Forestry Commission England

Seeking views on the potential for woodland creation: the Woodland Potential Calculator

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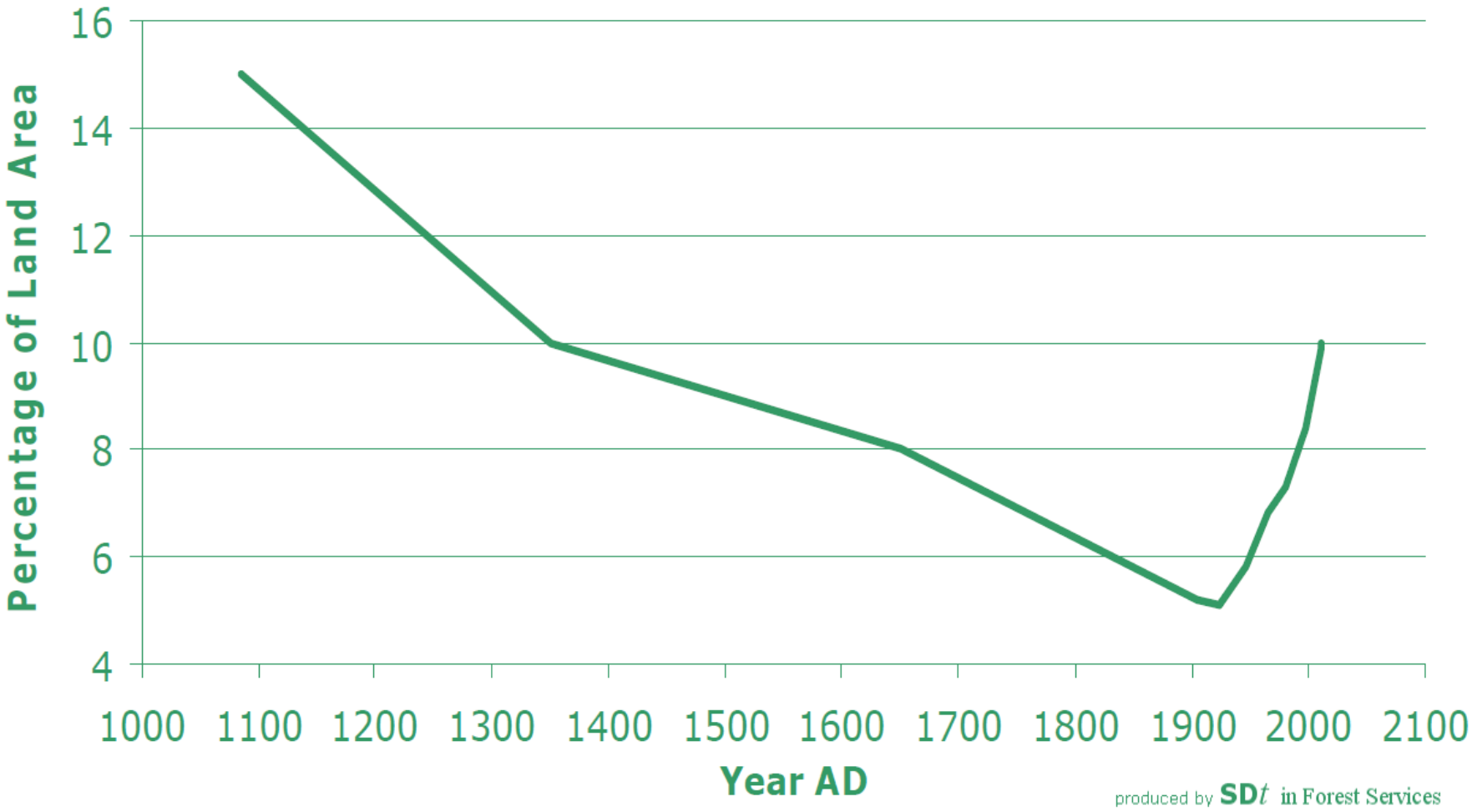
Forestry Commission England

Woodland cover in England over the past millennium



Source: Forestry Statistics

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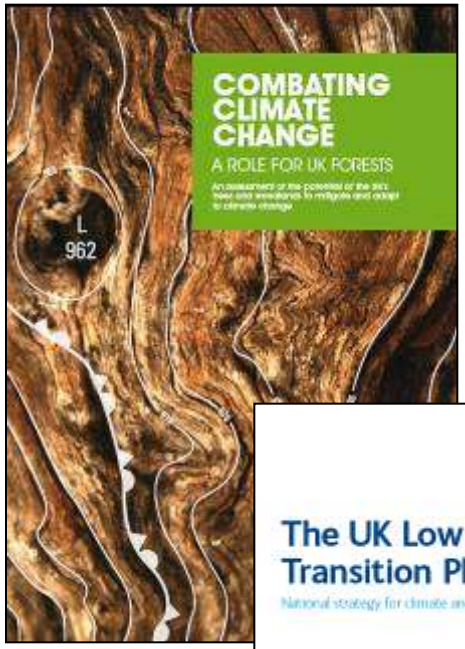
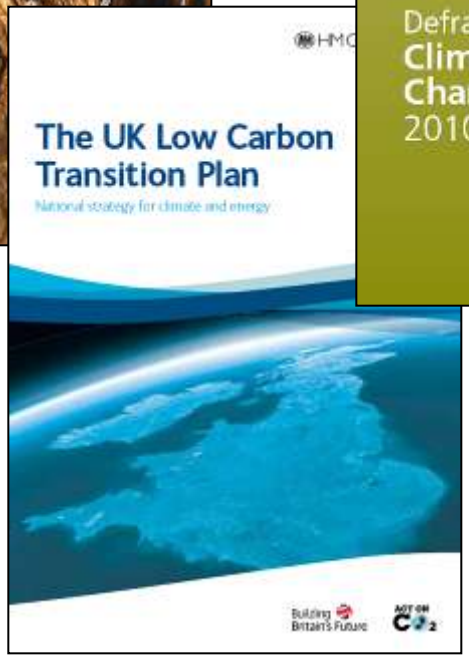
The woodland creation agenda

Nov '09



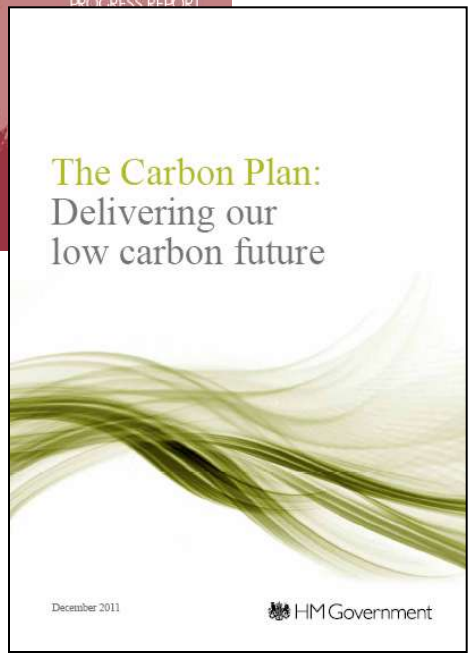
March '10

Dec '11



July '09

July '11

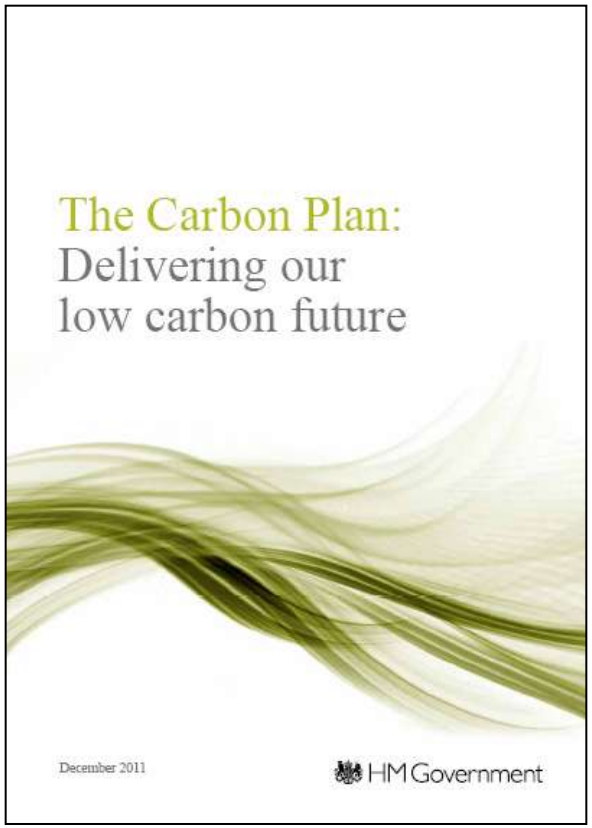


Dec '11

Natural Environment White Paper

The Government welcomes the case that the "Read Report" sets out and has asked the Independent Panel on Forestry to provide advice on an appropriate level of ambition for woodland creation and more active management, the mechanisms and market conditions needed…….

Government's Carbon Plan



Forestry and land management

2.196 The Government is committed to strong support for woodland creation and for bringing more woodland into active management. An independent panel will provide advice to the Government in spring 2012 on the future direction of forestry and woodland policy.[98] The measures outlined in this section are therefore subject to the panel's findings and the Government's response.

2.202 Looking ahead to 2050, current projections indicate that increasing woodland planting to an average of 24,000 hectares per annum across the UK between now and 2050 would increase forest carbon uptake by 7.7 $MtCO_2e$ per annum in 2050, compared with the level which would be achieved by maintaining 2010 planting rates (6,000 hectares per annum).[108]

Independent Panel on Forestry

Recommendation: Government as a priority needs to adopt policies, and encourage new markets, which reflect the value of the ecosystem services provided by woodland. These include carbon storage, flood protection, biodiversity and habitat provision, and

Recommendation: Government to commit to an ambition to sustainably increase England's woodland cover from 10% to 15% by 2060, working with other landowners to create a more wooded landscape.

methodology to account for the full greenhouse gas benefits of using wood and timber products and permit its use as part of carbon accounting. Clear guidance should encourage the use of wood as a sustainable construction and manufacturing material.

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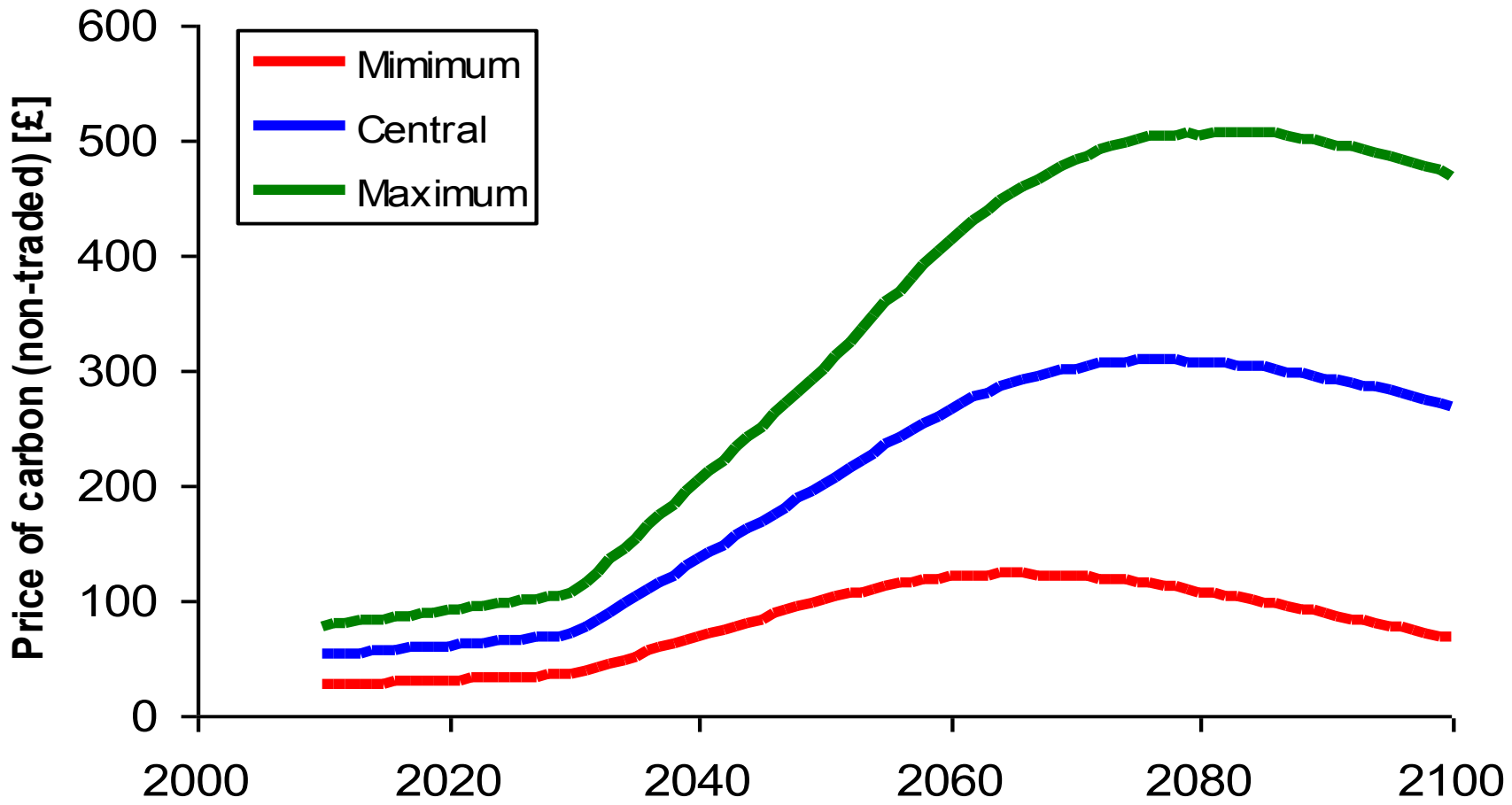
Why woodland creation?

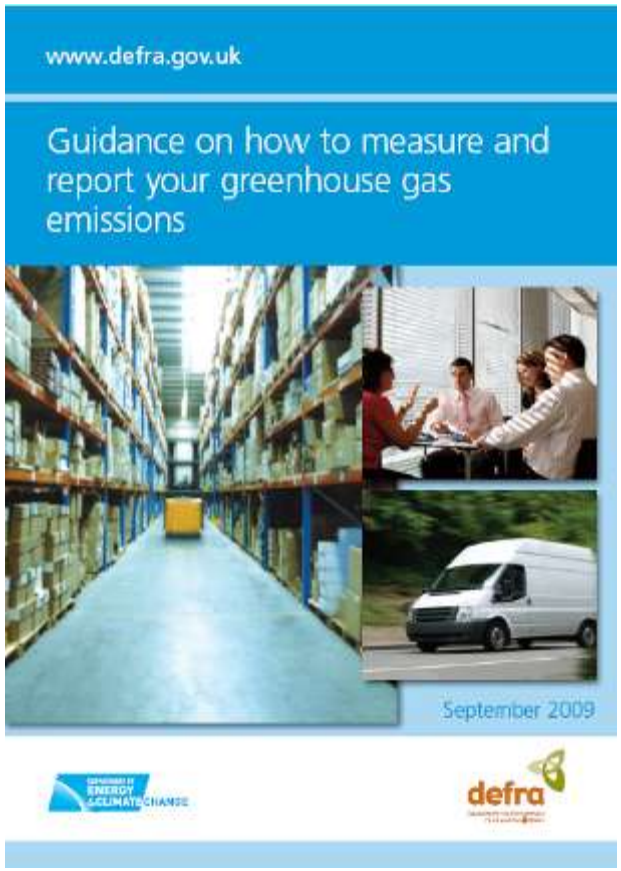


Woodland Carbon Code

Woodland Carbon CO_2de

The Woodland Carbon Code is a voluntary code designed to encourage a consistent approach to Woodland Creation Projects involving carbon statements & claims.

Defra's GHG Reporting Guidelines: 2011



Department for Environment, Food and Rural Affairs

July 2011

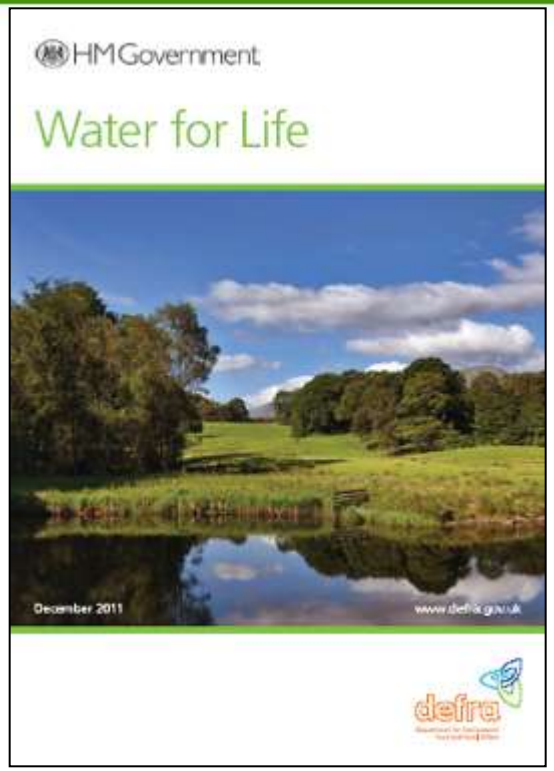
Guidance on reporting greenhouse gas removals and emissions from domestic woodland creation

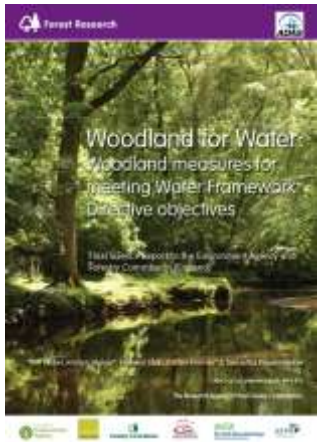
Contents

Greenhouse Gas Emissions Assessment			
	Tonnes of CO_2e		
	2011	2012	Base Year 2010
Scope 1 (direct emissions)	500 t	500 t	500 t
Scope 2 (energy indirect emissions)	1,000 t	1,000 t	1000 t
[Scope 3 (other indirect emissions) – if included] [12]	2,010 t	2,000 t	2050 t
TOTAL GROSS EMISSIONS	**3,510 t**	**3,500 t**	**3,550 t**
Overseas Carbon Offsets [13]	(100 t)	(100 t)	(100 t)
GHG removals from UK Woodland Project [14]	0 t	(100t)	0t
TOTAL ANNUAL NET EMISSIONS	**3,410 t**	**3,300 t**	**3,450 t**

Other agendas: water

- Water Framework Directive;
  - First cycle 2009-2015
  - Second cycle 2015-2021
  - Third cycle 2021-2027
- Risk of infraction proceedings against UK Government;
- Woodland measures absent from first planning cycle
- Evidence provided in 'Woodlands for Water' report;
- Priority in draft Rural Development Regulation;
- Water White Paper.





So…. Strong 'support' for woodland expansion, but….

- How much can be planted?
- When?
- Where can it go?
- Is there enough land?
- What type of woodland?

Constraints to planting

Moderate and poor agricultural land uncon ed from woodland creation

	EE	LON	WM	NWE	NEE	Y&H				Total
Area (kha)										
ALC3	774	15	625	412	307				1209	**5534**
ALC4	63	1	152	198	101			26	303	**1332**
ALC5	1	0	12	33				5	24	**117**
Total	**838**	**16**	**788**	**643**				**1083**	**1536**	**6984**
% land area										
ALC3	40.4	9.4	48.1				52.7	44.8	50.9	**42.5**
ALC4	3.3	0.5	11.7			0.4	8.2	11.9	12.7	**10.2**
ALC5	0.0	0.0				1.0	0.4	0.2	1.0	**0.9**
Total	**43.7**	**9.8**				**44.9**	**61.3**	**56.9**	**64.6**	**53.6**

But free of constraints does not mean available or desirable

Brownfiel veloped) land 450,000 ha

A focus for discussion – the Woodland Potential Calculator

"The Woodland Potential Calculator, which draws on information collated in National Character Area profiles, Ecological Site Classification and other environmental, social and economic data, can help target woodland expansion to achieve the right trees in the right place."

http://www.forestry.gov.uk/england-wpc

Seeking views

- Area of potential woodland creation in each of 159 NCAs
  - Over 50 years
  - Not on the basis of current financial constraints
- What type of woodland
  - On what land type?
- 'Aunt Sally' provided on basis of responses received in the Northwest
  - Five land 'categories'
- 'Consultation' document
- Supporting information packaged in Woodland Potential Calculator
  - Forestry
  - Landscape character summaries
  - Contextual information

Addressing the questions

- Woodland for a reason – not for woodland's sake
- What is the context?
  - economic
  - environmental
  - social
- What can the woodland deliver?
  - timber
  - 'ecosystem services'
  - Habitat
  - Landscape
  - Recreation……
- But all 'landscape' specific




Thinking outside current [economic] constraints

- Timber and woodfuel are likely to be increasingly sought after commodities and this is likely to be reflected in their value;
- Sustainable intensification of agriculture is likely;
- There will be a much larger human population – both globally and in the UK – requiring more timber and more food;
- Agricultural subsidies will change;
- Carbon may become an increasingly 'hard' currency;
- Productive landscapes that promote biodiversity and deliver multiple objectives will be increasingly welcome.
- Agricultural land suitability may decline in some areas.

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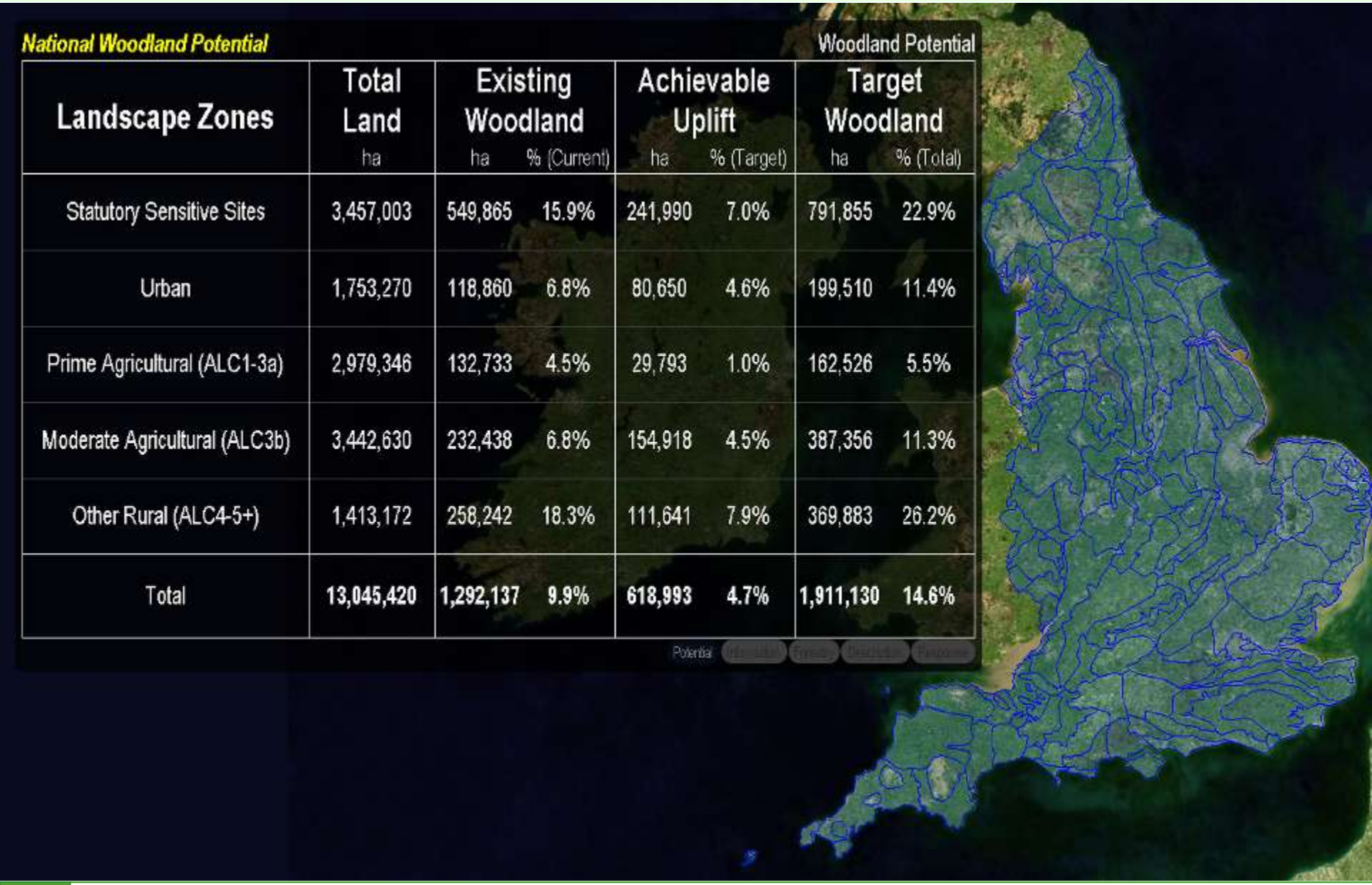
Woodland Potential Calculator

National Woodland Potential

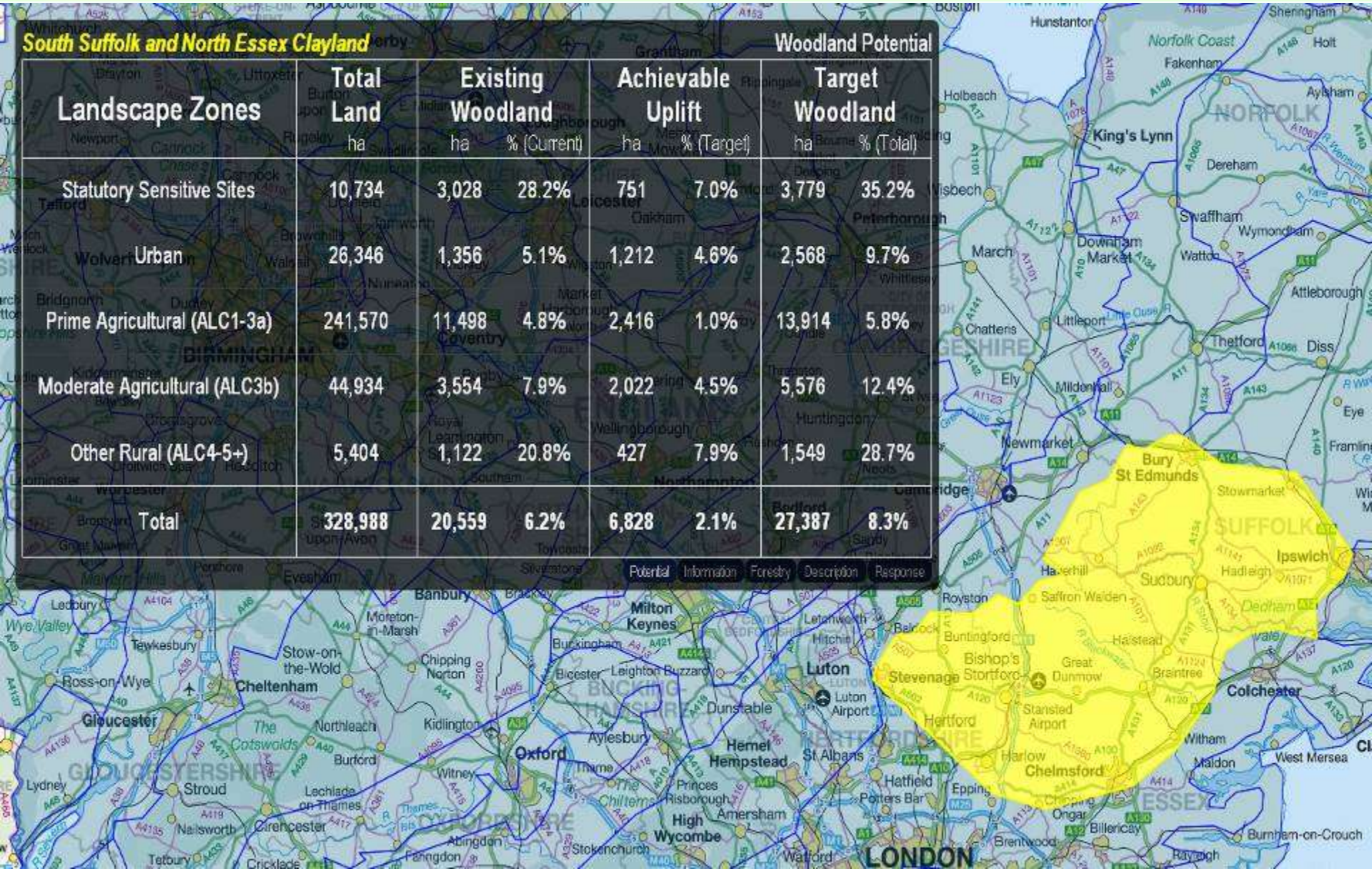
Woodland Potential

Landscape Zones	Total Land ha	Existing Woodland ha	% (Current)	Achievable Uplift ha	% (Target)	Target Woodland ha	% (Total)
Statutory Sensitive Sites	3,457,003	549,865	15.9%	241,990	7.0%	791,855	22.9%
Urban	1,753,270	118,860	6.8%	80,650	4.6%	199,510	11.4%
Prime Agricultural (ALC1-3a)	2,979,346	132,733	4.5%	29,793	1.0%	162,526	5.5%
Moderate Agricultural (ALC3b)	3,442,630	232,438	6.8%	154,918	4.5%	387,356	11.3%
Other Rural (ALC4-5+)	1,413,172	258,242	18.3%	111,641	7.9%	369,883	26.2%
Total	**13,045,420**	**1,292,137**	**9.9%**	**618,993**	**4.7%**	**1,911,130**	**14.6%**



Forestry Commission England

South Suffolk and North Essex Clayland



South Suffolk and North Essex Clayland — Woodland Potential

Landscape Zones	Total Land ha	Existing Woodland ha	Existing Woodland % (Current)	Achievable Uplift ha	Achievable Uplift % (Target)	Target Woodland ha	Target Woodland % (Total)
Statutory Sensitive Sites	10,734	3,028	28.2%	751	7.0%	3,779	35.2%
Urban	26,346	1,356	5.1%	1,212	4.6%	2,568	9.7%
Prime Agricultural (ALC1-3a)	241,570	11,498	4.8%	2,416	1.0%	13,914	5.8%
Moderate Agricultural (ALC3b)	44,934	3,554	7.9%	2,022	4.5%	5,576	12.4%
Other Rural (ALC4-5+)	5,404	1,122	20.8%	427	7.9%	1,549	28.7%
Total	328,988	20,559	6.2%	6,828	2.1%	27,387	8.3%

Potential | Information | Forestry | Description | Response

Land 'quality'

National Woodland Potential — Woodland Potential

Landscape Zones	Total Land ha	Existing Woodland ha	Existing Woodland % (Current)	Achievable Uplift ha	Achievable Uplift % (Target)	Target Woodland ha	Target Woodland % (Total)
Statutory Sensitive Sites	3,457,003	549,865	15.9%	241,990	7.0%	791,855	22.9%
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Potential | Information | Forestry | Description | Response

Land Type

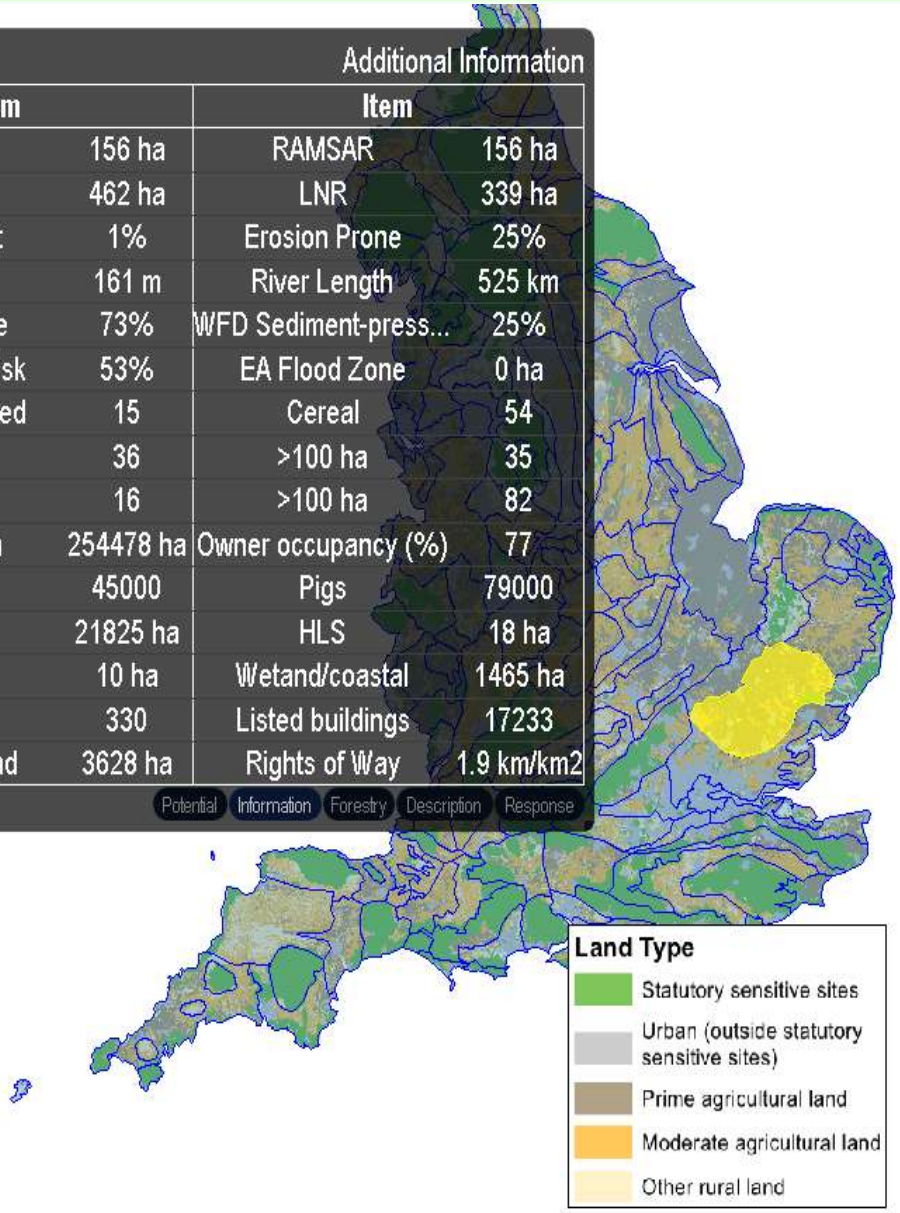
- Statutory sensitive sites
- Urban (outside statutory sensitive sites)
- Prime agricultural land
- Moderate agricultural land
- Other rural land

‘Contextual’ information

South Suffolk and North Essex Clayland — Additional Information

Category	Item		Item		Item	
Designated Sites (1)	SAC	0 ha	SPA	156 ha	RAMSAR	156 ha
Designated Sites (2)	SSSI	2304 ha	NNR	462 ha	LNR	339 ha
Soils	Deep Peat	0%	Shallow Peat	1%	Erosion Prone	25%
Elevation	Low	0 m	High	161 m	River Length	525 km
Water Quality	WFD N-pressure	95%	WFD P-failure	73%	WFD Sediment-press...	25%
Water Supply	NVZ (%)	100	GW resource risk	53%	EA Flood Zone	0 ha
Land use (%)	Cash/root crop	24	Grass/uncropped	15	Cereal	54
Farm Size (% of farms)	<20 ha	29	20-100 ha	36	>100 ha	35
Farm Size (% of land area)	<20 ha	2	20-100 ha	16	>100 ha	82
FarmRural land area	Total area	328988 ha	Farmed area	254478 ha	Owner occupancy (%)	77
Livestock (head)	Cattle	22000	Sheep	45000	Pigs	79000
ES (Area)	ELS	135078 ha	ELS + HLS	21825 ha	HLS	18 ha
BAP habitat	Lowland	462 ha	Upland	10 ha	Wetand/coastal	1465 ha
Historic assets	Parks/gardens	44	SAMs	330	Listed buildings	17233
Access	Population (000s)	873	Accessible land	3628 ha	Rights of Way	1.9 km/km2

Potential | Information | Forestry | Description | Response

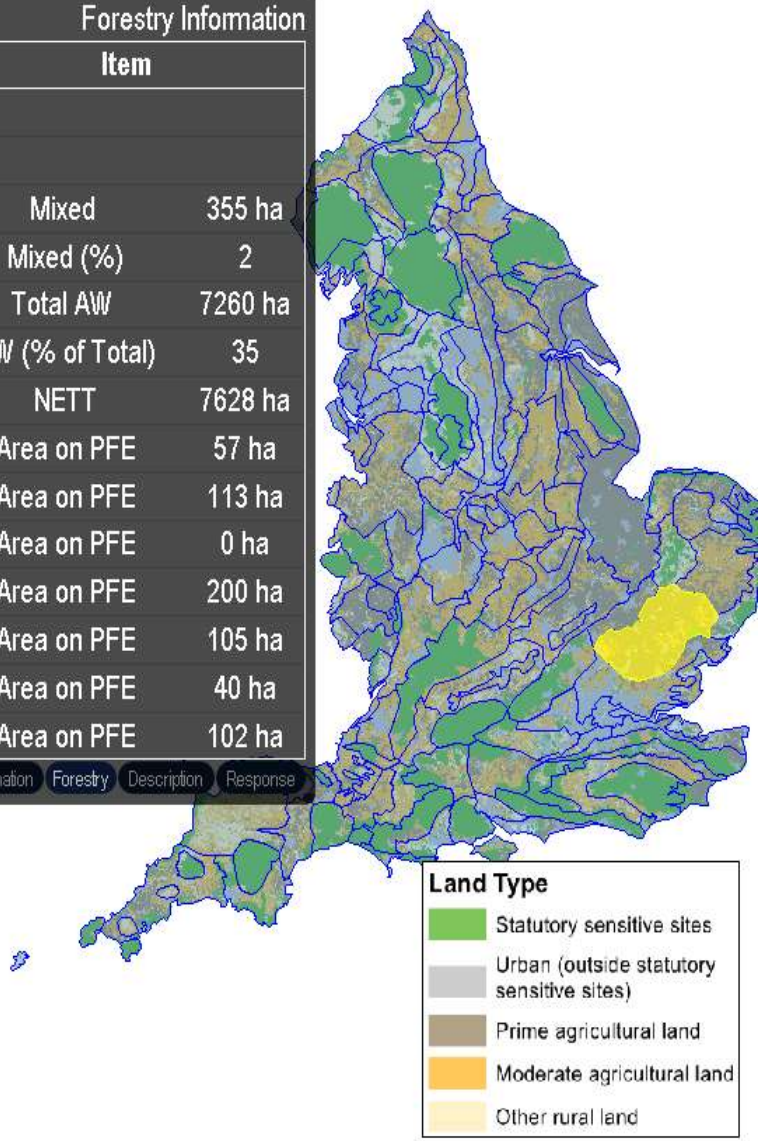


‘Forestry’ information

South Suffolk and North Essex Clayland — Forestry Information

Category	Item		Item		Item	
Woodfuel Boilers	Number of Boilers	36	Installed Capacity	8456 k...		
Forestry Businesses	Sawmills	1	Woodfuel suppliers	5		
Woodland Type	Broadleaf	17108 ha	Conifer	2229 ha	Mixed	355 ha
Woodland Type	Broadleaf (%)	83	Conifer (%)	11	Mixed (%)	2
Ancient Woodland	ASNW	5168 ha	PAWS	2092 ha	Total AW	7260 ha
Ancient Woodland	ASNW (% of AW)	71	PAWS (% of AW)	29	AW (% of Total)	35
Woodland Area Change	Deforestation	1889 ha	Afforestation	9517 ha	NETT	7628 ha
Douglas-fir	YC now	18.8	YC in 2050	14.2	Area on PFE	57 ha
Scots pine	YC now	8.2	YC in 2050	6.3	Area on PFE	113 ha
Sitka spruce	YC now	8.3	YC in 2050	0.7	Area on PFE	0 ha
Oak (pedunculate)	YC now	6.1	YC in 2050	5.8	Area on PFE	200 ha
Beech	YC now	7.0	YC in 2050	4.9	Area on PFE	105 ha
Birch (silver)	YC now	8.0	YC in 2050	4.8	Area on PFE	40 ha
Ash	YC now	7.3	YC in 2051	6.0	Area on PFE	102 ha

Potential | Information | Forestry | Description | Response



South Suffolk and North Essex Clayland

Area Description

Broadly flat, chalky, boulder clay plateau dissected by undulating river valley topography, particularly marked in upper valley reaches, which are much smaller in scale.

Predominantly arable with wooded appearance. Some pasture in valley floors. Irregular field pattern despite rationalization; remnant Ancient Countryside.

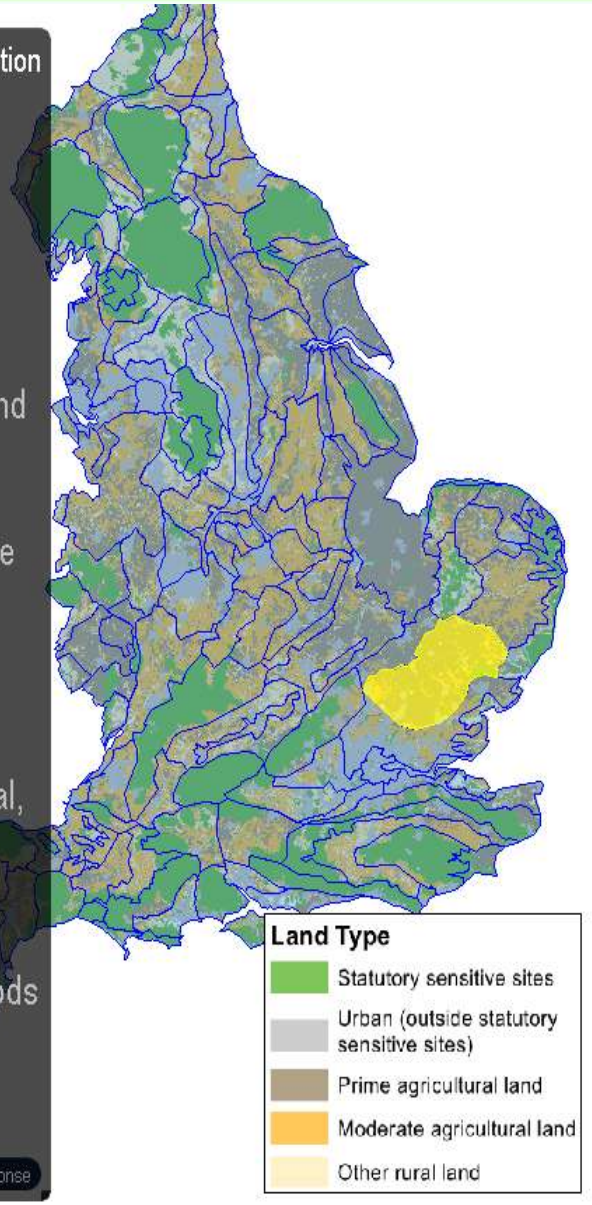
Scattered farmsteads, deep ditches and moats, parishes with scattered, small settlements around tyes or commons or strip greens, with isolated hamlets. Concentration of isolated moated sites.

Timber-framed and colour-washed houses, sometimes faced with Georgian red brick. Impressive churches. Large villages and frequent towns, most with medieval street plans and elaborate timber-frame houses. Rich heritage of barns. Fewer settlements and more 20th century development towards coast, with several large estates.

Cultural association with Constable and tourist honey pot of Dedham Vale. Preserved, archetypal, lowland pastoral, English countryside coupled with attractive vernacular buildings dating from period of industrial wealth.

Hedgerow tree of area is elm - with hornbeam - in Essex. Oak and ash in Suffolk. Few large woods - 20 acres plus, but some ancient coppice woods and typical pattern of copses connected by hedgerow. Trees and woods appear to join together to give wooded skyline, with some bare ridgelines.

Potential | Information | Forestry | Description | Response



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On-line response form

Woodland creation potential (achievable uplift)				
	Land area (ha)	Woodland area (ha)	Uplift	
			Area (ha)	%
Statutory Sensitive sites				
Urban				
Prime agricultural land (ALC1-3a)				
Moderate agricultural land (ALC3b)				
Other rural land (ALC3&4)				
TOTAL				

Please give your views on the type(s) of woodland that would be appropriate for planting within the NCA

☐ Conifer ☐ Native broadleaf ☐ Mixed ☐ Bio-energy plantations

Please give your views (if applicable) on the reasons for woodland expansion within the NCA

☐ Timber production ☐ Woodfuel production ☐ Biodiversity/habitat creation

☐ Recreation/access ☐ Landscape/visual ☐ Carbon sequestration

☐ Climate change adaptation ☐ Water/soil management

Comments: please provide detailed comments (if applicable) on the reasons for your responses above. [Please expand text box, as appropriate]

Next steps

- Hold 'informal consultation';
- Part of Independent Panel 'stakeholder engagement';
  - emerging findings end-October
- Encourage stakeholder bodies to respond
  - NE/EA/EH/LAs/biodiversity partnerships
  - LNPs/LEPs
  - Membership organisations
  - Forestry sector partnerships
  - eNGOs
- Provide FC (and NE) response for each NCA
  - Hold one or two workshops per FC Area in late autumn
  - Discuss 'contentious issues' [and achieve consensus]