

1	 2000	WOODLAND SURVEY SHEET. GENERAL SITE DESCRIPTION		County / Local Authority West Midlands
WGS REF. No. NWP/015/209		Site Name Brueton Park Wood		District/Parish Solihull
Owner/tenant/agent Solihull MBC Contact David Lowe Solihull MBC, Ecologist Landscapes Section PO BOX 19, Council House, Solihull, West Midlands, B91, 3QT		Nature Conservation Status / Designation EcoSite. SINC. Within a Local Nature Reserve and part of a SSSI		Total area (of included woodland) 1.8 ha
		Other Designations / Protections Midlands Plateau Natural Area (43)		Grid ref (access) SP 163 785
		Ancient / Recent Semi-Natural / Plantation Semi-natural woodland		Surveyor Helen S Miller Middlemarch Environmental Ltd
		Biodiversity Action Plan Warwickshire, Coventry & Solihull BAP See Appendix A		Date of survey 30 June 2004
Woodland vegetation types (mark on map). SEMI-NATURAL WOODLAND TYPE (HAPS): Lowland mixed broadleaved (Forest Practice Guide 3) NVC COMMUNITIES: W8 with a W10 transition towards south end. PLANTATIONS: Includes remnant Scots pine plantation.				
Adjacent land (mark on map) Amenity parkland, River Blythe, SSSI meadows and residential housing.				
Threats Over use from recreation. Non-native invasive species – cherry laurel, snowberry, giant hogweed				
Aspect N/A		Slope More or less level		Altitude 110 m
Soil – from Soilscape on www.magic.gov.uk				
Ref/class	Name	Main surface texture class	Natural drainage type	Natural fertility
18	Slowly permeable seasonally wet acid but base-rich loamy and clayey soils	Loamy	Impeded drainage	Moderate
Geology No data but most likely to be Permo-Triassic reddish mudstone & till OR Glaciofluvial drift				
Climatic Factors From Met Office web-site for Stratford-Upon-Avon weather station, approximately 15 miles south of the Solihull Woodlands: <ul style="list-style-type: none"> Average annual rainfall 622.3 mm with 115.7 days experiencing less than 1 mm. Average annual days experiencing air frost and ground frost: 62.2 and 95-110 respectively Minimal risk from wind exposure. 				

WOODLAND SURVEY SHEET.
COMPOSITION AND STRUCTURE

County
Unitary
West Midlands

Ref. No. NWP/015/209

	Tx	Tp	Ts	Tc	Tn	Cx	Ct	Px	Pc	Sx	Sc	St	Js	Jp	Jv
Acer cam												R			
Acer pse	R														
Aescu hip	R												R		
Alnus glu	R														
Betul pen															
Betul pub															
Carp bet															
Casta ast															
Conifer sp															
Coryl ave							R			O					
Crata mon										R				R	
Crata oxy															
Euony eur															
Fagus syl	R														
Frang aln												F	R		
Fraxi exc	O														
Ilex aqu	R														
Junip com															
Larix sp	R														
Malus syl															
Picea sp															
Pinus syl		IF													
Popul tre															
Prunu avi										R					
Prunu lau															
Prunu pad															
Prunu spi										IA					
Querc cer															
Querc pet/hybrid															
Querc rob	F											R	R		
Rham cat															
Rhodopon															
Salix alb															
Salix aur															
Salix cap										R					
Salix cin															
Salix fra															
Salix pen															
Salix vim															
Samb nig										F					
Sorbu ari															
Sorbu auc													R	R	
Sorbu tor															
Taxus bac	R													R	
Thely san															
Tilia cor															
Tilia eur															
Tilia pla															
Ulmus car															
Ulmus gla															
Ulmus pro															
Vibur lan															

D = dominant A = abundant F = frequent O = occasional R = rare L = localised

The woodland is a mixed broadleaved woodland, with oak and ash dominating the canopy. The woodland has a good understorey of blackthorn and hawthorn. There is high habitat diversity with a pond comprising about a third of the site, clearings and scrub areas. The wood has a range of canopy species and ages. The ground flora is not dominated by a few species but consists of several species being locally abundant: bramble and bluebell in the south, dogs mercury and ivy in the north and bramble and tall ruderals in the clearings. There are also areas of locally abundant nettle. The NVC community is W8 with an indication of a transition towards W10 in the south. The wood is primarily high forest with a well developed understorey. There are no clear management compartments within the wood other than that scots pine is locally frequent in the south. There is no clear indication of current management. There is some suggestion of occasional coppices in south. The woodland is primarily used for local recreation as part of Brueton Park. There is a pathway through the wood. The boundaries were fenced (south and west: wooden) or running water (east: River Blythe, north: stream). The south boundary also had a ditch and bank. There were some indications of internal banks. There does not appear to be any grazing, squirrel or deer problems.

stand description management & use history nature of boundaries grazing

Area of (ha)

Ancient Semi-nat ASNW	Recent Semi-nat OSNW	1.8	Ancient Replanted AWS	Recent Plantn.

Area occupied by each NVC type

0-0.5 ha	0.5-2 ha	2-10 ha	10-20ha	20+ha
W10 transition	W8			

Tree layer	Height 10 M	Cover (%) 80	Shrub layer	Height 5 M	Cover (%) 50

Age class abundance (all species, using DAFOR system)

D/mature	Mature	Young trees	Saplings	Seedling	Coppice
	D	R	O	R	R

	Sx	Sc	Js	Jp	Jv	Sx	Sc	Js	Jp	Jv
Clem vit						Ribes syl	IF			
Daph lau						Ribes uva				
Heder hel						Rosa arv				
Ligus vul						Rosa can	R			
Lonic per						Sarot sco				
Maho aqu						Ulex eur				
Myrica ga						Ulex gal				
Ribes nig						Vibur opu				R

- Tp* Planted tree
- Tn* Self-sown tree
- Ts* Standard in c-w-s
- Tc* Grown from coppice
- Tx* Any other tree
- Cx* Coppice
- Ct* Regrowth from stump
- Px* Pollard (2.5m+)
- Pc* Pollard (1-2.5m)
- Sx* Shrub
- Sc* Climber
- St* Young tree
- Js* Seedling
- Jp* Sapling
- Jv* Sucker

Site name Brueton Park Wood	Surveyor Helen S Miller Middlemarch Environmental Ltd	Date of survey 30 June 2004
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HABITATS, FEATURES & COMMUNITIES (MARK ON MAP)

Habitats

The NVC community is W8 with a transition community towards W10 in the south. The wood has a varied structure and high habitat and species diversity. These are detailed below (Target notes) and marked on the map.

The field layer is moderately species-rich with no, one or few species being dominant. Several species were locally abundant, notably dogs mercury *Mercurialis perennis* and ivy *Hedera helix* in the north, bramble *Rubus fruticosus* and bluebell *Hyacinthoides non-scripta* in the south and bramble *Rubus fruticosus* and tall ruderals in the clearings.

There was a range of common woodland vascular species occurring locally frequently or occasional throughout, including cleavers *Galium aparine*, nettle *Urtica dioica*, garlic mustard *Allaria petiolata*, ground ivy *Glechoma hederacea*, male fern *Dryopteris felix-mas*, red campion *Silene dioica*, wood avens *Geum urbanum*, enchanters nightshade *Circaea lutetiana* and wild garlic *Allium ursinum*. Others species that occurred rarely included various grasses, honeysuckle *Lonicera periclymenum*, bracken *Pteridium aquilinum*, dock *Rumex* spp., gypsywort *Lycopus europaeus*, giant bellflower *Campanula latifolia* and various sedges.

Wetland features

Approximately one third of the wood is occupied by a pond, which is connected to the River Blythe in the east by a stream. The pond has willows and alders at the periphery. At the time of survey the southern end of the pond was exposed mud. Along the south edge there is a damp area and ditch/bank (Target note 9). There is a stream/ditch through the wood in the center. The north edge of the wood is bounded by a stream flowing into the River Blythe.

Veteran trees and deadwood

There was a veteran oak in the south of the wood (Target note 6).

Deadwood habitats are occasional within the wood (Target notes 1 and 10). There is some potential future standing dead wood in the form of a split oak (Target note 5).

Notable species

Bluebell occurs within the wood – a UK BAP species.

There is a good woodland and water bird population.

There was evidence that badgers at least pass through the site.

There were several invasive exotics occurring within the wood: giant hogweed (Target note 7), cherry laurel (Target note 4), snowberry (Target note 2) and the occasional Himalayan balsam.

Other features

There are indications of wood banks/ditch sectioning off the north-west corner of the wood. There is also a bank/ditch along the southern edge. A winter assessment would identify these features more precisely. There is an old hazel coppice stool in the south of the wood (Target note 3).

Adjacent landuse

The north is amenity parkland with sporadic trees and woodlands, both broadleaved and mixed conifer/broadleaf. This area also includes a lake with vegetated islands.

West and south are meadows, some wet meadows, designated as a SINC. There is dense area of blackthorn scrub adjacent to the wood in the south-west corner.

The east is grassland and residential housing. The River Blythe (SSSI) forms the eastern boundary of the wood.

Target notes for map

1. Fallen deadwood.
2. Snowberry.
3. Old hazel coppice stool.
4. Cherry laurel.
5. Split oak – future deadwood.
6. Veteran oak.
7. Giant hogweed.
8. Open area dominated by bramble and tall ruderals. Area adjacent to the south is dominated by scots pine.
9. Damp area. Ditch and bank along south edge of wood.
10. Area of young trees and blackthorn. Fallen deadwood – horse chestnut.

4	FC 2000	WOODLAND SURVEY SHEET OTHER VALUES OF THE WOOD	REF No. NWP/015/209
SITE NAME:		COMPILED BY: HELEN S MILLER MIDDLEMARCH ENVIRONMENTAL LTD DATE: JULY 2004	
<p style="text-align: center;">ARCHAEOLOGY & CULTURAL HERITAGE</p> <p>As a result of its small size, Brueton Park Wood would not have been identified by English Nature's Ancient Woodland Inventory. The current survey found some banks/ditches which might suggest that it is ancient woodland, although these are inconclusive.</p> <p>The meadows to the west of the wood are traditional hay meadows with ridge and furrow features.</p> <p>There is the suggestion of old banks/ditches sectioning off the north-west part of the wood. There is also a bank/ditch along the south edge of the wood. A winter assessment would more clearly identify/locate these features. There is some evidence to suggest that the wood has been managed as coppice in the past.</p>			
<p style="text-align: center;">LANDSCAPE</p> <p>Brueton Park Wood lies in the Countryside Commission/English Nature's Character Area "Arden (97)". This Character Area has a "wide variation of landscape character" and includes the "undulating wooded landscape and small hedges of the main plateau". This Character Area has a long history of wood-pasture with "deer parks and estate woodlands once widespread". Some remnant features, such as veteran trees, provide reminders of the past. "Broad-leaved woodland and hedgerow trees lend a well wooded character to the area". The "woodlands themselves vary in type from twentieth century plantations to species rich ancient woodland (with) oak and ash woods with bracken, bramble or dog's mercury are particularly distinctive". The mosaic of urban areas and woodland are characteristics of the Character Area.</p> <p>Although the Character Area suggests the landscape has reasonable woodland, the Natural Area (Midlands Plateau, 43) is characterised by lowland heathland with woodland, grassland, freshwater and farmland with woodlands being under represented at just 4%. 40% of the land area of Natural Area 43 is urban. Woodlands are therefore an important feature of the landscape. Many of the woodlands within the Natural Area are less than 5 ha and are typically uncoppiced, even-aged stands regenerated from clear fells. However, about half are semi-natural in character. The woods cover a range of NVC communities, although they tend to be more acidic.</p> <p>The land surrounding Brueton Park Wood is relatively flat and the wood is one of several within Brueton Park, forming prominent features a landscape dominated by agriculture and urbanisation. The small size of Brueton Park Wood, its locality and situation is fairly typical of the Character Area and Natural Area in which it occurs.</p>			
<p style="text-align: center;">RECREATION / PUBLIC ACCESS</p> <p>Brueton Park Wood is primarily used for informal recreation and walking as part of Brueton Park. There are no footpaths within the immediate surrounds of the wood other than several, including multi-access, paths through Brueton Park. Access to the site is good with the main access point in the north-west of wood, just off a more formal path through Brueton Park and the adjacent meadows. There is an interpretation board just to the north-west of the wood.</p> <p>There are no clear rides, although there a path goes through the wood.</p>			
<p style="text-align: center;">WOOD PRODUCTION, GAME / LIVESTOCK & OTHER CONSIDERATIONS</p> <p>There does not appear to be any formal wood production taking place within the wood at present. The interpretation board indicates that increasing accessibility without affecting the wildlife and the creation of the next generation of old hazel coppice stools are some of the management aims of the wood.</p>			

PHOTO No. 1 (mark location and direction on map)
Pond within wood. 309°

DATE:
30 June 2004

NVC TYPE:
N/A



PHOTO No. 2 (mark location and direction on map)
Typical habitat of wood. 42°

DATE:
30 JUNE 2004

NVC TYPE:
W8



6	FC 2000	WOODLAND SURVEY SHEET ECOLOGICAL EVALUATION & MANAGEMENT RECOMMENDATIONS		REF No. NWP/015/209
SITE NAME: BRUETON PARK WOOD		SURVEYOR: HELEN S MILLER MIDDLEMARCH ENVIRONMENTAL LTD	DATE OF SURVEY: 30 JUNE 2004	
<p>ECOLOGICAL EVALUATION of the main features of interest (include an assessment of naturalness, representativeness, size, rarity, fragility, position in an ecological unit, diversity, recorded history, potential value, intrinsic appeal)</p> <ul style="list-style-type: none"> The conservation significance of Brueton Park Wood lies in the Local Nature Reserve and ecological value within Brueton Park and the potential to improve their condition through future management. It is also a valuable complementary habitat to the adjacent meadows (SINC) and river (SSSI). The wood has a high degree of native species and naturalising character, although there are several non-native invasive species present (Himalayan balsam, snowberry, giant hogweed and cherry laurel) Brueton Park Wood is an Ecosite, SINC and part of a Local Nature Reserve and SSSI. The woodland is one of several valuable woodland islands within Brueton Park and the surrounding areas dominated by agricultural land and urbanisation; providing aesthetic as well as ecological value through breaking up a potentially monotonous, low diversity landscape. Scattered trees and the River Blythe provide corridors between this wood and others in the area which would help maintain the continuity of any remaining ancient species and provide a wildlife corridor.. The floral diversity is varied, although only one NVC community (W8) and a transitional community (W8/W10) being represented and therefore one HAP type. There is diversity in habitats with the presence of at least some deadwood habitats, a damp area, pond and clearings. The wood has a good woodland and water bird population and suggestion of being suitable for invertebrates, notably butterflies in the more open areas. Otter and water vole have been recorded in the River Blythe. Badger tracks were recorded during the survey and there are records of badgers within 200 m of the wood. There are some possible ancient woodland bank/ditches to the north-west and south edge of the wood. There is the potential for woodland improvement through re-introducing and establishing the coppice coups and favouring/encouraging the native species that are regenerating. There is also potential for improving the structure of the wood through encouraging a native understorey to develop. There is potential to increase the quality and quantity of the deadwood habitats within the wood There is potential for wetland/pond enhancement in the south (Target note 9) and around the pond. There is potential to increase the habitat diversity through management of the woodlands, re-introduction/continuation of re-established coppice management and management of glades. The latter options would be of particular value for woodland butterflies and dormice. Selective and sensitive thinning would encourage more age diversity within the canopy species. Deer, rabbits and squirrels do not appear to be a major problem at the present. Bluebells are locally abundant and are likely to be a major aesthetic asset to many of the woodlands in the spring. 				
<p style="text-align: center;">ECOLOGICAL MANAGEMENT PRIORITIES & RECOMMENDATIONS (based on conservation objectives and above evaluation)</p> <p>The management of this wood should be viewed in conjunction with the other woodlands managed by Solihull Metropolitan Borough Council (SMBC). For example some woodlands may lend themselves better to coppice; while in others may be more suited to minimal intervention. A range of habitats should be created across the district. Wildlife and public access are the key focus points for the management of woodlands within the SMBC District.</p> <p>The following management considerations should be considered to improve the future nature conservation values of the woodland:</p> <ul style="list-style-type: none"> Any current and future native shrubs, including hazel, holly, hawthorn and blackthorn, should be protected and/or encouraged and avoided during any forestry operations. Opening up and allowing the oaks to mature with some being retained as future veteran trees. Maintaining the age structure, particularly through encouraging natural regeneration. Planting and bramble control may be necessary to aid age restructuring. Management of open areas/glades with an irregular scalloped edge would allow greater light penetration and vary the habitat diversity and structure. Bramble control maybe necessary. This variation in habitat diversity and structure may encourage greater flora diversity and therefore be beneficial for birds and invertebrates. Native canopy trees should be favoured during any felling operations, although some scots pine and horse chestnut could be retained as specimen trees, while others could be ring braked to provide for future standing deadwood habitat. Re-establishment of coppice management, especially in the south where there is a suggestion of this being undertaken in the past. Encourage wet woodland species, such as alder and willow, in the damper areas, such as in the south and around the pond. Encourage hedgerow establishment where there are currently at least partial hedgerows around the periphery of woods with the view for future hedge layering. Removal and control on non-native invasive species; snowberry, giant hogweed, cherry laurel and Himalayan balsam. An artificial otter holt could be considered. <p>The following guidelines should be followed to ensure continued/improved conservation and aesthetic appeal of the woodlands and landscape and that impacts are minimised:</p> <ul style="list-style-type: none"> Establish/re-establish coppice coups/compartments. This will aid in the maintenance of a species and structurally diverse woodland. Protect any native shrubs during forestry operations. Forestry operations, particularly felling, should not be carried out during the bird breeding season (1 March until 31 August). Care should be taken not to damage any of the old banks. Bramble may become overwhelmingly dominant where significant light is allowed to reach the woodland floor, therefore it may be appropriate to develop an understorey prior to opening up the canopy. 				

- Management should favour native species in the canopy and understorey.
- Existing deadwood, both fallen and standing should be retained and protected. Some native trees should be retained to provide for future veteran trees and deadwood habitats. Some felled material should be left on site to create deadwood piles of value to invertebrates. Mature non-native broadleaves could be ringed barked to supply future standing deadwood habitat.
- Natural regeneration is the preferred option if restocking is required although planting may be necessary for species that are not readily regenerating. If the latter is the case it should be after attempts to encourage natural regeneration and local provenance is preferred.
- Prior to major forestry operations, the site should be checked for badger activity and the presence of setts. A licence from English Nature would be required for any works being undertaken within 30 m of a badger sett.
- Appropriate guidelines should be followed for operations being undertaken along the river edge and around the pond.
- The habitats adjacent to the River Blythe should be managed sensitively and enhanced for water vole and otter.
- English Nature will need to be notified prior to any works likely to impact upon the River Blythe SSSI. The pond within the wood is part of this SSSI.
- The site should be checked for otter use prior to any works being undertaken that are likely to disturb them if they are using the wood or immediate surrounds as a resting site or holt.
- Standard forestry practices for nature conservation/enhancement should be followed.

SITE NAME: BRUETON PARK WOOD	COMPILED BY: HELEN MILLER
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OWNERS OBJECTIVES

For full details of the owners objectives please refer to 'Woodland Strategy for Solihull'. The key objectives are summarised below.

1. 'Protect, manage and enhance Solihull MBC woodlands with, and for the benefit of Solihull residents, recreation, nature conservation and visual amenity.'
 - a) Public safety – ensure it is not neglected
 - b) Recreation and public access – maintain or improve where appropriate
 - c) Wildlife conservation – maintain and wherever suitable restore natural ecological diversity
 - d) Landscape enhancement – maintain and where appropriate improve aesthetic value
 - e) Sustainable management of woodlands – taking opportunities to produce utilisable products such as woodchips for fuel, charcoal, fence materials and interpretation signs.

MISSION STATEMENT / LONG TERM VISION

The aim is to develop woodlands, which balances visual amenity, recreation and nature conservation while maintaining the landscape character of the Borough.

The ecological assessment clearly identified that the Solihull woodlands have high current and future ecological value. Several of the woodlands also have archaeological features. The assessments and desk study also indicated the value that these woodlands have for the local residents of Solihull.

LONG TERM MANAGEMENT PROPOSALS / OPERATIONAL OBJECTIVES

Further details and generic long term management proposals and operational objectives can be found in the 'Woodland Strategy for Solihull'. A summary of the key points is provided below.

Aim

Long term objective

Operation objective

Public safety

Maintain public safety at all times in relation to trees
Monitor tree health. Undertake tree surgery only where necessary.

Maintain access for a range of users

Monitor access for all uses. Maintain multi-access paths in good conditions. Create new multi-access paths where appropriate.

Maintain safety in relation to dangerous plants

Control/remove plants known to be dangerous i.e. giant hogweed.

Maintain safety in relation to non-woodland product e.g. fly tipping

Monitor the woodlands for fly-tipping incidences. Clear up reported fly-tipping as soon as possible.

Recreation

Provide access

Create new multi access paths where appropriate. Create and maintain path networks through the wood.

Wildlife

Maintain a structurally diverse woodland.

Implement appropriate management e.g. selective felling, coppicing, group felling etc

Enhance habitat suitability for water voles

Manage bank side vegetation

Enhance the habitat suitability for otters

Create an artificial otter holt if appropriate

Enhance structural diversity within the woodland

Selectively thinning areas of dense growth or introduce coppice management

Protect trees and woodlands from development
Use additional statutory protection where appropriate e.g. TPOs, SINCS, LNRs, SSSIs etc

Protect associated habitats e.g. hedgerows
Incorporate into the woodland management plans. Impose Hedgerow Regulations (1997) if appropriate. Enhance/management as appropriate

Enhance/create wetland habitat
Favour appropriate species. Plant if necessary in wet/damp areas

Enhance habitat for roosting bats
Erect a variety of bat boxes. Retain standing deadwood. Identify future veteran trees

Increase habitat diversity - veteran trees
Identify future veteran trees

Increase habitat diversity - deadwood
Create deadwood habitat through ring barking selected trees and leaving some cut trees on site.

Protect the woodlands and wildlife from unnecessary disturbance
Educate the public through interpretation boards etc. Create and maintain footpath networks within the wood and encourage people to stay on them.

Increase habitat diversity - glades
Create rides/glades. Manage those already present.

Enhance ecological character - invasive species
Remove and control non-native invasive species.

Landscape

Protect trees and woodlands from development
Use additional statutory protection where appropriate e.g. TPOs, Conservations Areas

Maintain current landscape value
Avoid large areas of clearfell.

Products

Identify products and local outlets
Introduce a range of management systems to provide a range of woodland products suitable for local use. E.g. a range of coppice rotation lengths across the Borough

SITE NAME: BRUETON PARK WOOD

COMPILED BY: ALAN GUY. MIDDLEMARCH
ENVIRONMENTAL LTD

LONG TERM PROPOSALS (Silvicultural systems, broad management strategies)

- A) Management system: I) Wet Ash/Alder woodland (Cpmt 1): Minimum intervention system
ii) Oak-bramble woodland (Cpmt 2): High forest (with v. small coppice area)
- B) Detailed strategies are listed below.

1. Maintain a dead-wood resource

- a. Check availability of dead wood in woodland, both standing and lying
- b. If shortage of dead wood:
 - i. Select suitable areas away from main paths
 - ii. Use trees felled for thinning or group fellings for lying dead-wood.
 - iii. If no standing dead wood, select diseased or poorly formed trees for ring-barking. Treat birch in preference to oak or ash. Min. dia. 20cm.
 - iv. Do not ring-bark well-formed or healthy mature trees.
 - v. Ring-bark approx. 3-5 trees per hectare

2. Introduce Rides or Glades (secondary habitats)

- a. Rides: At least 10m width is desirable; introduce bends to avoid 'wind tunnelling' effect.
 - i. Check feasibility of rides in small woods: scallops (semi-natural circular glades) alongside existing narrow tracks may be more practical. Scallops should be min. 5m deep.
 - ii. Ride management is important: more diverse habitats are maintained if different sections of the ride are cut down or trimmed in rotation on a 2-3 year cycle (in autumn). Ride centres to be mown annually to provide areas of short grass.
- b. Glades: density of glades: one glade, dimensioned as below, per 3-4 ha of woodland.
 - i. Size of glades: One and a half canopy tree lengths across, for full daylight effect, and preferably rounded in shape.
 - ii. Existing glades: expand existing glades to the dimensions shown above.
 - iii. Location: Glades should be a 'stop-off' on clear ride(s) or path (s) as they will be used by the public. Glades adjoining ponds are beneficial to both habitats. Glades can also be formed by removing corners from ride junctions.
 - iv. Options: Consider planting native shrubs around edge of glade. Leave some felled trunks and short wood to minimise destruction of stands by some young adults.
 - v. Maintenance: As for rides, above.

3. Weed Control

- a. General Rules re Weeding
 - i. Application by knapsack sprayer or weed wiper in compliance with all legislation for chemicals management, health and safety and code of practice – obtain detailed guidance on this matter.
- b. Control Rhododendron and Laurel
 - i. Seedlings and plants under 0.5m: treat with glyphosate, triclopyr or ammonium sulphate. Plants over 0.5m : clear with bill hook, handsaw and/or chainsaw down to stumps during autumn/winter. Spray stumps and all re-growth in mid-May to end June or before re-growth has reached 1.0m tall.
- c. Control Himalayan Balsam, Giant hogweed, Snowberry These are also highly invasive species. Moreover, Giant hogweed can cause painful blistering and irritation when in contact with the skin and must be eliminated from all areas used by the public. Spray twice per season with glyphosate, as for Jap. knotweed above.

4. Enrichment planting

Use enrichment planting in water-side locations in south of wood (Cpmt 2) to increase presence of native wet woodland species such as Alder and Willow. In drier locations in Cpmt 2, selectively fell non-native species and replace with Oak and native understorey species, as per existing community.

- a. This measure is to be used as the site is too small for group regenerative fellings
 - If selectively felling to make space for new planting: select I) non-native trees, preferably of bad form ii) poorly formed, diseased or sub-dominant native trees.
 - Fence and/or sign the planting area, to deter public from disturbing the planting area.
 - Planting stock must be of local (midlands) provenance.
 - As a minimum, newly planted whips (up to 75cm) will need rabbit guards and caning. Tree shelters are better as they protect against muntjac and other deer and can be sprayed round for weed control, but are vulnerable to vandalism.
 - Larger standards will also need staking for first 2 years or so.
 - Weed control after planting: Spot or band spraying every year (in spring and optional late summer) for 3 years

after planting, if trees are in shelters. If not in shelters, manual or mechanical weeding is the only option.

5. Minimum intervention management of wet woodland

This applies to wet woodland (Cpmt 1).

- a. Avoid rapid changes in structure of Wood
- b. Maintain or restore diversity of structure
- a. Maintain diversity of habitat and species; as well as varied structure, secondary habitats such as open water and open areas created by felled or toppled trees.
- d. Maintain semi-natural woodland types; encourage and use only local native species and local stock.
- e. Regenerate naturally wherever possible rather than by planting
- f. Forestry techniques: Timber extraction (if essential) has to be done with great care & sensitivity to avoid serious damage to forest floor and fauna. Use of horses, cable crane or vehicles with weight-spreading tyres essential. Winter working is not normally possible.

(Taken from Forestry Commission Practice Guide 'Management of Semi-natural woodlands No. 8, Wet Woodlands', 1994)

6.. Protected species and breeding birds

- a. Any contractor working on this woodland site should make himself aware of all UK and European legislation pertaining to protected species. If he is advised or becomes aware of the current or previous presence of such species on or within 1 km of the site, he should seek professional ecological advice concerning the correct way to manage his forestry operations to take account of this presence.
- b. Details of the presence of such species are available from Solihull MBC.
- b. In any event, if forester finds evidence (during operations) of any protected species or of a nest, roost, sett, pond or other habitat which he thinks may currently contain such species, he must immediately cease work and advise Solihull MBC Senior Ecologist.
- c. Forestry operations, particularly felling, should not be carried out during the bird breeding season (1 March to 31 August) or on any tree containing eggs or young.
- d. Solihull MBC should survey each wood for badger activity/setts before work starts.

FIVE YEAR PLAN OF OPERATIONS (S.M.A.R.T.)

Years 1-5

G. Enrichment planting

- i. Carry out where shown on Plan. Planting at spacing of 1.8-2.0m.

I. Control invasive species

- i. Control invasive species i.a.w. 'Weed Control' protocol above.

Q. Minimum intervention management of wet woodland

- i. Manage wet woodland i.a.w. Forestry Commission guidelines detailed in protocol above.

Years 6-10

T. Natural regeneration – protection and selection

- i. Carry out i.a.w. protocol above. This includes natural regeneration which is not in the areas of group fellings.

V. Control invasive species

- i. Control invasive species i.a.w. 'Weed Control' protocol above.

W. Minimum intervention management of wet woodland

- i. Manage wet woodland i.a.w. Forestry Commission guidelines detailed in protocol above.

9**FC
2000**

WOODLAND LONG TERM MANAGEMENT PLAN

REF No. NWP015/209

MONITORING & REFERENCES

SITE NAME: BRUETON PARK WOOD

COMPILED BY: ALAN GUY. MIDDLEMARCH
ENVIRONMENTAL LTD**MONITORING**

Survey Wood once per year for the following:

- successful regeneration anywhere on site, particularly in trial areas.
- general health of canopy and understorey
- dangerous trees near well-used paths
- damage to trees or ground layer: deliberate or accidental
- damage to paths or forest floor from pedestrians, cyclists etc
- disease
- squirrel or deer damage in trees
- rabbit or deer damage to regeneration areas, coppice areas or newly planted trees/shrubs
- invasive species
- dumping of inert matter or other waste NB do not try to inspect suspicious substances, bags or containers: contact Environmental Health

REFERENCES

Woodland Strategy for Solihull. Solihull Metropolitan Borough Council Environment Services July 2000