

Proposed Tree Planting Under Power Lines at Orangefield Park

August 2023

Orangefield Park is part of a substantial area of green space running through east Belfast and parallel with the Castlereagh Road and following the Connswater River and tributaries. Orangefield Park is a large open space area of grass, woodland, and sports facilities, bounded on the south by Houston Park and Grand Parade on the north.

High voltage power lines supported by metal towers follow the line of the Castlereagh Road and then the Connswater River. The power lines cross an area of young woodland at the southern edge of Orangefield Park, adjacent to Orby Drive and Manna Grove. An area of trees has been felled under the power lines in spring 2023 and there is now a linear clearing, measuring approx. 120 metres by 12 metres and with a random edge line and a few trees remaining under the lines.

The woodland that has been cleared is quite young and planted around 25 to 30 years ago. Species include oak, willow, birch, grey alder, sycamore, lime, elder and pine. The woodland has a dense understory of elder, bramble, cow parsley, nettles, hogweed, and other vegetation. Most of the trees that have been removed are grey alder, sycamore and lime.

There is evidence of past tree management under the powerlines and many trees have been cut at around 20 feet and then regrown additional height since cutting. The recent cutting is a renewal of this periodic trimming, but on this occasion the trees have been felled rather than reduced and this has created a clearing in the woodland.

A public path runs parallel with the powerlines and the area of trees between the path and the cleared area is quite thin and only a few trees deep.

Site location in Orangefield Park, East Belfast



Path through Orangefield Park with cleared area visible to the left



Cleared area under power lines looking north.



Cleared area under the power lines looking south including regenerating grey alder



Regenerating grey alder



A small stream runs along the western edge of the cleared area



Planting design considerations

The main site considerations are as follows:

1. Power lines

NIE Networks have advised that trees should not grow to a size which would pose a future hazard to the power lines, so smaller growing species need to be used. The whole of the cleared area is under or very close to the power lines.

2. Path along the eastern side of the site

There are several tracks where people are entering the cleared area from the public path. There would be some benefit in running a basic fence along the edge of the woodland at this point, to discourage the public from wondering into the new planting, but this is not essential.

3. Soil and drainage

The site has a loamy/clay soil and is suitable for planting trees. The site is flat and drainage is not a problem, with the stream along the western side supporting good drainage, although flooding may be an issue in extreme winter weather.

4. Vegetation

The many grey alder stumps are regrowing or coppicing vigorously. Some other tree species including sycamore and lime are also regenerating. There is also growth of bramble, hogweed, ivy, and other vegetation. By late summer 2024 the site vegetation will be significant and four or five feet high. New trees will need some hand weeding during the first summer and should be planted through mulch mats to help suppress weed competition.

5. Choice of species

Most of the trees which have been cut down are exotic species and predominantly sycamore and grey alder. The biodiversity and nature conservation of the site could be enhanced by replanting with native tree species such as hazel.

6. Biodiversity benefit of the clearance

Whilst the clearance of trees looks unsightly, it has various benefits:

- a) Creation of a clearing or glade in a woodland allows a greater diversity of wildlife, for example butterflies and moths.
- b) The woodland before cutting was even aged and the clearance is creating a multi-aged woodland, with different ages and sizes of trees, which in turn supports a wider range of wildlife.
- c) The stream down the western side of the site was completely shaded by the woodland until the trees along the power lines were cut down. Letting some light in to the stream is beneficial for greater diversity of wildlife.

Proposed planting

To avoid any future conflict with the power lines we would recommend planting low growing species which will never reach the power lines and this removes the need for any future cutting. All the species recommended will grow back vigorously should cutting become necessary. Using 60-90cm trees, and planted at a 2-metre random spacing with mulch mats.

Trees species to be planted:

Common name	Scientific name	Percentage
Crab apple	<i>Malus sylvestris</i>	10
Elder	<i>Sambucus nigra</i>	10
Hawthorn	<i>Crataegus monogyna</i>	10
Hazel	<i>Corylus avellana</i>	60
Holly	<i>Ilex aquifolium</i>	10

The cleared area extends to around 1400 square metres and 400 trees would be sufficient to replant the whole area.

Aftercare of new trees

The weeds and regenerating grey alder will quickly fill the site and could smother the young trees. A decision needs to be made on the final species mix and policy on grey alder in particular. If left to regenerate the grey alder has the potential to reach the power lines again in the future. Cutting back regrowth to allow the new native tree species to flourish will be important and possibly applying herbicide to control the grey alder.