

A Natural Capital Approach to Placemaking

ISEP Online Webinar
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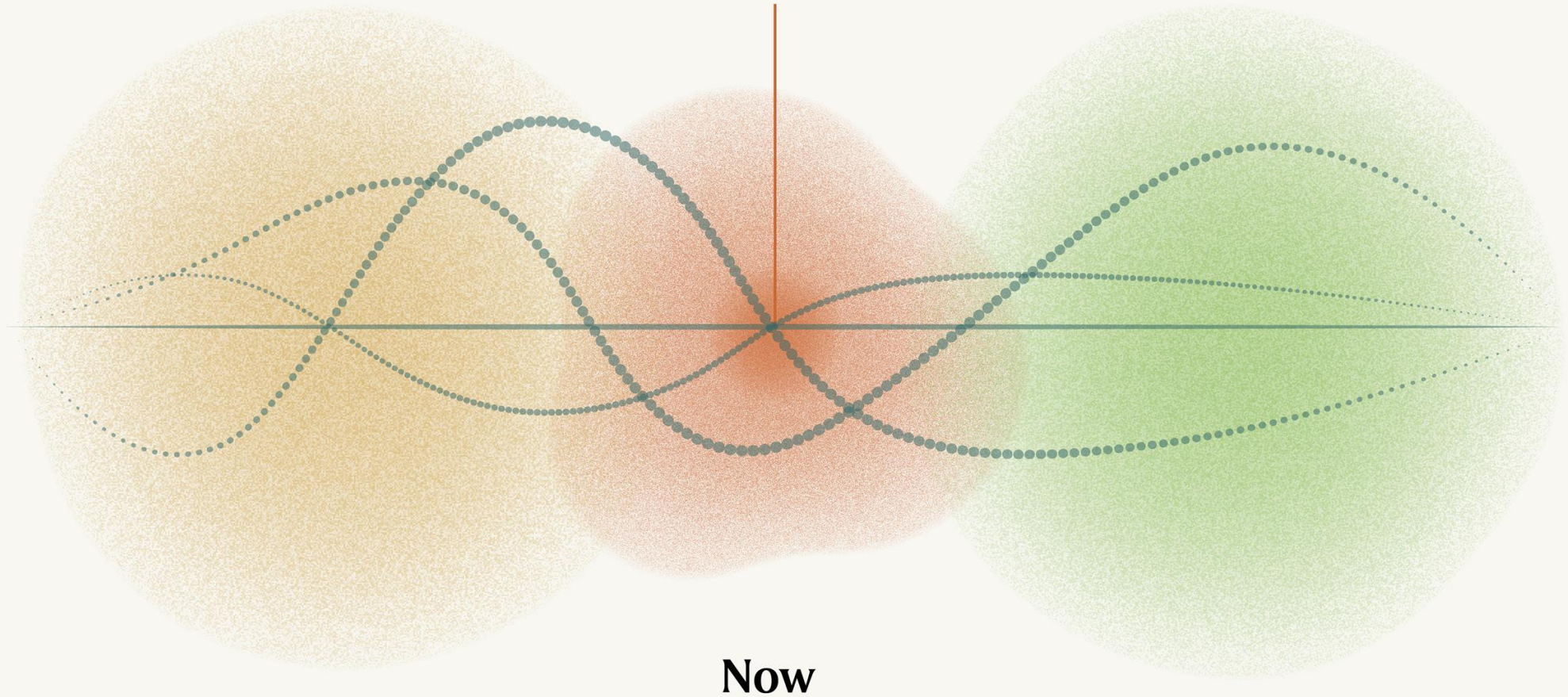


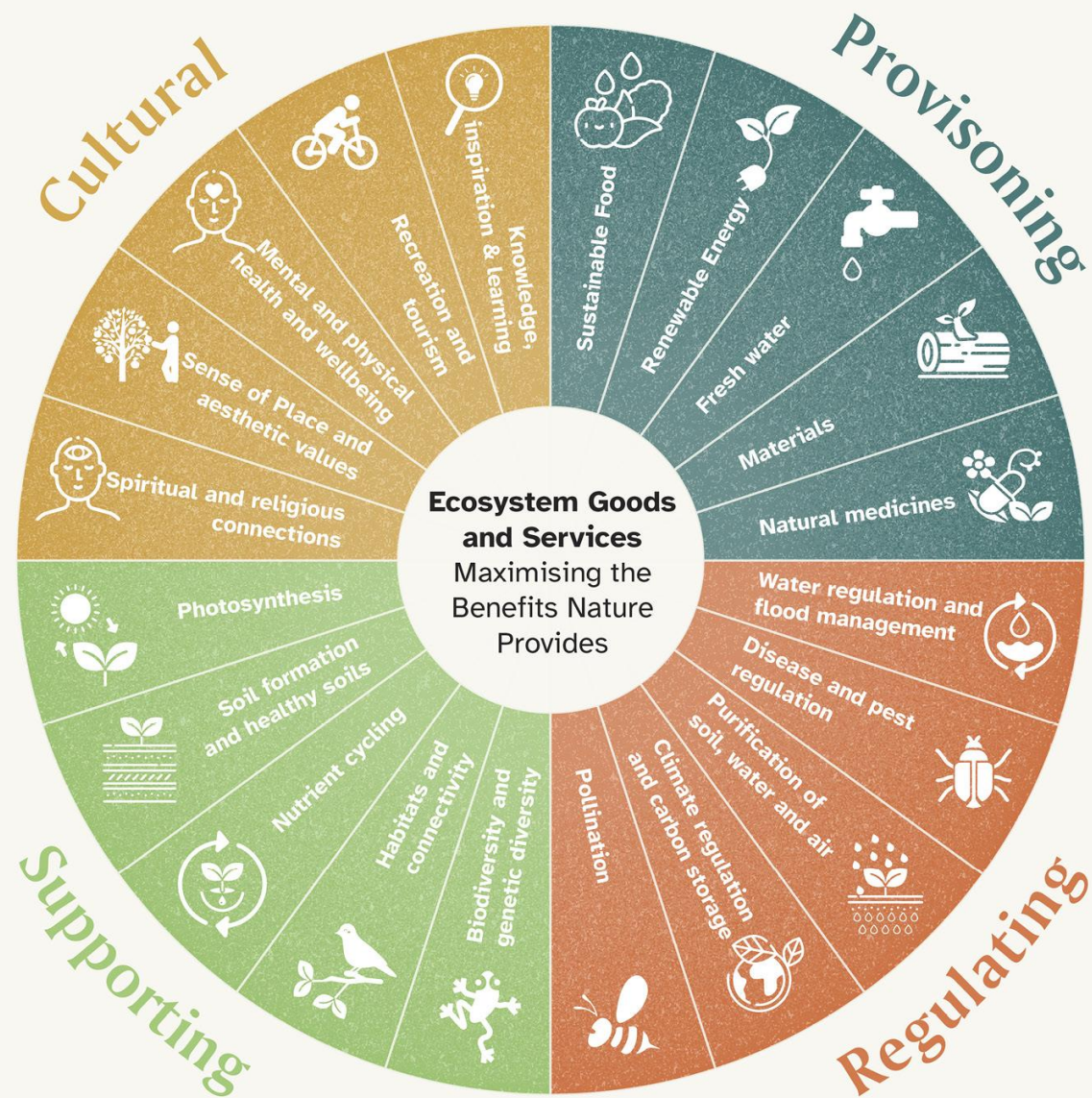
A time of rapid change

Design Delivery

Challenging
'Business as Usual'

Ways of working that
focus on outcomes







Improved air quality

Visual screening

Improved recovery time from illness

Increased property and rental value

Carbon sequestration and storage

Habitat for wildlife and part of connected networks linking town and countryside

Summer shade and urban cooling in extreme temperatures

Attractive high streets increase consumer spending and restaurant patronage

Sense of place and continuity with the past

Access to nature and natural systems

Traffic calming

Reduced stress and mental wellbeing benefits

Inviting public realm for social interaction and outdoor recreation

Increased concentration and productivity

Intercepts rainfall, slows infiltration and reduces risk of flooding

Reduced impacts of noise



Improved air quality

Habitat for wildlife and part of connected networks

Visual screening

Support to pollinators and enhanced crop yields

Reduced impacts of noise

Inviting and accessible places for social interaction and outdoor recreation

Sense of place and continuity with the past

Shelter for crops, livestock and people

Source of timber, fuel, fodder and wild /foraged food

Agroforestry

Reduced stress and mental wellbeing benefits

Improved recovery time from illness

Carbon sequestration and storage

Restoration of soil health

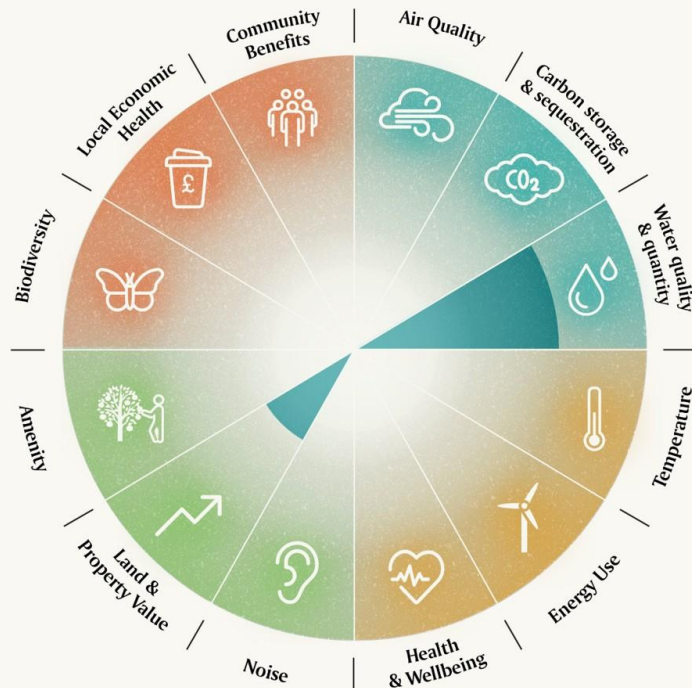
Summer shade and cooling in extreme temperatures

Access to nature and natural systems

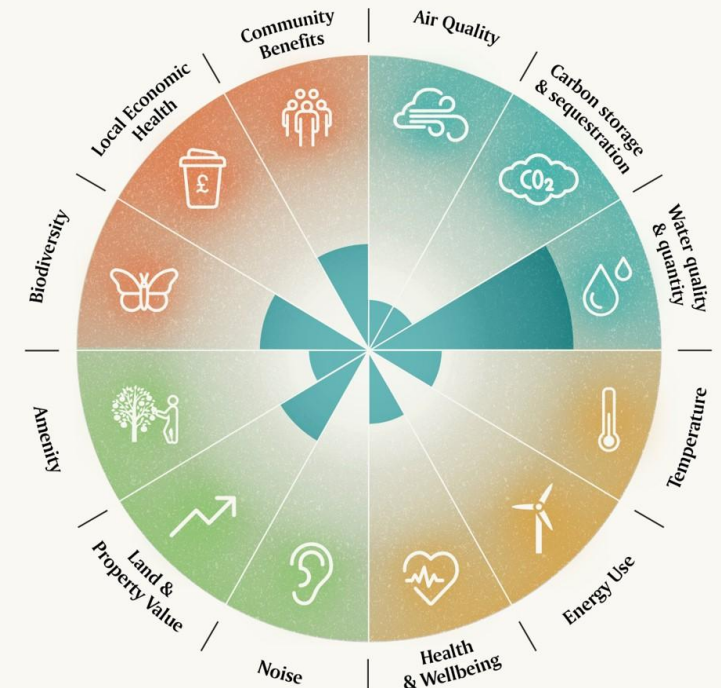
Intercepts rainfall, slows infiltration and reduces risk of flooding

Intercepts sediments, pollution and nutrients entering watercourses

Example: Benefits of Nature Based Solutions to Natural Flood Management



Conventional Approaches



NFM

Evidence built on Big Data is Essential

Example:

The Environment Agency has published a new **Working with Natural Processes Evidence Directory** updating the internationally recognised product first released in 2017.

Informed by significant scientific research including more than 700 papers, the directory summarises the latest evidence for 17 natural flood management (NFM) measures relating to river and floodplain, woodland, run-off, and coast and estuary management.

Julie Foley, Environment Agency Director of Flood Risk Strategy and National Adaptation, said:

“With climate change increasing the threats of flooding and coastal erosion, we must work together with nature to boost resilience across the country.

That’s why the Environment Agency is mainstreaming the use of natural flood management alongside the use of traditional engineered defences.

Our £25 million Natural Flood Management Programme was shaped by the Working with Natural Processes Evidence Directory. Through this fund we are testing our approaches to future investment and the delivery of natural flood management”.

Satellite Imagery and modelling technology is used to produce the habitat map

Remote sensing / satellite and aerial imagery

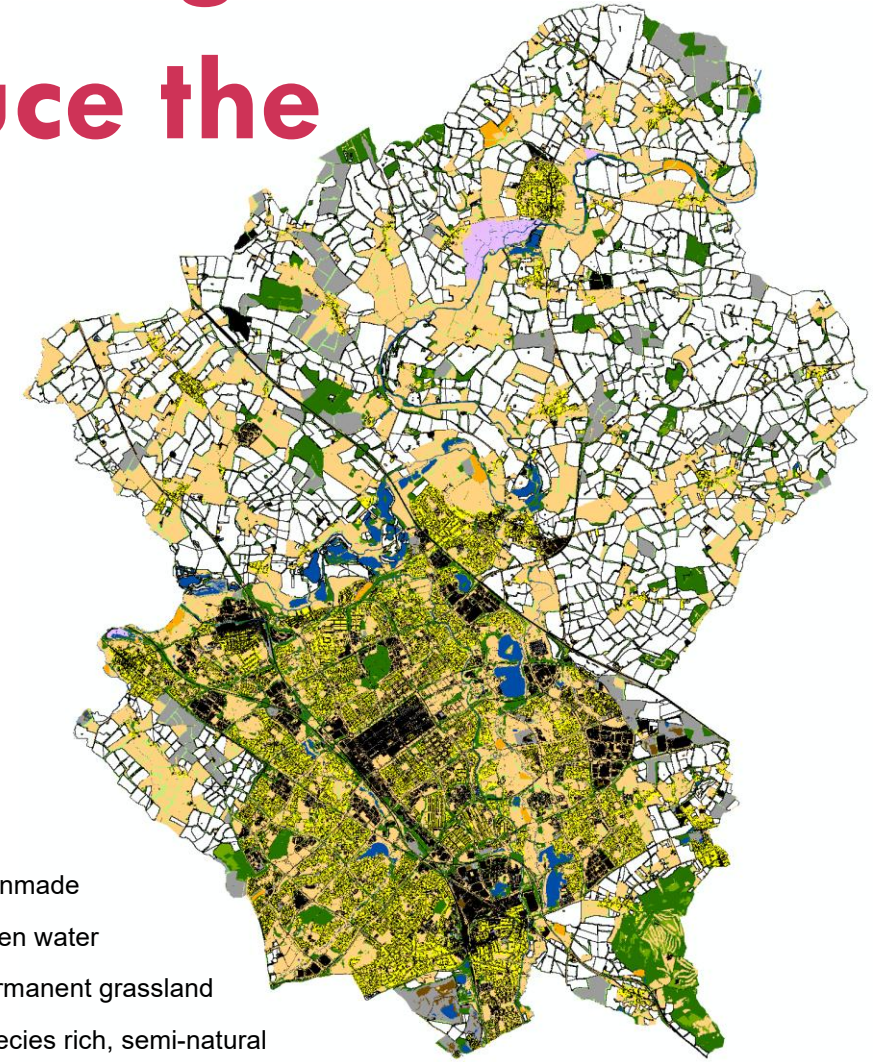
Field data and validation

Existing data sets



Legend

	Arable		Manmade
	Bare ground		Open water
	Coniferous woodland		Permanent grassland
	Deciduous woodland		Species rich, semi-natural
	Gardens		Disturbed vegetation
	Hedgerow		Wet grassland



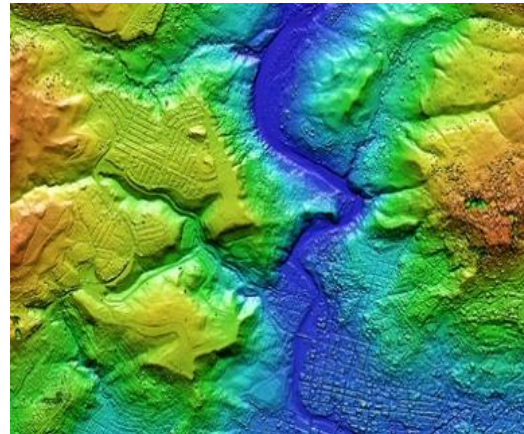
Computer modelling of natural capital assets and to optimise nature-based solutions



Soil & Geology



Management / Cultural



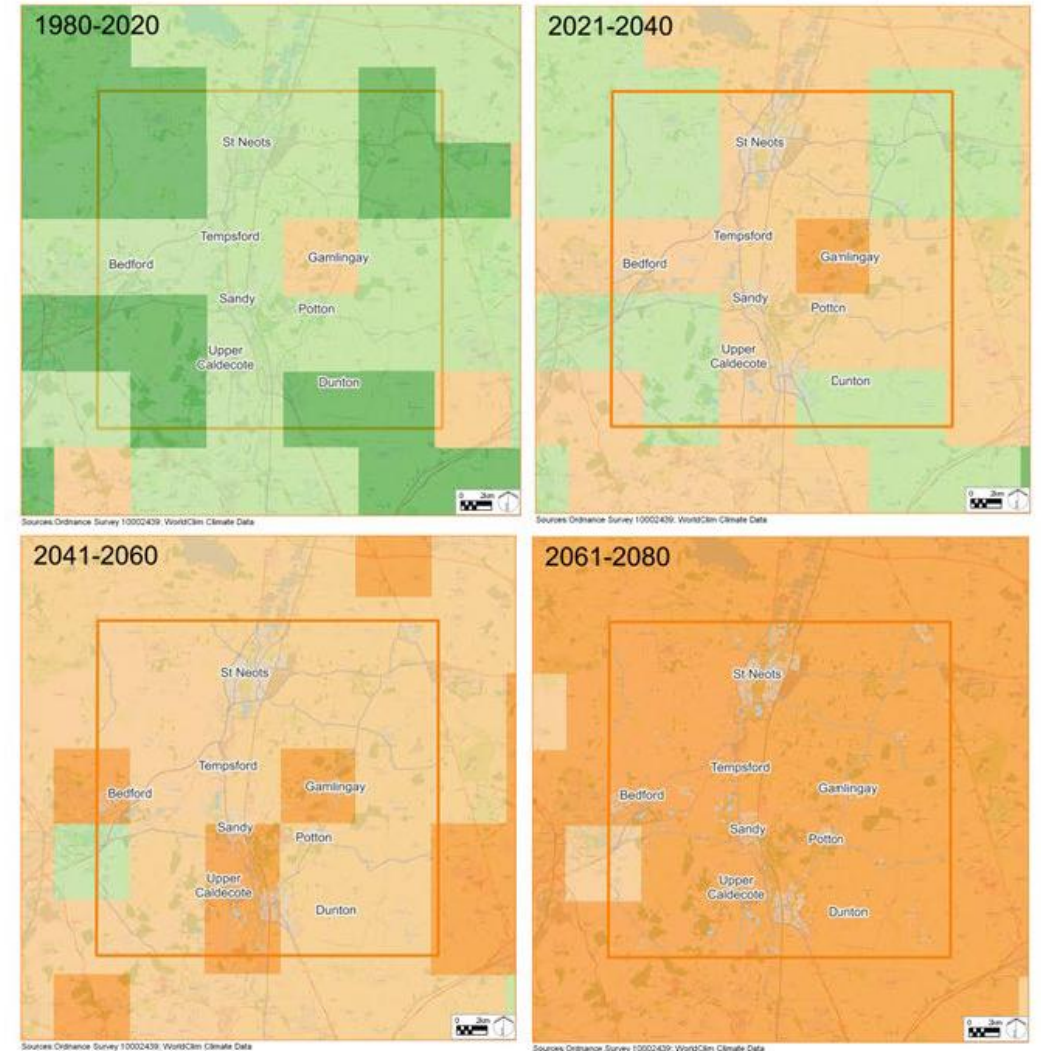
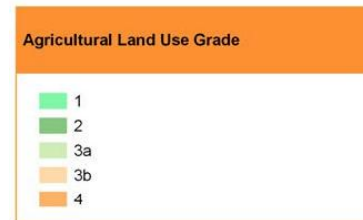
Landform & Hydrology



Habitat

Environment Systems

Modelling climate change scenarios to identify the potential effects, including to natural capital assets and their performance, will influence decisions in the way land is used.

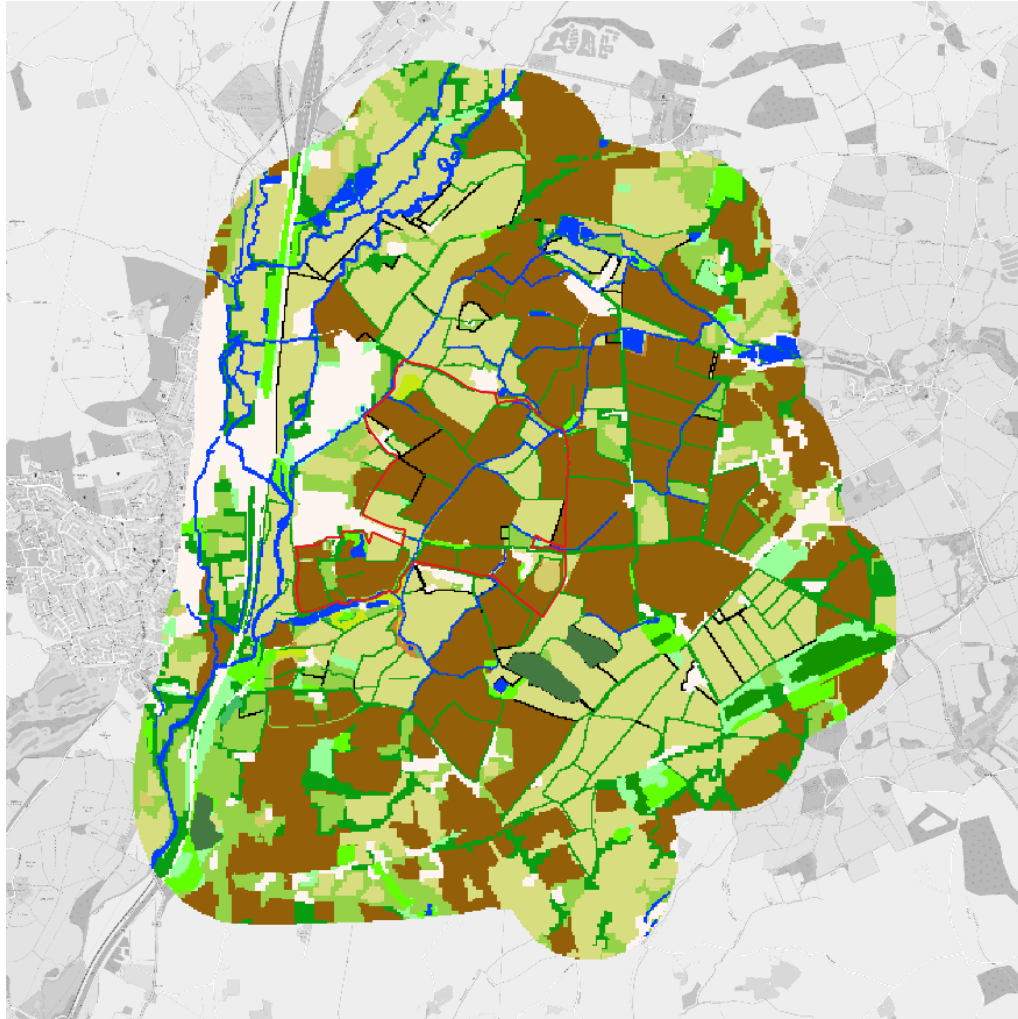


Case Study East Cullompton: An Ecosystems Approach to Masterplanning

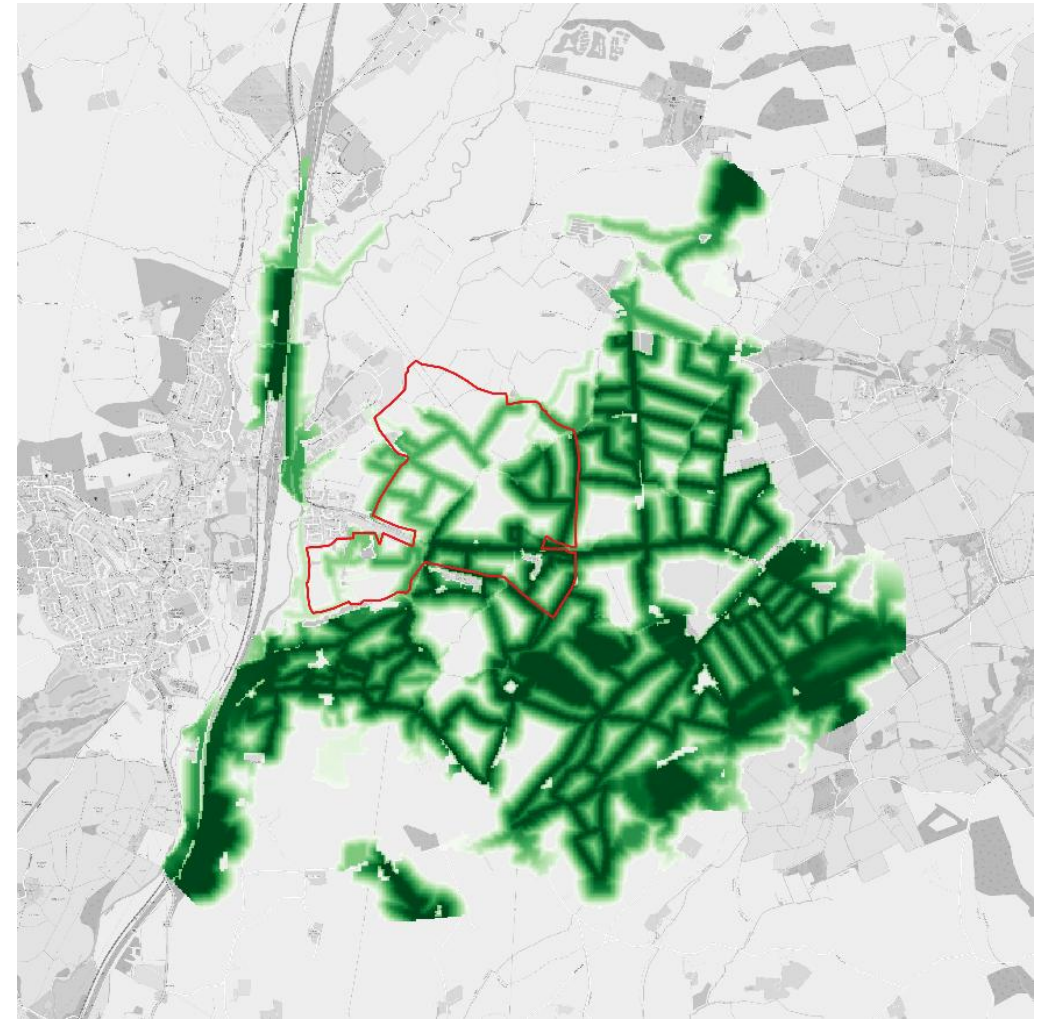


COMMUNITY
VEG GARDEN

LDA Design



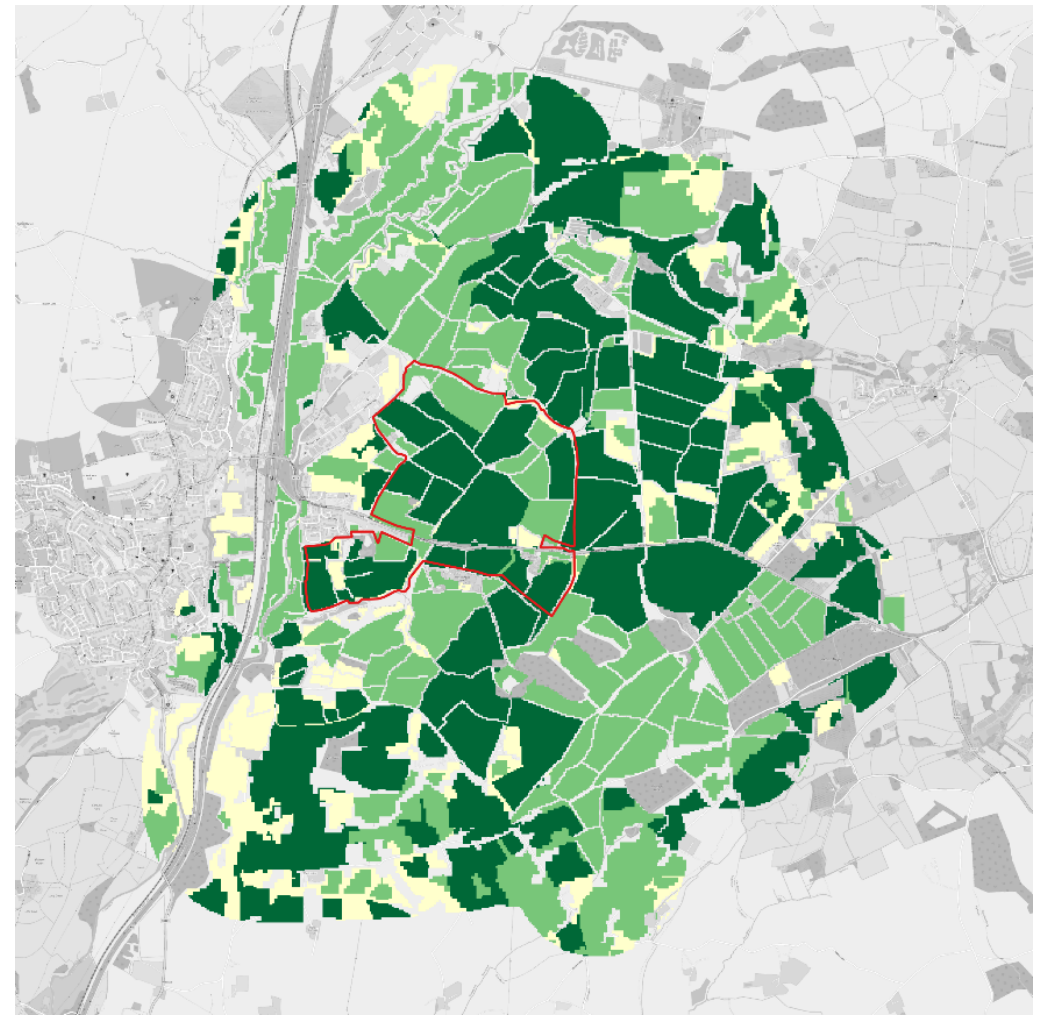
Habitat



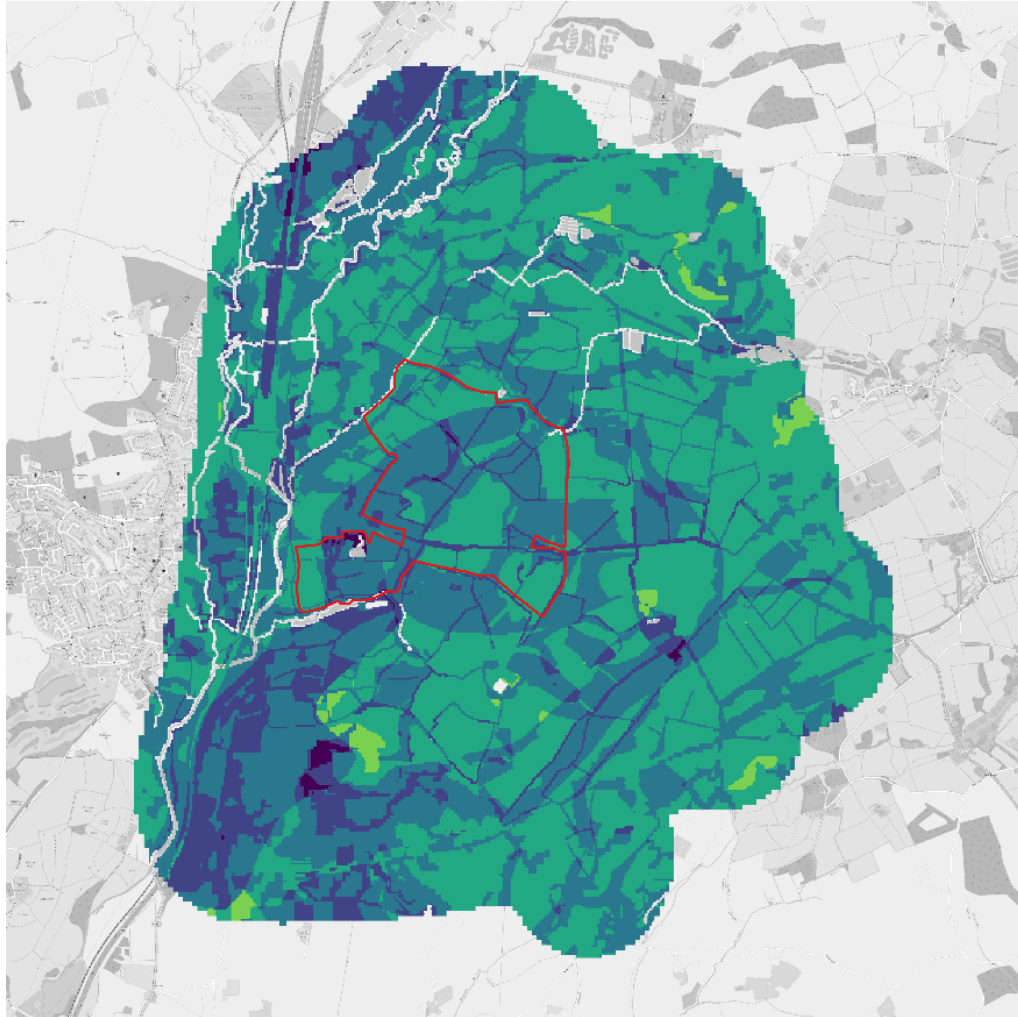
Woodland Network



Carbon Stock



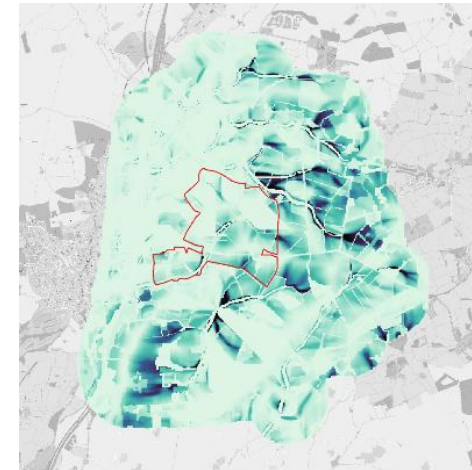
Carbon Opportunities



Natural Flood Management Stock



**Natural Flood
Management
Opportunities**



Erosion Risk

We have an opportunity right now to use advances in technology and data capture to significantly enhance our approach to placemaking, planning and design. An approach that enables us to confidently deliver ‘good design’ and the environmental outcomes needed to mitigate, adapt and build resilience to climate change and help nature recover.

This will go beyond the traditional mitigation of impacts and offsetting. It will enhance our mission to build and maintain beautiful and new development and infrastructure.



Thank You