Woodland Management Plan

Knowle Wood TQ 87174 11940

Written & Compiled by Dale Richards

Proposed 10-year plan from 2020

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Vision & Aims

The long-term vision for Knowle Wood is for a resilient, sustainably managed healthy & attractive woodland, rich in bio-diversity, providing maximum benefit to both wildlife & the public.

We aim for all current & future generations, to use & enjoy the woodland.

Continuing to develop a greater understanding of the extent and value of the tree and woodland resource and associated ecosystem services by building upon knowledge gained from third parties & from our own ecological surveys.

We will seek to maintain & improve accessibility to the woodland through careful re-structuring of accessways & paths, aiming to provide a balance between public access & wildlife habitat protection & seclusion.

We aim to Practise & Continue to use environmental management principles that reduce the impact of management operations on the environment, assess the environmental impact of all woodland management operations before they are implemented.

Community Involvement, we recognise and encourage further community involvement in the woodland through working groups & future activities, we hope to encourage the younger generation to become more connected with the landscape & in particular the woodland

Consultations

Advice or information has been sought from the following:

- Woodland Trust Area officer walk around & informal chat
- Dr Simon Young, respected Ecological Surveyor
- Ashdown Forest & Rye Harbour Nature Conservation Warden
- Forestry Commission documentation & website
- Sussex Wildlife Trust information & website
- My own experience managing a 23-acre wood in Surrey 1989-1992 & my Knowledge of the woodland, nature & wildlife

Management Objectives

- Path reduction, as per plan the number of pathways will be reduced over time
- Improvement of access from Woodfield, steps, handrails & boardwalks
- Invasive & non-Native species removal
- Dismantling of dishevelled "shelters"
- Creation of "restricted" zones to allow recovery
- Opening up areas to produce "Woodland Glades"
- Felling of dangerous trees
- Rotational coppicing of Hazel & Sweet Chesnut, along with a few small standard Oak's
- Pleaching or layering of Hazel to increase stools
- Selective thinning of canopy, subject to TPO permissions
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Work Phases

- Phase one to be carried out Winter 2019-2020
    - Dismantle the shelters
    - Form barriers around restricted zones, using wood from shelters
    - Block off access to pathways determined form survey maps, using wood from shelters & timber from dangerous trees
    - Remove invasive Non-native species
    - Felling of dangerous trees – third party action
    - Move saplings previously planted in the wood
- Phase two start date tbd 2020
    - Create three woodland glades as per map
    - Path improvements, boardwalks & steps – subject to funding
    - Path reductions – on-going
- Phase three probable start date winter 2020-21
    - Begin rotational coppicing of Hazel, Sweet Chestnut & small standard Oaks (see coupe map)

- Layering/Pleaching of Hazel stems to produce new stools
- The rotational coppicing will be carried out annually during the winter months
- Selective canopy thinning, subject to suitability survey & TPO
- Ongoing management & maintenance of open paths
- Ongoing management & maintenance of woodland glades on a 5-year cycle

Woodland Survey

The woodland occupies a sloping site of approx. 7 acres, it is mainly deciduous broadleaf, comprising Oak, Ash, Birch, Hawthorn, Sweet Chestnut, Hazel, Rowan, Elder & Holly. It mostly appears to be ± 100 years old, with the odd tree of more significant age. There is an area of ferns approx. ¼ acre to the west edge, a banked area, 2 ground depressions (possibly WW11 bomb craters). A seasonal watercourse is beginning to appear, created by a land drain outlet. The woodland adjoins an area of ancient woodland & is itself in an ANOB & close to an SSSI & nature reserve. There is some understory of bramble; Bluebells, Wood Anemone's, Celandine are all creeping in from the adjoining ancient wood, some Honeysuckle remains although quite patchy. The Southern edge is bordered initially by houses giving way to Gorse, the Eastern edge by Houses/gardens, the northern edge has the ancient wood & the western edge has a broken hawthorn/mixed hedge. The has been previous planting of saplings in 2017-2018, these are not faring well due to lack of light & unsuitable positioning. A small proportion of the wood is Ash (approx. 5%) and depending on the potential impact of Ash Dieback (Hymenoscyphus fraxineus), targeted areas of Ash, in particular those where the quality is relatively poor, selection felling will be considered to help mitigate this impact and redress the balance of major native broadleaved species. There is some sign of Ash Dieback, mainly on the Northern edge. The Woodland has 3 main pedestrian entry points, all of which require some improvement. The woodland is covered by a blanket TPO, there is an approval for works in place subject to detailed plan submissions.

There has been some Ad-Hoc management over the last 5 or 6 years but with no formal plan in place. This has led to the loss of habitat, along with the dependant flora & fauna, most of the standards are tall & spindly with little side growth, the canopy is quite close & little light reaches the forest floor. The long-term work in the wood will be low key and will concentrate on gradually bringing the wood into sustained management. This will inevitably mean thinning some broadleaves after many years of non-intervention. Much of the hazel is overstored or weak due to low light levels. A programme of thinning the overstory should form part of the management process to increase light levels so the hazel can be coppiced and regrowth encouraged. A hazel coppice cycle can then be reinitiated. There is a significant potential to improve the wood to benefit wildlife conservation. This may be achieved by increasing light levels, in particular to the intended woodland glades which would otherwise be under closed, or partially closed, canopy. Currently the wood has an excess of "rides" to the point where almost the entire woodland is open-scape, the number needs to be reduced significantly in order to protect habitats & assist the regeneration. The woodland is capable of a wide range of wildlife habitats, allowing for greater bio-diversity & providing public enjoyment, by still allowing good levels of public access.

Invasive Species

The Eastern & North Eastern edges of the wood have a number of non-native invasive species, many have probably crept or been moved from gardens. The lists contain: Hydrangea, Laurel, Hypericum, Box Honeysuckle, Rhododendron, Fuschia, Ribes… As none of these species are true woodland plants & bearing in mind the potential of spread into the adjoining Ancient Woodland they need to be removed. There are also a small number of Sycamore trees at dispersed points in the woodland, the removal process is likely to on-going as the seasons change others may be identified. Regular inspections will be carried out to identify further threats. Use of chemical treatments should be avoided.

Woodland Glades

Three potential sites have been identified as being suitable for the transformation to glades, they have partially open canopies, a few Birch standards of poor-quality will need felling to achieve the glades open structure, perhaps a couple of small Oaks & Hazel trees will need to be coppiced within the glade area. These glades will offer further opportunity for bio-diversification & once established will create a range of habitats. Once established they will require some maintenance on approximately 5-year cycle, although each glade is likely to be slightly different dependant upon the core structure.

Coppicing

Coppicing has a number of environmental & ecological benefits:

Standard Hazel may live for 60-70 years, when coppiced on a rotational cycle the same tree can live for 2-300 years. We will be employing the coppice with standards method, coppicing with standards (trees which are not coppiced) was a common woodland management practice. The standards could be one species or multiple species. For instance, it could be Oak standards over Hazel, Sweet Chestnut or Lime or a mixed understorey. Some areas of the wood have higher density of Hazel or Chestnut than others, a “coupe” map will be created before commencing coppicing, this will contain numbered plots & be used to organise the rotational cycle.

In any one coupe there would be a number of standards at various ages. Up to 40% of the canopy can be occupied by standards. Too many standards will result in poor coppice re-growth due to insufficient light reaching the ground. Within a single wood, coppicing usually gives rise to an irregular patchwork of woodland with trees at different stages of growth. The regrowth from the cut stools can be remarkably fast and it is quite normal for many species to reach two metres after their first year. The interval between cuts (the rotation length) depends on the species and the intended product. Hazel is usually cut every 7 - 10 years, sweet chestnut usually at about 15 years, the rotation period could be up to 20 years with some standards being left to mature for up to 6 rotations.

Every time a coppice cycle is initiated, a sequence of changes is set in motion and develops in the following way. In the first summer after cutting, the woodland floor usually has a fairly sparse covering of vegetation, however by the second year the ground vegetation is very prominent with spring flowers and other plants. In midsummer, the woodland floor is flooded with light and this triggers a rapid change in its appearance. Seeds which have lain dormant, sometimes for many years, germinate in response to this additional light.

These different stages of growth create changing habitats throughout the woodland providing greater bio-diversity & encouraging species dispersal & extending their range.

Small mammals such as Dormouse, wood mice, shrews and bank voles are also strongly influenced by coppice cycle. Once again, when coppice has been cut there is an increase in these mammals and

a third year after cutting a coppice woodland can support double the density of small mammals than at any other stage of coppice growth. Numbers then decrease, but remain fairly stable until the next cutting. Coppiced woodland in the south and west of England is one of the most important habitats of the Common Dormouse in Britain. Without a continuous coppice canopy the animal is severely restricted in its ability to move about the wood and as such as a protected species.

Access & Pathways or rides

It is unfortunate that due to topography & terrain the woodland cannot provide for safe wheelchair access without extensive ground reprofiling & the consequential loss of trees & shrubbery. In very dry weather there is limited access from the field but tree roots etc soon make the passage of wheeled conveyances unsafe.

There are 3 main entry points into the woodland, one carries a sign board with some woodland info, the other 2 points would benefit from a similar board where information about the wood & the regeneration along with updates can be posted

A number of access ways have been identified for improvement's, these consist of timber faced compacted soil steps, handrails & boardwalks. These will serve to improve pedestrian accessibility & protect the environment by negating the need to circumvent boggy areas where doing so further enlarges paths & in time increases the boggy area.

There will also be a programme of path reduction, for a wood of under 7 acres, having in excess of 28 paths is detrimental to habitats & ecology, this reduction will be carried out over time, working to an overall plan. Some of the pathway reduction will be achieved by the pleaching of Hazel & small sections of "hedge laying" creating a natural barrier.

There are a number of more sensitive areas within the woodland which need to be screened off to deter dogs & walker from destroying the ground level habitats, examples of these are the 2 banked areas behind the tennis court & the western end of the wood where it is predominantly ferns covering the ground.

The pathway which runs alongside the children's playground is quite overgrown & the path has become "channelled" resulting in an uneven trench which makes stable walking tricky, this path will be widened with some water run off channels dug out. Also, the undergrowth along each side will be cut back, further improving access.

The main path running east to west has an extremely boggy area where it passes the smaller bomb crater, this area will benefit from a boardwalk.

Access from Woodland way is under the management of ESCC & any improvements needed will be referred to them.

The recent excessive rainfall has created some no-go areas which subject to future weather conditions may give rise to the need for further boardwalks.

On-Going Survey's

We intend to carry out some regular wildlife/ecology surveys in the future, these will be a clear indicator of successes or failure of the plan & will help to carry out any fine tuning required.

It is very much hoped that the everyday walker in the woods will be able to see improvements in the environment, access & the wildlife within the wood & the surrounding areas.

Woodland Working Group

It is anticipated that most of the work will be carried out by a team of community volunteers with specialist help called in as & when required. Some funding will be needed & steps are being taken to try to secure the financial assistance. It is also hoped that we can attract some of the younger generation into the group (subject to parental consent & accompaniment), it is vital that the next generation of recruits are enlisted to ensure the ongoing protection & care of our environment.

Maps, Drawings & Diagrams

1. Sketch showing current paths – walkways
2. Outline area of Knowle Wood
3. Proposed new paths, with exclusion zones
4. New paths, with features, bomb craters, Holly copse, woodland glades, exclusion zones
5. Coppice coupes map with features

Image 1.

Image 2.

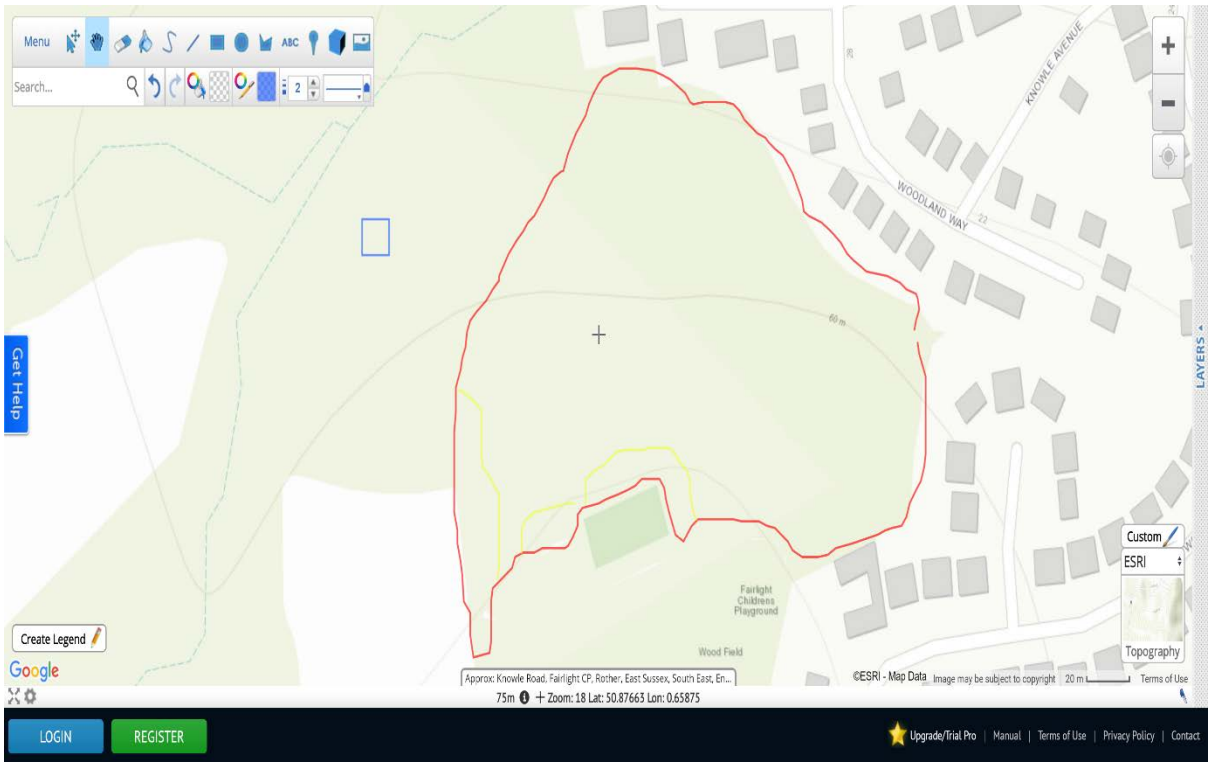

Image 3.

Image 4.

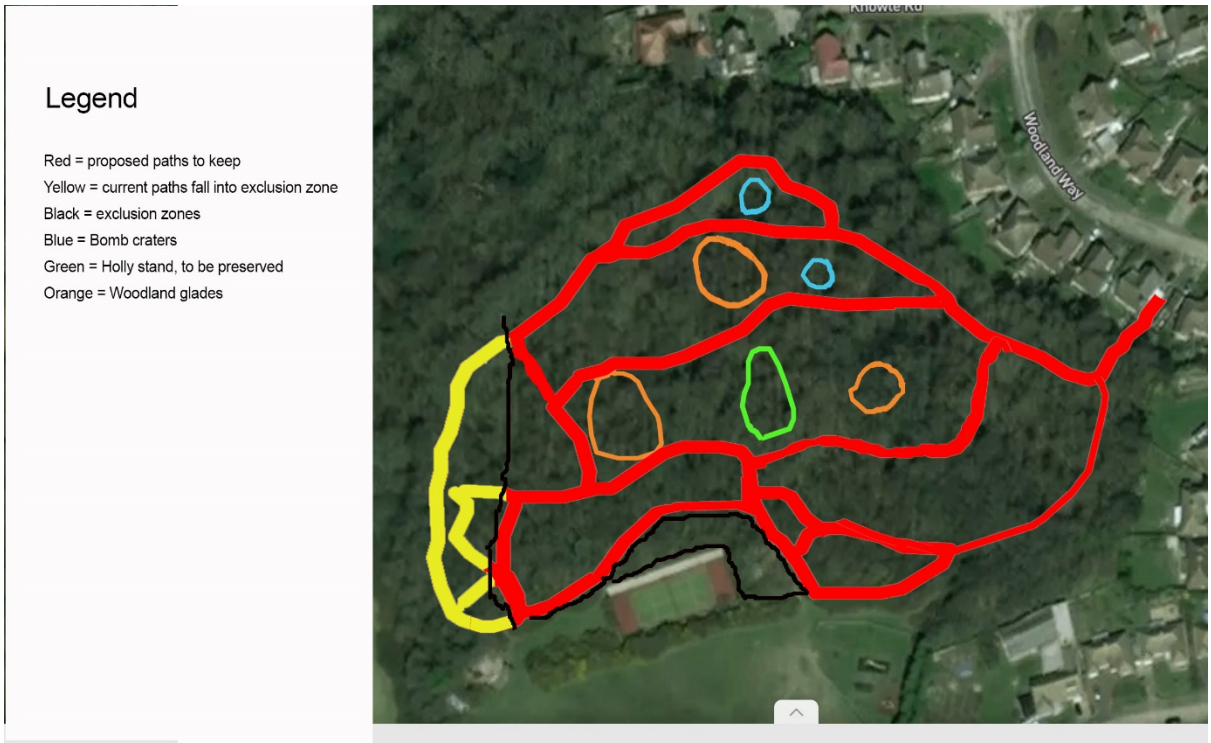

Image 5.