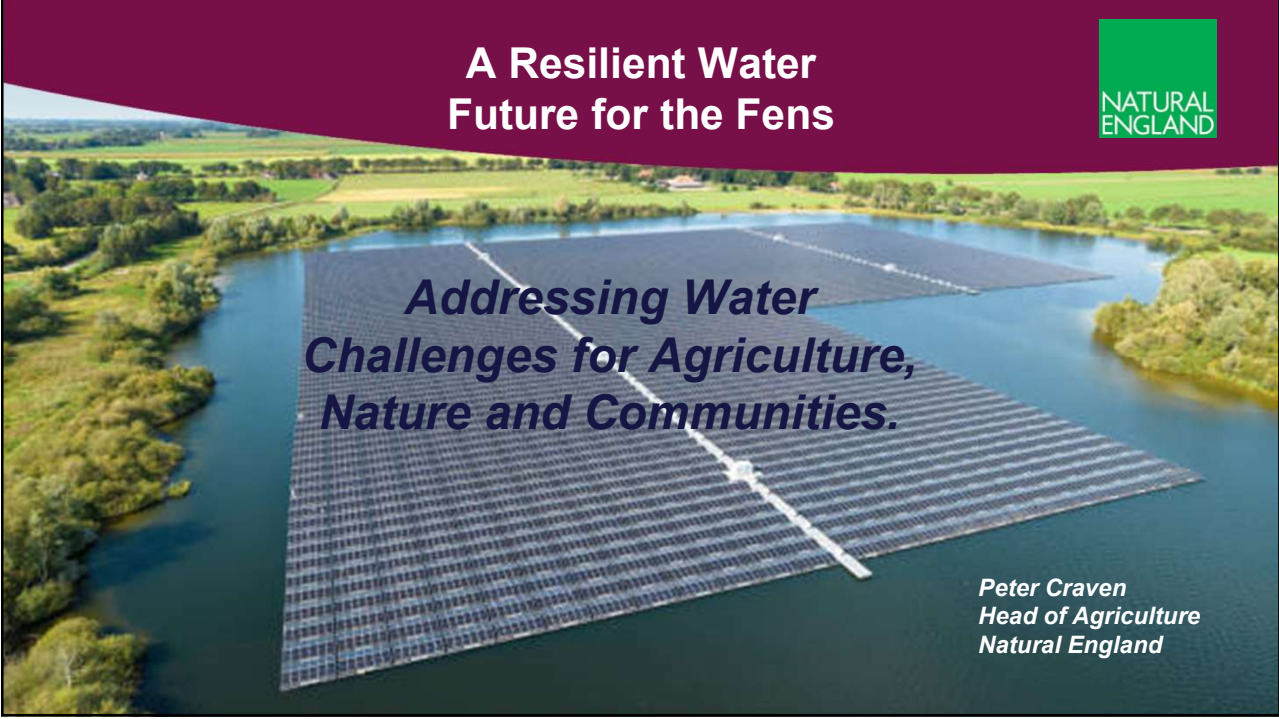


A Resilient Water Future for the Fens

NATURAL ENGLAND

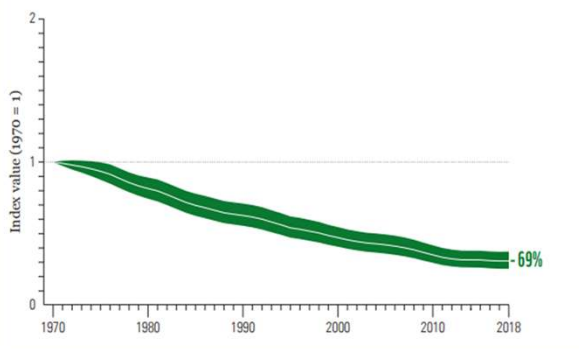
Addressing Water Challenges for Agriculture, Nature and Communities.

Peter Craven
Head of Agriculture
Natural England



What have we done to nature?

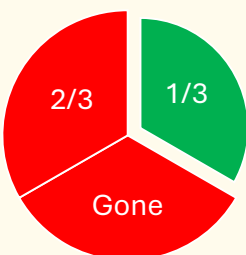
NATURAL ENGLAND

Index value (1970 = 1)

Living planet index for vertebrates (source: WWF/ZSL)

➤ UK is one of the World's most nature-depleted countries






Our ecosystem assets are at High Risk!



	Economic resilience	Net Zero	Climate adaptation	Food security	Health & wellbeing	Water security
Timber and other wood products	High	Low	Low	Low	Low	Low
Produce from the sea	High	Low	Low	High	Low	Low
Cultivated crops	High	Low	Low	High	Low	Low
Plentiful water	High	High	Low	High	High	High
Reared animals and outputs	High	Low	Low	High	Low	Low
Clean water	High	Low	Low	High	High	High
Clean air	High	Low	Low	Low	High	Low
Noise regulation	High	Low	Low	Low	High	Low
Urban cooling	High	Low	High	Low	High	Low
Erosion control	High	Low	High	High	High	High
Flood protection	High	Low	High	High	High	High
Pollination	High	Low	Low	High	Low	Low
Thriving plants and wildlife	High	High	Low	High	High	High
Pest and disease control	High	Low	High	High	Low	Low
Climate regulation	High	High	High	Low	High	High
Cultural benefits	High	Low	Low	Low	High	Low



State of Natural Capital Report for England 2024

Risks to nature and why it matters

www.gov.uk/natural-england



Only so much land – Can we do better?



Figure 27: 'Fen Blow' across Hod Fen Drove, Yaxley, Cambridgeshire (M.Trolove, geograph.co.uk)

What are the Governments priorities?



Secretary of State for the Environment, Food and Rural Affairs
Steve Reed has unveiled 5 core priorities for his department:

1. To clean up rivers, lakes and seas
2. To create a roadmap to move Britain to a zero waste economy
3. To boost food security
4. To ensure nature's recovery
5. To protect communities from the dangers of flooding



The Rt Hon Steve Reed is the Labour MP for Streatham and Croydon North

The Big Picture – Stress / Sea levels rising



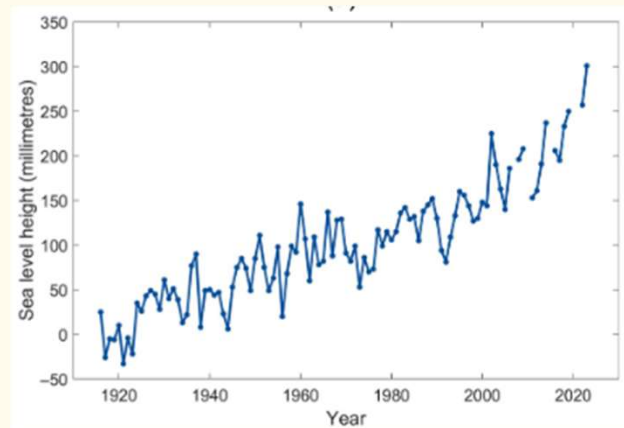
Water is fundamental

- ✓ Food Production
- ✓ Biodiversity
- ✓ Flood Risk Management
- ✓ Climate Resilience

Climate change is amplifying risks

- × Too much water
- × Too little water
- × Too polluted water

➤ Time to act is now



State of UK Climate Report 2023 – Mean sea level rise

Who are Natural England



Established by an **Act of Parliament** in 2006

- The Government's '**Science & Evidence**' based advisor for the Natural Environment in England

- Vision:** "Thriving Nature for People and Planet"

- Our Values:**

- ✓ Ambitious
- ✓ Inclusive
- ✓ Collaborative
- ✓ Act with Integrity

- Our Mission:** "Building **partnerships** for Nature's **Recovery**"

- Our Purpose:** To Conserve, Enhance and Manage the Natural Environment for the benefit of **Present and Future Generations**.

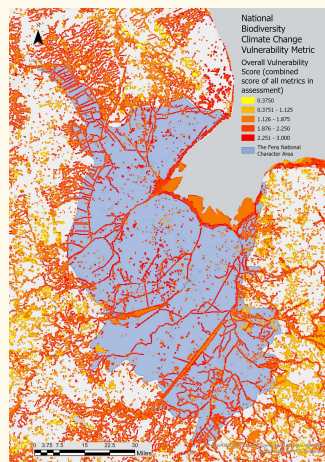


Climate Change Impacts on IDBs:

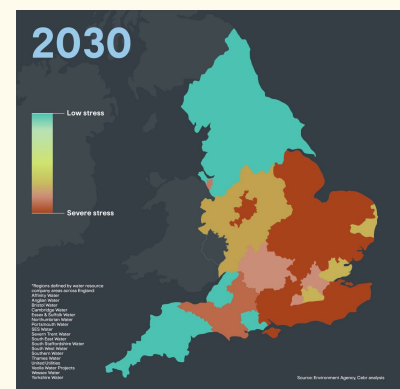


- IDBs are on the **frontline** of **climate change** and so are **our water dependent habitats**
- Wetlands, coastal and upland habitats **are most vulnerable** to climate change
- Yet these are the very habitats **we hope** will buffer society from the floods and drought

Vulnerability of Priority Habitats to Climate Change & Fens IDBs



Water Stress and IDBs



The Urgency for Fens and Farmers



Fens – A critical Agricultural Hub

- 5000 Km² & 50% of Grade 1 land
- 75% of veg – East Anglian Fens

The Fens are on the frontline

- Sea level rise / drought / flood
- 370,000Ha of Agricultural land
- 400,000 people

Fens 2100+ future proofing plan

- 100 year plan
- Shaping future Gov capital funding



Source: EA - Views of the flooding surrounding the A1101 at Welney.

Sir Jon Cunliffe Review: An integrated approach



A High Level Taskforce driving reform

- Leading experts – Chaired by Sir Jon Cunliffe
- Holistic and Strategic decision making

Call for Evidence

- Feb 2025 – Stakeholder engagement
- Regulatory reform / responsibility / investment

Long Term reform for water use

- Recommendations later in 2025
- Setting foundations for change in water sector

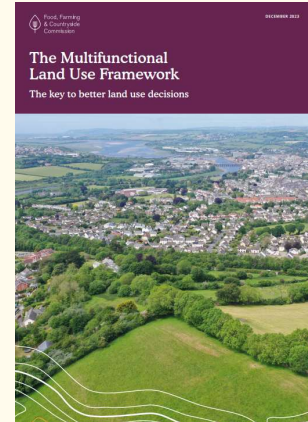
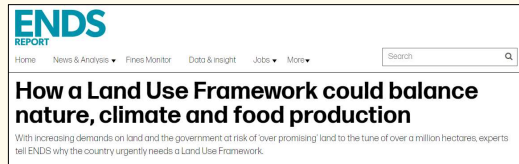
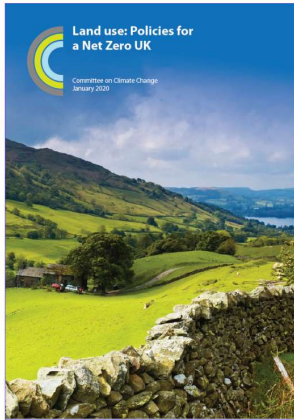
From: [Independent Water Commission](#)

Published 28 January 2025

Last updated 28 January 2025 — [See all updates](#)



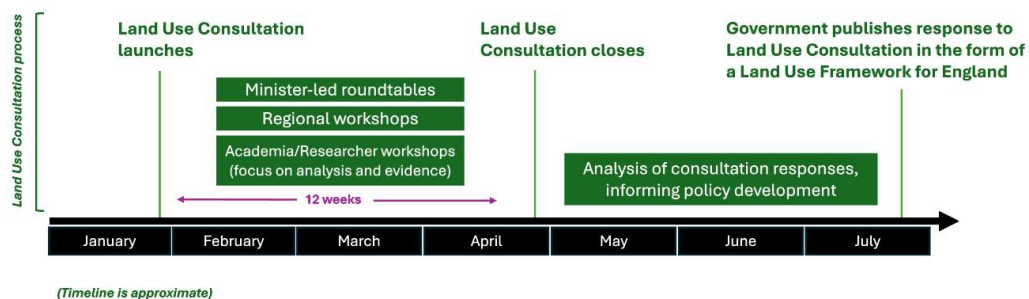
Landuse Framework – Mapping Englands Future for Growth, Nature and Food Security



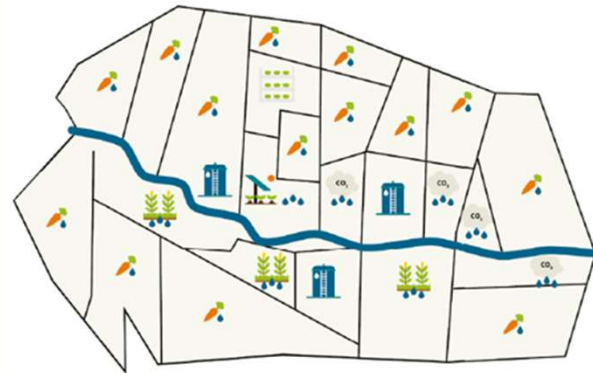
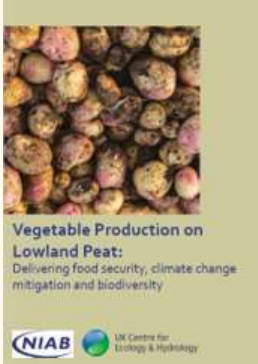
Landuse Framework – Mapping Englands Future for Growth, Nature and Food Security



TIMELINE TO PUBLISHING A LAND USE FRAMEWORK FOR ENGLAND



Landuse Mosaics?



LAND USE

- Regenerative vegetable farming combined with water management
- Wetland restoration/Carbon Farming
- Paludiculture – Biomass crops
- Indoor/vertical farming
- Solar farming

WATER MANAGEMENT

- Wetter soils – that still allow for crop production
- Very wet soils

WATER STORAGE

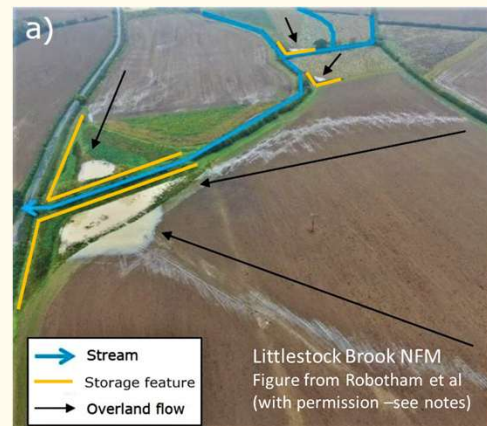
- Water storage (eg. reservoir)

Environmental Land Management – drivers for change?



Increased payment rates and new options....

- Creating and managing **three-dimensional buffer strips** to afford increased protection to buffer natural waterbodies and drainage networks £1,182/Ha
- Managing grassland for increased flood and drought resilience benefits £938/ha
- Managing features (e.g. swales, bunds, infiltration ponds) for flood and drought resilience on arable land £1241/Ha
- Enhancing **floodplain floodwater storage** £366/Ha
- Raised water level on cropped or arable land on peat soils £1409/Ha
- Raised water levels on grassland on peat soils £1381/ha



More support - Inverted Hedges?

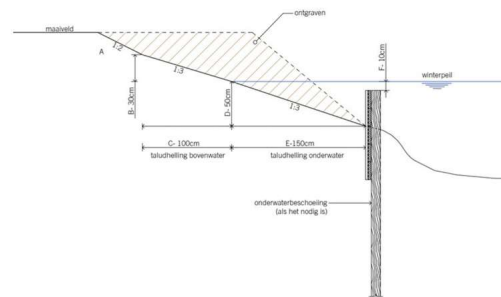


Nature-friendly bank

Apply for a subsidy for your nature-friendly bank

Website [Nature-friendly bank - Rijnland Water Board](#)

[How to create a nature-friendly bank - Rijnland Water Board](#)



Where we can work together...



Landscape Recovery

- **56 projects** in development covering 250K ha e.g Somerset Levels and Ouse Washes
- **Drainage Authorities** are actively engaged in Round 1 and 2 projects – for example at Leven Carrs, Beverley and North Holderness IDB
- LR provides an opportunity to **develop a vision** and plan for **multiple objectives** over large area (funded for 2 years)
- 20+ years implementation funding

Nature Recovery projects

- 12 so far with a further 13 expected to be identified
 - Somerset Coast Levels and Moors
 - The Lost Wetlands – Cheshire to Lancashire



Ouse Washes Landscape Recovery



IDBs will play a key role in informing project development

- Great Ouse; Cambridgeshire and Norfolk
- **Defra funding** for 2-year Project Development Phase to create financially viable business cases for Defra to support 20 year implementation phase
- Over a 4000ha landscape with farmers and NGOs including **2500ha agricultural land**
- Exemplar farmer-led sites to deliver for the public good
- Climate resilient land use in the fens, showcasing new approaches to the integration of food production, biodiversity and water resource use.
- Private investment in ecosystem services to maximise the benefits of public investment
- Significantly reduced carbon emissions

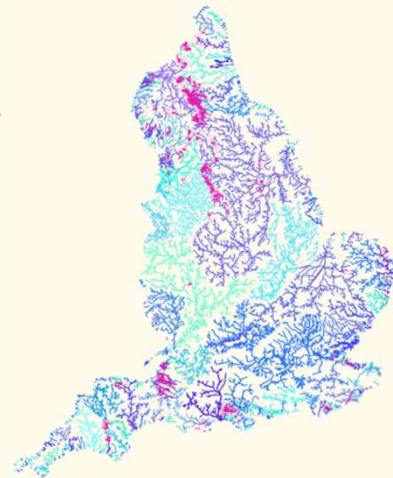


ADA and IDB's – Pivotal to nature recovery



- Supply and management of water **is critical** to nature recovery
- Water level management **is key** to net zero – peat soils
- IDB's have a huge reach and **engagement** with land managers
- As the engineers and water managers **on the ground**
- Having the ability to broker and **facilitate solutions** across holdings

➤ The IDB's and ADA are **key partners** for Natural England.



Working together to deliver more – The art of the possible – New Zealand



Rangitata South - New Zealand

- 700ac pond
- Filled 3 times/year
- Collaboration 20 farmers
- Water 33,000 acs

Thank you for listening.

