

Biodiversity & Your Business

Sustainable Business Network 30 July 2021



Biodiversity & Your Business - Agenda

- **Legal & Market Update** - Dr Wendy Buckley, Chair SBN North Hants
- **Eelmoor Marsh Case Study** – Dr Martin Wilkie, Marwell Wildlife, and Sophie Sanderson, QinetiQ
- **Biodiversity & Business** – Debbie Salmon, Birdswood Ecology





Legislation & Market Trends

Dr Wendy Buckley

Carbon Footprint Ltd

01256 592599

wendy.buckley@carbonfootprint.com

Amazon destroying unsold TVs and laptops with '130,000 items wasted each week'

Comment

Faye Brown
Monday 21 Jun 2021 12:45 pm



Most new wind and solar projects will be cheaper than coal, report finds

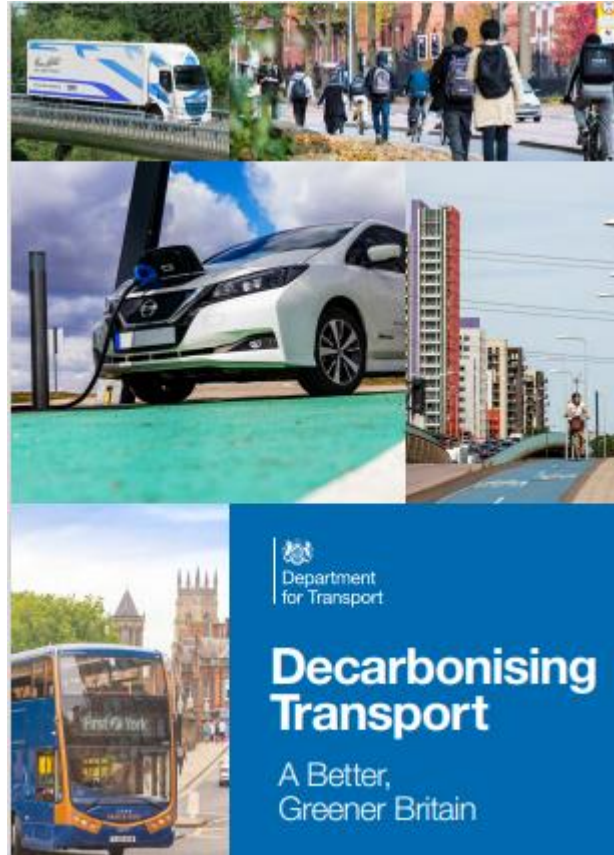
Almost two-thirds of renewable energy schemes built globally last year expected to undercut coal costs



England's first double-decker hydrogen buses to launch in London

Right to repair rules will extend lifespan of products, government says

RACE TO ZERO



Freedom Flight
a carbonfootprint.com challenge

Ministers 'should urge public to eat less meat'

Dr Roger Harrigan
BBC News
17 Jun | 10:00pm



Strengthening the Energy Savings Opportunity Scheme (ESOS) – Open consultation



Aim: improve the uptake of energy efficiency measures and increase benefits for businesses.

Welcomes views on:

- **Improved audit quality** through standardisation of reporting requirements
- **Inclusion of net zero carbon** element to audits
- **Requiring public disclosure** of high-level recommendations

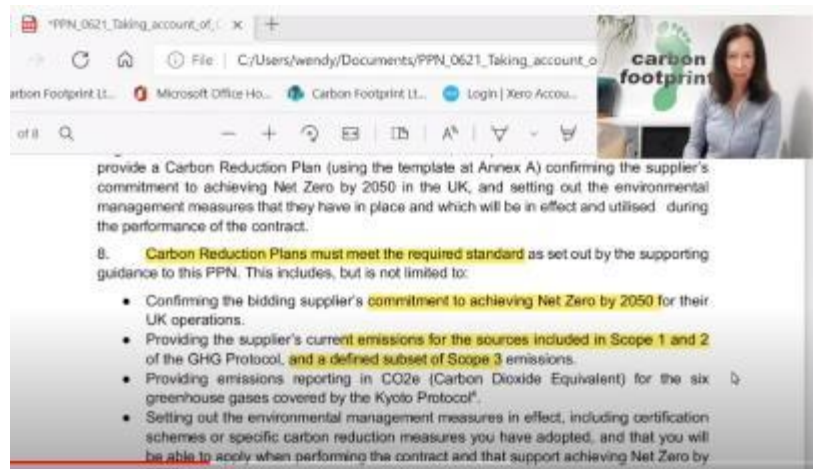
Plus...

- Extending the **scope to include medium sized businesses**
- **Mandating action** on audit recommendations

Consultation closes 28th September 2021

Net Zero Carbon - Takes Centre Stage

- **Procurement Policy Note/0621** – Government requirement for **Net Zero Carbon Procurement**



<https://youtu.be/m5xlvYOKNM>

UK ETS has been launched

- **UK Carbon Emissions Trading Scheme (ETS) launched 1st Jan 2021**
 - Covers combustion of fuels in installations with a total rated thermal input exceeding 20MW (except in installations for the incineration of hazardous or municipal waste)
 - Will operate in similar way to EU ETS
 - Stricter – tighter emissions cap and higher fines
 - Increases financial for failure to report/misreporting of emissions



Guidance **Participating in the UK ETS**

Updated 12 July 2021

[Contents](#)

[Overview](#)

[Who the UK ETS applies to](#)
[Permitting, monitoring,](#)
[reporting and verification](#)
[Registry](#)

Overview

A UK Emissions Trading Scheme (UK ETS) replaced the UK's participation in the EU ETS on 1 January 2021. The 4 governments of the UK have established the scheme to increase the climate ambition of the UK's carbon pricing policy, while protecting the competitiveness of UK businesses.

The CCC 2021 Progress Report Published ...must do better



- Lockdown measures led to a record **decrease in UK emissions in 2020 of 13%** from the previous year but unsustainable
- **Much more is needed** for sustained reductions and to hit targets
- The CCC recommend urgent implementation and strengthening of plans
- Warns of more severe heatwaves, especially in big cities, and more intense rainfall, with an increased flood risk across most of the UK.



Significant Environmental Fines & Prosecutions

- **British Ceramic Tile Ltd (in administration) EU UTS fine of £352,722.30**
 - Failure to surrender allowances within allotted time
- **Flybe hit with £52m environmental penalty** largest corporate environmental fine in the UK's history (calculated under the EU ETS rules) to cover plane emissions.
- **Handing out many ESOS enforcement notices – fines soon?**
- **European Metal Recycling (EMR) fined £400,000 with additional £400,000 in prosecution and confiscation costs**
 - 3 offences involved in dumping waste in Stowey Quarry (Somerset).
 - Mark Foley was running an illegal landfill operation at the quarry is serving a two-year and three months prison term and his firm was fined £72,000.
- **Illegal Sewage discharge in English rivers 10 times higher than official data suggests**
 - Report shows that Environmental Agency prosecutions are only capturing 1/10 of discharges
 - Analysis of 10 year period since regs changed to allow water companies to self report spills from storm overflows
 - Hammond's analysis of 83 sewage treatment plants suggests in the same period there were at least 2,197 potential breaches – only 174 of which were catalogued
 - **Sothorn Water fined £90M** - for dumping raw sewage on 17 sites

Streamlined Energy & Carbon Reporting (SECR) , ESOS & Implications



- Companies are now reporting – some about to report for their **second year**
- **Second year report requires making a comparison to the previous year of figures and actions taken.**
- Company or LLP qualifies if satisfies **two or more** of the following requirements: (exempt if use <40MWh of energy)
 - **Turnover £36 million or more**
 - **Balance sheet total £18 million or more**
 - **Number of employees 250 or more**
- Enforced by **The Conduct Committee of the Financial Reporting Council**

Circular economy?

- **Amazon** – 130,000 items allegedly destroyed
- **Right to Repair** – ministers confirm implementation of EU legislation
 - Manufactures will be obligated to make spare parts
 - Aims to extend product lifespans to up to 10 years
 - **‘Summer 2021’**

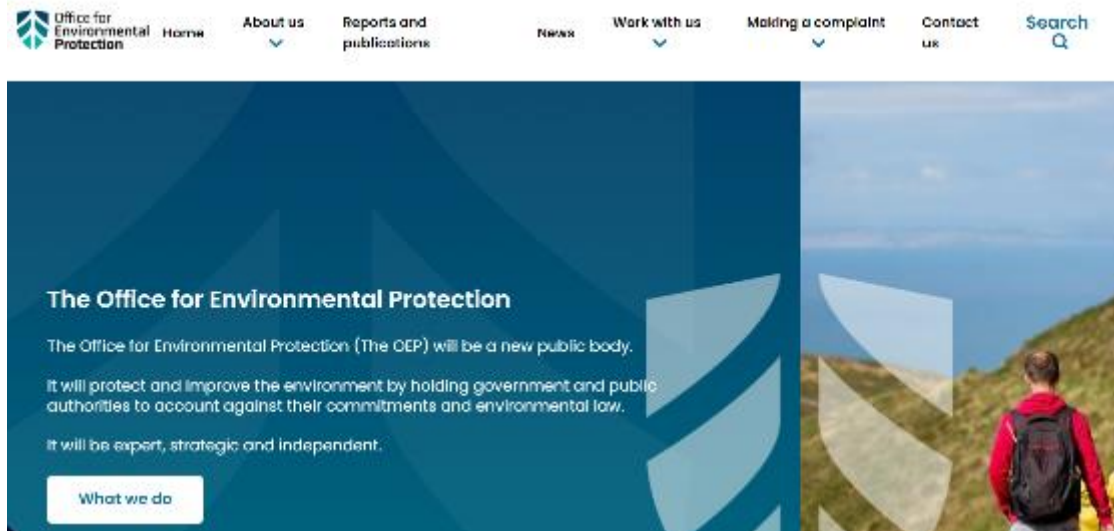
Net Zero Carbon - Takes Centre Stage

- **World GBC Net Zero Commitment**
- **G7 Meet Highlights**
 - Agreement to **limit rise to 1.5C and to reach net zero by 2050**
 - Target for protecting and conserving 30% of land/oceans by 2030
- **Commercial Vehicles**
 - No new diesel HGVs from 2040
 - No new diesel or petrol lighter commercial vehicles from 2035
- **Pandemic and green recovery**
 - Nissan EV , Elsmere port Vauxhall EVs – good for jobs, green skills
 - Renewables cost less than coal
- **COP26** opened for registration



Environmental Bill Update

- **Environmental Watchdog (Office for Environmental Protection - OEP) will be 'fully operational autumn 2021'**
 - On formalisation of the Environmental Bill
 - Will publish independent assessments of Governments 25 Year Environmental Plan
 - Develop Office for Environmental Protection's strategy
 - Dame Glenys Stacy will Chair



References / Useful Links

- [EMR heavily fined over illegal landfill | MRW](#)
- [Airline hit with £52m environmental penalty \(endsreport.com\)](#)
- [Illegal sewage discharge in English rivers 10 times higher than official data suggests | Rivers | The Guardian](#)
- [Alarm over plans to shield post-Brexit environment watchdog from scrutiny | Brexit | The Guardian](#)
- [Participating in the UK ETS - GOV.UK \(www.gov.uk\)](#)
- [2021 Progress Report to Parliament - Climate Change Committee \(theccc.org.uk\)](#)
- [UK warned it is unprepared for climate chaos - BBC News](#)



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Eelmoor Marsh Site of Scientific Interest (SSSI)

A long-term nature conservation partnership



Dr. Martin Wilkie, Conservation Biologist, Marwell Wildlife
Sophie Sanderson, Environmental Advisor, QinetiQ



QINETIQ

Project overview

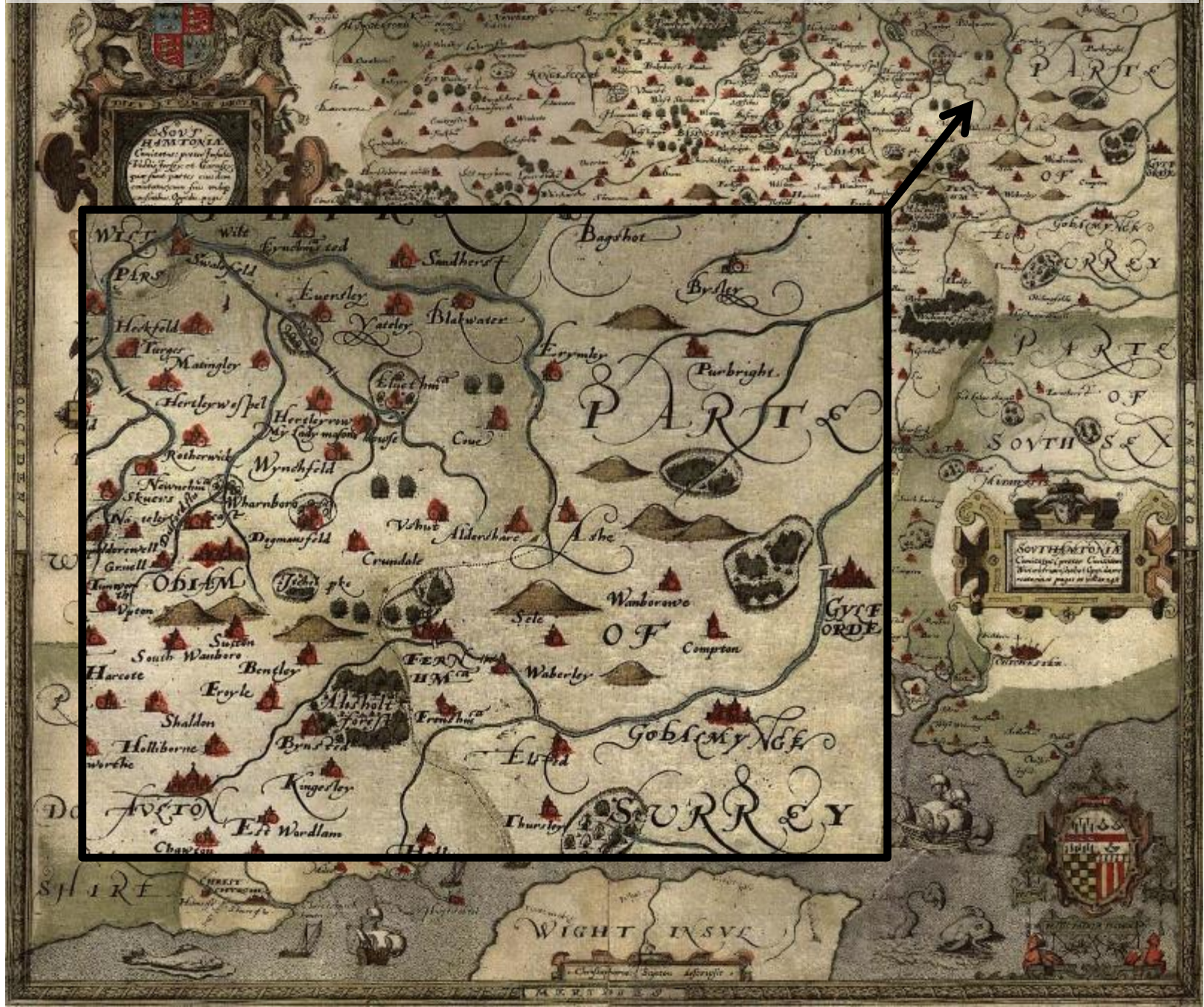
1. Eelmoor Marsh
SSSI – project
formation
2. A rewilded
system
3. Ecological and
Environmental
significance
4. Partnership
development



1. Project formation



Christopher Saxton, 1575



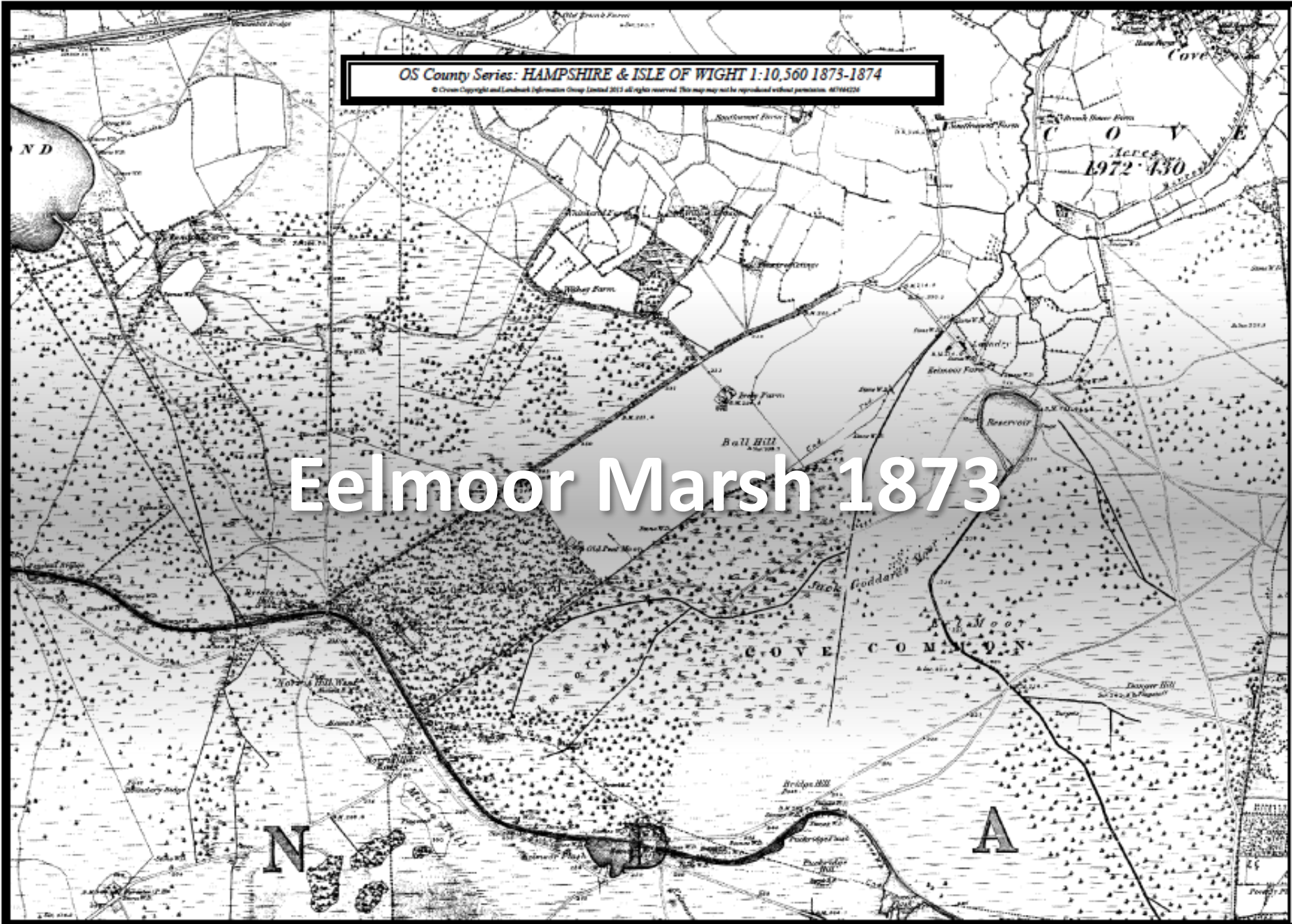
OS Map, c. 1845

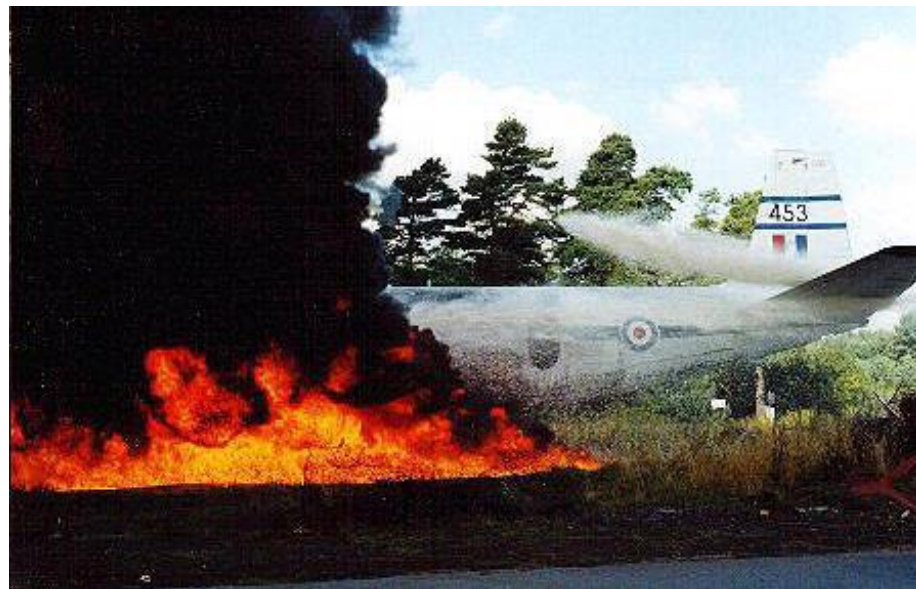


OS County Series: HAMPSHIRE & ISLE OF WIGHT 1:10,560 1873-1874

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Eelmoor Marsh 1873









Designations





A photograph of two ponies in a marshy field. In the foreground, a brown pony with a white blaze on its face is shown in profile, looking towards the left. In the background, another pony is grazing. The field is flat and grassy, with a distant shoreline and buildings visible under a clear blue sky.

The Eelmoor Marsh Project

20 years of grazing management
40 years of biological recording



QinetiQ



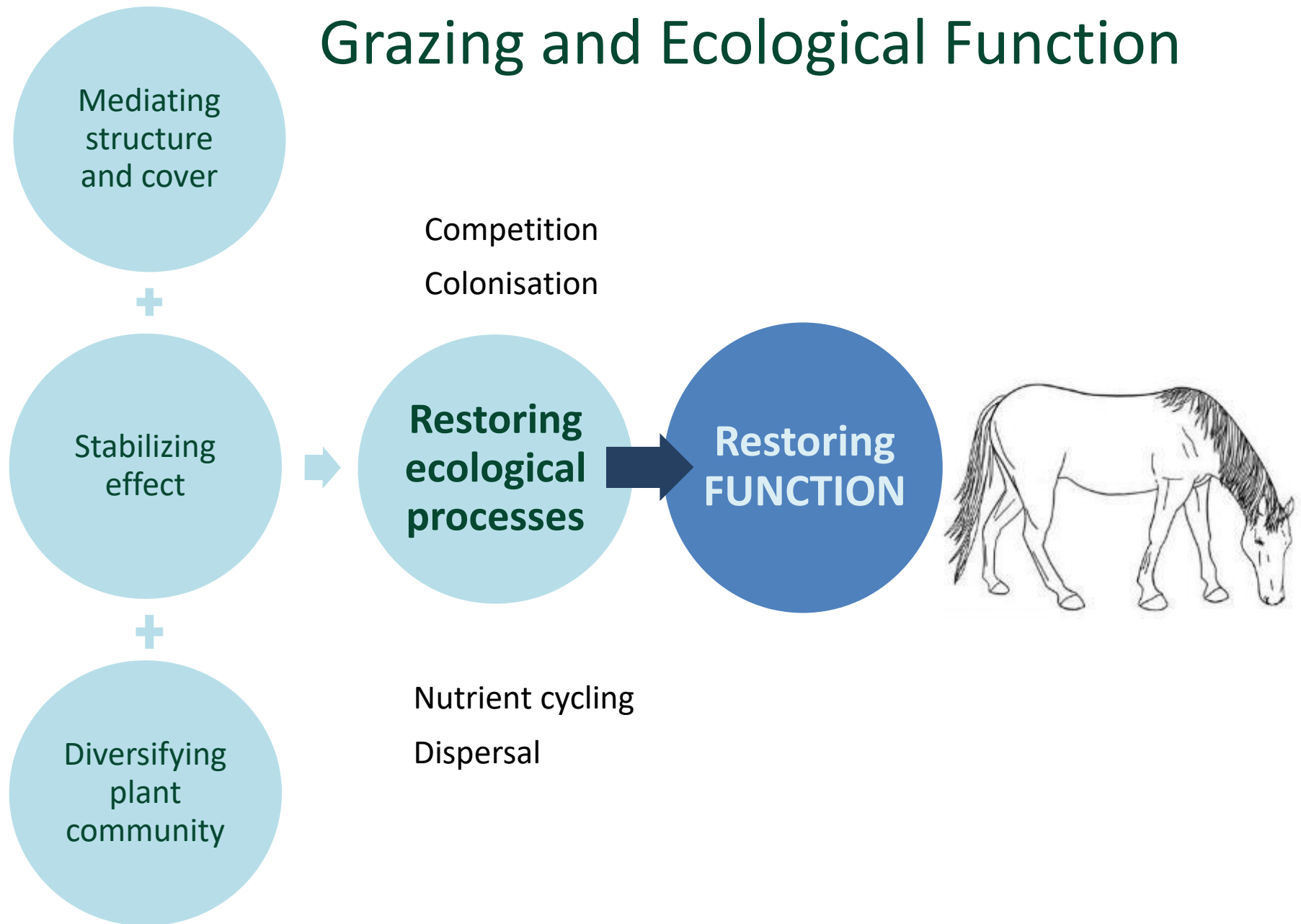








Grazing and Ecological Function







3. Ecological and Environmental significance

A connected and diverse ecosystem



3. Ecological and Environmental significance

Complex mosaic of beneficial habitats



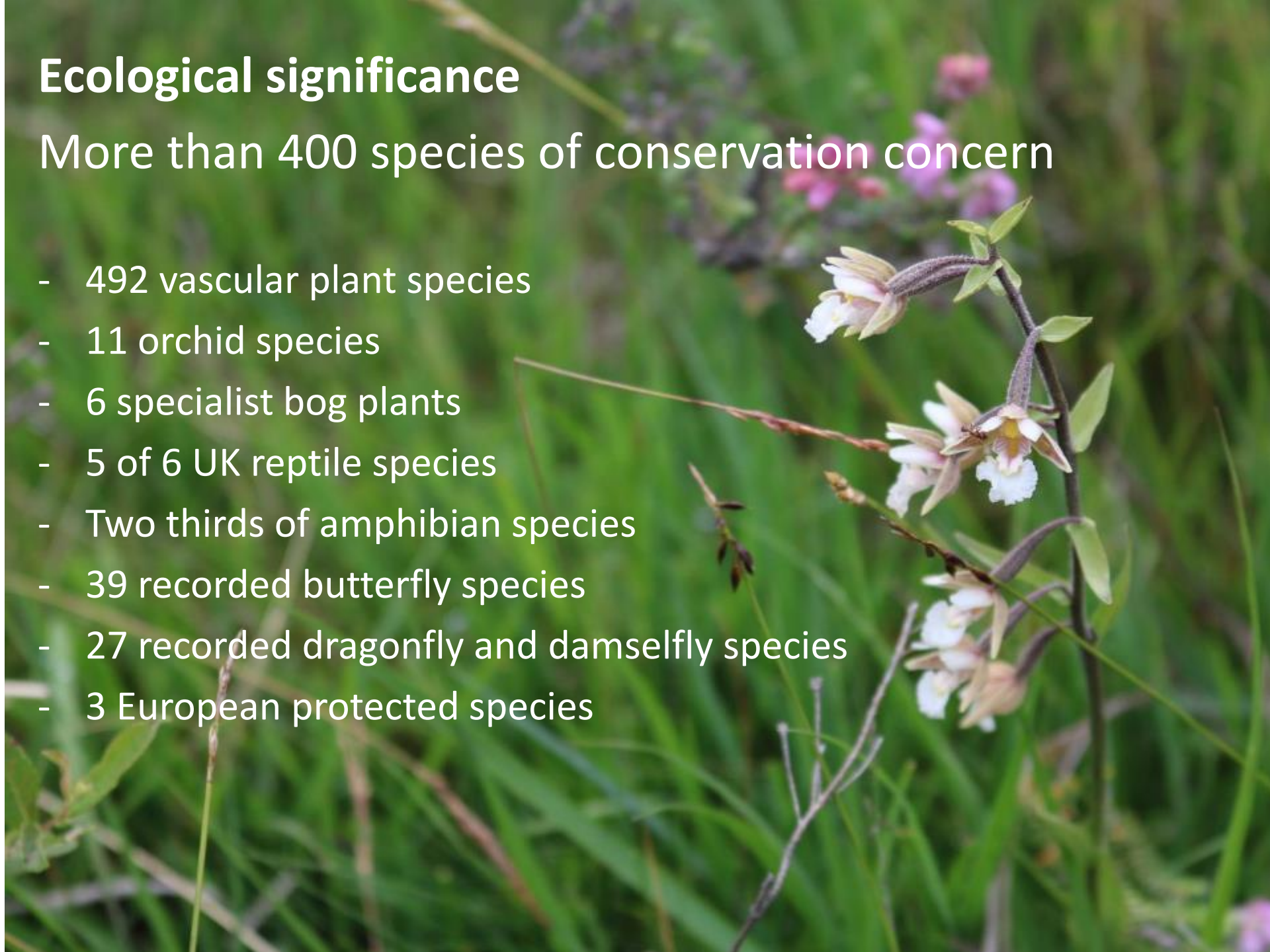
3. Ecological and Environmental significance

Rich composition maximising functional traits

Ecological significance

More than 400 species of conservation concern

- 492 vascular plant species
- 11 orchid species
- 6 specialist bog plants
- 5 of 6 UK reptile species
- Two thirds of amphibian species
- 39 recorded butterfly species
- 27 recorded dragonfly and damselfly species
- 3 European protected species









Project achievements

- Exceptionally diverse wetland system and re-instatement of critical ecological processes
- Recovery of key wildlife communities
- Favourable condition status building resilience
- Broader conservation impact for the future

Systematic evaluation and research

- Functional response to grazing pressure and anticipating change
- Landscape connectivity and resilience
- Ecosystem services benefits



Sand lizard reintroductions

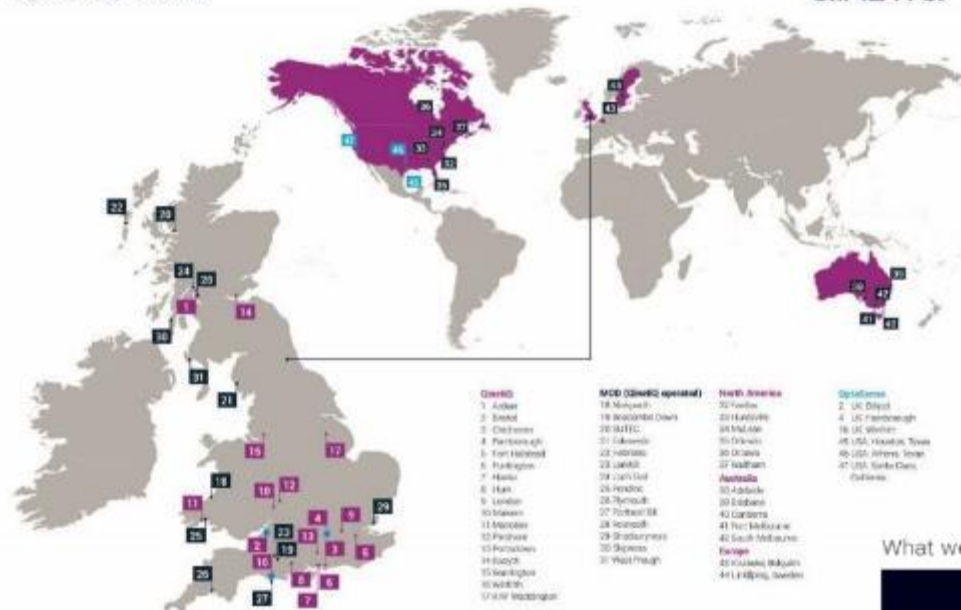
- Re-establishment of a sustainable population
- Captive breeding
- Post-release monitoring





4. A Developed Partnership





- QinetiQ was formed in July 2001, when the Ministry of Defence (MOD) split its Defence Evaluation and Research Agency (DERA) in two. The smaller portion of DERA, was rebranded Dstl (Defence Science & Technology Laboratory)
- We manage on behalf of the MOD a variety of sites that have designations on them, including St Kilda & MOD Portland Bill.

- QinetiQ (previously DERA) have been at Cody Technology park since the late 70's.
- Cody Technology Park currently hosts 80+ occupiers, and approximately 2000-2500 people on site a day (pre COVID, approx. 1000 now).

What we do



Cyber

A comprehensive approach to cyber security, fit for the digital age.



Mission Data

Data is a vital strategic military benefit. We help our customers understand how obtaining a rapid sense of your environment, and of adversary activity, enables faster, better decisions.



Mission-Led Innovation

Mission-Led Innovation - Delivering better operational outcomes for customers and end-users, working collaboratively to solve complex problems, at pace.



Target Systems

QinetiQ is a world-leading provider of unmanned air, land and surface targets for live-fire training and weapons system test and evaluation.



Test & Evaluation

We are a world-leader in the provision of relevant Test & Evaluation services, an enabler to the delivery of advanced defence capability.



Training & Rehearsal

Military customers around the world are looking to deliver a step-change in force preparation and generation by transforming the 'what', 'where' and 'how' of delivering future training.



All Services & Products

Search all services and products delivered by QinetiQ



**Marwell
Wildlife**

QINETIQ

- 1995 – relationship formed with Marwell Wildlife, before DERA was split.
- QinetiQ are ISO14001 certified (re-certified May 2021).
 - SSSI updates and important information included in site management meetings, site environment assessments and weekly site news updates from Head of Site
- All site employees & tenants have access to walk around the SSSI.



Eelmoor Marsh SSSI – Suggested walking routes



Eelmoor Marsh

Come in and walk around the unique habitat and quiet space, but please:

- Keep to the marked paths
- Ensure you leave all gates closed
- Do not approach or feed the animals
- Do not pick any flowers



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UNIVERSITY OF
Southampton



amphibian and reptile
conservation 

Biodiversity In Business

Debbie Salmon

Birdswood Ecology

Debbie.salmon@birdswoodecology.co.uk

UK Biodiversity Decline



❖ The UK is one of the most nature-depleted countries in the world, with 15 percent of UK species threatened with extinction.

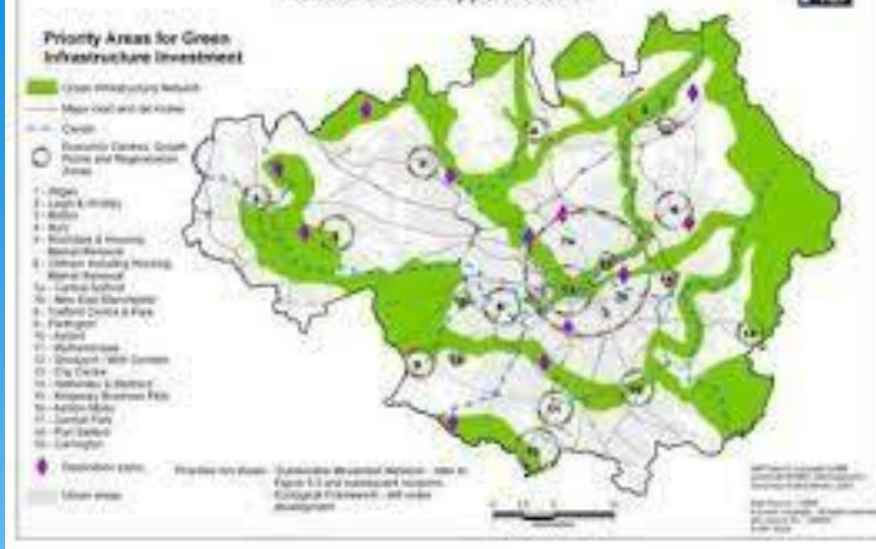


❖ The State of Nature Report in 2019 studied over 7000 species and found that one in seven UK species were threatened with extinction, and 41% of species have experienced decline since 1970.



❖ There are many reasons for this decline but two major factors are the increase in development, with fauna and flora unable to navigate the urban areas and intensive farmland management

Figure 9.5 Greater Manchester - Green Infrastructure Framework to Support Growth



- ❖ To save UK species from extinction it is imperative
- ❖ we create a green network with ecological corridors and stepping stones through the urban area.
- ❖ We enhance land within the countryside and green space in the urban area to create biodiverse habitats where species can live and breed.
- ❖ Wherever your business is situated you can give nature a helping hand.



How You Can Help Enhancing Your Site For Nature

Living Roofs



- ❖ Living roofs provide habitat within urban areas for birds and invertebrates.
- ❖ Large flat roofs such as warehouses and industrial buildings are ideal for living roofs providing significant areas of habitat
- ❖ Green roofs can provide rare habitats or support food plants for rare species
- ❖ Brown roofs provide ideal habitats for rare invertebrates adapted to cliff habitats and rare urban birds such as the black redstarts.

Planning a living roof



- ❖ When planning a living roof it is important to:-
- ❖ Ensure the roof is strong enough to bear extra weight
- ❖ If a new build inform the architect the roof will need to support substrate.
- ❖ Look at the natural areas locally and ensure your roof reflects the habitats present
- ❖ Alternatively, enhance the roof for rare urban species such as black red starts, swifts, house martins or invertebrates
- ❖ Consult an ecologist to design a roof that reflects local habitats and supports rare fauna



Green Walls

- ❖ Three types
- ❖ Climbing plants
- ❖ Modular hydroponic systems.
- ❖ Modular soil based systems



- ❖ Green walls provide a vertical habitat in the urban environment
- ❖ Invertebrate and bird nesting boxes and bat roosting areas can be incorporated within the design



Benefits of living roofs & green walls

- ❖ As well as providing important ecological stepping stones living roofs and green walls have other benefits:-
- ❖ Provide insulation making the building cool in summer and warm in winter and lowering energy costs
- ❖ Helps to control storm water by absorption into the soil
- ❖ Reduces the heat Island effect by cooling the air via evaporating water vapour
- ❖ Purifies the air by absorbing CO₂ and NO_x
- ❖ Reduces greenhouse gas emissions by trapping emission from the building in the vegetation.
- ❖ Extends the roof life
- ❖ Provides noise insulation
- ❖ Provides a serene environment for employees to appreciate and use

Wildlife Corridors



- ❖ Ecological corridors are essential.
- ❖ enable flora and fauna to move through the urban landscape
- ❖ existing green areas can be seeded with wildflowers to provide corridors and stepping stones.
- ❖ New habitats can be created
- ❖ On smaller sites try to work with your neighbours to provide a connecting corridor.
- ❖ If you cannot provide a corridor, create nectar bars.

Benefits to wildlife



- ❖ link areas of urban greenspace
- ❖ Connect to the countryside
- ❖ Provide habitat for ground dwelling fauna including invertebrates, amphibians, reptiles and mammals
- ❖ Provide a food source for flying invertebrates birds and bats
- ❖ Enable rare species to mix and breed increasing the genepool and resilience to extinction

Pond Networks



- ❖ Many British amphibians are struggling for survival with serious declines in toad, frog and newt populations.
- ❖ The declines are thought to be due to disease coupled with loss of garden pond networks and connecting terrestrial habitats to hardscaping.
- ❖ This has fragmented populations limiting the gene pool and making them more vulnerable to local extinction

Pond Networks



- ❖ Digging a pond will provide important breeding and feeding areas.
- ❖ Water troughs will provide water to enable amphibians to rehydrate and form important stepping stones to allow successful migration



- ❖ Other species such as will also use ponds to breed



Nesting, Roosting, Feeding and Shelter



- ❖ All sites no matter how small can provide nesting roosting and feeding habitat.
- ❖ log pile, loggery or hibernacula
- ❖ Hedgerows, bramble and nettles
- ❖ Nesting boxes for common and declining species
- ❖ Nectar bars and other feeding areas



Offsite

- ❖ Sponsor a wildlife conservation group
- ❖ Arrange for your employees to attend a work party
- ❖ Fund a project to recreate habitat and offset your carbon footprint
- ❖ Fund a school project to educate the next generation



**Any
Questions**

Thank-you & Get Involved in Further Sessions!



*Basingstoke
and Deane*

RUSHMOOR
BOROUGH COUNCIL

