmental monitoring

## Marine Net Gain

Leaving the environment in a better state than before.

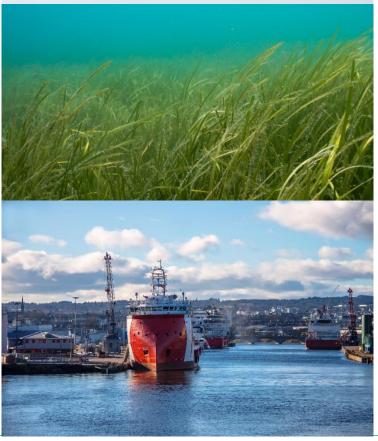
#### **Consultation launched on:**

- Approach for the marine environment
- Scope and application
- Closed September 2022 92 responses

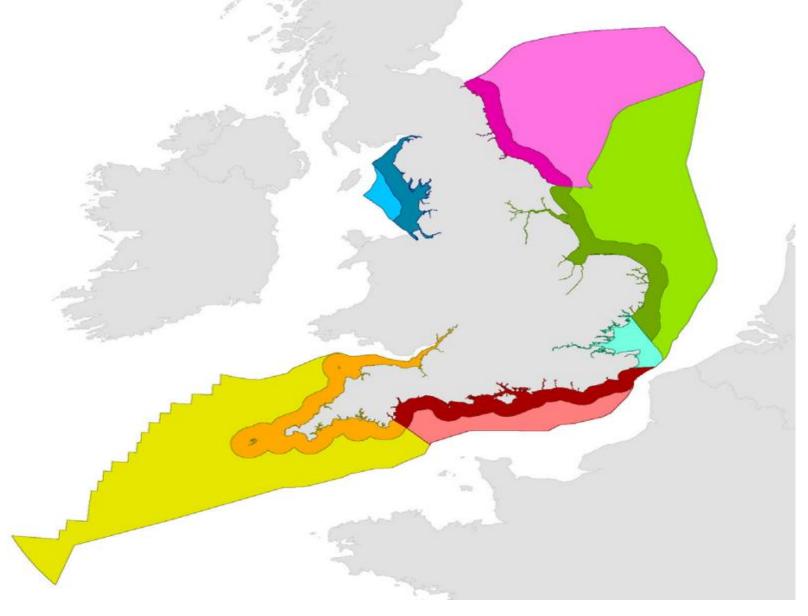
#### **Next steps:**

- Publish Government response
- Evidence and delivery mechanisms
- Further consultation





# Marine Spatial Prioritisation



**Marine Plan Areas in England (MMO)** 

## **Year Ahead**

- Passage of Energy Bill
- Continued progress on Strategic Compensation
- Policy decisions on the Marine Recovery Fund.
- More information on Offshore Wind Environmental Standards
- Updated Unexploded Ordnance Statement
- Further engagement on spatial prioritisation
- Offshore MPA byelaws
- HMPA designation decisions
- Marine Net Gain consultation response



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## **BALANCING ACT: Strategic Compensation and Spatial Prioritisation**

Olivia Thomas, The Crown Estate

One space, multiple pressures: the need for a coordinated and holistic approach to managing the UK sea space

25th & 26th January, 2023 Royal Geographical Society, London & online









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# One Space: Multiple Pressures

The need for a coordinated and holistic approach to managing the UK sea space

Olivia Thomas Head of Marine Planning The Crown Estate



# Delivering for more than 260 years, The Crown Estate is a unique business with a diverse portfolio that stretches across England, Wales and N. Ireland



#### **Reconstituted by The Crown Estate Act of 1961**

As a commercially independent business with accountability to Parliament.



#### Return our net revenue profit to the Treasury

For the benefit of the nation's finances, with £3bn contributed in the last 10 years.



#### Active owners and managers of land and seabed

We seek to leverage our scale and convening power to make a meaningful difference.



#### With a compelling purpose

To create lasting and shared prosperity for the nation

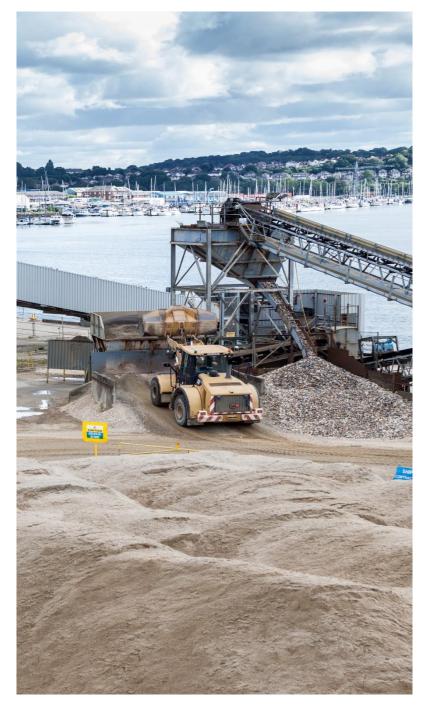


#### And an ambitious new strategy

Guided by our purpose and informed by major trends impacting our business, we seek to create broad financial, environmental and social value for our stakeholders, customers and the nation.







## One space: multiple pressures

redit to Principle power inc





East Coast Grid Spatial Study Summary Report April 2021

mationalgrid nationalgridESO

**Environmental sustainability** 



Support with energy bills this winter



Department for Environment Food & Rural Affairs Q Home Find Activities We Asked, You Said, We Did Consultation on the Principles of Marine Net Gain

**Energy security** 

Affordability

Figure 1. The energy trilemma.

The RSPB's 2050 Energy Vision



#### Renewable energy deep dive: recommendations

Outcome of the exercise to identify opportunities to significantly scale up renewable energy in Wales.

First published: 8 December 2021



summer. Your response to the survey questions will be added to the points

made at the engagement events held on 16th and 20th June 2022 so that Defra can consider stakeholders informed responses when formulating policy

Home Find Activities We Asked You Said We Dis

Closes 7 Jul 2022 Opened 23 Jun 2022

Defra Offshore Wind Team

associated with the OWFIP

## The Crown Estate is taking three distinct actions to address the strategic challenges facing the marine environment



## Create the principal marine spatial data and evidence base

- Integrating spatial and evidentiary inputs to improve strategic decision making (e.g. through marine 2050 strategic seabed roadmap).
- Use trusted data and evidence to mitigate risks relating to consenting, technology integration, co-location.
- Develop a holistic understanding of seabed value and the opportunity cost of investment.



responsibilities

Clear

## Develop new leasing and participation models

- Develop a transparent, repeatable and agile methodology for leasing that is integrated across various technologies.
- A proactive approach to protect the marine environment's rich biodiversity.
- New digital platform to improve agility and transparency of customer interactions.



to investment

barriers

**Jnblocking** 

## Putting our own capital to work in a new way

- Considering investments into enabling infrastructure (e.g. ports), data and evidence or environmental schemes.
- Leverage The Crown Estate's position and networks to convene public and private investors, alongside its own capital to maximise economic value.

#### In the context of broader change, these actions will:

- Provide clarity on what success looks like to 2050 while creating a better balance for competing demands on the seabed
- Unlock strategic opportunities to create greater economic, environmental and social value from the marine environment

## What can we collectively do?



**Convening power** 





Plan and prioritise

**Evidence-led** decisions





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## Coastal Futures Conference SESSION 5

## **BALANCING ACT: Strategic Compensation and Spatial Prioritisation**

Kat Route-Stephens, Offshore Wind Industry Council and Audrey Jones, Defra

Collaboration on Offshore Wind Strategic Compensation

25th & 26th January, 2023 Royal Geographical Society, London & online







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## Why is an approach to Strategic Compensation needed?

- Instances of derogations for offshore wind plans and projects increasing
- Significant delays to project consenting and deployment, up to 4 years
- UK ambition of 50 GW by 2030 and contributions to net zero target
- Alignment to achieve both:
  - Improved outcomes for the marine environment
  - Sustainable deployment of offshore wind at pace
- Need to move beyond project level compensation to "strategic approach"
- Identified as a potential solution for addressing OWF consenting challenges
  - British Energy Security Strategy
  - Defra's Offshore Wind Environmental Improvement Package
  - OWEC Priorities for Investment 2022
  - Round 4 Offshore Wind Leasing Plan Level HRA
- Near term and future leasing: ScotWind, INTOG, Celtic Sea and beyond









## **Energy Bill Strategic Compensation Measures**

 Enable measures to compensate for impacts on the marine environment to be taken at a strategic level across multiple projects, allocated across multiple public authorities, to enable banking and delivery of non like for like measures where there are no other viable alternatives.







## Collaboration on Offshore Wind Strategic Compensation – (COWSC) Aims and objectives

**Purpose:** To explore, develop and implement strategic compensation solutions to help enable an offshore wind industry that delivers on Government ambitions and the UK's net zero ambition whilst appropriately supporting thriving marine and coastal ecosystems.

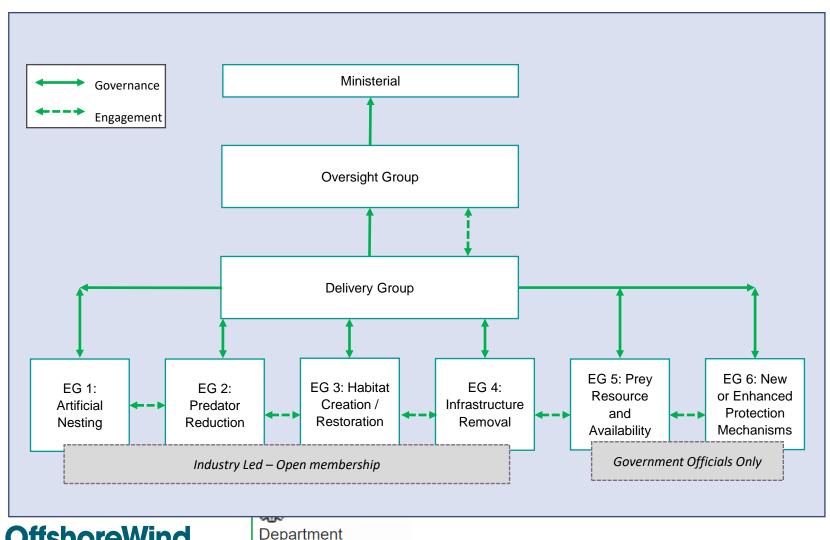
#### **Objectives:**

- 1. To define and agree one or more <u>delivery mechanism(s)</u> for delivering strategic compensation in the UK.
- 2. To explore, define and agree <u>feasible options for compensation measures</u> that can be suitably applied at a strategic scale and that can be relied upon for offshore wind plans and projects.
- 3. To develop and undertake UK-wide pilot projects in priority areas to test compensatory measures and inprinciple delivery mechanisms, including principles and guidance for monitoring and management, including adaptive management, enforcement and compliance, of strategic compensation pilot projects.
- 4. To monitor, steer and learn from the delivery of the pilot projects until such time that the pilot project objectives are met; with the potential for new pilots to be added if required.
- 5. To support the development of a <u>library of ecologically robust and commercially feasible strategic compensatory measures</u> which developers can use to meet their compensation requirements





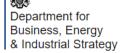
## Collaboration on Offshore Wind Strategic Compensation (COWSC) **Governance Structure**







































OffshoreWind IndustryCouncil

Department for Environment Food & Rural Affairs

## **Next Steps**

- Submit Offshore Wind Evidence and Change (OWEC) bid for pilot studies for Industry led groups – end of Jan 2023
- Pilots commence July 2023
- Establish feasibility of Government led measures by Summer 2023
- Strategic compensation library and Marine Recovery Fund in place by Autumn 2023
- Explore future compensatory needs ongoing







## Thank you!

Audrey Jones - <u>audrey.jones2@defra.gov.uk</u>

Kat Route-Stephens - <u>kat.route-stephens@renewableuk.com</u>







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## **BALANCING ACT: Strategic Compensation and Spatial Prioritisation**

Mark Duffy, Natural England Managing Environmental Impact **Strategically** 

25th & 26th January, 2023 Royal Geographical Society, London & online









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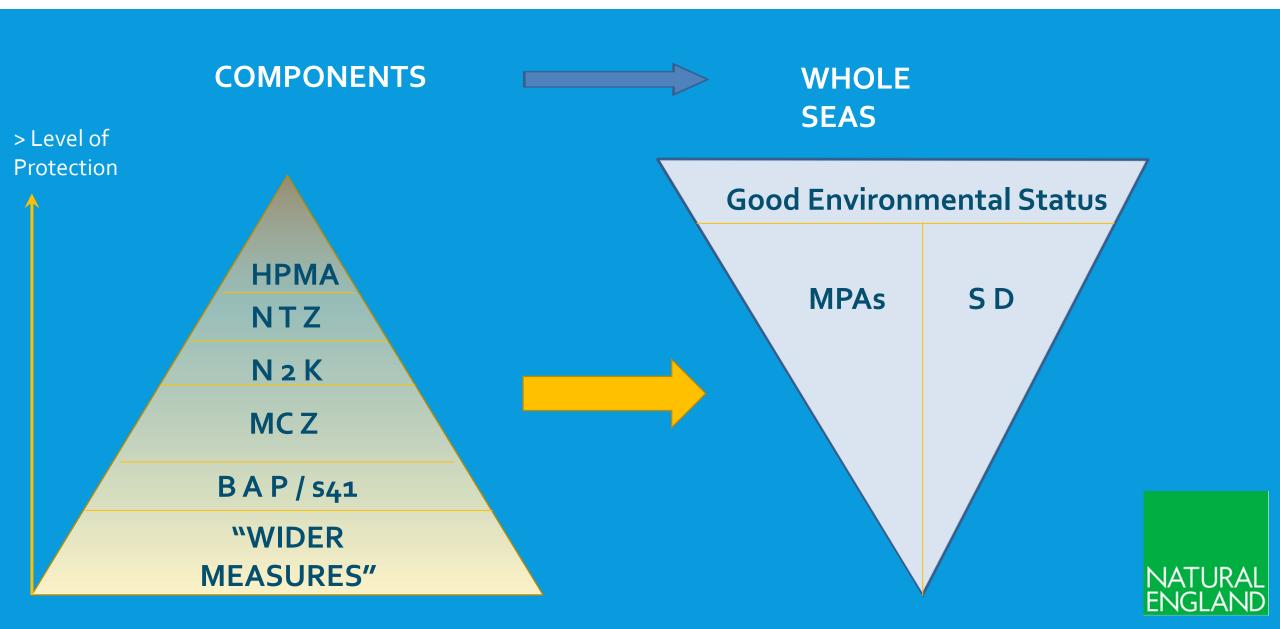
# MANAGING ENVIRONMENTAL IMPACT STRATEGICALLY

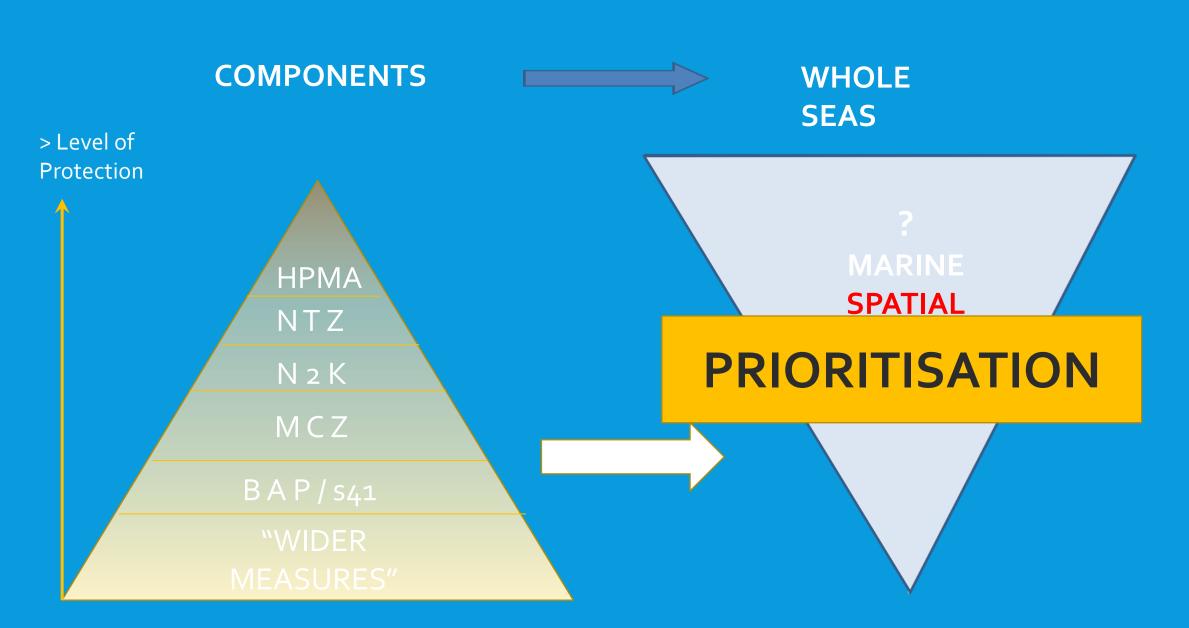


## Overview









## **Evolving Marine Conservation**





## Recovery in the Marine Environment is Pressure Alleviation

- Pressure Alleviation in 95% of instances
- Work with sectors
- Shift from A+B = n, to A+C = < n
- Cumulative Impacts / Net Gain





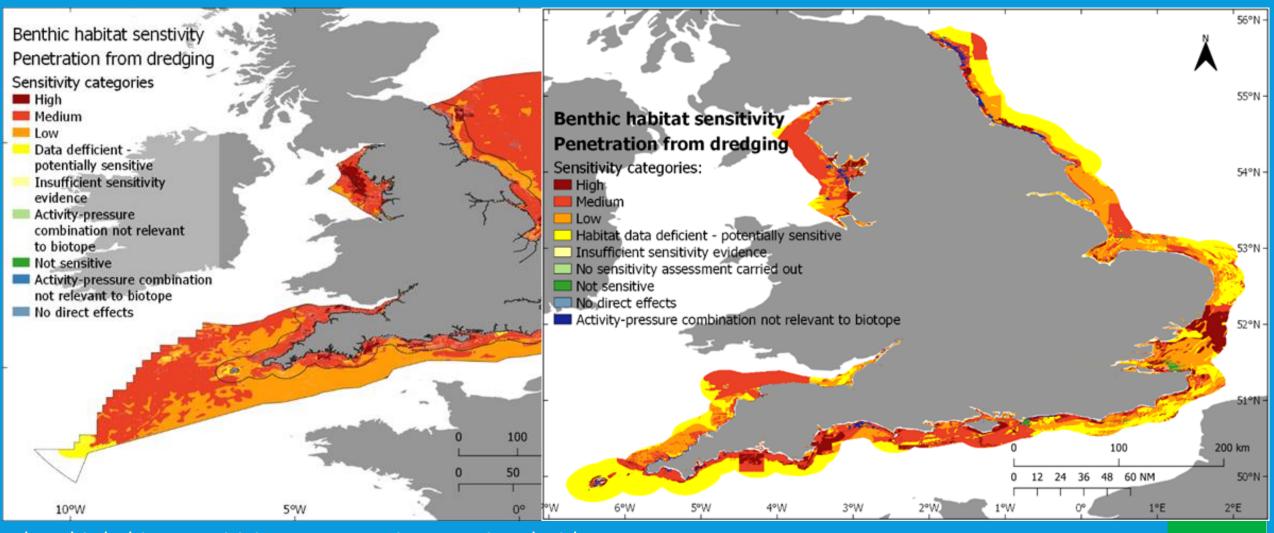


## Trade-offs & Balancing





## Natural England Spatial Sensitivity Tool (NESST)



benthic habitat sensitivity to penetration associated with dredging activities in the English inshore and offshore Waters using biotope proxies

using sub-bioregional biotope proxies.



### Restore to what?



- Understand Baseline
- Future Shifts
- Prevailing Environmental
   Conditions



### Coexistence v Colocation

- Coexistence
- Colocation
- How they work in spatially restricted areas





#### Optimising use of Marine Biological Resources

- Scallops
- Bluefin Tuna
- Sandeels







## THANKYOU





mark.duffy@naturalengland.org.uk



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#### **BALANCING ACT: Strategic Compensation and Spatial Prioritisation**

Katie-Jo Luxton, RSPB

Harnessing Nature Positive to deliver strategic ecosystem restoration solutions for our seas

25th & 26th January, 2023 Royal Geographical Society, London & online









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## Nature Positive: offshore wind



Nature Positive offshore wind is measurable industry and government-led action to restore resilient seas, going above and beyond halting nature loss as part of the UK's renewable energy transition

Ben Andrew (rspb-images.com)

## **Powering Healthy Seas**

 A new vision, renewable expansion to "Power Healthy Seas"

Collaborative approach for solutions

 Strategic nature protection and a wider suite of Nature Positive measures

 Tackling the dual nature and climate emergency



## Strategic Nature Protection



- A new era of solutions
- Ecosystem-level approach vital
- Recommendations for nature
   protection, that halt nature loss at
   scale
- A clear, measured and ecologically meaningful application of strategic compensation



## **Strategic Compensation**



- A strategic system of pre-emptive, legally sound and ecologically meaningful compensation<sup>1</sup>
- Following the mitigation hierarchy, delivering at scale
- Targeting species, habitats and protected sites adversely impacted by offshore windfarm development.

<sup>1</sup>As required through Habitats Regulations to maintain favourable conservation status and protect the coherence of the National (or UK) Sites Network

Ben Andrew (rspb-images.com)



Strategic Compensation

Country plans for marine development

Compensation

Robust evidence base

Industry innovation

**Nature Protection** 

Halting loss from development

Cumulative impact assessment

Adaptive management

Powering
Healthy

Seas y

Holistic marine spatial planning

Industrial sandeel fishery closure

**Nature Positive** 

Restoring and enhancing the marine environment

**Bycatch** eliminated

Marine Net Gain

**Island** biosecurity

Marine Protected Areas



## Putting the "Good" in GES



#### A 2050 vision:

#### Safe places to breed

- Industry have supported strategic\* programmes of eradicating Invasive Non-Native Species
- Governments have facilitated nationwide programmes for safer seabird islands

#### Safe places to feed

- Industry have contributed to strategic, innovative data collection & mitigation to protect flyways and foraging areas
- Governments have led a reform of holistic marine spatial plans

#### **Abundance of food**

- Industry have minimised impacts on seabird prey from developments
- Governments have closed UK waters to industrial sandeel fisheries
- Effective at-sea monitoring of fishing in UK waters

<sup>\*</sup> N.B. Not all strategic work constitutes compensation



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Celestia Godbehere, Orsted Strategic compensation as part of marine recovery

25th & 26th January, 2023 Royal Geographical Society, London & online









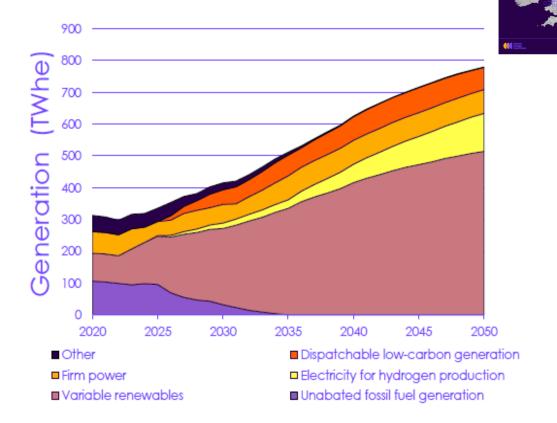
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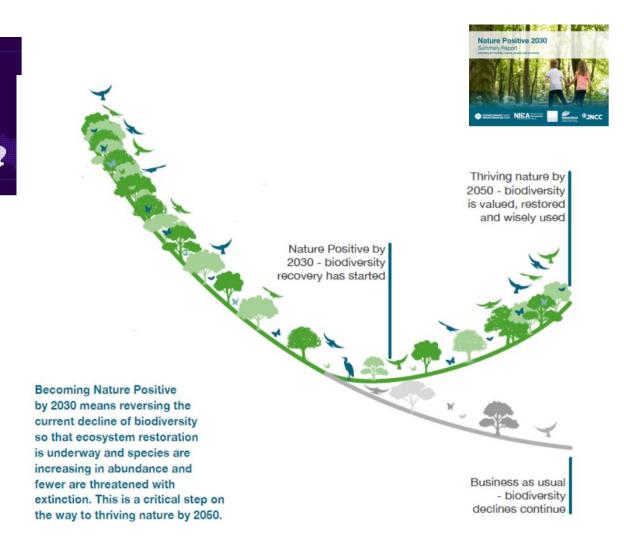


#### Two parallel goals for 2050

he Sixth Carbon Budget

Electricity generation mix (Balanced Pathway) Changes from now to 2050







Let's create a world that runs entirely on green energy





#### Ørsted's approach to compensation – let's be strategic!

#### Hornsea Three

- First offshore wind project to be consented with a derogation case
- Kittiwake: Artificial nesting & Subtidal sandbanks: marine debris removal and prevention
- Research contribution:
   OWSMRF linked research,
   colony monitoring
- Knowledge sharing across industry, Government and stakeholders

#### Hornsea Four

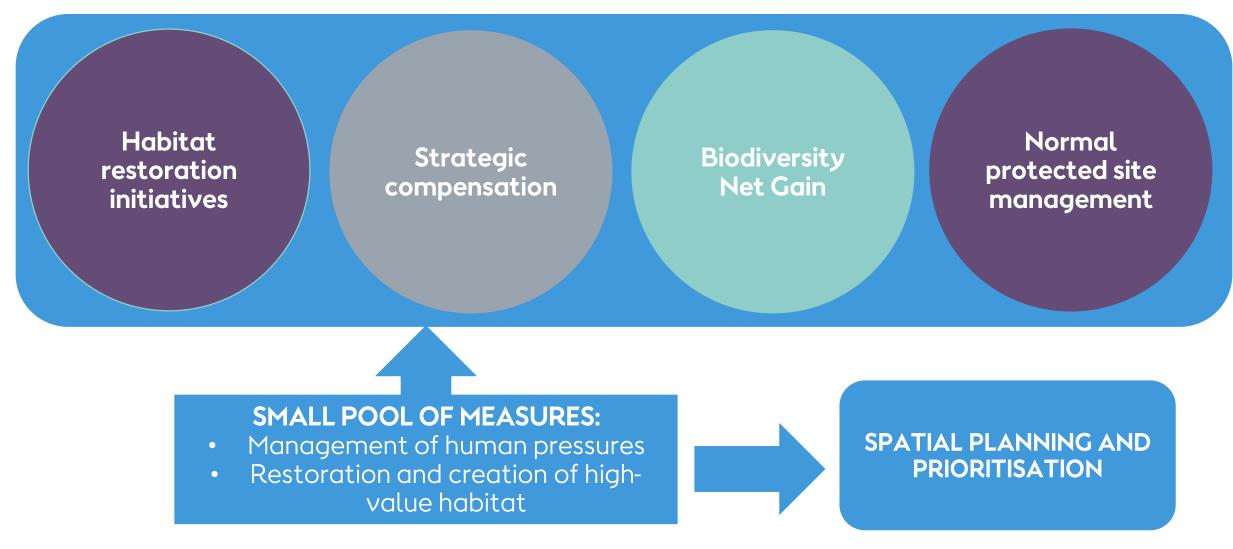
- First offshore wind project to include a full derogation case on application
- Package of measures including artificial nesting, bycatch mitigation, predator management, and prey habitat restoration for seabirds.
- Proposed contribution to strategic fund, knowledge sharing, research to explore future measures

+ projects in development





#### **Nature recovery initiatives**



#### An offshore wind perspective on what is needed:









Strategic vision

Industry contributions

Integrated management

Marine/terrestrial management differences acknowledged

Enhanced 'standard' monitoring

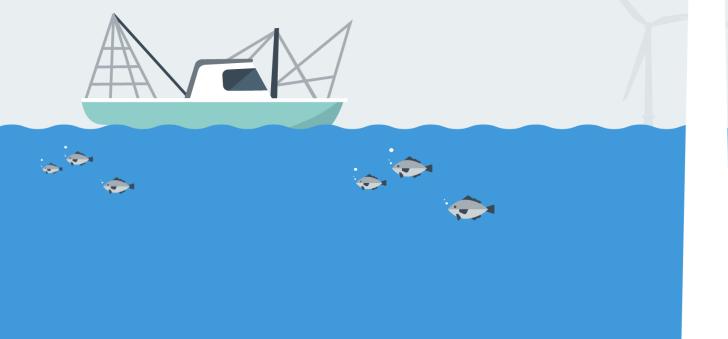
Tailored approach to uncertainty

Confidence in nature recovery

# Take home points

 Strategic compensation measures must be carefully aligned with other conservation and restoration initiatives for marine habitats and species, as in practice they are the same thing.

• Industry contributions, if strategically allocated, can significantly improve the condition of the marine environment.





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#### **BALANCING ACT: Strategic Compensation and Spatial Prioritisation**

Dr Andrew Gill, Cefas

How can we understand the outcomes of co-existence?

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# How can we understand the outcome of co-existence?

Andrew B Gill | Principal Scientist,
Strategic Lead for Offshore and Marine Renewable Energy







#### **Co-existence in the Marine Environment**

- National and regional policies
  - blue growth, energy security and climate change mitigation
  - range of policy targets and ambitions for sustainable uses of marine space
- UK Marine Plans recognise potential to make use of the same space
- "co-existence" of human activities and nature
  - positive (i.e. yielding benefits for co-activities)
  - negative (i.e. leading to conflict, such as the displacement or exclusion)
  - neutral (i.e. no net positive or negative outcome)
- Planning and managing co-existence requires appropriate identification of the constituent elements, their relationships and the outcomes.
- Q how do we determine and ultimately understand the outcomes of our coexistence decisions for the environment, for society and the sectors involved?



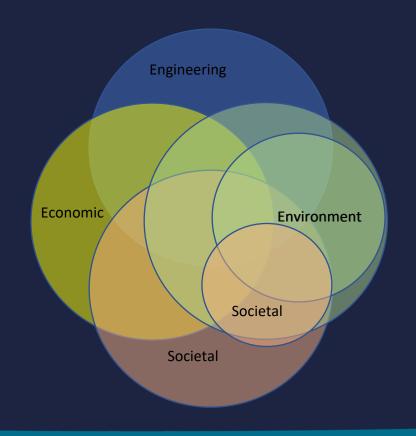




#### An answer?

An integrated, multidisciplinary approach in support of UK OSW renewable energy, environmental and social goals drawing on existing knowledge and targetting new data collection and analysis.

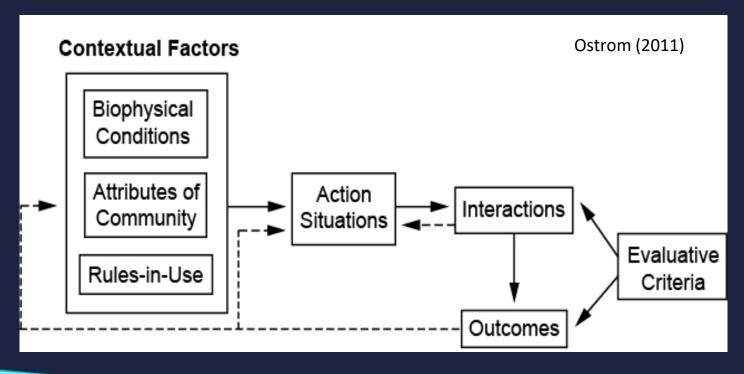
- A sustainable marine environment
  - Marine economic, technological, environmental/ecological, societal elements
  - The sustainability balancing act
  - Too much engineering and economics and partial environment and social consideration
- Taking a systems approach
  - Understanding the outcomes and consequences to feed into adaptive management
  - Identifying potential constraints/bottlenecks and opportunities/solutions

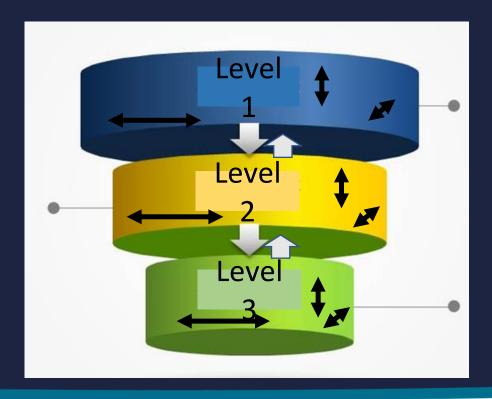




## **Systems Context**

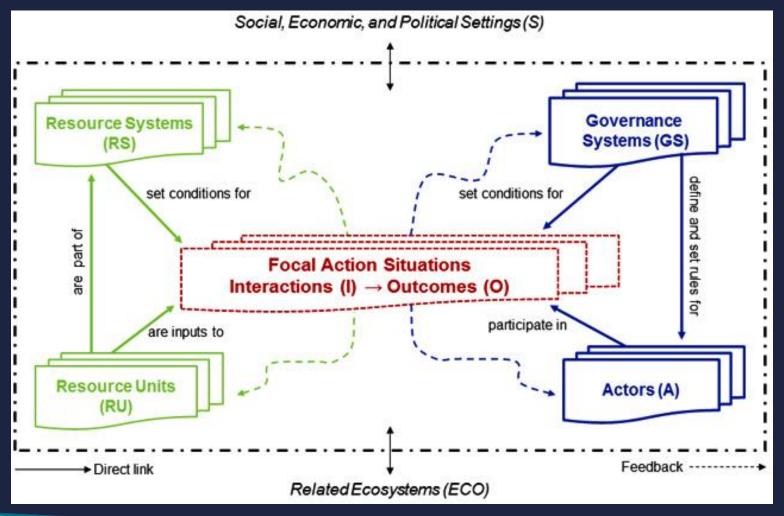
Socio-Ecological-Systems approach (S-E-S)







## **Systems Context (S-E-S Elements)**





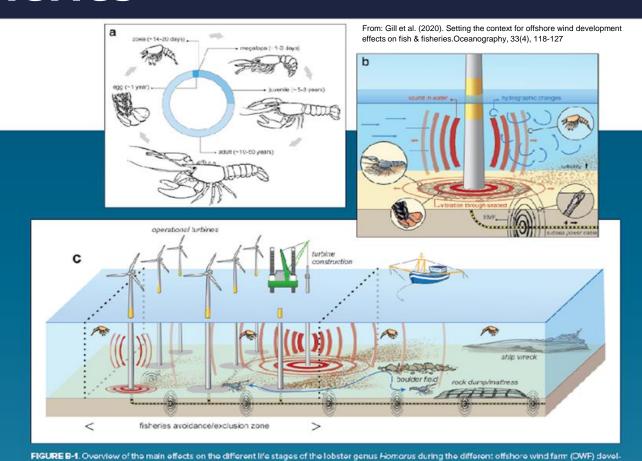
# **Co-existence outcomes - Wind Farm** interactions with fisheries

#### Effects on:

- Interactions could be +ve or -ve or neutral
- Fisheries species (including life history)
- Fishers (catch and community)











## Understanding the outcomes of co-existence

- Whatever type of co-existence, the system will change
- Clear definitions of element, levels and interactions/action situations (i.e. outcomes)
- To determine outcomes
  - need to appropriately quantify change and impacts
  - determine the knowns and unknowns in the system
  - target research at appropriate level within system (collaborative approach)
  - monitoring and data collection (at right scale) and knowledge sharing
  - ensure objectivity in evaluating outcomes







### References

Gill et al. (2020). Setting the context for offshore wind development effects on fish & fisheries. Oceanography, 33(4), 118-127

Ostrom, E. (2009). A general framework for analyzing sustainability of social-ecological systems. *Science*, **325**: 419–422.

Ostrom, E. 2011. Background on the institutional analysis and development framework. *Policy Studies Journal* 39(1):7-27.

McGinnis, M. D., Ostrom, E. (2014). Social-ecological system framework: Initial changes and continuing challenges. *Ecology and Society*, **19**, 2: 30.



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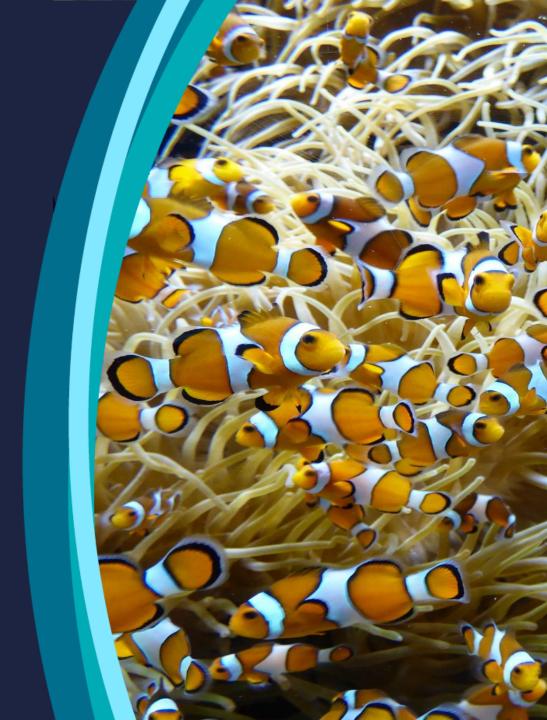
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## PANEL DEBATE

# BALANCING ACT: Strategic Compensation and Spatial Prioritisation

How do we deliver strategic marine resource management in the UK?

CHAIR
Peter Barham, SUDG

Joly Macleod, Defra
Olivia Thomas, The Crown Estate
Kat Route-Stephens, Offshore Wind Industry Council
Audrey Jones, Defra
Mark Duffy, Natural England
Katie-Jo Luxton, RSPB
Celestia Godbehere, Orsted
Dr Andrew Gill, Cefas



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Q&A

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# REFRESHMENTS

14:00 - 14:50

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