


1	 2000	WOODLAND SURVEY SHEET. GENERAL SITE DESCRIPTION	County / Local Authority <i>West Midlands</i>
WGS REF. No. NWP/015/209	Site Name <i>Pow Grove</i>		District/Parish <i>Solihull</i>
Owner/tenant/agent <i>Solihull MBC</i>	Nature Conservation Status / Designation <i>EcoSite. SINC</i>		Total area (of included woodland) <i>0.8 ha</i>
	Other Designations / Protections <i>Midlands Plateau Natural Area (43)</i>		Grid ref (access) <i>SP 136 795</i>
Contact <i>David Lowe Solihull MBC, Ecologist Landscapes Section PO BOX 19, Council House, Solihull, West Midlands, B91, 3QT</i>	Ancient / Recent Semi-Natural / Plantation <i>ASNW</i>		Surveyor <i>Helen S Miller Middlemarch Environmental Ltd</i>
	Biodiversity Action Plan <i>Warwickshire, Coventry & Solihull BAP See Appendix A</i>		Date of survey <i>30 June 2004</i>

Woodland vegetation types (**mark on map**).
SEMI-NATURAL WOODLAND TYPE (HAPS):
Lowland mixed broadleaved (Forest Practice Guide 3)

NVC COMMUNITIES:
Estimated W10 – very few indicating species under a dense shrub canopy

PLANTATIONS:
No data available

Adjacent land (**mark on map**)
Urbanisation – residential housing to the south and amenity playing fields to the north.

Threats
Over use from recreation.
Invasion of exotics from neighbouring gardens.
Vandalism and garden/household waste dumping

Aspect <i>N/A</i>	Slope <i>More or less level</i>	Altitude <i>125 m</i>
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Soil– from Soilscape on www.magic.gov.uk

Ref/class	Name	Main surface texture class	Natural drainage type	Natural fertility
17	Slowly permeable seasonally wet acid loamy and clayey soils	Loamy	Impeded drainage	Low

Geology
Pleistocene sands

Climatic Factors From Met Office web-site for Stratford-Upon-Avon weather station, approximately 15 miles south of the Solihull Woodlands:

- 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															
Acer pse															
Aescu hip												R			
Alnus glu															
Betul pen	F														
Betul pub															
Carp bet															
Casta ast															
Conifer sp															
Coryl ave										R					
Crata mon															
Crata oxy															
Euony eur															
Fagus syl															
Frang aln															
Fraxi exc															
Ilex aqu	D												O		
Junip com															
Larix sp															
Malus syl															
Picea sp															
Pinus syl															
Popul tre															
Prunu avi															
Prunu lau										R					
Prunu pad															
Prunu spi															
Querc cer															
Querc pet/hybrid															
Querc rob	A														
Rham cat															
Rhodopon															
Salix alb															
Salix aur															
Salix cap															
Salix cin															
Salix fra															
Salix pen															
Salix vim															
Samb nig															
Sorbu ari															
Sorbu auc	A												R	R	
Sorbu tor															
Taxus bac												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 mixed broadleaved woodland, with oak and rowan dominating the canopy and holly dominating the understorey. The understorey is almost entirely holly and for the most part very dense. The wood could almost be considered as being a holly scrub wood with oak and rowan periodically forming an upper canopy. Bramble and ivy dominate the ground layer where the holly does not cast too much shade. Bluebells occur occasionally in the lighter areas.

There is limited habitat and structural diversity.

The NVC community is assumed to be W10 but there are no clear indicating species. Cherry laurel is rare within the wood.

The site is included on the Ancient Woodland Inventory. There are no clear management compartments or clear indication of current management. The desk study suggests that the wood is an oak-birch coppice.

The woodland appears to have minimal public use other than a cut through to the playing fields from the residential housing. There are limited paths through the wood.

The boundaries consist of fences. There is a slight bank/ditch along the north edge.

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	0.8	Recent Semi-nat OSNW	Ancient Replanted AWS	Recent Plantn.
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Area occupied by each NVC type

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

Tree layer	Height 9 M	Cover (%) 60	Shrub layer	Height 4 M	Cover (%) 80
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Age class abundance (all species, using DAFOR system)

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

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

- 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
Pow Grove

Surveyor
Helen S Miller
Middlemarch Environmental Ltd

Date of survey
30 June 2004

HABITATS, FEATURES & COMMUNITIES (MARK ON MAP)

Habitats

The NVC community is assumed to be W10 but there are no clear indicating species. The structure is primarily two tier with oak, birch and rowan forming a partial canopy over holly. There is poor species and habitat diversity. These are detailed below (Target notes) and marked on the map.

The field layer is species-poor, bramble generally being dominant with a limited range of common woodland vascular species occurring at least rarely throughout. The most frequent included Bluebell *Hyacinthoides non-scripta* and ivy *Hedera helix*. Other species were rare and included cleavers *Galium aparine*, various grasses, honeysuckle *Lonicera periclymenum*, nettle *Urtica dioica*, buttercups *Ranunculus* spp., wood sage *Teucrium scorodonia* and broad buckler fern *Dryopteris dilatata*.

Wetland features

There are no wetland features within the wood.

Veteran trees and deadwood

Deadwood habitats are rare within the wood (Target note 2).

Notable species

Bluebell occurs within the wood – a UK BAP species.

There was limited bird activity within the wood.

Cherry laurel, non-native invasive species, occurs in several places within the wood (Target note 1)

Other features

There is a suggestion of a bank/ditch along the north edge of the wood.

Adjacent landuse

The adjacent land is urbanisation – residential housing to the south and amenity playing fields to the north.

Target notes for map

1. Cherry laurel.
2. Deadwood - fallen rowan. Opening in canopy.

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2000****WOODLAND SURVEY SHEET
OTHER VALUES OF THE WOOD**

REF No. NWP/015/209

SITE NAME: POW GROVE

COMPILED BY: HELEN S MILLER MIDDLEMARCH
ENVIRONMENTAL LTD
DATE: AUGUST 2004**ARCHAEOLOGY & CULTURAL HERITAGE**

Pow Grove Wood is identified on English Nature's Ancient Woodland Inventory as ASNW.

There are no scheduled or nationally designated historic features within the woodland.

There is the suggestion of old banks along part of the north edge and an internal bank dividing the wood into two.

LANDSCAPE

Pow Grove 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.

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.

The land surrounding Pow Grove is relatively flat and the wood is one of several forming value semi-natural features in a landscape dominated by urbanisation. The small size, locality and situation of Pow Grove is fairly typical of the Character Area and Natural Area in which it occurs.

RECREATION / PUBLIC ACCESS

Pow Grove appears to have minimal public use other than a 'cut-through' to the playing fields from the residential housing. There are limited paths through the wood. The nearest footpath is about 1 km SE of the wood. Access to the site primarily consists of path cutting north-south through the wood, from Welcome Grove.

There are no clear rides or footpaths although the wood. Other than the paths indicated on the map, Pow Grove is more or less inaccessible.

WOOD PRODUCTION, GAME / LIVESTOCK & OTHER CONSIDERATIONS

There does not appear to be any formal wood production taking place within the wood at present.

PHOTO No. 1 (mark location and direction on map) Typical of site. 67°.	DATE: 30 June 2004	NVC TYPE: W10
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PHOTO No. 2 (mark location and direction on map)	DATE:	NVC TYPE:
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N/A

6	FC 2000	WOODLAND SURVEY SHEET ECOLOGICAL EVALUATION & MANAGEMENT RECOMMENDATIONS		REF No. NWP/015/209
	SITE NAME: POW GROVE	SURVEYOR: HELEN S MILLER MIDDLEMARCH ENVIRONMENTAL LTD		DATE OF SURVEY: 30 JUNE 2004
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)				
<ul style="list-style-type: none"> • The conservation significance of Pow Grove lies in the ASNW status and the potential to improve its condition through future management. The wood has a high degree of native species and naturalising character but has minimal species and habitat diversity. • Pow Grove is an Ecosite and SINC. • The woodland forms a valuable woodland island within an area dominated by urbanisation; providing aesthetic as well as ecological value through breaking up a potentially monotonous, low diversity landscape. However, the woodland is fairly isolated from other semi-natural habitats. • The floral diversity is relatively uniform and species poor with only one NVC community being represented (W10) and therefore one HAP type. As a result of the low species diversity this NVC community has been estimated. There is poor diversity in habitat with minimal other habitats within the wood. There is limited deadwood. The wood appears to have a poor woodland bird population and there is limited habitat suitable for invertebrates such as butterflies. • There are some possible ancient woodland bank/ditches to the north and dissecting the wood into two. • There is the potential for woodland improvement through re-introducing and establishing the coups and favouring/encouraging the native species that are regenerating, although the holly may need to be thin/removed as it is forming a dense shaded understorey. There is also potential for improving the structure of the wood through encouraging a more diverse native understorey to develop which in turn should allow a diverse ground layer to develop. <ul style="list-style-type: none"> There is potential to increase the quality and quantity of the deadwood habitats within the wood. Some of the older oaks, have the potential for future veteran trees. There is potential to increase the habitat diversity through management of the woodland and creation of rides/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 and understorey 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. • There are several non-native invasive species within the wood –cherry laurel. 				
ECOLOGICAL MANAGEMENT PRIORITIES & RECOMMENDATIONS (based on conservation objectives and above evaluation)				
<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.</p> <p>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, should be protected and/or encouraged and avoided during any forestry operations. • Thin some of the holly where it is dense to allow canopy and other understorey species trees such as oaks and hazel to establish. • Opening up and allowing the oaks to mature with some being retained as future veteran trees. Improving the age structure, particularly through encouraging natural regeneration. Planting and bramble control may be necessary to aid age restructuring. • Re-creation/creation of rides/glades with an irregular scalloped edge would allow greater light penetration and vary the habitat diversity and structure. This variation in habitat diversity and structure may encourage greater flora diversity and therefore be beneficial for birds and invertebrates. • Control of non-native invasive species; cherry laurel, to prevent shading out the native ground flora. • Discourage garden and house hold waste dumping. • Create new standing/fallen deadwood where safe to do so. • Alternatively this woodland could be considered for minimum intervention and allowed to remain as a dense holly grove with oaks and rowan. 				
<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 management 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. • Natural regeneration is the preferred option if restocking is required although planting may be necessary. If the latter is the case it should be after attempts to encourage natural regeneration and local provenance is preferred. • Standard forestry practices for nature conservation/enhancement should be followed. 				

SITE NAME: POW GROVE	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 structural diversity within the woodland

Selectively thinning areas of dense growth or introduce coppice management

Maintain ecological and historical character of ancient woodland

Implement sensitive and appropriate management

Protect trees and woodlands from development

Use additional statutory protection where appropriate e.g. TPOs, SINCS, LNRs, SSSIs etc

Protect from vandalism by fire, litter, garden and house hold waste dumping etc
Education to local residents e.g. leaflet dropping, interpretation boards, school visits. Open up areas where these problems are particular high e.g. create open vista habitats within the wood or at woodland entrances (i.e. at fly-tipping hot spots)

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.

Enhance for bird life
Erect bird boxes

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

Increase connectivity
Expand woodland into adjacent land if appropriate.

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: POW GROVE

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LONG TERM PROPOSALS (Silvicultural systems, broad management strategies)

1. Expand area of woodland

- a. Better if new area is former woodland, unploughed or treated since.
- b. Best if created by natural regeneration (local genetic stock maintained; natural successional stages)
- c. If soil has been compacted by vehicle or heavy pedestrian use, prepare compacted ground by scarifying or rotavating.

2. 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

3. Weed Controla. 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.

4. Thin stands to open up woodland canopy

- a. Excessive thinning will encourage fast-colonising, non-woodland plants.
- b. In very dense, neglected stands, thinning must be very gradual or wind-throw may result.
- c. Normally a maximum 15-25% of trees are renewed in a thinning when trees are young to semi-mature. This declines to 10-15% later in the rotation.
- d. Target final densities of stands when fully mature are:
 - i. Oak 60-90 stems/Ha.
 - ii. Ash 120-150 stems/Ha.
(Forestry Commission Bulletin 62 (1984))

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

Years 1-5

- A. Thinning**
 - i. Thin all areas shown on Plan i.a.w. protocol above.
- F. Selection and protection of natural regeneration**
 - i. Carry out in all test areas and other areas where regeneration of desired species has occurred; in accordance with protocol above.
- H. Expand area of woodland**
 - i. Mark and/or fence off new area to be allowed to regenerate. If necessary, prepare compacted ground by scarifying or rotavating. As regeneration appears, select and protect as per F. above.
- I. Control invasive species**
 - i. Control invasive species i.a.w. 'Weed Control' protocol above.
- J. Extraction of timber**
 - i. Extract all timber arising from thinning and group fellings, using either forwarder or, in wet/sensitive areas, horse or forwarder with low impact tyres.
- K. Dead wood resource**
 - i. Leave sufficient felled trees as dead wood resource. Standing dead trees to be left, if necessary using ring barking i.a.w. protocol above.
- M. Ecological/archaeological procedures**
 - i. All operations to be carried out i.a.w. protocols concerning Protected Species (if any), Nesting birds, Water habitats, Archaeological features.

Years 6-10

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

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2000**

WOODLAND LONG TERM MANAGEMENT PLAN

REF No. NWP015/209

MONITORING & REFERENCES

SITE NAME: POW GROVE

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