

Developing a woodland creation scheme for the Forest of Marston Vale

ABOUT THIS BRIEF

This summary describes a payment scheme designed to provide grants to landowners for planting new woodland in the Forest of Marston Vale area. The scheme, commissioned by the Forest of Marston Vale Trust, establishes the best locations to target and sets payment rates that reflect the public benefits delivered.

Forest of Marston Vale Trust

BACKGROUND

The Forest of Marston Vale is a Community Forest located between Milton Keynes and Bedford and aims to double tree cover over the next 20 years, increasing it to 30%.

The Forest of Marston Vale Trust has received money from Defra's Trees for Climate programme to deliver grants for woodland planting across the 16,000-ha area. To ensure that the funding delivers the best possible returns, this project set out to design a payment scheme to encourage landowners to plant in areas that offer maximum benefits.

This project had three aims:

1. Map the relative importance of different locations for new woodlands to enhance a range of benefits, from air pollution reduction to homes for wildlife
2. Calculate the monetary benefits of new woodlands at different locations
3. Design a financial offer for landowners to plant new woodland, based on the value of the benefits delivered.

SCHEME DESIGN

'Habitat opportunity' maps were created to show where new woodland would provide the most benefits in terms of biodiversity (with a focus on enhancing connectivity), water flow, water quality, air quality, noise, local climate and access to natural greenspace.

The monetary value of these 'ecosystem services' was then calculated using the latest valuation techniques and taking into account the time that it takes for benefits to accrue as new woodland develops. The area was divided into three priority zones for each ecosystem service – sites returning high, medium and lower benefits.

To create the financial offer for landowners, the values of the ecosystem services were summed for each zone and divided by four, giving an ultimate cost:benefit ratio of 1:4. This offer excludes the monetary values of recreation and physical health, as their addition would have exceeded the funding available under the scheme. Instead, if landowners provide footpath access across the site the offer is increased by 50%, and if it has full public access, the offer is doubled.

ZONE	AIR QUALITY	LOCAL CLIMATE	NOISE	WATER FLOW	WATER QUALITY	BIODIVERSITY	RECREATION	PHYSICAL HEALTH
Zone 3	£130	£220	£300	£50	£300	£1,000	£4,400	£2,600
Zone 2	£95	£220	£200	£35	£60	£700	£2,900	£1,700
Zone 1	£75	£20	£20	£20	£60	£350	£1,500	£800

Table showing the annual monetary value of ecosystem services per ha, zone 3 is the highest priority zone. Note that carbon sequestration and timber benefits were not valued, as separate markets already exist for these, and they are not being included in the landowner offer.

For the final offer, therefore, landowners can receive £200, £350, or £500 annually per ha, depending on where the new woodland is situated. This can either be paid every year for 15 years, or given as a lump sum at the start, and a payment to cover the initial capital and early maintenance costs is also provided. Applicants will also be encouraged to apply for additional funding for carbon sequestration. The benefits, values and payment rates have been calculated for each individual field across the study area.

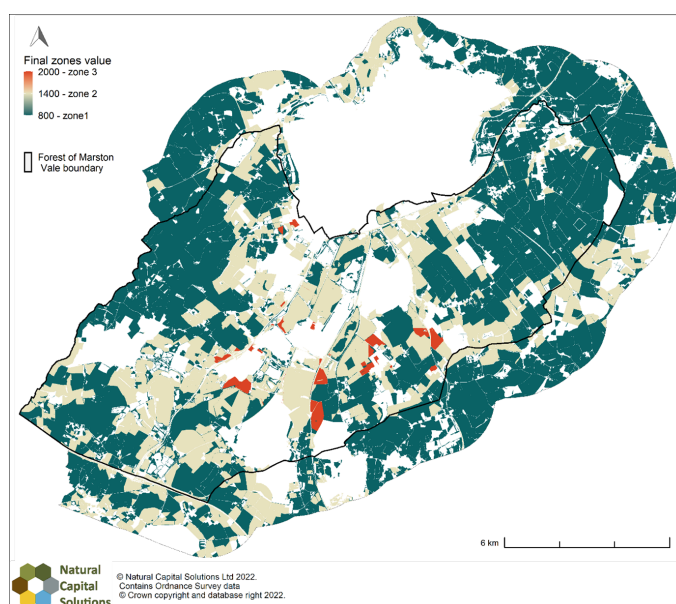
AVAILABILITY OF SITES

Analysis across the Forest of Marston Vale and Bedford area showed that approximately 18,900 ha of land offers opportunities for new woodland creation. Just over 1,800 ha (9.5%) provide the highest levels of public benefits and 7,300 ha (38.6%) provide medium levels of benefits. With the new payment scheme to encourage landowners, this shows that there is ample opportunity to achieve the goal of a varied countryside rich with woodland, and for the benefit of everyone.

FURTHER APPLICATIONS

The Forest of Marston Vale mapping and payment scheme offers several innovations that make it a useful template for future projects.

- It calculates locally specific values, to the level of each field across the area
- It can be used to target woodland creation in areas delivering the greatest combined benefits, or focus on individual aims, such as increasing publicly accessible woodland
- As well as providing evidence for the Trees for Climate scheme, it can be used for identifying sites for biodiversity net gain; developing a nature recovery network and strategy (LNRS); informing the new Environmental Land Management scheme (ELMs); and generating key evidence for natural capital investment plans.



Total benefits (in £ per ha per annum) that would be delivered if woodland was created, for each field across the area. Benefits are grouped into ranges. Blank areas are constrained or unsuitable areas or areas that are already woodland.