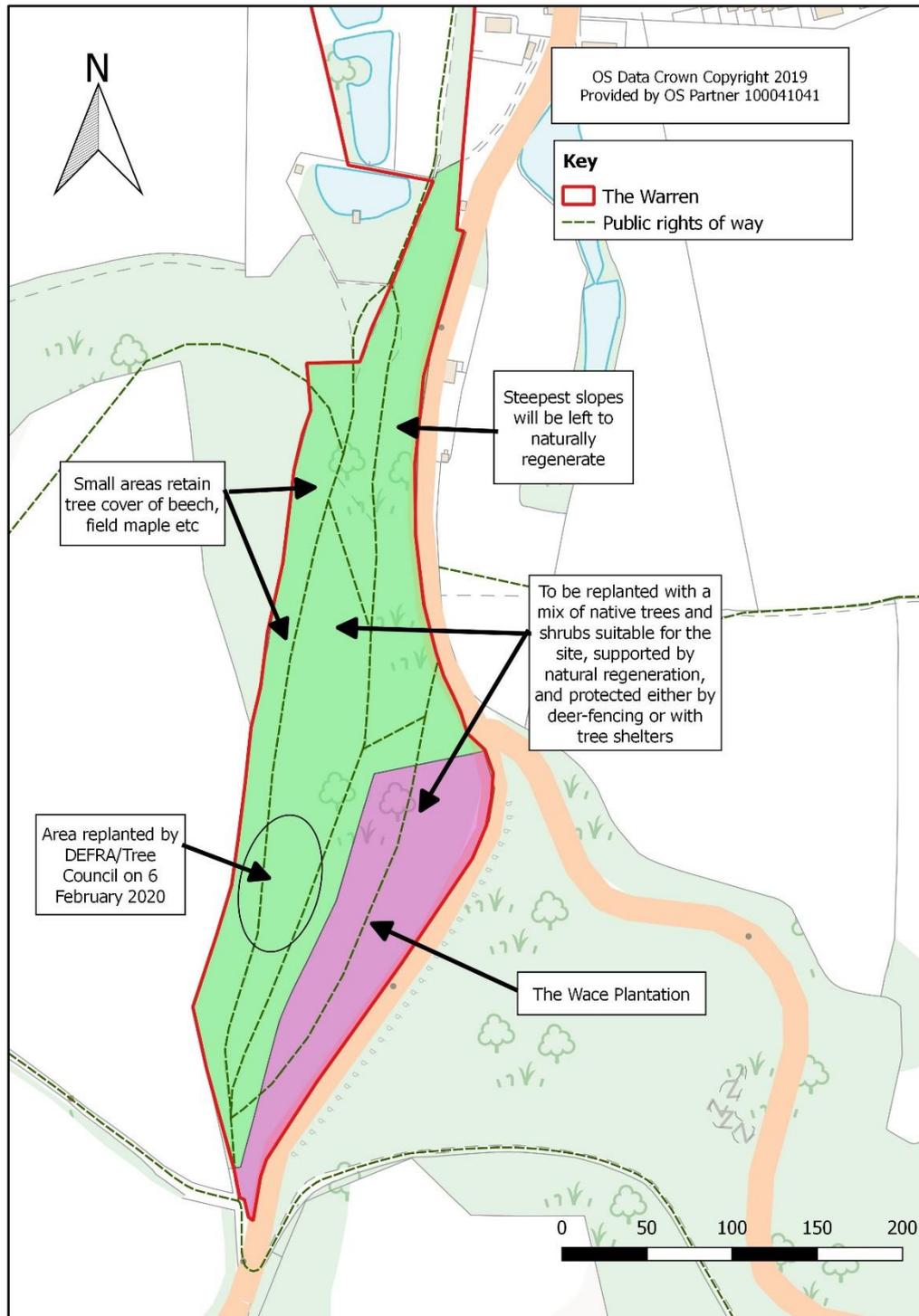




Woodland Restoration Planting Scheme & Budget for The Warren, March 2020

1. The following budget proposal is based on replanting 3.9 ha of The Warren. Although the total area including The Wace is 5.2 ha, 0.3 ha was restocked on 6 February, 0.3 ha (estimated) is on slopes too steep to plant, and 0.7 ha (estimated) retains tree cover.
2. A planting density of 1100 trees per hectare is proposed i.e. an average spacing of 2.5 m. This allows for group planting closely spaced trees and shrubs with gaps between the groups to stimulate natural regeneration to supplement the planting. The restocking conditions in the felling licence include 15% open space (rides and glades).
3. A balance of 80% trees and 20% shrubs is proposed, with a planting mix of beech, field maple, whitebeam, yew, hazel and hawthorn. The shrub proportion could be increased but if beech is to be the dominant tree species, I suggest limiting the shrubs to 20% as they will not grow well under beech.
4. I am aware that the Council is keen to replant in the Wace as well as in the rest of the Warren because there is no greater tree cover there than in any other area. A Woodland Tree Health Restoration (WTHR) Grant would not cover the restocking of The Wace (1.5 ha) because that area was dealt with under a thinning licence which does not have any requirement to replant.
5. At a planting density of 1100 trees per hectare, including 15% open space, using tree shelters for protection, and excluding The Wace, the maximum WTHR grant would only be £5,744.
6. I know there is some unease within the Council regarding both the height and the longevity of the Ezee Tree shelters. For a WTHR Grant, 1.5m high shelters (with stakes at least 25 x 25 mm) are required to protect from fallow deer. A further requirement is that the shelters and guards are effective for 5 years after planting. The Ezee Tree shelters are 1.2m and have a life-time of only about 3 years, after which there might be a need for further protection measures and therefore a potential additional cost .
7. A good, if not better, alternative to tree shelters would be to use deer-fencing to protect the new trees and the natural regeneration. A fence would have a life-time of about 15 years. To fence the whole wood you would need about 1350m of fencing and four sturdy, self-closing gates, one at each footpath entry point. Although shelters would not be needed, you would still require spiral guards and canes to protect the new trees from rabbit and vole damage. The contractor costs would be reduced but I am unable to estimate by how much. If using deer fencing for protection, the WTHR grant would provide £8400.
8. I have therefore given different cost options in the table below:
 - Tubex tree shelters (1.5m tall) and standard spiral guards for the shrubs
 - Ezee Tree shelters and guards: the company is currently developing its 1.2m shelters which are expected to be available for shipping from the EU for the next planting season. The stated prices assume no additional duty on recycled goods following Brexit
 - Only using professional planters
 - Using volunteers for some of the planting
 - Using deer-fencing instead of tree shelters

9. The prices below exclude VAT and delivery charges, but I am aware that VAT can be reclaimed if the Parish Council is given a grant, rather than goods.
10. If deer-fencing is used for protection, no additional tree shelters would be required to protect regeneration, but spiral guards would be needed against rabbits and voles. It is hard to estimate how many guards you will need, but I have put a ball-park costing for 1000 shelters/guards in the table.



Costing Options

Items	Option A Tubex 1.5m shelters (Note 1)	Option B Ezee Tree 1.2m shelters (Note 2)	Option C Tubex + volunteers (Note 3)	Option D Ezee Tree + volunteers (Note 3)	Option E Deer fencing & spiral guards + volunteers
4290 trees and shrubs @ £1.20 per tree (average cost)	£5,148	£5,148	£5,148	£5,148	£5,148
Tree shelters and shrub guards <i>or</i> 4290 spiral guards and canes, if using deer fencing	£7,576	£8,023	£7,576	£8,023	£1,245
Deer fencing @ £9 per metre (inc. erection costs) for 1350m, plus four gates @ £400 each (estimate)					£12,150 £ 1,600
1000 shelters/guards (80%:20%) to protect regeneration (estimate)	£1,765	£1,870	£1,765	£1,870	£290
Example contractor costs based on 180 trees planted per day (24 days @ £175 per day if all planting by done by professionals)	£4,170	£4,170	£2,780	£2,780	£2,780 (tbc)
2 x A1 acrylic board (design and print) @ £500 for first & £100 for second on A1 oak-framed plinths @ £300 each	£1,200	£1,200	£1,200	£1,200	£1,200
Community training event for up to 30 people on tree health and maintenance run by The Tree Council	£500	£500	£500	£500	£500
TOTAL excluding VAT & Delivery (see Note 4)	£20,359	£20,911	£18,969	£19,521	£24,913

Notes

- 3,432 Tubex tree shelters (150cm)¹ and square softwood stakes (1.5m x 32 mm) & 858 'standard' clear 60cm spiral guards with canes. For direct comparison with Ezee Tree shelters, the 120cm Tubex version and equivalently smaller stakes would reduce the cost by £1132.
- 3,432 Ezee Tree 120cm shelters for trees and 858 x 60cm shelters for shrubs with Eucalyptus/bamboo canes
- Allow for some volunteer planting of up to say 33% of the total number of plants, i.e. c. 1430 plants, equivalent to 8 days of professional planting (£1390).
- The Council can reclaim VAT on goods it pays for from monetary grants donated to it for specific purposes, but cannot reclaim on goods donated.

¹ From <https://www.britishhardwood.co.uk/tubex-tree-shelters>. 'Treebio' biodegradable spirals are available for an additional £245 from <https://www.green-tech.co.uk>