

Planting Scheme for the Ellerburn Multi User Trail.



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Introduction.

The Ellerburn Multi User Trail is planned to provide extended access to the Dalby Forest area for members of the public. The development of this trail will involve the establishment of both hedgerows with standard trees and individual field trees.

The proposed planting scheme will use native tree and shrub species and take into consideration species already present and the potential to provide an enhanced awareness of the natural environment through; colour, smell and sensory perception.

I propose the use of native tree and shrub species in order to increase habitat restoration, enhance and improve the landscape and increase biodiversity in both the immediate and wider area. This will be achieved through working with other stakeholders and their support initiatives – eg the North York Moors National Park Authority's Connectivity Project and work being undertaken by Butterfly Conservation in the area.

This proposal recognises the need to carefully consider the short, medium and long-term management requirements in order to add value to the initial project and ensure its long term success



Fence lines

The presence and siting of fences within the Trail project area is fundamental to its success. Traditional thinking on fence lines may need to be challenged and there needs to be a considered investment in getting the lines right, "straight lines do not occur in nature". Therefore I propose a detailed breakdown of the fence line once the route of the Trail has been determined and agreed. Consideration will need to be given to the 'poor' existing fencing along the Dalby Beck and what, if anything, will be required to replace it. Barbed wire will not be appropriate.

Natural changes to the route of the Beck, however minor, will need to be considered in the siting of fences, footpaths and countryside furniture eg. seats.



Hedgerow planting.

I propose planting a hedgerow, with hedgerow trees along the entire length of the Trail with the exception of a short section south of Dalby Meadow Farm - see appendix 1 (map of proposed trail). This will provide a more sheltered walk for visitors, better protection for stock in the adjoining fields, privacy to residents and provide a new hedgerow habitat in the valley.

The line of the hedge could be designed such that it would create small enclosures ideal for seats

The hedges will be planted with predominantly hawthorn (*Crataegus monogyna*) and hazel (*Corylus avellana*). A wide range of additional tree, shrub and climbing species will be incorporated into the hedge to give greater biodiversity and sensory experience. See appendix 2 (proposed planting list).

Hedgerow trees are a significant and fundamental part of this proposal and should be established either through initial planting or by allowing selected individual hedge plants to develop into mature specimens. In time these trees will provide structure, including potential singing posts for birds, while the hedge will provide nesting sites.

Hedgerow management.

I propose that the hedgerow management regime is designed to allow for the greatest possible structural diversity including:

- cut and laid sections adjacent to hay crops to allow for 'airey' conditions,
- taller sections, up to 2.5 metres, to provide privacy close to houses.
- Alder Willow wet woodland to be left unmanaged

As long-term management of the hedge is essential, this design allows for greatest diversity and sensory experience for visitors without being too demanding on resources for future management.

The hedge to the south of Dalby Beck will need to be double-fenced, as the grazier will need access to the area below the hedge and trail.

Management of the hedgerows eg. weeding, beating up (replacement), cut and flail, cut and lay etc will need to be established in an agreed management plan.

Individual Field trees.

The planting of standard trees in some fields would add more structure and complement the existing mature field trees found in the Dalby valley. I propose that all planted field trees are protected with formal wooden tree shelters, designed to allow stock to graze around the base of the tree but without being able to damage them. Although formal in design, these tree shelters would complement the overall rural 'feel' of the area. See appendix 3 (Individual field tree shelters) The price of each tree shelter is approximately £75.00 including labour.

Alder Willow wet woodland.

The area to the south of Dalby Meadow Farm which will not be planted with a hedge includes an oxbow meander, formally a feature of the Dalby Beck, and is particularly wet making the establishment of the hedge and its future management difficult. Within this area there are several old alder (*Alnus glutinosa*) trees. I would suggest that some larger individual trees be planted here, predominantly alder (*Alnus glutinosa*), along with hawthorn (*Crataegus monogyna*) and willow (*Salix caprea*), a species mix characteristic of the local Staindale and Dalby Becks. The planting of this area with trees, that would be allowed to grow to maturity, would provide shade and thus cooler and darker areas, in contrast to the more open hedgerow where - warmth and light would be more evident.

To enhance the visual impact of the oxbow meander the greater part of this feature will be fenced 'into' the adjacent grazing land allowing grazing and thus exposing this interesting feature. Developing this feature further by allowing it to be filled permanently with water should be considered to enhance biodiversity and greater interest for visitors. The trees would need to be individually protected against grazing stock. See appendix 4 (Weld mesh tree guards) The price of each Weld Mesh tree guard is approximately £50.00 including labour

A list of all species, their proposed siting, number required and a unit price in included as appendix 5. Note these prices are as at 7th December 2012.



The sensory trail

To achieve greatest benefit, the sensory trail should provide stimulus for all the senses and stimuli should provide both familiar and challenging experiences. These senses include sight, sound, touch, smell and taste as well as the less obvious sensations: warmth, cool, damp, dry, light and dark.

In order to provide light and warmth, some areas will need to be left open and grassy. Locating the trail close to the Dalby beck will provide the sound of moving water, which will vary at different times of the year. The close proximity of the water will also make the immediate environment feel cool and damp. Overhanging branches of trees will also add to the effect.

The use of native hardwood species in this planting scheme will also provide autumn colour to the area, enhancing the visitor's enjoyment of the trail.

Once established, the hedgerow habitat will provide a food source, nesting sites and singing posts for birds, greatly enhancing the present situation. I would recommend considering establishing both nest boxes and feeding stations close to any seating provided.

This trail planting design fulfils all of these sensory ambitions.

Management of the trail area

To allow for vegetation management within the fenced trail area, access points for small machinery and stock movement will be required. The siting of these access points should be agreed once final management arrangements are in place with the Tenants. These would typically be 2 metre wide gateways. Managing this vegetation ie. cutting and removing, possibly two to three times a year, should be established in an agreed management plan. This cut material will need to be disposed of 'off-site'



Appendix 2

Native Tree and Shrub Specis.

Dog Rose	<i>Rosa canina</i>
Hawthorn	<i>Crateagus monogyna</i>
Blackthorn	<i>Prunus spinosa</i>
Hazel	<i>Coryllus avalana</i>
Willow	<i>Salix caprea</i>
Alder	<i>Alnus glutinosus</i>
Crab Apple	<i>Malus sylvestris</i>
Sycamore	<i>Acer pseudoplatanus</i>
Guelder Rose	<i>Viburnum oppulus</i>
Ash	<i>Fraxinus excelsior*</i>
Oak	<i>Quercus robur</i>
Elder	<i>Sambucus nigra</i>
Holly	<i>Ilex aquifolium</i>
Field Maple	<i>Acer campestre</i>
Honey Suckle	<i>Lonicera periclymenum</i>
Alder Buckthorn	<i>Frangula alnus</i>



- At the present time Ash *Fraxinus excelsior* cannot be purchased from nurseries due to "Ash Dieback" disease. I would therefore suggest that young local saplings from the immediate area be collected as a source of these trees.

Appendix 3 Individual field tree shelters



Materials cutting list

All timber tandalised, rough sawn.

4 off - 90mm x 40mm x 1170mm

4 off - 90mm x 40mm x 1090mm

4 off – 90mm x 40mm x 1040mm

4 off – 80mm x 80mm x 2290mm

Standard sheep netting

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Welded Mesh Tree Guard

Protection against deer, sheep, cattle* and horses*

Materials

Galvanised welded steel mesh 1.8m high by 2.5m long to form tube 0.75m diameter

Mesh size 25mm x 75mm

3 x 1.8m x 75mm Preservative treated machine rounded posts

Tanalised rails for cross bracing

1.0m² Mulch mat

1.2m tree shelter (translucent or mesh allows for tree inspection)

1.5m x 32 x 32mm (or larger) Preservative treated tree shelter stake

4.0mm galvanised staples (approx 16)

100mm galvanised nails (approx 12)

Ring fasteners or nylon ties to join mesh above posts

Method

Important to select or create near level site of >0.8m diameter. Usually best to create pilot holes for posts first then stake and plant tree, lay mulch mat and drive posts through mat.

Erect tree shelter if required, add braces if required.

Staple mesh on the outside of the stakes and overlap the mesh at one of the posts. Do not drive home staples fully as tree replacement requires opening out of guard. Avoid leaving large gap between guard and ground.

Mesh can have one rough end this should be on the bottom to protect livestock and particularly horses that may rub against the top.

Tuck edges of mat as required into ground with spade.

For some horses and cattle the guards may require on-going maintenance as they can distort the mesh if they really want to. Experience to date has been positive with only a very small number of failures.

Appendix 5

Unit price list

Species	Number of Plants	Unit Price	Total Price	Comments
Hawthorn	4,000	16p	£640.00	Approximately 5 plants to be selected as hedgerow trees in the future
Hazel	4,200	25p	£1,050.00	
Oak	700	22p	£154.00	Approximately 10 plants to be selected as hedgerow trees in the future
Holly Hedgerow Plant	502	£1.35	£677.70	Approximately 8 plants to be selected as hedgerow plants in the future
Holly Field Tree	2	£10.00	£20.00	
Field Maple Hedgerow Plant	502	18p	£90.36	Approximately 6 plants to be selected as Hedgerow trees in the future.
Field Maple Field tree	2	£3.70	£7.40	
Guelder Rose	40	18p	£7.20	
Sycamore Hedgerow Plant	42	18p	£7.56	
Sycamore Field Tree	2	£4.50	£9.00	
Crab Apple Hedgerow Plant	11	25p	£2.75	Approximately 3 plants to be identified as hedgerow trees in the future
Crab Apple Field Tree	1	£3.75	£3.75	
Willow	600	25p	£150.00	
Blackthorn	800	17p	£136.00	
Alder Buckthorn	50	18p	£9.00	To be grouped to give greatest potential for Brimstone Butterfly
Alder	100	18p	£180.00	
Elder	30	35p	£10.50	Not a typical hedgerow plant, but important as a food source for birds.
Dog Rose	30	18p	£5.40	To be scattered throughout the hedges, providing structure within the hedge
Honeysuckle	30	95p	£28.50	To be scattered throughout the hedges, providing structure within the hedge
Ash	50			Young saplings to be collected from the local area.
Total	11,694		£3,189.12	Approximately 3 to be identified as hedgerow trees in the future

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