

EAST DUNBARTONSHIRE
RIPARIAN PLANTING PROJECT
TREE PLANTING PLAN

BUCHLEY FARM

for and on behalf of:
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WOODLAND DESIGN AND MANAGEMENT
CONSERVATION AND ARBORICULTURE

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Appendix: Planting Proposals Map

1 Introduction

The East Dunbartonshire Riparian Planting Project (EDRPP) is focussing on the potential expansion and management of existing riparian woodlands to create and improve habitat networks. The project is guided by a steering group comprising Central Scotland Forest Trust (CSFT), East Dunbartonshire Council and Glasgow & Clyde Valley Green Network Partnership.

Three broad sites of interest were selected for the project by the project steering group, using the Glasgow and Clyde Valley Integrated Habitat Network tool:

- Allander Water near Milngavie (from NS259735 to NS580718);
- Luggie Water near Kirkintilloch (from NS677731 to NS705725); and
- Campsie Fells, above Spouthead Farm, Milton of Campsie (from NS653779 north).

The Project was been split into two phases of work: Site Assessment, and Development of Proposals. This report refers to the Development of Proposals stage of works, and sets out the plans and costs for woodland establishment on Buchley Farm. This Plan is one of two such plans being produced for holdings identified in the Site Assessment Report as willing to participate in the project.

This Tree Planting Plan refers to Buchley Farm, located 1km north-west of Bishopbriggs. The grid reference of the farm is NS 591 722.

The land owner details are:

JT and C Owen
Buchley Farm
Buchley
Bishopbriggs
G64 3QN

Tel: 0141 – 772 7104
07780 – 703 081

2 Description

The river-side land at Buchley farm is improved grassland and lies outwith the Less Favoured Area.

The land lies to the south and east of the River Kelvin. The landform is generally level adjacent to the river (40m above sea level), rising with a moderate slope towards the eastern end where it levels out at around 50m above sea level. Adjacent to the southern end of the site the land is subject to seasonal flooding.

The land is currently grazed, with the exception of the river-side field at the eastern end of the holding which is ungrazed due to water-logging. A single continuous bund lines the river as a flood defence and varies in distance from the edge of the river, up to 20m. Soils are brown earths. The land has been drained.

The riverbank is stable in most places and comprises a shallow to moderate slope down to the river. However on the outside corner of bends in the river the banks tend to be subject to erosion, most notably east of the Allander Water confluence. At this point erosion has caused the riverbank to recede within 2m of the bund, having washed away an estimated 5 – 10m width of land.

Existing woodland is located on neighbouring land to the east of the site and as a small block at the far west of the site. Young riparian woodland has been established on the western banks of the River Kelvin, south of the Allander Water confluence.

The planting site is largely hidden from public sight, although distant views of the eastern section of the site can be seen from the A867.

There are no other hydrological features within the proposed planting area.

Stock have free access to the water at present, along the full length of river frontage.

Three powerlines cross the site, two of which are pylon lines and one on wooden poles. A pipe bridge crosses the River Kelvin.

Although deer were not observed on site, their tracks were noted along the riverbanks.

It is suspected there may be an otter holt on the southern riverbank, toward the east of the site.

A stand of Japanese knotweed is located at the eastern end of the site.

No archaeological features are known of within the proposed planting areas.

The riverside is designated in the Local Plan as a Wildlife Corridor, while a Site of Importance to Nature Conservation (SINC) is located immediately north of the target site.

The farm is IACS registered.

3 Aims of Management

The aim of management is to establish and maintain riparian woodlands to:

- diversify the habitats present in the local landscape;
- increase the biodiversity of the area;
- stabilise river banks;
- provide connections with other habitats in the wider landscape;
- mitigate against climate change;
- contribute to the Central Scotland Forest and the Green Network.

4 General Prescription

Woodland will take the form of linear strips following watercourses and field boundaries. The width of these strips will be up to 23m, limited to the land-ward edge of the bunds. A single area to the west of the pipe bridge extends 60m into the field, again delineated by the location of bunds.

Riparian compartments will be planted with a riparian tree species mixture, typically favouring ash, alder and willows and will include an under-storey component of hazel, rowan, gean and birch. All trees will be planted at 1100 stems/ha (3m centres). No ground preparation will be required. The design incorporates 25% of the total area as open ground, some of which is utilised as way-leaves below overhead powerlines.

Trees will be protected from livestock with rylock stock fencing with three line wires and topped with barbed wire (as agreed with the land owner). Wayleaves will be maintained below overhead powerlines. Protection against deer will be afforded by 1.2m tubes.

A provision is allowed for the treatment of Japanese knotweed. Treatment using application of glyphosate will only be undertaken if there is evidence of stand expansion, and in consultation with SNH/SEPA.

Detailed prescriptions are given in Sections 7 to 12.

5 Weeding and Maintenance

Weeds can slow down tree growth by competing with young trees for water, light and nutrients. They also harbour small mammal pests such as mice and voles, and can induce mildew on some species. In some cases the physical weight of weeds can damage trees particularly after heavy snowfall. For these reasons effective weed control is vital to ensure good establishment of the young trees.

Grass will be the main weed species and will be treated with a residual herbicide at the time of planting (or glyphosate if planted in late Spring) and with a systemic herbicide in the summer, during the following five years. Broadleaved weeds usually invade the 1m diameter grass free areas created around each tree will be controlled by the second herbicide application in summer. Noxious weeds, such as Japanese knotweed, may need separate control.

A site visit during late summer after planting is required in order to carry out a survival inspection. This is known as a beating up assessment and allows the exact number of trees to be ordered for replacement planting in the autumn. However, we usually expect over 90% plus survival for broadleaves when no replanting is considered necessary. The survival of pine can be more variable.

Site inspection visits for the first five years after planting help to ensure proper establishment. Tree growth, replacement planting, mammal activity, weeding requirements and maintenance are all monitored on a regular basis.

Sometimes voles can gain access into the tree tubes and nibble bark which can be a problem.

6 Detailed Prescription Cmpt 1

FID No. To follow

Area: Total area: 1.30ha
Less OG: 0.19ha
Planting area: 1.11ha

Description: Grazed field to east of pipe bridge, incorporating ungrazed field.

NVC: Species choice based on W7 – alder-ash woodland.

Prescription: Erect new stock fence as shown on Planting Proposals map – 660m.
Plant mixed broadleaves as per Planting Proposals map.
Control Japanese knotweed. – Provisional, if stand expands.

Tree Numbers: 1.11ha @ 1100 trees/ha = 1,221, round to 1,225 trees to plant

Ash	25%	350
Common alder	25%	325
Birch	10%	125
Goat willow	10%	125
Osier	5%	50
Crack willow	5%	50
Oak	5%	50
Gean	5%	50
Hazel	5%	50
Rowan	<u>5%</u>	<u>50</u>
	<u>100%</u>	<u>1,225</u>

Design: Hazel, gean and rowan to be planted in groups of three on land-ward edges of the compartment.

Willows and alders to be concentrated (but not exclusively) on the river-side edge of the compartment.

All trees to be protected in 1.2m tubes at 3m centres.

7 Detailed Prescription Cmpt 2

FID No. To follow

Area: Total area: 2.66ha
Less OG: 0.80ha
Planting area: 1.86ha

Description: Grazed fields to west of pipe bridge, extending down to existing block of birch woodland at south of holding .

NVC: Species choice based on W7 – alder-ash woodland.

Prescription: Erect new stock fence as shown on Planting Proposals map – 1200m.
Plant mixed broadleaves as per Planting Proposals map

Tree Numbers: 1.86ha @ 1100 trees/ha = 2,046, round to 2,050 trees to plant

Ash	25%	550
Common alder	25%	500
Birch	10%	200
Goat willow	10%	200
Osier	5%	100
Crack willow	5%	100
Oak	5%	100
Gean	5%	100
Hazel	5%	100
Rowan	<u>5%</u>	<u>100</u>
	<u>100%</u>	<u>2,050</u>

Design: Hazel, gean and rowan to be planted in groups of three on land-ward edges of the compartment.

Willows and alders to be concentrated (but not exclusively) on the river-side edge of the compartment.

All trees to be protected in 1.2m tubes at 3m centres.

8 Summary of Trees and Fencing

Species	Cmpt 1	Cmpt 2	Total
Oak	50	100	150
Ash	350	550	900
Common alder	325	500	825
Birch	125	200	325
Goat willow	125	200	325
Osier	50	100	150
Crack willow	50	100	150
Gean	50	100	150
Hazel	50	100	150
Rowan	50	100	150
Total	1225	2050	3275

Fencing

Cmpt 1: 660m
Cmpt 2: 1200m
Total: 1860m

9 Costs

Year 1

To mark out planting sites	£ 384
To supply and construct stock fencing, 1,860m @ £4.77/m	£ 8,872
To supply and install field gate, 2 no. @ £164 each	£ 328
To supply, plant, stake and tube transplants, 3275 no. @ £2.85 ea.	£ 9,334
To supply and apply winter herbicide (propryzamide), 3275 no. @ 7p ea	£ 229
To supply and apply summer herbicide (glyphosate), 3275 no. @ 6p ea	£ 197
To supply and apply herbicide for Japanese knotweed, allowance	£ 618
Site visits to assess tree growth and health, weed and pest control	<u>£ 192</u>
	<u>£20,154</u>

Year 2

To replace failed plants, allowance	£ 425
To supply and apply winter herbicide (propryzamide), 3275 no. @ 7p ea	£ 229
To supply and apply summer herbicide (glyphosate), 3275 no. @ 6p ea	£ 197
To supply and apply herbicide for Japanese knotweed, allowance	£ 618
Site visits to assess tree growth and health, weed and pest control	<u>£ 192</u>
	<u>£ 1,661</u>

Year 3

To replace failed plants, allowance	£ 212
To supply and apply winter herbicide (propryzamide), 3275 no. @ 7p ea	£ 229
To supply and apply summer herbicide (glyphosate), 3275 no. @ 6p ea	£ 197
To supply and apply herbicide for Japanese knotweed, allowance	£ 618
Site visits to assess tree growth and health, weed and pest control	<u>£ 192</u>
	<u>£ 1,448</u>

Year 4

To supply and apply summer herbicide (glyphosate), 3275 no. @ 6p ea	£ 197
To supply and apply herbicide for Japanese knotweed, allowance	£ 618
Site visits to assess tree growth and health, weed and pest control	<u>£ 192</u>
	<u>£ 1,007</u>

Year 5

To supply and apply summer herbicide (glyphosate), 3275 no. @ 6p ea	£ 197
To supply and apply herbicide for Japanese knotweed, allowance	£ 618
Site visits to assess tree growth and health, weed and pest control	<u>£ 192</u>
	<u>£ 1,007</u>

Total	<u>£25,277</u>
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Note: All costs will be subject to VAT.