

Developing a Natural Capital Plan for Eastern England

Objectives and Actions Explained

.....



WATER RESOURCES EAST



BIODIVERSIFY

	WORKING TOGETHER TO CONSERVE AND PROTECT ENGLISH LANDSCAPES		
--	-------------------------------------------------------------	--	--

Our panellists



Robin Price



Jeff Knott



BIODIVERSIFY



Sam Sinclair



Neil Jarvis



The Program

1. Objectives, actions and targets explained
2. Jeff presents his view of the objectives and actions
3. Questions
4. Neil presents his work, objectives and actions
5. The analysis explained
6. Questions



Robin Price



Jeff Knott



Sam Sinclair



Neil Jarvis

The Process

And how you can get involved



Objectives, Actions and Targets



Objectives are the natural capital outcomes we want

E.g. reduced flooding, more wetlands, more trout, healthier rivers



Actions are the things we do to deliver objectives

E.g. Plant trees near rivers, restore grassland, reduce pollution runoff from farms



Targets are the quantitative definition of objectives and actions

E.g. Restore 50ha of wetland, plant 2000ha of trees in riparian areas to reduce flooding

How to Contribute



We can take your input either through our online form and/or we can use materials you have already developed



In many cases you will have already thought about what matters to you

There are many strategies both completed and in development in the WRE region



The Natural Capital Evidence Compendium for Norfolk and Suffolk is a good example
I'll talk you through how we can use that to directly inform the SCP analysis



How to Contribute

Natural Capital Evidence Compendium for Norfolk and Suffolk

October 2020

Objectives

	Priority
A	Develop a policy framework & programmes to safeguard water availability within planning control and other spheres of influence.
B	Support policy and programmes for sustainable land management to safeguard biodiversity, soil & water quality and food production.
C	Develop a policy framework & programmes to reduce greenhouse gas emissions through planning control, to ensure energy efficiency & sustainability in new build, support retrofit in older buildings, decarbonise heating prioritising off-gas areas & by working with & targeting support at large point-source emitters.
D	Develop a policy framework & programmes to support carbon sequestration initiatives (e.g. through peatland restoration & measures to enhance soils & their organic content).
E	Develop policy & programmes for partnership working to increase ecological resilience by managing existing habitats & improving habitat connectivity (e.g. re-creating habitat) & enabling habitat & species migration (especially in coastal areas).
F	Support policy and programmes to improve biosecurity (e.g. raise awareness of, and provide early alert to, invasive species, pests and diseases).
G	Assess natural asset vulnerability & develop contingency planning in preparation for increasing likelihood of extreme climate events e.g. droughts & wildfires, floods, extreme storms and associated amplified coastal erosion.

How to Contribute

Objectives	Actions
Increased quantity and quality of water	
Safeguard biodiversity	
Store carbon	
Increase landscape level ecological resilience and establish stronger habitat connectivity	
Increase drought and flood resistance	

How to Contribute



We have set up an online form
For projects, objectives and actions



Let us know if you need help
sam@biodiversify.org



Send us any other relevant materials
We're happy to look over documents
and suggest objectives and actions

Water Resources East Natural Capital Planning Submitting Objectives, Actions and Projects

This form is designed to enable stakeholders to provide input into the WRE natural capital planning process. Further details as well as flyers which explain the process are available at <https://wre.org.uk/projects/systematic-conservation-planning/>.

We will use the information you provide us with as part of the natural capital planning process. This will include using your submissions in a spatial prioritisation analysis to identify priority areas for natural capital action across the WRE region.

We will keep your submission confidential unless you specifically tell us that you are happy for us to share your input in the form. There is a question which directly addresses this at the end of the form.

*** Required**

1. Do you represent or belong to an organisation? If so, please could you please provide us with the name below. *

2. Please provide us with your name and email address so that we can reach you if we need to discuss your submission. *

3. What information would you like to submit? *

Tell us about your project

Objectives and Actions

Something else



giving nature a home



Jeff Knott



Poll and Questions



Planting trees to provide benefits



Trees and woodland provide a host of benefits

1. They prevent and mitigate floods
2. They increase the water retained in the landscape, reducing the impact of droughts
3. They remove pollutants from water
4. They provide structural integrity to riverbanks, reducing erosion and silt run-off which in turn reduce sedimentation



Neil Jarvis



Planting trees to provide benefits



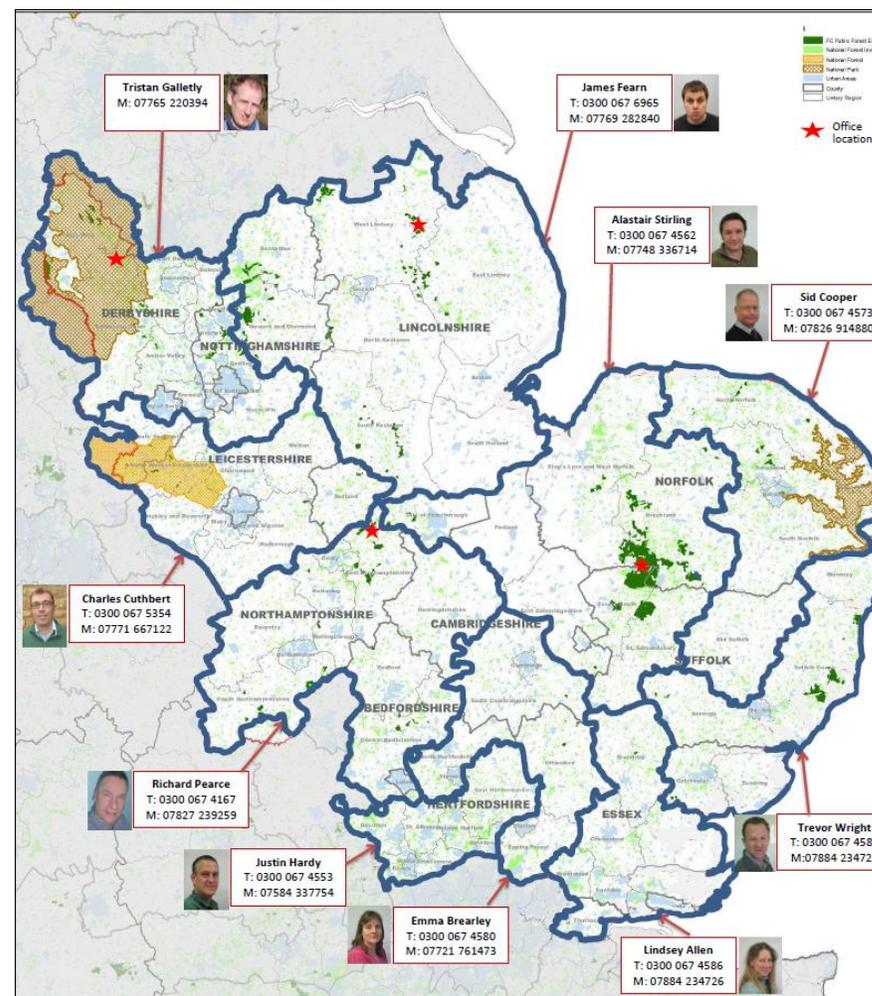
The FC provides grants to plant and maintain trees

The Forestry Commission works with farmers to establish small patches of woodland where they can provide critical ecosystem services



A team of experienced woodland officers work at the local level across the WRE region

They coordinate work both locally and across the region to ensure that woodland creation doesn't negatively impact communities, designated sites, priority habitats or archaeology



Planting trees to provide benefits



The Forestry Commission's objectives will include:

- 1. Prevent and mitigate flooding
- 2. Cleaner water
- 3. Store carbon
- 4. Reduce sedimentation
- 5. Expand forest habitats
- 6. Reduce the impacts of droughts



The Forestry Commission's actions will include:

- 1. Plant trees in riparian areas
- 2. Establish new woodland patches
- 3. Convert farmland to woodland



The Prioritisation Analysis

1

We will use a real example from the Forestry Commission

They plant trees to reduce flooding, purify water and expand important habitat

2

We will use just two objectives in this example

(1) Reduce flooding impacts and (2) restore priority woodland habitats

3

We will use one action

Convert areas of farmland into woodland

4

We will use an example target from policy

To establish 10,000 ha of woodland (this is 1/3 of the 30,000 ha target for England).

The Prioritisation Analysis



The opportunity areas have already been mapped

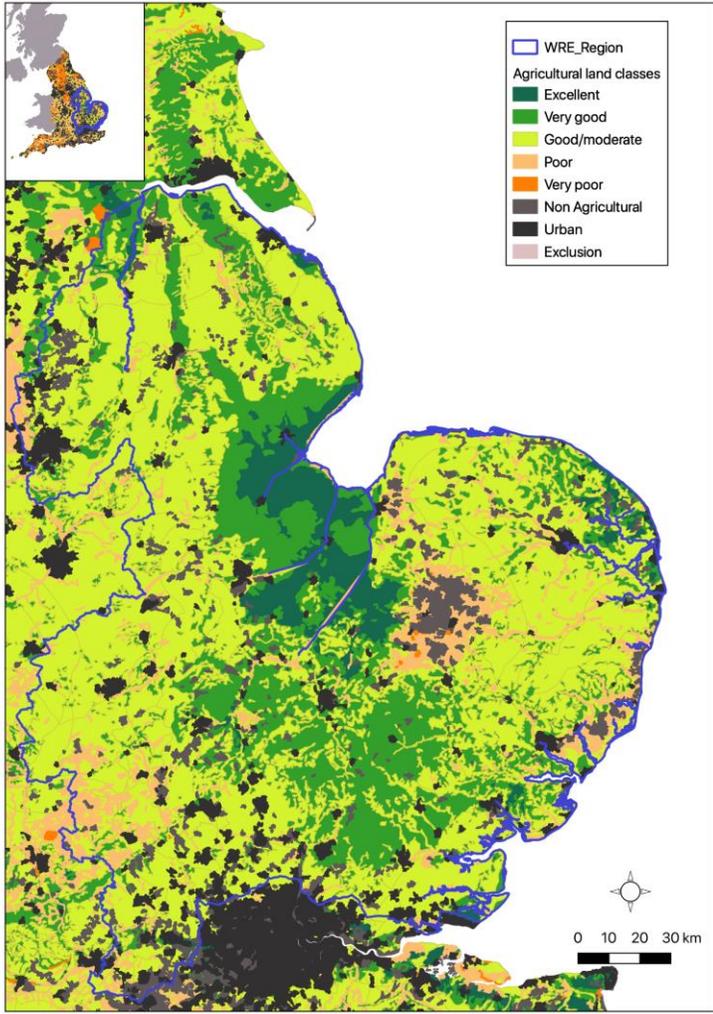
1. The Environment Agency have identified where to establish woodland in riparian areas to reduce flooding impacts
2. The Forestry Commission have identified where to plant new woodland to support biodiversity and expand priority habitats without negatively impacting other priority habitats



We will always use existing data where possible

This allows us to build directly on the wealth of knowledge that already exists

Representing Cost



1

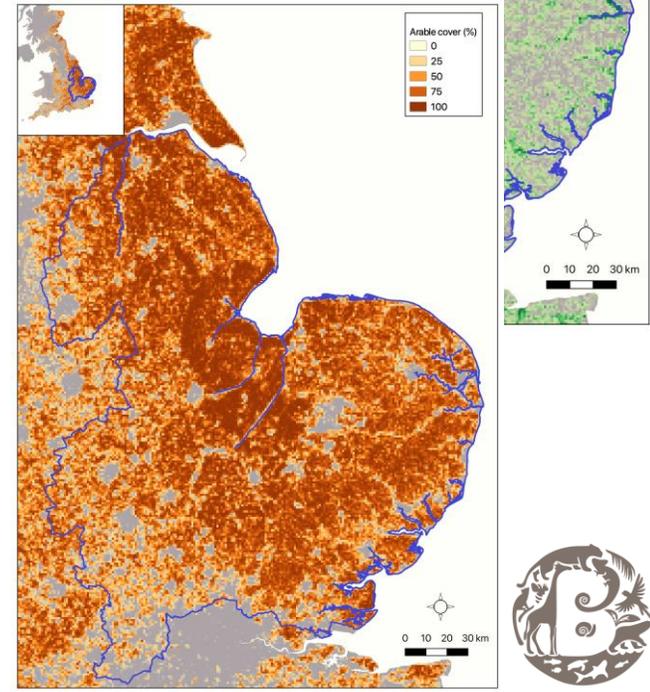
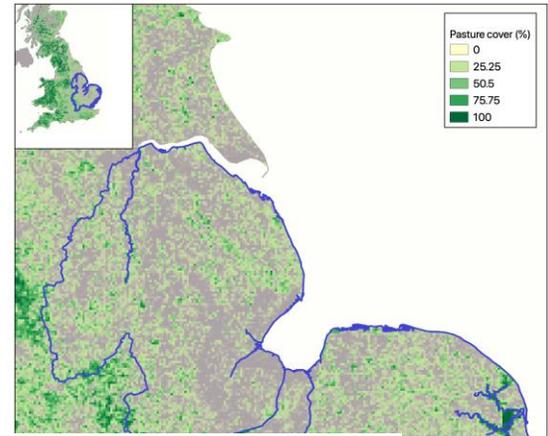
We begin with Natural England data which identifies the relative value of agricultural land

2

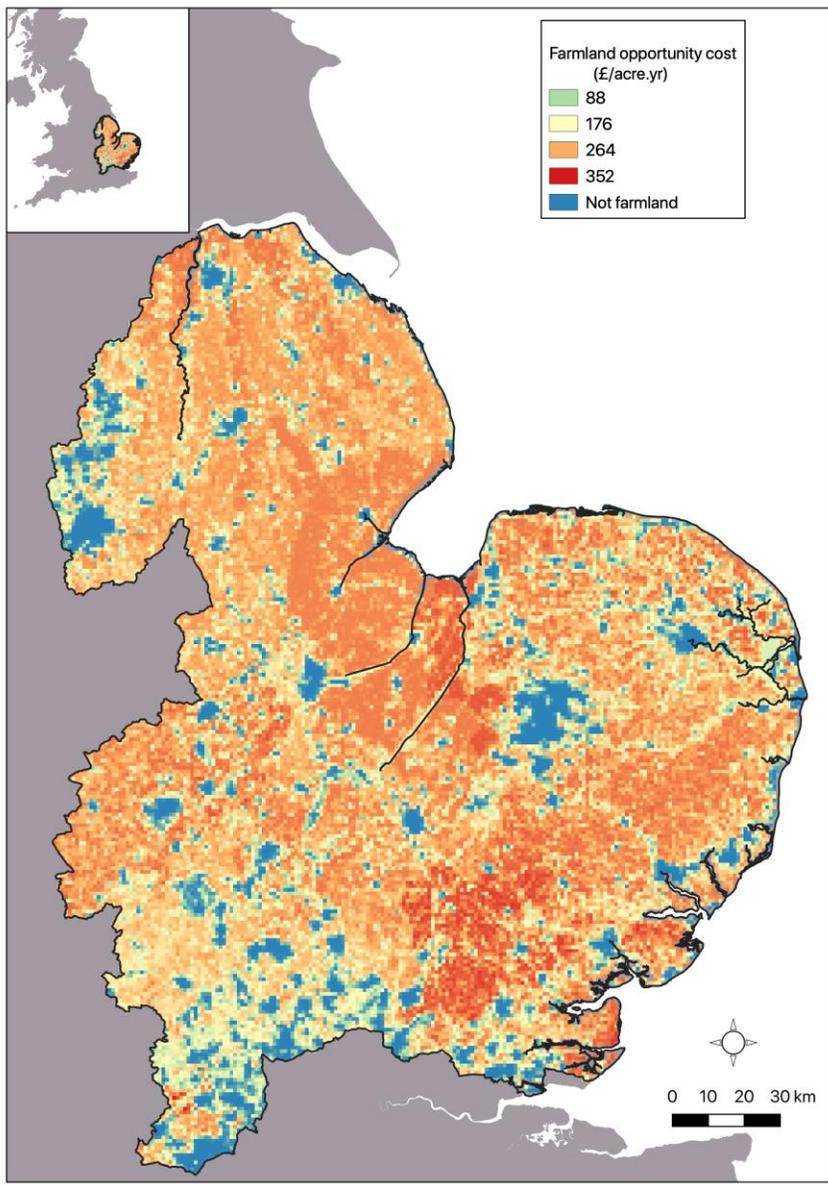
We combine this with data from Farmers Weekly which gives data on land prices for different grades of agricultural land

3

We combine this with data from the Centre for Ecology and Hydrology which identifies whether land is pastoral or arable



Representing Cost



This gives us a heat map of relative costs

These aren't the actual costs of actions, but it does allow us to compare between different areas



No-one will be expected to adhere to these costs

These are **only** used for the analysis. Where the plan helps broker projects, costs will be a matter of discussion between all involved parties

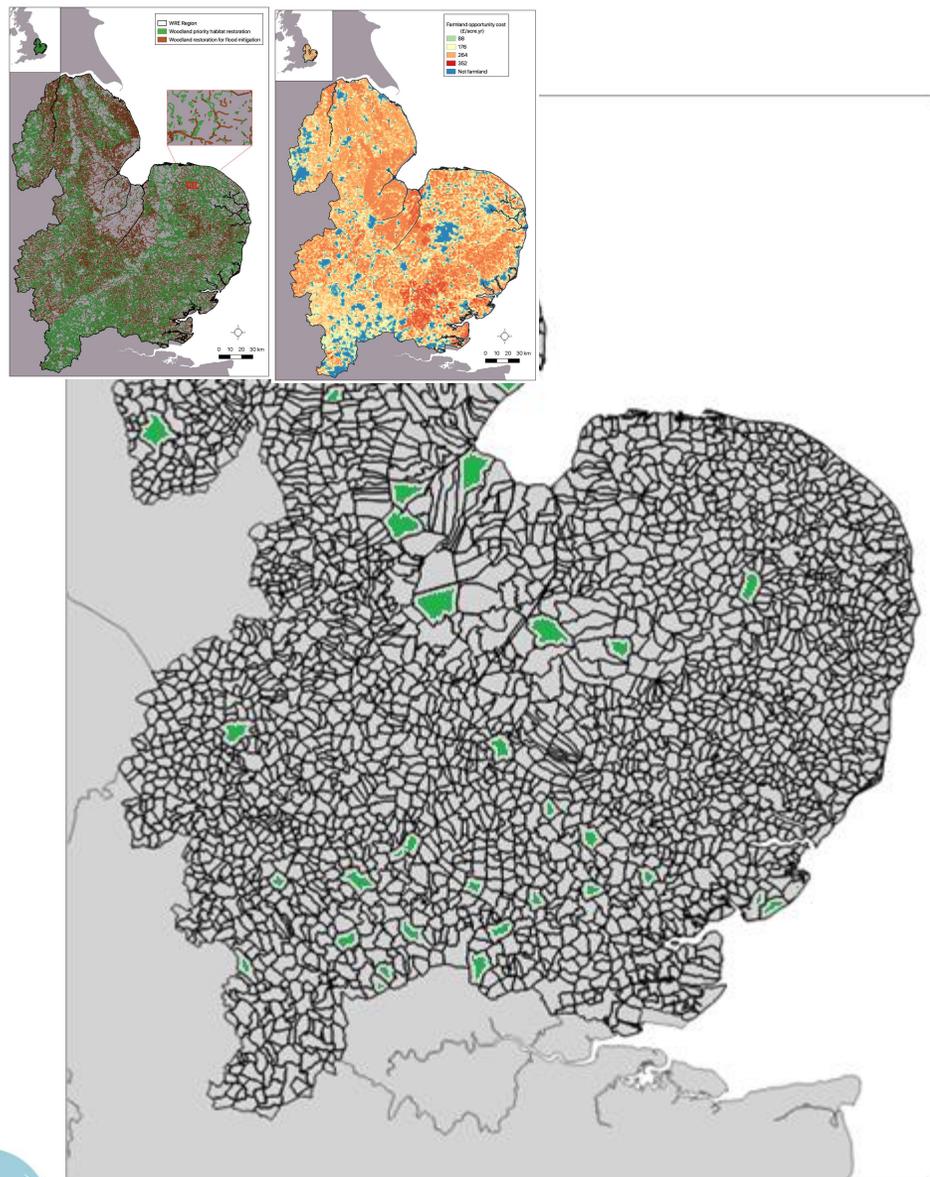


This purpose of identifying relative costs is to ensure that the plan is equitable and cost-effective



We are establishing a working group to develop this

The Prioritisation Analysis



1

The analysis picks a selection of parishes at random

2

It will then pick a parish at random and determine whether including it as a priority will help cost effectively deliver the targets. It will then either include it or exclude it as a priority

3

This is repeated many thousands of times to identify the most cost-effective solution

4

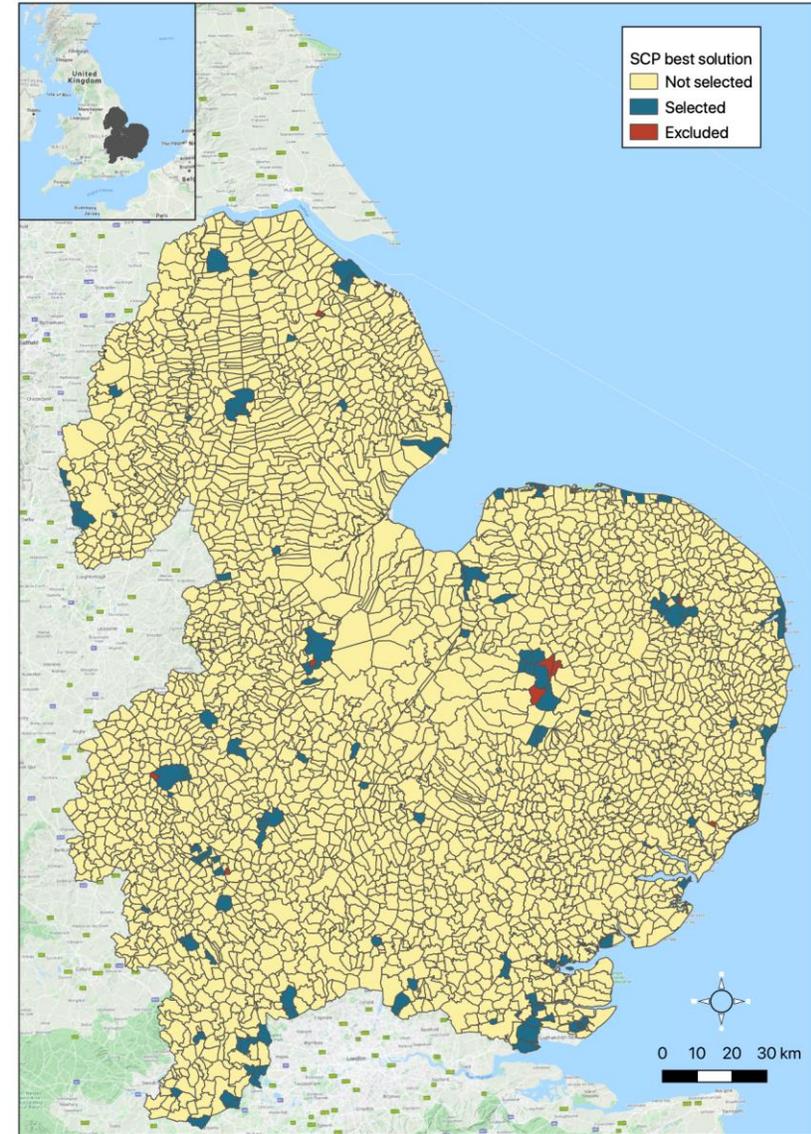
The analysis is then rerun with a different starting set of random parishes to verify the results

The Prioritisation Analysis



The analysis identifies priority areas for action
 If woodland is established in these parishes then the two targets will be met most cost effectively

Metric	Approach		
	SCP	Poor quality farmland	Random
Area of farmland set aside for flood mitigation through riparian woodland revegetation (ha)			
Area of farmland set aside for priority area for woodland revegetation (ha)			
Opportunity cost (million £ per year)			
Parishes that will benefit			



The Prioritisation Analysis



The analysis identifies priority areas for action

If woodland is established in these parishes then the two targets will be met most cost effectively



The Forestry Commission can use this to coordinate action, maximise their impact and seek funding



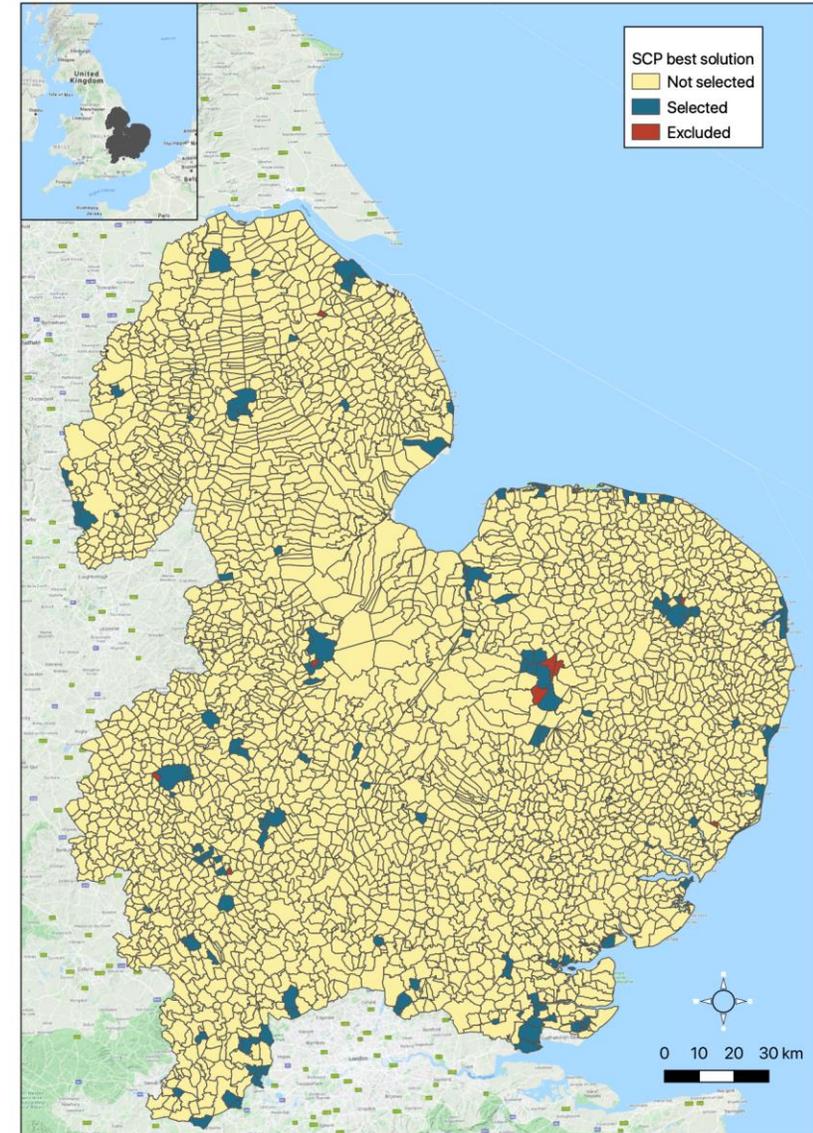
This is just the first iteration

The first version will undoubtedly contain mistakes, but the FC can give us feedback to correct them for the next iteration



This is a map for one action and two targets

The full plan will include objectives, actions and targets for the full scope of natural capital



The Prioritisation Analysis

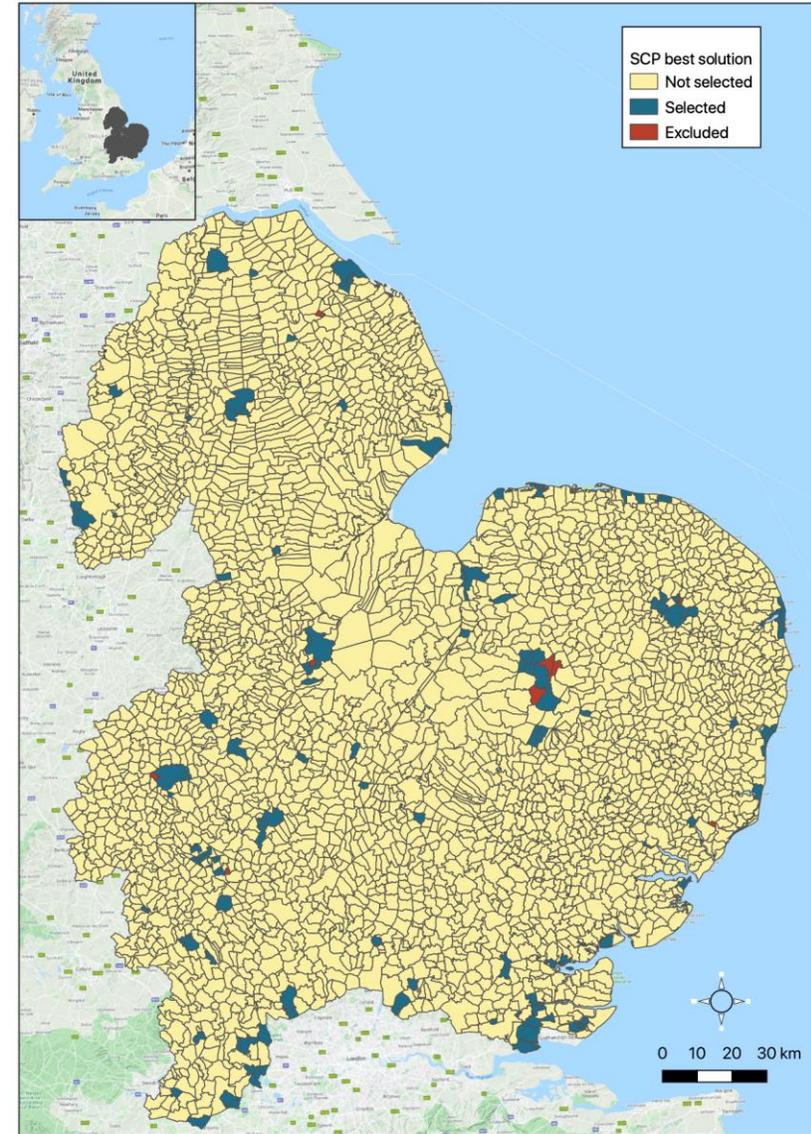


When other objectives are included there will be greater potential for synergy

The Forestry Commission is primarily interested in flooding, water quality and erosion but recognizes that there are many other benefits provided by trees, to name just a few:

1. Carbon storage
2. Habitat connectivity
3. Access to green space
4. Habitat for important species

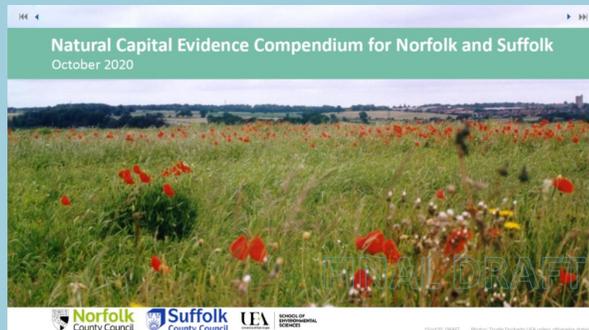
Telling us about the benefits you want to receive will ensure that they are considered in the plan



Providing Input

Submit your objectives, actions and projects through our online form

Send any existing documents to sam@biodiversify.org



Water Resources East Natural Capital Planning Submitting Objectives, Actions and Projects

This form is designed to enable stakeholders to provide input into the WRE natural capital planning process. Further details as well as flyers which explain the process are available at <https://wre.org.uk/projects/systematic-conservation-planning/>.

We will use the information you provide us with as part of the natural capital planning process. This will include using your submissions in a spatial prioritisation analysis to identify priority areas for natural capital action across the WRE region.

We will keep your submission confidential unless you specifically tell us that you are happy for us to share your input in the form. There is a question which directly addresses this at the end of the form.

* Required

1. Do you represent or belong to an organisation? If so, please could you please provide us with the name below. *

2. Please provide us with your name and email address so that we can reach you if we need to discuss your submission. *

3. What information would you like to submit? *

- Tell us about your project
- Objectives and Actions
- Something else

Questions

Your Projects

Tell us about your objectives and actions by using the form found at:
<https://wre.org.uk/projects/systematic-conservation-planning/>



Webinar 1 – 3/11/20
Objectives and actions

Webinar 2 – 1/12/20
Discussing draft objectives and actions

Webinar 3 – 12/1/21
Exploring potential targets

Webinar 4 – 2/2/21
Discussing the draft

Thanks for listening!