



### LEGEND

- Emongate Wildflower grassland EM3 Special General Purpose Meadow Mix
- Proposed Mitigation Woodland
- Proposed Biodiversity Woodland
- Proposed Community Orchard
- Heavy standard trees
- Proposed Native Hedgerow
- Gapping up of riverside vegetation
- Gapping up of internal hedgerows
- Solar panels - area beneath to receive ryegrass/clover mix, Permanent Grass from Cotswold Grass Seeds
- Proposed ponds

### Specification

**Decomposition:**  
All soft landscaped areas that have received vehicle movement to be decomposed to a depth of:  
→ 650mm-1000mm depth to shrub and tree planted areas  
Decompect in the form of mechanical means of ripping in two directions

**Standard and Orchard Tree Planting:** Tree pits to be at a minimum 150mm greater in width and depth than the diameter of the rootball. Bottom of pit to be rippedback up to a depth of 200mm to facilitate drainage prior to being backfilled with site won topsoil/tree ameliorant mix (1 part Topgrow Planting Compost by M&Court to 4 parts topsoil).

Trees to be secured with 100mm diameter pressure treated softwood stakes (driven into the ground diagonally so as to not damage the rootball) and adjustable rubber tie. Stakes to protrude no more than 750mm above ground level in order to encourage sideways movement of trees to ensure adequate root development. 1m diameter, 15mm deep layer of weathered woodchip collar to be placed around the trees to keep weed free.

Where possible plant heavy standard trees as close to existing hedgerow as possible without damaging existing roots as well as within new hedgerow.

**Native Shrubs/Tree mix:** Ground decompacked as above. Transplants to be not planted in same species groups of 5 to 11 at 2m centres. Transplants are to be protected against rabbits / wind with 750mm high Tubes T2D 3Y Degradable Shelters with 73mm diameter. To be installed in accordance with suppliers recommendations. Available from Fibrewet Geosynthetics Ltd, Blackwater Trading Estate, The Causeway, Madding, CR9 6GG; 1 (01825) 934201.

**Native Hedgerows:** Ground to be thoroughly decompacked as above. Transplants to be planted in trenches in double staggered row at 7 plants per linear metre in 750mm wide strip covered with 75mm deep layer of weathered woodchip mulch. Transplants to be protected against wind and rabbit damage as per native shrubs/tree mix. Hedgerows to be maintained at a height of 2-5-3m biannually, to achieve overall width of 0.75-1m.

**Wildflower Seeding:**  
Seeded areas: Ground decompacked as above.  
Preparation of all seeded areas:  
→ 650mm-1000mm depth to shrub and tree planted areas  
Decompect in the form of mechanical means of ripping in two directions

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**Seeded areas:**  
First cut to be undertaken when grass reaches 100mm high and is dry. Height of first cut 50mm. If Autumn sown avoid cutting in spring and early summer. Remove Dock and nettle.

**Ongoing Maintenance:**  
Native shrub/screening areas: 300mm diameter circles around each transplant are to be kept weed free with mulching or hand dig where possible. Herbicide spraying to be kept to a minimum. After 12 months the back mulch is to be topped up in order to maintain a minimum depth of 50mm.

**Hedgerows:** To be managed biannually at a height of 3m, and a depth of 1m, in rectangular form, once in May and once in Autumn. Arisings to be removed. Rotation every 3 years if of hedges to be uncult in Autumn to allow for winter food crops for birds.

**Wildflower meadow:** to be cut late summer (August) (not corn burning mix) when a period of dry weather is expected, arisings to be left, baled and baled as appropriate. An additional cut can be undertaken in early spring if required. All arisings to be removed.

**Sheep grazing:** of fenced solar panel area to manage the grassland to base of panels. Rotational grazing on a monthly basis to achieve good sward, with periods of fallow. Grazing to cease in winter months.

**Watering:** to continue for first 5 years or until plants are established. Beyond 5 years should there be a period of prolonged drought, trees, shrubs and hedgerows to be watered to avoid significant losses.

**Any plant failures:** within the first 5 years to be replaced of the same size and specification and to be managed as per the first 5 years. Reason for failure to be noted and rectified for future plant success.

**Native Internal Field Hedgerow - Gapping up**

Species name	Common name	% Mix	Height	Rootzone	Spec	Density	Total Number
Corylus avellana	Hazel	10	60-90	BR	1-1 branched	2/m in double staggered row	492
Crataegus monogyna	Hawthorn	40	60-90	BR	1-1 branched	2/m in double staggered row	1024
Prunus spinosa	Blackthorn	35	60-90	BR	1-1 branched	2/m in double staggered row	960
Rosa canina	Dog rose	2	60-90	BR	1-1 branched	2/m in double staggered row	56
Sambucus nigra	Elder	5	60-90	BR	1-1 branched	2/m in double staggered row	112

**Native River Hedgerow - Gapping up**

Species name	Common name	% Mix	Height	Rootzone	Spec	Density	Total Number
Alnus glutinosa	Alder	25	60-90	BR	1-1 branched	2/m	178
Betula pendula	Silver Birch	10	60-90	BR	1-1 branched	2/m	72
Crataegus monogyna	Hawthorn	10	60-90	BR	1-1 branched	2/m	72
Quercus robur	English Oak	5	60-90	BR	1-1 branched	2/m	37
Salix caprea	Goat willow	25	60-90	BR	1-1 branched	2/m	178
Salix fragilis	Crack willow	25	60-90	BR	1-1 branched	2/m	178

**Native Fence Boundary Hedgerow**

Species name	Common name	% Mix	Height	Rootzone	Spec	Density	Total Number
Corylus avellana	Hazel	10	60-90	BR	1-1 branched	2/m in double staggered row	483
Crataegus monogyna	Hawthorn	40	60-90	BR	1-1 branched	2/m in double staggered row	1026
Lonchocarpus	Horsetail	5	60-90	BR	1-1 branched	2/m in double staggered row	243
Prunus spinosa	Blackthorn	35	60-90	BR	1-1 branched	2/m in double staggered row	1682
Rosa canina	Dog rose	5	60-90	BR	1-1 branched	2/m in double staggered row	243
Sambucus nigra	Elder	5	60-90	BR	1-1 branched	2/m in double staggered row	243

All plants to be not planted and protected with Biodegradable rabbit guard

**Mitigation Native Tree & Shrub Planting**

Species name	Common name	% Mix	Height	Rootzone	Spec	Density	Total Number
Acer campestre	Field maple	20	80-100	BR	1-1 branched	2m centres	90
Alnus glutinosa	Alder	5	80-100	BR	1-1 branched	2m centres	210
Betula pendula	Silver Birch	15	80-100	BR	1-1 branched	2m centres	270
Corylus avellana	Hazel	5	80-100	BR	1-1 branched	2m centres	210
Ilex aquifolium	Holly	6	60-90	3L pot	Leader with laterals	2m centres	252
Prunus avium	Wild cherry	5	80-100	BR	1-1 branched	2m centres	210
Prunus padus	Bird cherry	10	80-100	BR	1-1 branched	2m centres	420
Prunus spinosa	Blackthorn	30	80-100	BR	1-1 branched	2m centres	1260
Quercus ilex	holm oak	7	80-100	BR	1-1 branched	2m centres	315
Quercus robur	English Oak	8	80-100	BR	1-1 branched	2m centres	360
Sorbus aucuparia	Rowan	9	80-100	BR	1-1 branched	2m centres	450
Viburnum opulus	Guelder Rose	2	80-100	BR	1-1 branched	2m centres	105

**Biodiversity Native Tree & Shrub Planting**

Species name	Common name	% Mix	Height	Rootzone	Spec	Density	Total Number
Acer campestre	Field maple	15	80-100	BR	1-1 branched	2m centres	1125
Alnus glutinosa	Alder	1	80-100	BR	1-1 branched	2m centres	360
Betula pendula	Silver Birch	13	80-100	BR	1-1 branched	2m centres	900
Corylus avellana	Hazel	10	80-100	BR	1-1 branched	2m centres	720
Crataegus monogyna	Hawthorn	10	80-100	BR	1-1 branched	2m centres	720
Ilex aquifolium	Holly	1	60-90	3L pot	Leader with laterals	2m centres	70
Prunus avium	Wild cherry	5	80-100	BR	1-1 branched	2m centres	315
Prunus padus	Bird cherry	5	80-100	BR	1-1 branched	2m centres	315
Quercus robur	English Oak	35	80-100	BR	1-1 branched	2m centres	2520
Sorbus aucuparia	Rowan	5	80-100	BR	1-1 branched	2m centres	1575

All trees and shrubs to be not planted and protected with Biodegradable rabbit guard

**Seedling Trees**

Species Name	Common Name	Specification	Rootzone	Number
Acer campestre	Field Maple	3.0-3.5m, 10-12 Select Standard	R8	9
Quercus robur	English Oak	3.0-3.5m, 10-12 Select Standard	R8	21

Planted in locations identified. Staked with biodegradable rabbit guards to each tree.

**Orchard Trees**

Species Name	Common Name	Specification	Rootzone	Number
Apple Ballerina Samba	Apple	MM106, Feathered 3m	C7B	12
Apple Bramley Seedling	Apple	MM106, Feathered 2m	C7B	12
Apple Discovery	Apple	MM106, Feathered 2m	C7B	12
Apple Fiesta	Apple	MM106, Feathered 2m	C7B	12
Apple Meridian	Apple	MM106, Feathered 2m	C7B	12
Apple Red Devil	Apple	MM106, Feathered 2m	C7B	12
Cherry Penny	Cherry	Colt Rootstock, 2m	C7B	10
Cherry Anne's Heart	Cherry	Colt Rootstock, 2m	C7B	10
Cherry Merlot	Cherry	Colt Rootstock, 2m	C7B	10
Cherry Waterloo	Cherry	Colt Rootstock, 2m	C7B	10
Quince A, 2m	Pear	Quince A, 2m	C7B	8
Pear Conference	Pear	Quince A, 2m	C7B	8
Pear Merlot	Pear	Quince A, 2m	C7B	8
Pear Williams Bon Christen	Pear	Quince A, 2m	C7B	8
Plum Guinevere	Damson	St Illium, 2m	C7B	12
Plum Victoria	Victoria Plum	St Illium, 2m	C7B	12

Planted in 5m Grid Centre locations identified. Staked with biodegradable rabbit guards to each tree

Client: Statkraft UK

Project: Sheepwash Solar Energy Farm, Marden

Drawing Title: Proposed Mitigation, Landscape & Ecology enhancements

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