

INTRODUCTION

Aberford's most important 'natural heritage' sites (ie those designated by Natural England or LCC for their wildlife or geological value) are already protected against development through Core Strategy Policy G8. The Hook Moor Site of Special Scientific Interest (SSSI) is also protected via national legislation. The Neighbourhood Plan cannot add to their protection. The 7 designated sites are as follows and are detailed below.

- Hook Moor
- Barwick Bank
- Becca Banks, Aberford
- Bramham Park (part)
- Parlington Hollins
- Aberford Osiers

In addition to specific sites, Aberford also plays host to several types of UK Priority Habitat, as identified by the West Yorkshire Ecological Service (WYES), including ancient and semi-natural woodland and lowland calcareous grassland. These are also protected by Core Strategy Policy G8. Further information, including a map/maps, is provided below and/or separately as indicated.

These UK Priority Habitats in turn form part of the Leeds Habitat Network (see below), a network identified through joint work by LCC and WYES which serves to join disparate sites and habitats together in order to provide routes or stepping stones for the migration, dispersal and genetic exchange of species in the wider environment. The network is partly embodied within strategic green infrastructure and Aberford's local green infrastructure and is as such covered by Core Strategy Spatial Policy 13 and Policy G9, together with Neighbourhood Plan Policy GE2.

Aberford is also home to a number of important individual species, including two species of bat, red kite and barn owl. These enjoy protection through national legislation and Core Strategy Policy G8.

DESIGNATED SITES

Hook Moor Site of Special Scientific Interest

This site comprises five sections of roadside embankment of the A1 at the Hook Moor junction, 2km south of Aberford. It lies within the band of Magnesian Limestone running north-south through this part of northern England.

These embankments provide ideal habitat conditions for the nationally rare thistle broomrape *Orobanche reticulata*, here present in relative abundance. The open grassland communities are unmanaged, thus allowing the field thistle *Cirsium arvense* on which this species of broomrape is parasitic, to grow unchecked. A diverse mixture of rough pasture and ruderal species also occur in the sward including ragwort *Senecio jacobaea*, oat grass *Arrhenatherum elatius*, cocksfoot *Dactylis glomerata* and bramble *Rubus fruticosus*.

The distribution of the thistle broomrape has been considerably reduced through modern agricultural practices to a few sparse localities in West and North Yorkshire. Consequently it is considered to be a nationally endangered species. It appears erratically from year to year and on most sites has been found to occur as isolated individuals on permanent pasture. Recently Hook

Moor has emerged as being one of the top two sites in Britain due to its unusual abundance of this species.

Barwick Bank Site of Ecological or Geological Importance

Barwick Bank woodland lies on a relatively steep west-facing slope above Cock beck east of Barwick in Elmet. The wood stretches for approximately 1.5 Km and lies on the junction of the coal measures and southern magnesian limestone. The disused quarries show good exposures of Magnesian Limestone bedrock. The site boundaries include Cock beck to the west, Aberford Road to the north and arable fields to the east.

The main part of this woodland has a typical limestone woodland canopy with abundant ash, *Fraxinus excelsior*, sycamore, *Acer pseudoplatanus* and wych elm, *Ulmus glabra* with some beech, *Fagus sylvatica* and silver birch, *Betula pendula* and occasional English elm, *Ulmus procera*. The main shrub is hawthorn, *Crataegus monogyna* with elder, *Sambucus nigra*, hazel, *Corylus avellana* and guelder rose, *Viburnum opulus*. The herb layer is dominated by dog's mercury, *Mercurialis perennis* and false brome, *Brachypodium sylvaticum* with herb robert, *Geranium robertianum*, sanicle, *Sanicula europaea*, wood sedge, *Carex sylvatica*, common dog violet, *Viola riviniana*, wood avens, *Geum urbanum* and the regionally rare wood barley, *Hordelymus europaeus*. This is typical of the W8e subcommunity. The northern edge of the wood supports a mature *Fagus sylvatica* plantation over a similar but less diverse herb layer, which has been recorded as W8. There are areas of woodland where the canopy is dominated by *Acer pseudoplatanus* and *Fraxinus excelsior* and the herb layer by ramsons, *Allium ursinum*. These areas are small and occur on some of the steeper slopes. This forms the W8f sub-community. In places conifers, including scots pine, *Pinus sylvestris* and larch, *Larix decidua* have been planted over the W8 herb layer.

The other main woodland community is present adjacent to Cock beck and is dominated by aspen, *Populus tremula* and occasional alder, *Alnus glutinosa* over a sparse shrub layer of *Sambucus nigra*, crack willow, *Salix fragilis* and goat willow, *S. caprea*. The herb layer is dense with himalayan balsam, *Impatiens glandulifera*, cleavers, *Galium aparine*, nettle, *Urtica dioica*, meadowsweet, *Filipendula ulmaria*, angelica, *Angelica sylvestris*, and *Allium ursinum*. This is typical of W6d woodland.

The increased light levels along the main track through the wood and the glades has allowed typical calcareous grassland species to survive, including cowslip, *Primula veris*, common twayblade, *Listera ovata*, wild basil, *Clinopodium vulgare*, wild strawberry, *Fragaria vesca*, hairy St John's wort, *Hypericum hirsutum*, common spotted orchid, *Dactylorhiza fuchsii* and the regionally rare dewberry, *Rubus caesius*.

Ecological Evaluation: Barwick Bank woodland is a good example of a Magnesian Limestone ash woodland. It shows good regeneration and canopy structure. The ground flora is diverse and supports some rare species. The site also supports a good range of breeding bird species and lepidoptera.

Site Management: The woodland is in private ownership and forms part of the Parlington Estate. There is one public footpath through the woodland. The woodland has been disturbed in places with tipping evident and parts of the woodland are managed for commercial timber production with plantation planting of conifers and beech.

Becca Banks Local Wildlife Site

Becca Banks is an area of woodland adjoining Becca Low Wood on a west-facing slope north-west of Aberford. The south-western boundary is formed by Cock beck and field boundaries, the northern boundary by Becca Low Wood and the north-eastern boundary by fields. Becca Banks is an important archaeological site.

The woodland is fairly uniform throughout with a typical limestone woodland canopy dominated by ash, *Fraxinus excelsior*, sycamore, *Acer pseudoplatanus* and wych elm, *Ulmus glabra* with some beech, *Fagus sylvatica* and silver birch, *Betula pendula* and occasional English elm, *Ulmus procera*. The main shrub is hawthorn, *Crataegus monogyna* with elder, *Sambucus nigra*, hazel, *Corylus avellana* and some dogwood, *Cornus sanguinea*, crabapple, *Malus sylvestris*, spindle, *Euronymus europaeus* and guelder rose, *Viburnum opulus*. The herb layer is dominated by dog's mercury, *Mercurialis perennis* and false brome, *Brachypodium sylvaticum* with herb robert, *Geranium robertianum*, sanicle, *Sanicula europaea*, wood sedge, *Carex sylvatica*, common dog violet, *Viola riviniana*, wood avens, *Geum urbanum*, wood anemone, *Anemone nemorosa*, bluebell, *Hyacinthoides non-scripta* and early purple orchid, *Orchis mascula*. The woodland contains the regionally rare green hellebore, *Helleborus viridis*, deadly nightshade, *Atropa belladonna*, baneberry, *Actaea spicata* and dewberry, *Rubus caesius*. The woodland is typical of the W8e sub-community. On less drained soils the herb layer is dominated by *Allium ursinum* typical of the W8f subcommunity.

The other main woodland community is present adjacent to Cock beck and is dominated by aspen, *Populus tremula* and *Alnus glutinosa* over a sparse shrub layer of *Sambucus nigra* and crack willow, *Salix fragilis*. The herb layer is dense with Himalayan balsam, *Impatiens glandulifera*, cleavers, *Galium aparine*, nettle, *Urtica dioica*, meadowsweet, *Filipendula ulmaria*, angelica, *Angelica sylvestris*, butterbur, *Petasites hybridus* and *Allium ursinum*. This is typical of W6d woodland. There is a population of the regionally rare greater pond sedge, *Carex riparia* and wood small-reed, *Calamagrostis epigejos* along Cock beck.

Ecological Evaluation: Becca Bank woodland is a good example of a Magnesian Limestone ash woodland. It shows good regeneration and canopy structure. The ground flora is diverse and supports some rare species.

Site Management: The woodland is in private ownership and is partly managed for timber and a pheasant covert. Replanting of felled timber should be with species typical of W8 woodland.

Bramham Park Local Wildlife Site (part)

This large site, only a small part of which lies within Aberford, is owned by the Bramham Park Estate and consists of mainly plantation woodland with areas of calcareous and neutral grassland. Surrounding land use includes fields of improved grassland and arable, with site boundaries including fences, hedges, dry ditches and stone walls. There are several public footpaths along the boundaries of the site to the north, south east and south west. Wothersome Woods is adjacent to the north and Norwood Bottoms SSSI is to the west.

The south eastern part of the site has areas of W8 woodland, W10 woodland and mixed plantation (with *Pinus* sp. and *Larix* sp.) with W8/W10 ground flora. W8 areas have *Fraxinus excelsior*, *Acer pseudoplatanus*, *Fagus sylvatica* and *Quercus robur* in the canopy, with *Crataegus monogyna*, *Prunus spinosa*, *Corylus avellana*, *Taxus baccata*, *Sambucus nigra* and *Ulmus glabra* in the understorey. The ground flora has abundant *Mercurialis perennis*, locally abundant *Allium ursinum*, and frequent *Rubus fruticosus* agg. and *Brachypodium sylvaticum*. Occasional species include *Hyacinthoides non-*

scripta, *Lysimachia nemorum* and *Carex sylvatica*. W10 areas have *Acer pseudoplatanus*, *Fagus sylvatica*, *Quercus* spp. and *Betula* spp. in the canopy, with abundant *Pteridium aquilinum* and *Rubus fruticosus* agg. in the ground flora. There is a large area to the west which is intermediate between these communities, with a mixed canopy and locally abundant *Pteridium aquilinum*, *Rubus fruticosus* agg. and *Mercurialis perennis* in the ground flora. Along the stream is a strip of W7 woodland, with abundant *Alnus glutinosa* and occasional *Betula pendula*, *Fraxinus excelsior* and *Sambucus nigra*. The ground flora has frequent *Carex remota* and *Juncus effusus*, with occasional species including *Angelica sylvestris*, *Carex pendula*, *Lysimachia nemorum*, *Mentha aquatica*, *Phalaris arundinacea*, *Veronica beccabunga* and *Athyrium filix-femina*.

Grassland on rides consists mainly of neutral grassland (with similarities to MG5) with wetter MG9 patches and some CG5 calcareous grassland. The neutral grassland has frequent *Agrostis capillaris*, *Centaurea nigra*, *Holcus lanatus*, *Festuca rubra* and *Plantago lanceolata* with locally frequent *Calamagrostis epigejos*. Occasional species include *Brachypodium pinnatum*, *Carex flacca*, *Carex demissa*, *Dactylorhiza fuchsii*, *Rhinanthus minor* and *Stachys officinalis*, with rarely occurring *Alchemilla vulgaris* agg. and *Carex pallescens*. The patches of MG9 have abundant *Deschampsia cespitosa*, locally abundant *Glyceria fluitans* and frequent *Filipendula ulmaria*, *Holcus lanatus* and *Ranunculus repens*, with occasional species including *Angelica sylvestris*, *Carex remota*, *Juncus effusus*, *Ranunculus flammula*, *Lysimachia nemorum*, *Potentilla erecta* and *Veronica beccabunga*. CG5 areas have locally abundant *Festuca ovina*, frequent *Brachypodium pinnatum*, *Briza media*, *Bromopsis erecta*, *Helianthemum nummularium*, *Lotus corniculatus* and *Leontodon hispidus* with locally frequent *Pilosella officinarum*. Occasional species include *Carex flacca*, *Centaurea nigra*, *Dactylorhiza fuchsii*, *Danthonia decumbens*, *Linum catharticum*, *Ononis repens*, *Polygala vulgaris*, *Sanguisorba minor* and *Anacamptis pyramidalis*, with rarely occurring *Carex pulicaris*.

Bird species recorded on the site were Sparrowhawk, Grey Heron, Woodpigeon, Chaffinch, Red Kite, Chiffchaff, Nuthatch, Long-tailed Tit, Greenfinch and Pied Wagtail. Butterfly species recorded were Meadow Brown, Ringlet, Small Tortoiseshell, Speckled Wood, Small White, Red Admiral and Small Skipper. Other animal species recorded were Mole, Rabbit, Grey Squirrel, Stoat and Common Frog.

Ecological Evaluation: Gr1 Rare habitat (CG3, CG4, CG5) SE; Gr2 Species rich neutral/calcareous grassland SE; Wd4 Species richness (vascular plants) SE.

Parts of the site meet Criteria Gr1 for rare grassland habitats with a size threshold of 0.1ha. These are CG5 on rides to the south east (0.97ha) and CG5 on a track in New Black Fen in the south eastern corner of the site (0.33ha). An area of grassland also meets Criteria Gr2 for species-rich neutral/calcareous grassland, with thresholds of 0.25ha and a score of 10. This is the grassland rides (CG5, B22, MG9) in Black Fen to the south east, with a total score of 31 and an area of 6.7ha (CG5 0.97, score 18; B22/MG9 5.7 ha, score 14).

The woodlands meet Criteria Wd4 for species diversity of vascular plants, with a threshold of 80 species. The south east area has 84 native vascular plant species recorded.

Parlington Hollins Site of Ecological or Geological Importance

Parlington Hollins is an extensive woodland site which lies to the south-west of Aberford. The site lies across the Magnesian Limestone/Coal Measures boundary; this can be seen in the differences in the ground flora within the woodland. The woodland is all replanted ancient woodland. The site boundaries include hedges and fences and the site is surrounded by arable land.

There are three main woodland communities. The north-eastern part of the woodland has blocks of beech, *Fagus sylvatica*, sycamore, *Acer pseudoplatanus*, larch, *Larix decidua*, Norway larch, *L. kaempferi* and Scots pine, *Pinus sylvestris* with ash, *Fraxinus excelsior* and wych elm, *Ulmus glabra*. The scrub layer is sparse but includes hawthorn, *Crataegus monogyna*, hazel, *Corylus avellana*, field maple, *Acer campestre*, *Sambucus nigra* and the typical limestone species dogwood, *Cornus sanguinea* and wild privet, *Ligustrum vulgare*. The herb layer is varied but frequent species include dog's mercury, *Mercurialis perennis*, false brome, *Brachypodium sylvaticum*, bluebell, *Hyacinthoides non-scripta*, herb robert, *Geranium robertianum*, sanicle, *Sanicula europaea*, wood anemone, *Anemone nemorosa*, wild strawberry, *Fragaria vesca*, wood millet, *Milium effusum*, common dog violet, *Viola riviniana*, wood avens, *Geum urbanum* and lords and ladies, *Arum maculatum*. This is an example of W8 woodland and supports the County rarity green-flowered helleborine, *Epipactis phyllanthus*, along with columbine, *Aquilegia vulgaris*, solomons seal, *Polygonatum multiflorum*, false oxlip, *Primula veris* x *vulgaris*, goldilocks buttercup, *Ranunculus auricomis* and traveller's joy, *Clematis vitalba* all these species are uncommon in West Yorkshire.

The southern part of the woodland is similar but with a more mixed semi-natural canopy with pedunculate oak, *Quercus robur*, silver birch, *Betula pendula*, downy birch, *Betula pubescens* and rowan, *Sorbus aucuparia* with some yew, *Taxus baccata*, lime, *Tilia vulgaris* and horse chestnut, *Aesculus hippocastanum*. The shrub layer is sparse with some *Crataegus monogyna* and *Sambucus nigra*. The herb layer is dominated by creeping soft-grass, *Holcus mollis* with *Hyacinthoides non-scripta*, bracken, *Pteridium aquilinum*, broad buckler-fern, *Dryopteris dilatata*, male fern, *D. filix-mas* and bramble, *Rubus fruticosus* agg. This is typical of W10 woodland communities. The woodland rides support a range of species including common spotted orchid, *Dactylorhiza fuchsii* and the calicoles fairy flax, *Linum catharticum*, hairy St Johns-wort, *Hypericum hirsutum* and common gromwell, *Lithospermum officinale*.

There is an area of wet woodland in the south-western end of Parlington Hollins. The canopy here is dominated by aspen, *Populus tremula* with crack willow, *Salix fragilis*, grey willow, *S. cinerea* and alder, *Alnus glutinosa*. The shrub layer includes *Sambucus nigra* and guelder rose, *Viburnum opulus* with *Salix* species. The herb layer is dense with nettle, *Urtica dioica*, cleavers, *Galium aparine*, soft rush, *Juncus effusus*, creeping buttercup, *Ranunculus repens*, meadowsweet, *Filipendula ulmaria*, ramsons, *Allium ursinum*, hogweed, *Heracleum sphondylium*, yellow archangel, *Lamium galeobdolon* and angelica, *Angelica sylvestris*. This is an extensive area of the regionally uncommon W6 community. The grassland area is calcareous in character and dominated by tor grass, *Brachypodium pinnatum* and upright brome, *Bromopsis erecta*. Other species present include cowslip, *Primula veris*, black knapweed, *Centaurea nigra*, fairy flax, *Linum catharticum*, wild strawberry, *Fragaria vesca*, common milkwort, *Polygala vulgaris*, hairy St John's-wort, *Hypericum hirsutum* and field scabious, *Knautia arvensis*. This is an example of the CG5 community. Scattered scrub cover, including *Crataegus monogyna*, *Betula pendula*, *Corylus avellana* and *Rosa* spp is present in the grassland area.

The woodland contains two ponds. These water bodies hold populations of white water-lily, *Nymphaea alba* forming the A9 community and Canadian water-weed, *Elodea canadensis*, curled pondweed, *Potamogeton crispus* and spiked water-milfoil, *Myriophyllum spicatum* in the A11 community.

The woodland supports a good range of breeding birds and is of considerable interest for Lepidoptera, including the regionally uncommon speckled wood.

Ecological Evaluation: Parlington Hollins is a good example of a woodland on the Magnesian Limestone/Coal Measures boundary with the characteristics of both rock types. The woodland is

mostly plantation but is diverse and supports a number of rare and uncommon species. The site supports a range of birds and invertebrates, including the speckled wood butterfly.

Site Management: The woodland is intensively managed for timber and pheasant rearing but contains a number of footpaths and is used for recreation. The woodland has been disturbed in places with tipping evident. Replanting coniferous areas with native broadleaved species would be beneficial.

Aberford Osiers Local Wildlife Site

The Aberford Osiers site is located just to the east of Aberford town, on the opposite side of the railway line. The adjacent land use is mostly used for cereal production, and there is a sewage works bordering the north-west part of the site. The cock beck runs along the edge of the site and is the district boundary between Leeds and North Yorkshire. There is also some W6 woodland on the far side of the beck. To the east of the site there used to be some calcareous grassland habitat but there was only a small patch of this still evident at the time of the site visit and it had become overgrown with MG1 grassland/tall herb vegetation. A pony had recently been let out on this area to graze.

The site is covered by W7 wet woodland and the species include abundant *Salix fragilis* and rare *Alnus glutinosa* in the canopy, occasional *Prunus spinosa* in the shrub layer and frequent *Urtica dioica*, *Impatiens glandulifera* and *Poa trivialis*, occasional *Chrysosplenium oppositifolium*, *Glechoma hederacea*, *Scrophularia auriculata* and *Iris pseudacorus*, locally abundant *Carex acuta* and *C. riparia* and rare *Filipendula ulmaria*, *Mentha aquatica*, *Caltha palustris*, *Cardamine amara* and *Angelica sylvestris* in the ground flora.

There is an open area to the west of the woodland, which contains swamp habitat and some open water, and is host to abundant *Iris pseudacorus* and *Phalaris arundinacea*, occasional *Carex riparia* and *Filipendula ulmaria*.

A number of bird species were recorded at the site, including singing males of yellowhammer, reed bunting, chaffinch, willow warbler, blackcap, garden warbler and song thrush, a juvenile great tit, long-tailed tits (contact calls), and wood pigeon (in flight). Roe deer tracks were recorded in the wood, while meadow brown and common blue butterfly were seen on the open areas. There were around 100 young froglets on the land adjacent to the pond margins.

Ecological Evaluation: The woodland meets Criteria Wd3, as it has a diversity score of 10 points, which is the minimum threshold score for wet woodland.

Atropa belladonna was recorded in the tall grassland area, to the east of the site. This species is noted as being quite rare and scattered within the County (West Yorkshire Plant Atlas). A rare species in the County is required though to meet Criteria Vp3.

UK PRIORITY HABITATS WITHIN ABERFORD

The following UK Priority Habitats are to be found within the Aberford Neighbourhood Area:-

- Lowland Calcareous Grassland
- Lowland Mixed Deciduous Woodland
- Traditional Orchards

See separate maps.

Detailed definitions and descriptions of these habitats can be found on the Joint Nature Conservation Committee's website (<http://jncc.defra.gov.uk/page-5718>) under 'UK Biodiversity Action Plan: Priority Habitat Descriptions'.

LEEDS HABITAT NETWORK

See separate maps.