

Fryent Country Park Management Plan: section 4

Woodland

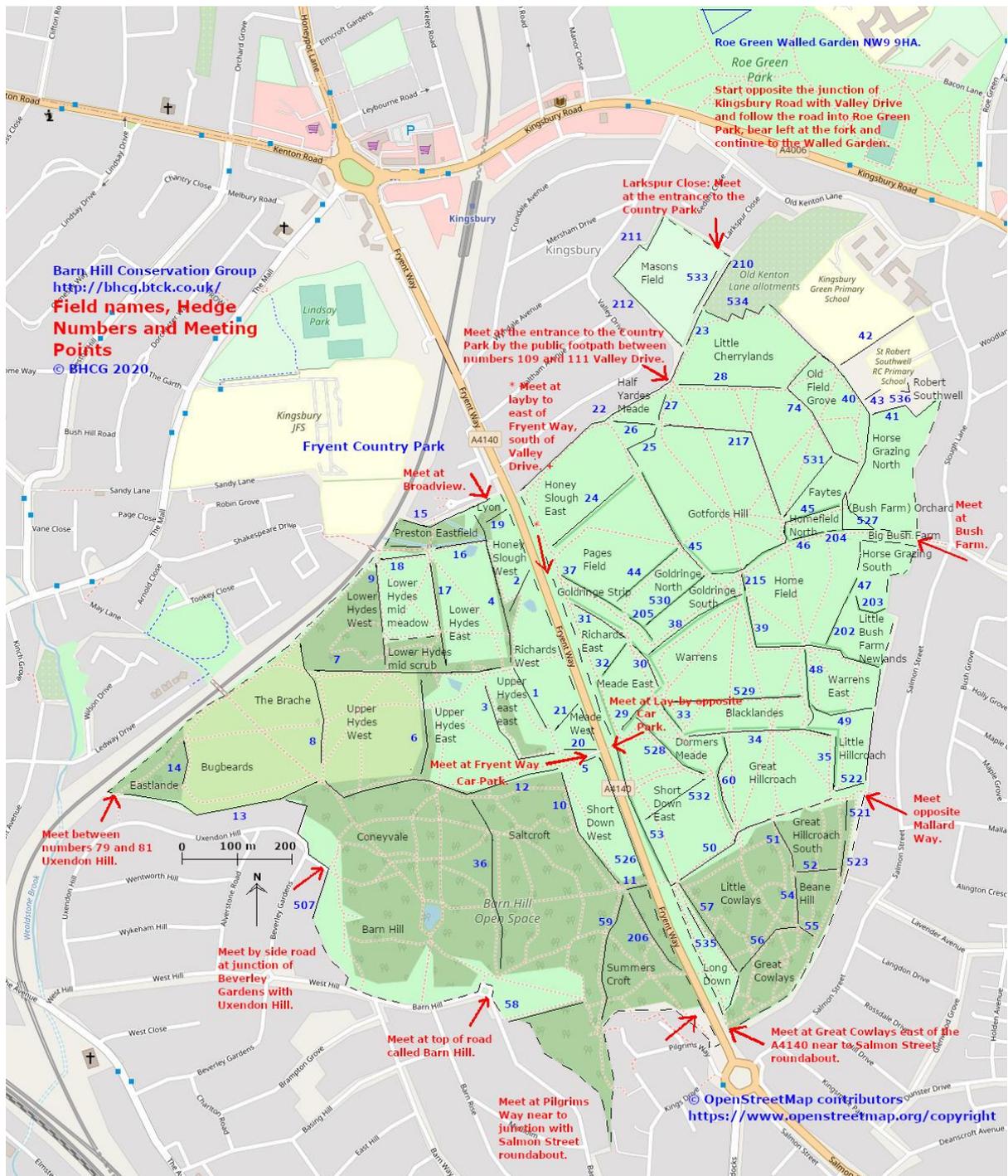


Fryent Country Park is a wooded landscape with Barn Hill, several smaller woodlands, hedgerows, green lanes, scrub and orchards. Centuries ago the whole of the Brent area was covered with broadleaved woodland. The woodland would have had a diverse wildlife and clearings of various sizes would have been created by herbivores or where watercourses occurred. The first human settlements and agriculture led to a landscape of small fields bounded by belts of hedgerows and the remaining woodland. The Hovenden maps show that by 1597, approximately half of the woodland had been cleared. Woodland and hedgerows continued to reduce in area, possibly reaching the lowest percentage cover in the late 1960s-1970s. Today there are a few remnants from the original woodland but most woodland is secondary woodlands that have been planted or self-seeded.

Several sections of this management plan focus on particular tree habitats including the Humphry Repton landscape, hedgerows, green lanes, scrub and orchards. This section is about the other areas of broadleaved woodland and of woodland habitats in general.

Briefly those comprise of areas on the mid-slopes of Barn Hill where scrub has grown into woodland and is being managed in places as coppice; and new planted woodlands at Beane Hill, Little Cowlays and Great Cowlays, at Lower Hydes, at Eastlande; and where there has also been significant self-seeding as at Summers Croft and Bushy Down Wood. Those at Little Cowlays, Beane Hill, Lower Hydes and Eastlande were planted with help from the Forestry Commission's Woodland Grant Scheme during 1986-2002.

Map of Barn Hill woodland to show paths.



Woodland management is described here under three headings: woodland management guidelines, techniques, and named woodlands and features:

Woodland management guidelines for Fryent Country Park:

Task	Notes
Woodlands are managed to provide a range of functions including for biodiversity, recreation, landscape, historic features, carbon management, timber and produce, and for urban flood prevention.	
Diversity: aim to provide a diversity of broadleaved woodland of naturally-occurring tree species, promoting structural diversity and associated wildlife.	
Tree species: Planting and management schemes should promote a mix of tree species, particularly given the threat during recent decades of introduced diseases and pests affecting the English Elm (Elm Disease), Oak (Oak Processionary Moth) and Ash (Ash Die-back Disease). In relation to Ash Die-back Disease, see the latest advice, from the Forestry Commission. Ash should be retained where it is currently growing. Some cropping of wood may be permissible - see the Forestry Commission website.	
Planting schemes should use only species that occur naturally in the area. Stock should be sourced from reputable suppliers and who can provide tracing of provenance. Stock should not be imported to avoid introduction of plant diseases..	
Alder Buckthorn: where appropriate, Alder Buckthorn can be planted to encourage the Brimstone butterfly. The Brimstone can locate Buckthorns from some distance and will lay eggs on the leaves and on which the caterpillars later feed.	
Sallows: The Goat Willow (<i>Salix caprea</i>), Grey Willow (<i>S. cinerea</i>) and their hybrid are the larval foodplant for the Purple Emperor butterfly. The adults are often found on large Oak trees, while the habitat requires a wooded landscape, with large and small woodlands and connecting woodland such as hedgerows. The Purple Emperor was first recorded at Fryent Country Park in 2020. To encourage a viable population of Purple Emperor butterflies, encouragement should be given to the growth of sallows in sunny woodland glades and paths.	
Decaying wood is an important habitat. A high proportion of	

<p>woodland wildlife including invertebrates and fungi are dependent upon decaying rather than live wood. Many animals depend on fungi as a primary food or on the chemical and physical changes induced by fungi in dead wood. Birds make use of standing decaying wood for nest sites, and to source insect food. Nocturnal species seek shelter in decaying wood during the day.</p> <p>Ideally, management should mimic natural conditions with a continuous succession of decaying wood. Retain wood of a variety of sizes, positions, decomposition states and species. Intact fallen trees are preferable to cut and fragmented trees (thus also reducing saw work). Where safe to do so, maintain standard trees, boles, logs and residual stumps.</p> <p>Fallen logs make informal seats (often popular with children too), reducing the need to remove wood and reducing the cost of providing formal park furniture (which is prone to vandalism).</p> <p>Woody or brushy material can be used as log-piles, dead-hedges (and to protect other habitats) or partially embedded below ground to provide for beetles.</p> <p>Stack in the shade, where wood is out of direct sunlight, less prone to rapid changes in temperature and will stay damp longer.</p>	
<p>Monoliths: If trees need to be felled and it is safe to do so, encourage works to specify that the lower 1-2 metres can be left in place, if safe to do so, as a monolith.</p>	
<p>Green 'waste' management: Other than timber and produce, all wood and leaves are retained at Fryent Country Park. This helps also to maintain the closed-loop of organic systems. All the natural material has a use, there is no waste and no need to expend resources and energy in transporting for off-site disposal. No material is burnt.</p>	
<p>Stag Beetle hibernaculum: hibernaculae have been inserted into the Warrens / Blacklandes hedge (completed 2002); at Hedge 532 (2007/08); and in the Cowlays woodland.</p>	
<p>Footpaths: Maintain a network of woodland footpaths. Footpaths can provide habitats for birds, butterflies and vegetation. Paths improve access for people. Paths should be kept open to encourage use, and in turn, use should help to control the vegetation. Paths of c. 3m width or more should be easier to use and manage than narrow paths, and provide more open and edge habitat.</p>	

Keep the footpath intersections free from obstructions. A star shaped pattern is desirable were several paths meet. Create features and open views.	
Organic Standards and FSC (Forestry Stewardship Council) standards: woodland management works should comply with the Soil Association Organic Standards for organic woodland. In turn this closely follows the FSC standards. If machinery is used, biodegradable chainsaw oil should be used.	
Record significant woodland operations on the Fryent Country Park Fields spreadsheet.	
In advance of woodland works, areas are marked on sketch maps, by instructions and by notices. Maps of the woodland areas and their boundaries are available (see for example the maps for the Woodland Grant Scheme).	
Woodland produce: Investigate markets for woodland produce. Consider timber from the new coppice woodlands, Barn Hill and from the hedgerows. Use on-site, and for use at Roe Green Walled Garden, including for woodfuel sales.	
Felling Licence: for extensive work, involving the felling of over five cubic metres of wood per calendar quarter, it may be advisable for the Council to apply for a Forestry Commission Felling Licence to cover any enquiries.	

Techniques for woodland management:

Natural Regeneration

Most of the new trees in woodland at Fryent Country Park arose naturally from seed.

Tree planting

At Fryent Country Park tree planting is usually undertaken in March, as the ground is often softer for digging than in the autumn. Trees can be planted during the dormant period of December to early April. However, as the climate changes, nurseries are often reluctant to release trees in the late autumn. That also frees programme slots to enable woodland works that have to be done before the bird breeding season to be programmed during the autumn and winter. Do consult a checklist in advance of planting; and consider before planting whether the position is suitable for that tree at maturity.

Aftercare of planted trees: use of spats and tree guards

Aftercare during the first few years will increase the chance that the tree will establish and grow. At Fryent Country Park the two largest risks to tree establishment are damage from mammals, and competition from grass. Both risks can be largely addressed at the time of planting. Locally, the mammal that causes the most damage to young trees is the Field Vole, a small, mice-sized animal with a short-tail that eat the bark of the young trees causing ring-barking and the death of the tree. Trees can be protected with the use of vole-guards; slip-on plastic sleeves 20cm in height that prevent the Vole from reaching the bark. The guards expand as the tree grows and then fall off.

Roots, particularly grass roots, compete with the tree underground. Cutting the grass actually increases that competition, as grasses are adapted to cutting and respond by growing more roots. Use one-metre square porous mats, installed around the tree at the time of planting. These suppress weeds, while allowing rain water and air to reach the soil and the roots. Watering of trees is impractical at Fryent Country Park - and seldom necessary.

Coppicing

Coppicing is a traditional method for managing the trees of broadleaved woodland to provide a continuous supply of wood. Basically, the broad-leaved tree is cut near to the base to provide the wood, while the cut stools start to re-grow multiple new stems from the spring. That actually increases their longevity. Coupes (areas of woodland) are coppiced on a rotational cycle, so that a woodland may have sub-areas of differently aged trees. The diversity is beneficial to wildlife. Rotational coppice cycles, typically of 5-10 years, could sustain timber production indefinitely. Coppice cycles can be variable depending upon demand, the market

and the growth of the species. The aim is to have a range of coppice of different ages and structures at any one time.

Coppice with Standards

The preferred method of coppice was coppice with standards, which involves coppicing the majority of the trees while leaving the occasional tree to grow to maturity to provide larger timber. Produces a woodland of both a coppice understorey and timber sized trees forming a widely-spaced canopy.

Dead-hedge

A linear row of cut vegetation. Used for stacking, re-use and recycling of cut vegetation, while creating effective barriers and wildlife habitat. In time brambles may grow through the material, creating a live feature. Stack all the material to lie in the same direction as that saves on both time and space, while using a few pieces as stakes through the stack to strengthen the construction.

Thinning

The practice of selectively harvesting trees to promote the growth of the remaining trees. The removed trees may re-coppice if there is sufficient light.

Sycamore and Norway Maple

Both Sycamore and Norway Maple readily germinate from wind-dispersed seed. Their fast growth and large leaves can shade out other woodland species. Control is best by cutting in the autumn, particularly in about late October to early-December, when they are more conspicuous due to autumn colours of leaves.

Basal cavities in Oak and other trees: Where basal cavities have formed in Oak and other trees, consider the risks and use the most appropriate technique to protect the visitors, the tree and wildlife. That may include non-intervention.

Woodlands and woodland features of Fryent Country Park:

Task	Notes
Barn Hill: coppice, scrub, grassland and footpath management. Much of the Hill was, until recent decades, covered by acid grassland / grass heath (as at Coneyvale) and by neutral grassland (as at. Saltcroft). The condition of the grasslands was probably maintained by grazing, possibly with some cutting. Since the last decades of the 20 th	

<p>century, scrub growth has shaded much of the grassland. A compromise is a mosaic of woodland, oak scrub, other woodland, grassland and footpath habitats. Restoration of the Repton woodland, acid grassland and other habitats is covered in a separate section of the Plan.</p> <p>For management purposes the woodland on Barn Hill has been divided into blocks, usually demarcated by paths or other features. Details of some previous work is available in a file BarnHillWoodlandBlockManagement.doc'.</p>	
<p>Barn Hill: Oak scrub woodland on acid soils. Overgrown scrub on acid soils creating an open woodland or old parkland effect. Located mainly on the slopes of the centre-west of Barn Hill. As a woodland community, this is possibly near to W16 of the National Vegetation Classification, synonymous elsewhere with 'wood pasture' and 'old parkland'. Encourage the growth of the trees, possibly thinning smaller trees.</p>	
<p>Barn Hill: Oakwoods: damp oak woodland on base-rich soils. The more typical oak woodland, similar to W10 of the National Vegetation Classification. Occurs on the more neutral soils of the lower and mid-slopes of Barn Hill, particularly on the east side. More species-rich than the W16 community, with a wider variety of tree species and of ground vegetation. These woodlands could be suited to a coppice-with-standards management.</p>	
<p>Barn Hill: Block 31 (lower, mid-centre of north-facing slope). This block has been left largely unmanaged as a succession from grassland to scrub and to overgrown scrub woodland. There are a large number of tall, even-aged oak trees and which cast shade over the ground vegetation.</p>	
<p>Barn Hill: Lombardy Poplar Avenue: Considered as a local landmark in Brent's Unitary Development Plan. The Lombardy Poplars are though relatively short-lived in the local soils and climate.</p> <ul style="list-style-type: none"> • Replant gaps on the tree lines with young Lombardy Poplars. • Encourage diversity and promote resilience by promoting trees of other species that are approaching maturity on the two lines of the avenue. These include Oak. • Cut overhanging branches from adjacent scrub and cut encroaching vegetation back to behind the line of the Lombardy Poplars. Maintain the acid grassland. 	

<p>Machine cutting to the full width of the avenue to reduce growth of Bramble and suckers.</p> <ul style="list-style-type: none"> • A wide path should also spread wear from walkers, reduce erosion, conserve acid grassland and provide a more pleasant walk and view. <p>Lombardy Poplar avenue: drainage: ensure that the ditch of Hedge 36 downhill from the top of the Lombardy Poplar avenue is maintained.</p>	
<p>Maintain the paths on either side of Hedge 36 and to demarcate the hedgerow.</p>	
<p>Bushy Down Wood: Once a small woodland and now re-forming from adjoining areas of wide hedgerows, Repton woodland belts and from scrub alongside and on the upper three of the former hard-standing tennis court terraces. The lowest of the former courts remains relatively free of vegetation and is used as an informal kick-about area. The upper three courts are dominated by Silver Birch and other scrub. Maintain desire lines paths and clear litter / rubbish.</p>	
<p>Little Cowlays: (2.5 hectares): manage as coppice with standards, keep footpaths clear of overhanging vegetation, remove invasive species, woodland management, and market the produce. Commercial coppicing of 0.1 hectare was undertaken in early 2008.</p>	
<p>Beane Hill: (1.8 hectares): manage as coppice with standards, keep footpaths clear of overhanging vegetation, remove invasive species, and seek markets for the produce.</p>	
<p>Great Cowlays: Contains a mix of planting and self-seeded trees including species of willows, Ash, Alder Buckthorn and a maze (see box below). There is an Osier copse in the lower part of Great Cowlays but keep the willows about 10-16 metres or more clear of the Park boundary). Manage to provide the range of footpaths and edge habitats.</p>	
<p>The Maze. Within Great Cowlays is a maze of Osiers and Alder Buckthorn Maze: Maintain the Osier and Alder Buckthorn maze in Great Cowlays. The Alder Buckthorn is the larval food-plant for the Brimstone butterfly. Trim internally growing vegetation. Reduce shade from neighbouring trees if affecting the maze hedges. Other species of willow trees are also present in Great Cowlays.</p>	
<p>Lower Hydes: manage as coppice with standards, keep footpaths clear of overhanging vegetation, woodland management, and seek markets for the produce</p>	
<p>Eastlande: manage as coppice with standards, keep footpaths clear of overhanging vegetation, woodland management, and seek markets for the produce</p>	

Summers Croft: manage as coppice with standards, include wide footpaths, cut overhanging vegetation, remove invasive species, and seek markets for the produce. Hedges have been replanted alongside Eldestrete to re-establish the green lane. Control and remove the Japanese Knotweed (growth has been weakened).	
Trees in the horse grazed area: where practical protect trees from grazing.	
Fruit trees: encourage fruit trees by coppicing of the surrounding tree growth.	

More information

See also the Management Plan section on ‘Humphry Repton landscape’, ‘Hedgerows’, ‘Scrub’, ‘Green lanes’, ‘Orchards’, ‘Footpaths’ and ‘Acid grassland’.

Barn Hill Conservation Group. www.bhcg.btck.co.uk

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