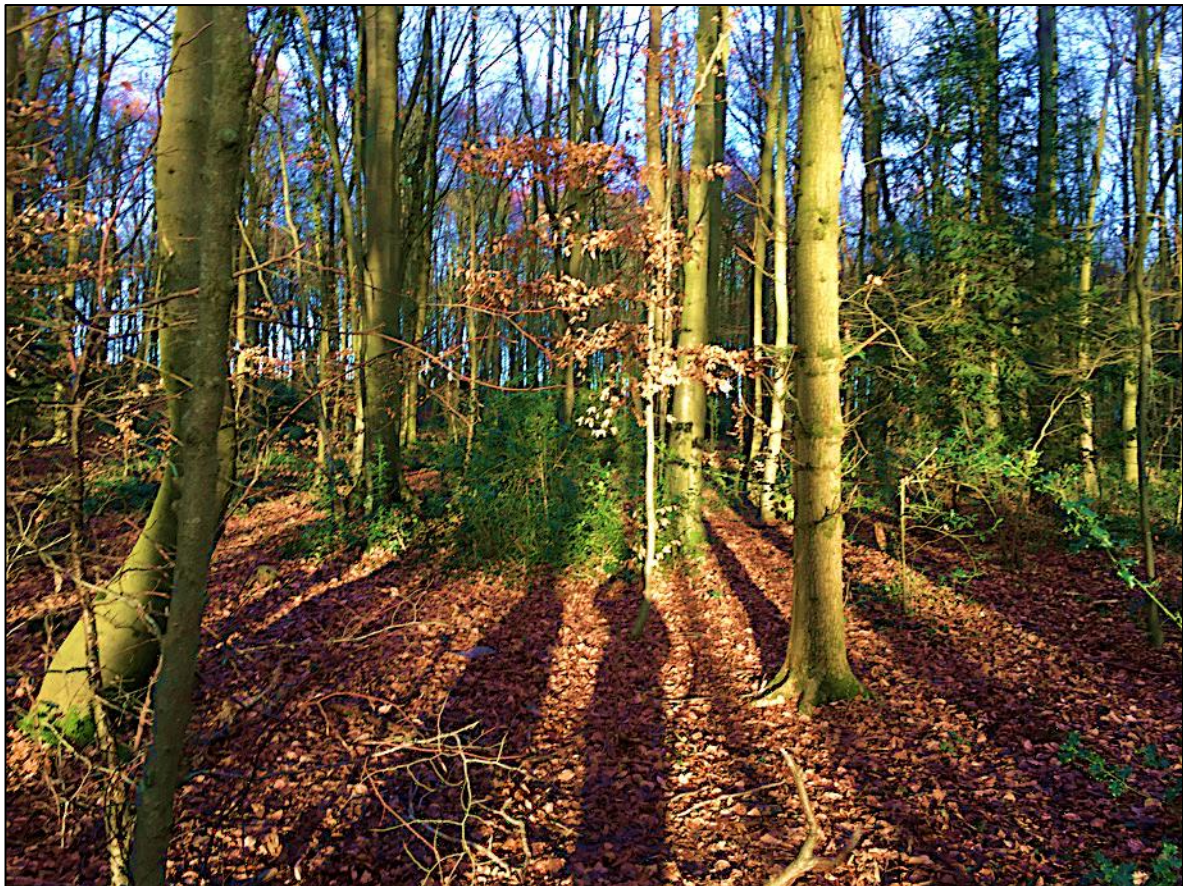


# Chalford Parish - Habitat Survey and Management

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Frith Wood, Chalford, January 2020.

# CHALFORD CLIMATE ACTION – BIODIVERSITY

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### Chalford Parish Baseline Ecological Survey 2020

#### Introduction

Chalford Parish has acknowledged that there is a climate emergency and that efforts need to be made to (i) identify the activities that have contributed to this emergency and (ii) find ways of halting and reversing the damage by taking action in several areas. Carbon capture and storage, and enhancement of biodiversity are two very important elements of this effort.

For this to be a success, a comprehensive knowledge of the wildlife resource of Chalford Parish is required. This will inform our future strategy to identify the ecosystem services that will help us to become resilient to climate change while simultaneously enhancing health and well-being for humans and wildlife alike.

#### Baseline data - Habitats

Firstly, baseline habitat data needs to be collated. An open-source Geographical Information System (QGIS) is being set up to collate all existing available data sets on habitats in the Parish. This will map the land cover and habitat types within the Parish and assist with assigning activities related to efforts for enhancing biodiversity and eliciting increased carbon capture and storage.

The easiest data to collect are free online data sets from Natural England and other sources for protected areas. These include:

#### Statutory designated sites (SSSIs, SAC, SPAs).

- These are protected by law and data for them is held with Natural England. There are no statutory designated sites within the Parish boundary but Strawberry Banks Site of Special Scientific Interest (SSSI) abuts the eastern boundary (Fig. 1). More detail on some of these terms are to be found in Appendix 1.



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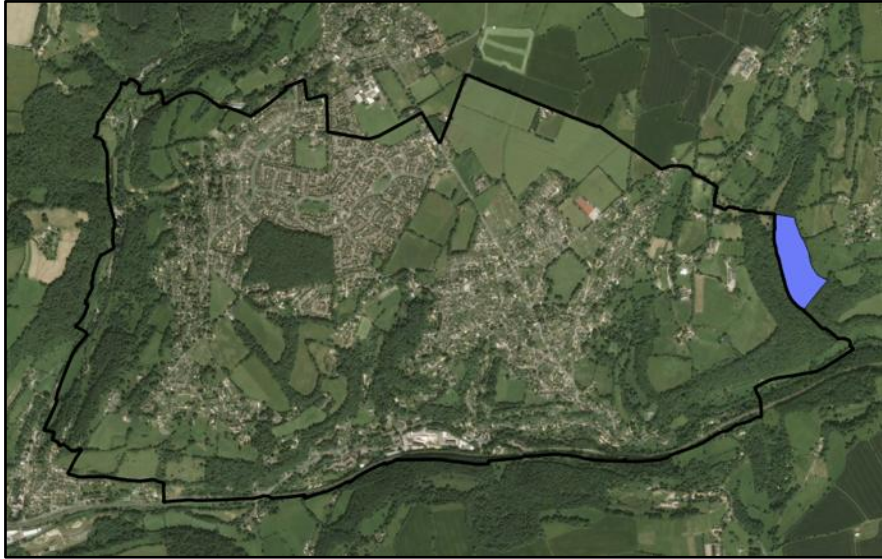


Figure 1 SSSI Strawberry Banks

### Non-statutory designated sites

These include several data sets but important ones are;

- Local Wildlife Sites – sites of local nature conservation importance, which have data sets associated with them. They are surveyed and collated by the Gloucestershire Wildlife Trust through their Environmental Records Centre (GCER). Data may be accessed through agreements with the Wildlife Trust (Fig. 2) and data for Chalford is available on the Parish Maps website. Some of the data will be out of date so it will be a good idea to resurvey these at some point. This is particularly important when it comes to responding to planning applications and would be flagged up by the Wildlife Trust.



Figure 2 Local Wildlife Sites

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- The Priority Habitats concept dates back to the Convention on Biological Diversity (1992), whereby 193 parties signed up to protecting semi-natural habitats identified as being the most threatened, and requiring conservation action, under the UK Biodiversity Action Plan (UK BAP - 1995). These include data for all recognised habitats (65 to date) of conservation worthiness and are available as shape files - held by Natural England. However, data associated with them do not appear to be in the public domain. They also may be inaccurate or out of date. Data can be separated and represented by individual habitat (Fig. 3). Local Priority Habitats are listed as Arable Land, Broadleaved Woodland, Hedges, dry stone walls and field margins, old meadows and pastures, orchards, ponds, rhines, rivers and water bodies. Locally important Priority Habitats are listed on the Gloucestershire Wildlife Trust (GWT) website. <https://www.southglos.gov.uk/documents/Biodiversity-Action-Plan-2016-26.pdf> along with other useful information.



**Figure 3 Priority Habitats**

- National Forest inventory covers woodlands of all types (Fig. 4). This has been provided by the Forest Research Institute.



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Figure 4 National Forest Inventory

- Ancient Woodland data set is available from Natural England also (Fig. 5). These relate to woodlands that were recognised as far back as 1600AD. **There is only 2.4% left in the UK, half of which has been replanted.**

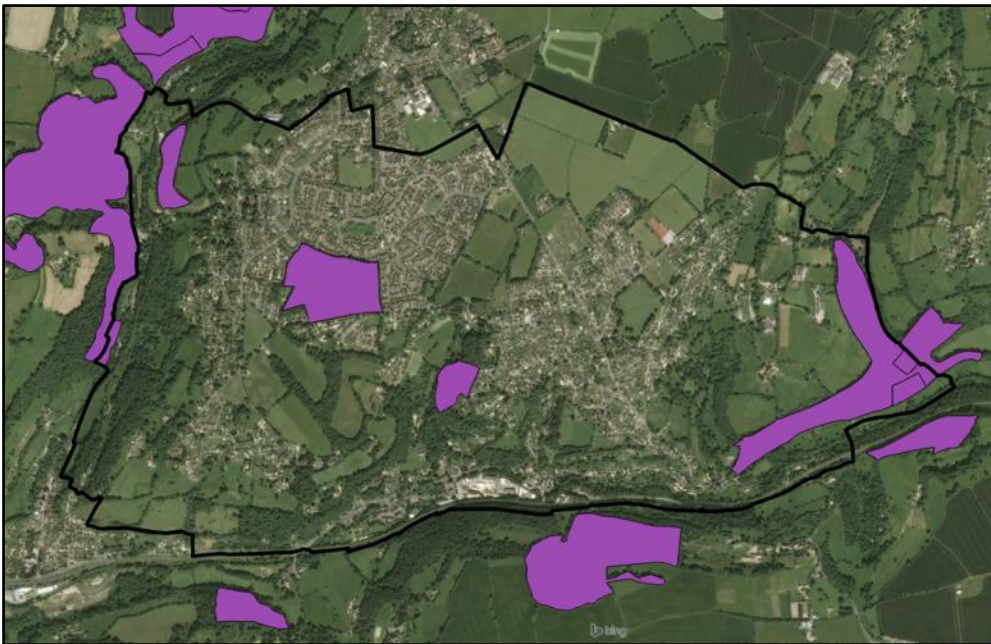
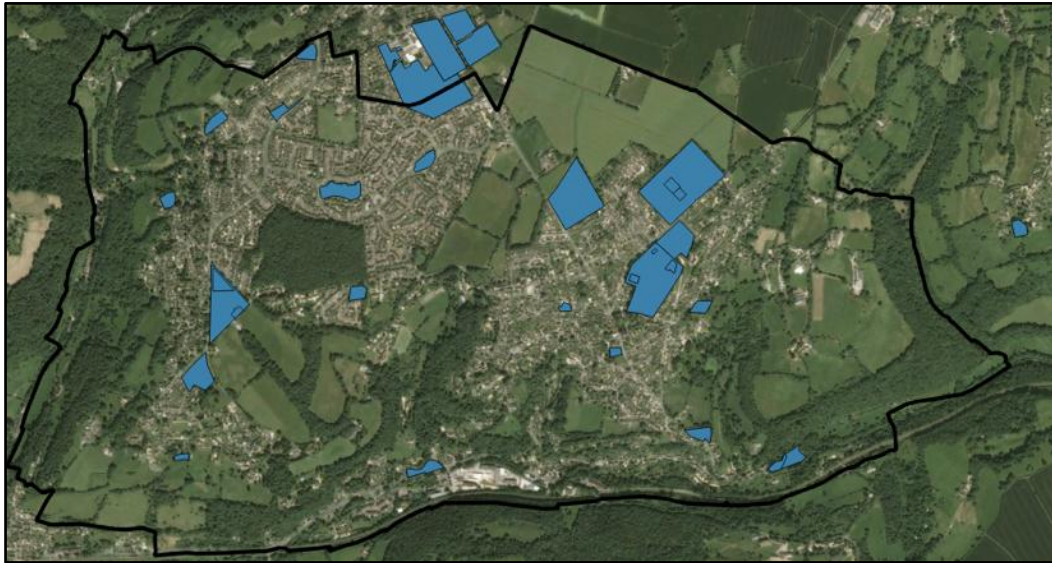


Figure 5 Ancient Woodland

- Open Spaces data sets are available for some towns and are held by Ordnance Survey. Freely downloadable as shape files but with no associated data (Fig. 6).

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**Figure 6 Open Spaces (OS)**

- Many open spaces are churchyards and graveyards, which often have high potential for biodiversity due to the lack of fertilisers used on these sites.
- Traditional Orchards, a layer also provided by Natural England, of which there is one in the Parish (Fig. 7).

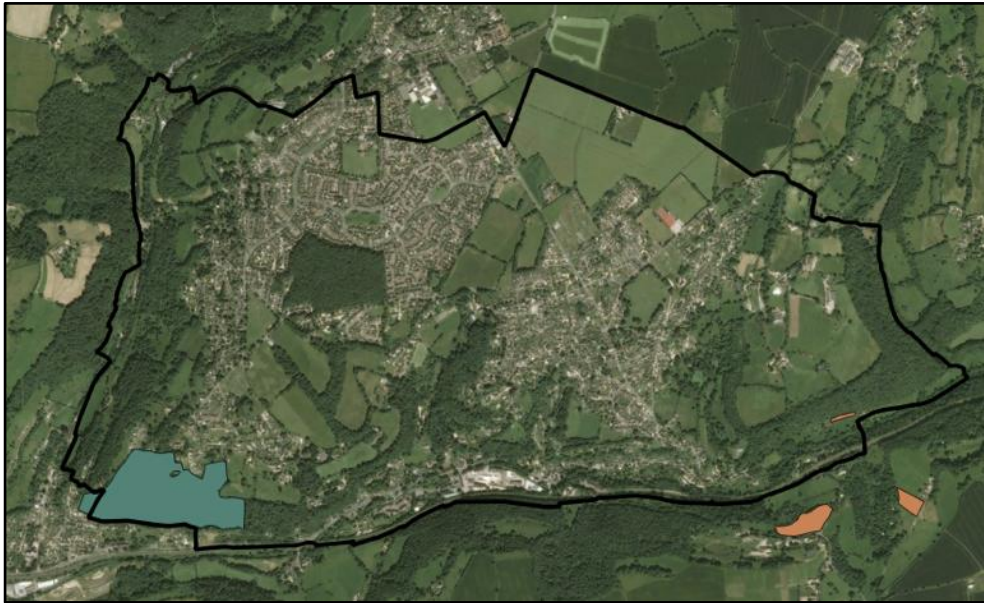


**Figure 7 Traditional Orchards**

- The Countryside Stewardship Scheme is a National Scheme for subsidising farmers who farm in an environmentally friendly way. There is one area of grassland under this scheme in the Parish. Usually this involves reducing fertiliser input and related management options to enhance biodiversity (Fig. 8). This system will be replaced by Environmental Land Management System (ELMS) in a couple of years time.

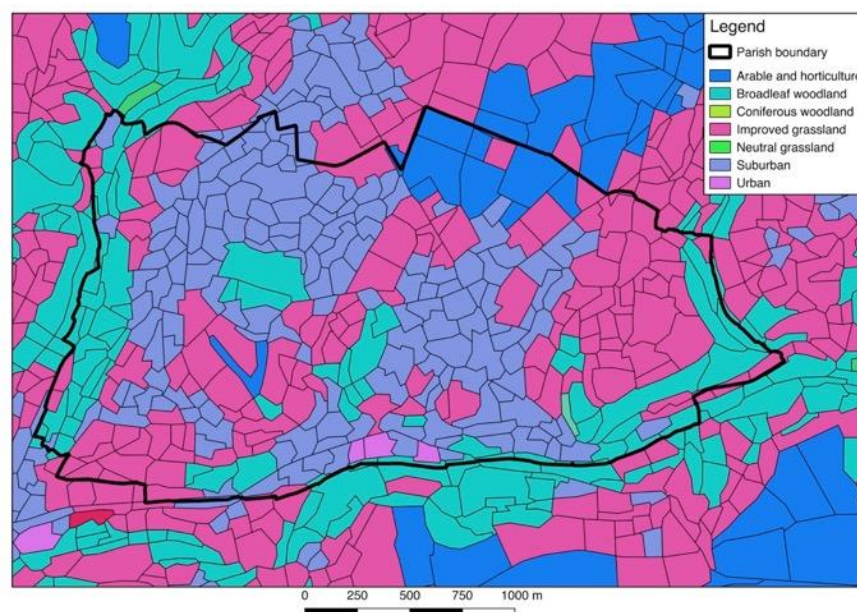


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**Figure 8 Agri-environment - Countryside Stewardship Scheme**

- Another source of data is the Land Cover data collected roughly every six years by the Centre of Hydrology and Ecology. These data are created from up-to-date satellite imagery, transformed by modelling into land cover types and is a national database. The data include habitats but the accuracy for some habitats is low and therefore cannot be relied upon for fine scale survey. However, it is useful for collating statistics about general habitat cover. For Chalford it can be said that there is roughly a third urban cover, a third of woodland cover, a third grassland cover and a small percentage of arable (Figs. 9 and 10). These are useful statistics for assessing carbon capture and loss in the Parish.



**Figure 9 CEH Land Cover 2015**

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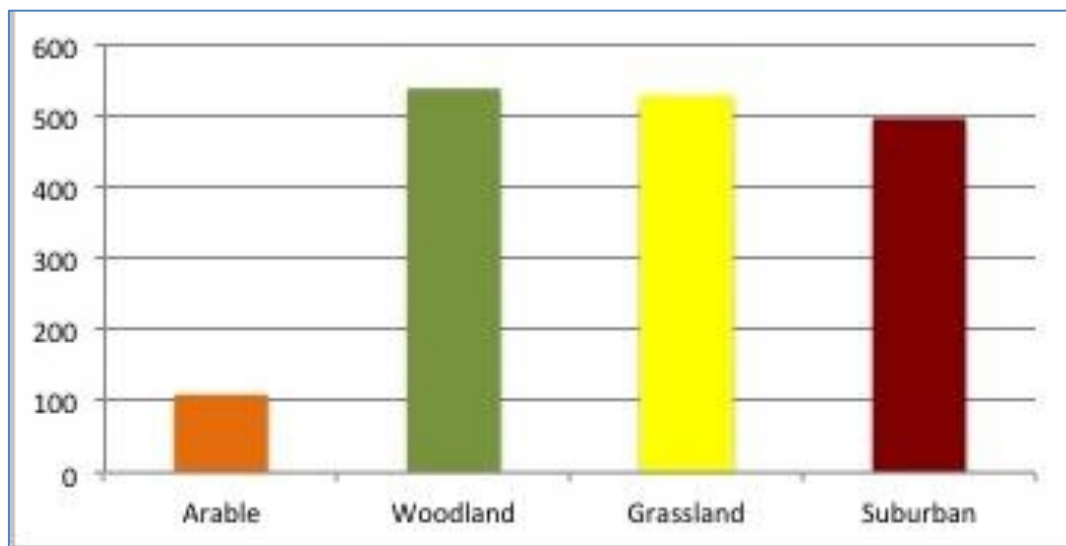


Figure 10 Land Cover in Chalford in hectares (CEH)

### Strategy for Survey

GIS maps are currently being produced of these different interacting layers. This will help to prioritise surveying effort.

The Parish Council and Gloucestershire County Council owns or has management rights over various parts of the Parish (Appendix 2). In terms of what to survey first, these areas are probably a good place to start as they are not in private hands. However, permission from the Council may be required for road verges for example as there are significant Health and Safety issues with these.

Local Wildlife Sites already have data sets available with them so could be set-aside for this season (access to these data are being negotiated with the Parish Council at present who have possession of them for a pending neighbourhood plan. If available, they will be entered into the GIS).

Priority Habitats, while being recognised by Natural England, have no data available, so it might be good to prioritise survey of these areas. Permission would need to be sought from private landowners for access to some of them.

Priority grasslands are a sub-set of the Priority Habitats inventory and these are presumably semi-natural grasslands that should be surveyed for biodiversity to assess current management and offer methods for enhancement (Fig. 11). These grasslands do not have any statutory protection

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and are vulnerable to development and change, particularly from housing development or other form of conversion e.g. change of use to arable.



**Figure 11 Priority Grasslands**

Open Spaces and any areas of Ancient Woodland accessible to the public should be surveyed as a matter of urgency as many stakeholders are interested in improving these for wildlife, community enjoyment and well-being. Ash dieback is a significant issue and the Parish Council were interested in knowing where all the ash trees are in the Parish with a view to replacing them when they succumb to the disease. Work on this has already started in Frith Wood, designated as an ancient woodland, mapping the positions and number of the Ash trees in the Parish-owned part (Fig. 12). We are currently identifying places to plant new trees to replace the ones removed by Ash Dieback.

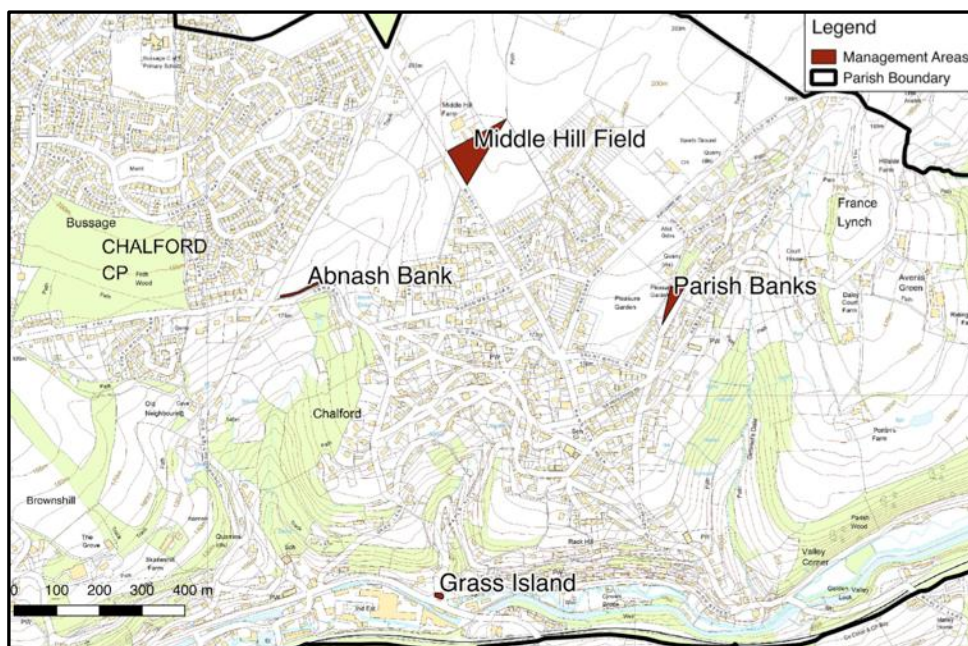


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**Figure 12 Ash trees in Frith Wood, Chalford.**

The Chalford community is concerned about the unnecessary mowing of many of the roadside verges in Chalford by the Parish Council as this lowers their diversity in terms of flowering. Some of these have already been identified for survey, along with an area of Open Space adjacent to the Middle Hill allotments, which will be used for Community benefit in the future (Fig. 13).



**Figure 13 Areas in the Parish currently being managed by Biodiversity Action.**

### National and regional survey initiatives

#### Natural England

During 2020, a series of National survey initiatives were proposed and we will endeavour to fit our work into these new initiatives. The most important of these is a spatial dataset created by Natural England. They have recently produced a map for the whole country which highlights areas for the creation of a network which promotes the recovery of nature. This is based on existing Priority Habitats and uses these to link up other habitats to create a network. This network will increase resilience against climate change while providing more area for wildlife to live, move and thrive in the landscape. When this is applied to Chalford Parish, areas are identified where linkages and corridors may be made between existing habitats to create a 'flow' of biodiversity through the Parish. With upcoming changes to the planning laws, this may be crucial to prevent houses being built in inappropriate places.

This is a spatial dataset that describes the geographic extent and location of Habitat Networks for 18 priority habitats based primarily, but not exclusively, on the priority habitat inventory with additional data added in relation to habitat restoration-creation, restorable habitat, plus fragmentation action, network enhancement and expansion zones. The maps are created following a standardised process that incorporates a range of data layers and identifies specific locations for a range of actions to help improve the ecological resilience for each of the habitats/habitat networks.

The habitat network maps are developed around four distinct habitat components sets and include four distinct network zones where action may be undertaken to build greater ecological resilience. The different elements of the maps are described below:

#### Habitat Components

- The location of existing patches of a specific habitat for which the network is developed. This is termed the 'Primary habitat' e.g. lowland heathland. The main baseline data used for this is the Priority Habitat Inventories (PHI).
- The location of additional habitat that naturally form mosaics with the primary habitat e.g. habitats that are most likely to form ecological mosaics possibly

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used by species associated with the primary habitat. This is termed the 'Associated habitat'. The main baseline data used for this is the Priority Habitat Inventories (PHI).

- The locations where habitat creation or restoration is known to occur - this is primarily sites under relevant agri-environment options. This is termed the 'Habitat creation'.
- Sites where data suggests small fragments of the primary habitat or degraded habitat exists and where restoration may be possible, this is primarily developed from information held within the current PHI. This is termed the 'Restorable habitat'.

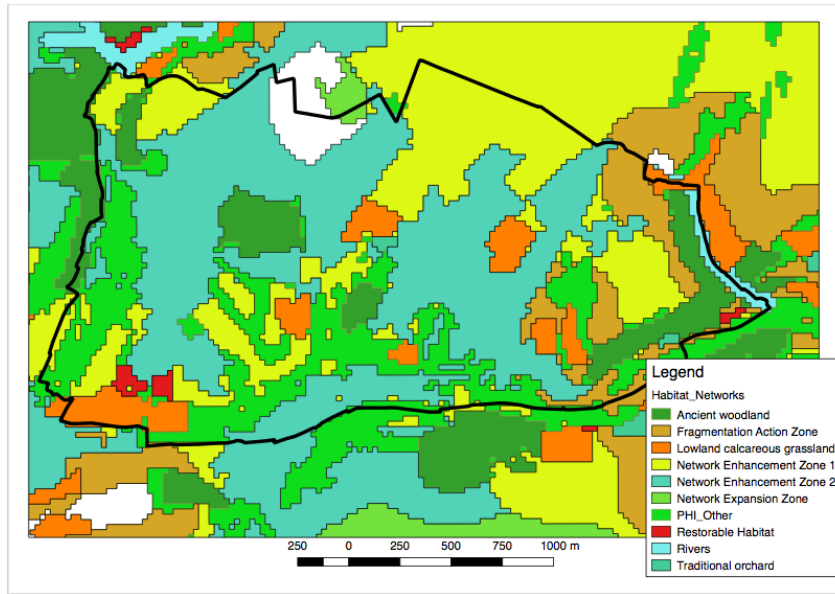
### Network Zones

- Land within close proximity to the existing habitat components that are more likely to be suitable for habitat re-creation for the particular habitat. These areas are primarily based on soils but in many cases has been refined by also using other data such as hydrology, altitude and proximity to the coast. This is termed the 'Network Enhancement Zone 1'.
- Land within close proximity to the existing habitat components that are unlikely to be suitable for habitat re-creation but where other types of habitat may be created or land management may be enhanced including delivery of suitable Green Infrastructure. This is termed the 'Network Enhancement Zone 2'.
- Land immediately adjoining existing habitat patches that are small or have excessive edge to area ratio where habitat creation is likely to help reduce the effects of habitat fragmentation. This is termed the 'Fragmentation Action Zone'.
- Land within relatively close proximity to the Network Enhancement Zones 1 & 2 that are more likely to be suitable for habitat creation for the particular habitat and identifying possible locations for connecting and linking up networks across a landscape. This is termed the 'Network Expansion Zone'

For Chalford Parish the raw output for this is presented in Figure 14.



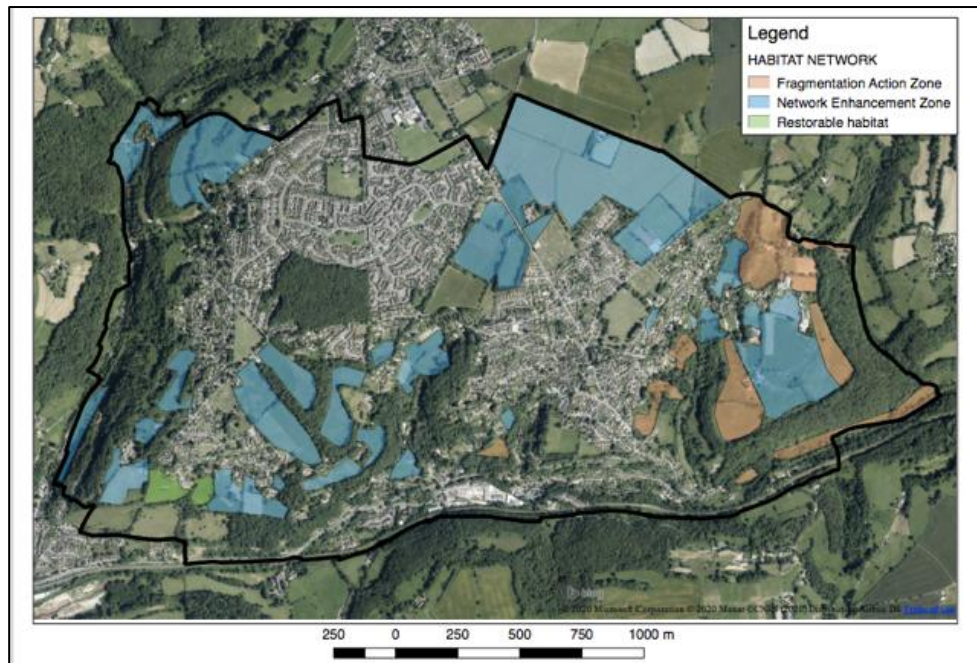
## CHALFORD CLIMATE ACTION – BIODIVERSITY



**Figure 14 Proposed Habitat Networks within Chalford Parish Boundary.**

With the knowledge gained from the surveys in 2020 within the Parish, this map was modified to reflect the possible areas for change (Figure 15). These include two fields for Restoration (green) adjacent to known species-rich chalk grassland, Network Enhancement Zones (blue) where it may be possible to improve the existing habitat and Fragmentation Action Zones (brown), which involve areas where fragmented woodland may be planted up in the future to create larger contiguous blocks of woodland.

These do not include areas already designated in some form for wildlife.



**Figure 15 Revised indicative Habitat Network map for Chalford Parish.**

### Woodland Opportunity Mapping

Almost simultaneously, another national spatial dataset was released by Friends of the Earth (FoE). This dataset used an algorithm to predict where it would be possible to plant more woodland in response to the climate emergency. This is an online data set, but individual parishes can get detailed maps from the creator Tim Richards <https://takeclimateaction.uk/woodland-opportunity-mapping-england>. See Figure 16 for the Woodland Opportunity Map for Chalford Parish.

Interestingly, some of these areas do overlap with aspects of the Habitat Network spatial dataset from Natural England. With these two indicative datasets, it is possible to target areas for improvement in habitat quality and quantity, particularly woodlands, but also limestone grasslands.

## CHALFORD CLIMATE ACTION - BIODIVERSITY

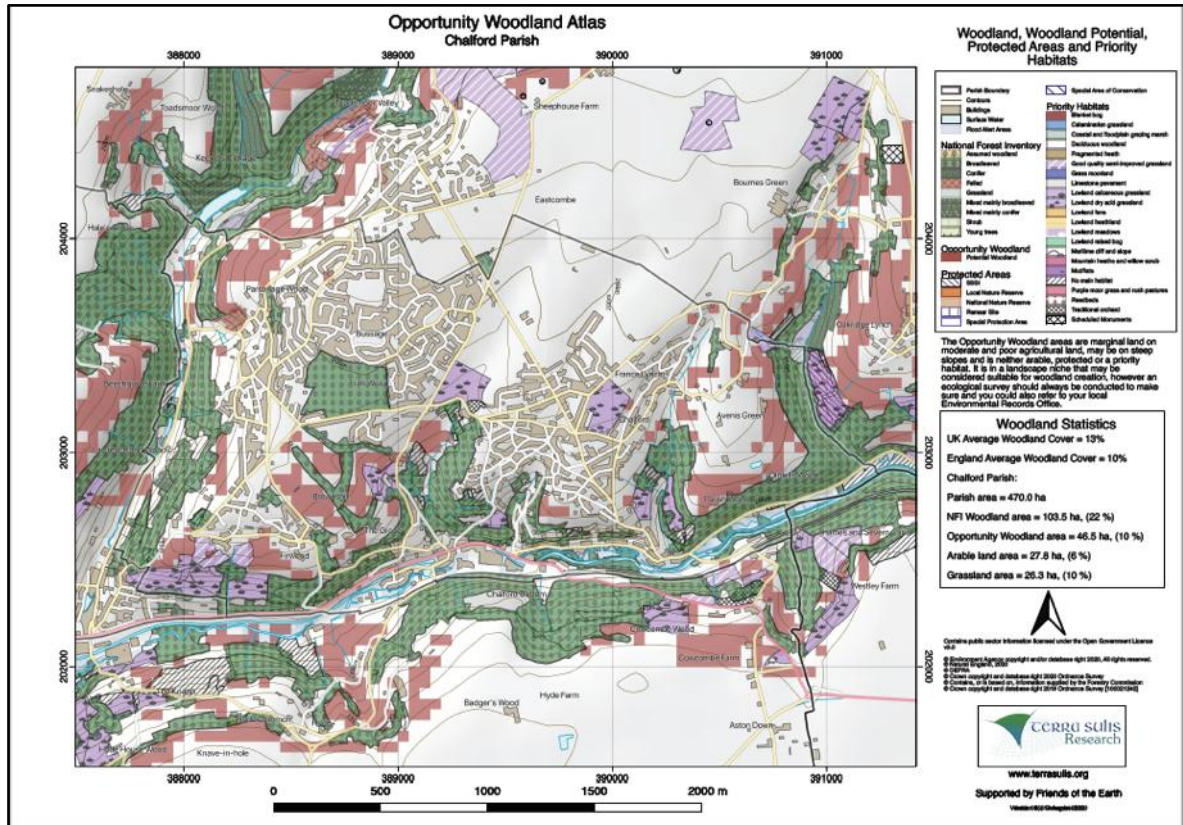


Figure 16 Woodland Opportunity Map for Chalford Parish (brown areas).

### Gloucestershire Local Nature Partnership

The Gloucestershire Local Nature Partnership has recently been set up to map ecosystem services (productivity, carbon storage, air pollution removal, water provision and biodiversity) (Figure 17). From a biodiversity point of view, a more regional approach is being trialled presently by GWT for the County of Gloucestershire. They will be organising local volunteers to carry out surveys of sections of the County with a view to enhancing the habitat network. The Chalford Parish Survey dovetails nicely with this survey and will be contributing data to it.

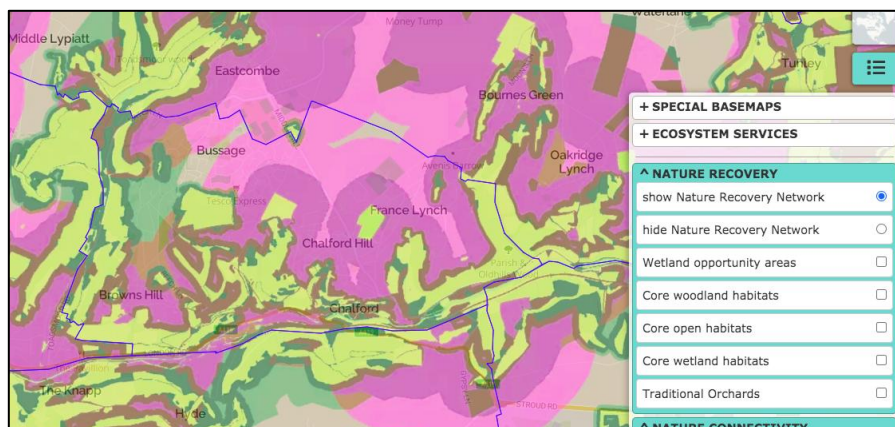


Figure 17 GLNP interactive map <https://naturalcapital.gcerdata.com/>.



### **Outcomes**

With the digital data collected, combined with recent field surveys, it is proposed to produce a 'habitat priority map' for Chalford Parish, where areas are identified (outside of existing designations) for habitat restoration or recreation. This will encourage increased biodiversity and connectivity in the Parish, in collaboration with regional and national initiatives, and protect vulnerable habitats from unwanted development. The Parish Council are now fully supportive of this approach. The target for production of this map is December 2021. It is hoped to link this map to surrounding parishes to create a landscape scale approach to nature recovery.

### Appendix 1 - Explanations of terms

#### *Site of Special Scientific Interest*

A Site of Special Scientific Interest (SSSI) is a formal conservation designation. Usually, it describes an area that is of particular interest to science due to the rare species of fauna or flora it contains - or even important geological or physiological features that may lie in its boundaries.

#### *Local Wildlife Sites*

Local Wildlife Sites are areas of rich diversity that provide refuges and corridors for wildlife across Gloucestershire. They include a variety of valuable semi-natural habitats such as ancient woodland, species-rich grasslands, river valleys, heathland and hedgerows. These sites have no legal protection, but are recognised as the most important wildlife places outside of Sites of Special Scientific Interest (SSSI).

#### *Priority Habitats*

Priority Habitats are recognised by Natural England as habitats of principle importance for conservation of biological diversity and are the focus of conservation action.

#### *Traditional Orchards*

Traditional Orchards are a Priority Habitat and are defined as groups of fruit and nut trees planted at low densities in permanent grassland and managed in a low intensity way. They are excellent for biodiversity.

#### *The National Forest Inventory*

The National Forest Inventory (NFI) provides an extensive and unique record of key information about our forests and woodlands. It includes the most in-depth survey carried out on Britain's woodland and trees to date.

#### *Open Greenspace*

The OS Open Greenspace depicts the location and extent of spaces such as parks and sports facilities that are likely to be accessible to the public. Its primary purpose is to enable members of the public to find and access green spaces near them for exercise and recreation.

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### *Nature Recovery Network*

Natural England have recently created a national database which endeavours to assign areas to a NRN based on Priority Habitats<sup>1</sup>. In addition, the NRN could be designed to bring a wide range of additional benefits in the form of ecosystem services such as pollination, carbon capture, flood management, water quality improvements and greater public enjoyment.

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<sup>1</sup> Edwards J, Knight M, Taylor S & Crosher I. E (May 2020) 'Habitat Networks Maps, User Guidance v.2', Natural England.



## CHALFORD CLIMATE ACTION - BIODIVERSITY

### Appendix 2 - Parish holdings

#### LAND IN THE PARISH REGISTERED/NOT REGISTERED AND WHICH THE PARISH COUNCIL HAS RESPONSIBILITY/MAINTAINS

##### REGISTERED

Land	Position	History	Registered/Deeds	Maintenance
Rear of Doctors' Surgery	Off Tanglewood Way	This land was transferred to the PC by RH in 2002	Registered GR248283	Grass cut fortnightly
Top of Frithwood Neighbourhood Centre	Top of shops car park	As above	Registered above	Grass cut fortnightly
Lark Rise	Between Lark Rise and Gerald's Way	As above	Registered above	Grass cut fortnightly
Alder Way	Between Alder Way and Tanglewood Way	As above	Registered above	Grass cut fortnightly
Rear of Bussage School	School side of path	As above	Registered above	Grass cut fortnightly
Ash Grove	By the side of no. 10 Ash Grove	As above	Registered above	Grass cut fortnightly
Old Neighbourhood	Path at the side of Old Neighbourhood	As above	Registered above	Grass cut three times a year
Eagle Close	Path below Eagle Close by the side of steps	As above	Registered above	Grass cut three times a year
Valley Playing Field	Valley	Maintained and registered to PC. Gifted to the PC in 1920. Later registered as a charity no. 277975	Deeds held and registered GR304179	Grass cut fortnightly
Valley	Marle Hill bus shelter land	Gifted to the PC in 1955 from Miss Sheppard	Deeds held and Registered GR306942	No grass

##### DEEDS HELD

Land	Position	History	Registered/Deeds	Maintenance
Valley	Land adjoining the Playing Field to the East	Transferred in 1968 from Water Board to PC.	Deeds held but not registered	Not mowed. Work done if required.
Valley	Strip of Garden Ground between Brook and canal	Transferred in 1916 from William Rowles to the PC	Deeds held but not registered	Not mowed. Work done if required.

##### PARISH COUNCIL LAND

LAND	POSITION
Rear of Doctors' Surgery	Off Tanglewood Way

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Top of Frithwood Neighbourhood Centre	Top of shops car park
Lark Rise	Between Lark Rise and Gerald's Way
Alder Way	Between Alder Way and Tanglewood Way
Rear of Bussage School	School side of path
Ash Grove	By the side of no. 10 Ash Grove
Old Neighbourhood	Path at the side of Old Neighbourhood (near top)
Eagle Close	Path below Eagle Close by the side of steps
Valley Playing Field	Valley
Marle Hill bus shelter land	Valley, off A419
Land adjoining the Playing Field to the East	Valley
Strip of Garden Ground between Brook and canal	Valley
Middle Hill Allotments	8 acres of land on Middle Hill
France Lynch Allotments	3 acres of land in France Lynch next to pleasure ground
Brownshill Allotments	2 acres of land near to Bussage pleasure ground
Bussage Pleasure Ground	Ground near to Ashley Drive, Bussage.
France Lynch Pleasure Ground	Ground near to Burcombe Way.
Frithwood – includes 1.6 hectares of the wood, both sides of the PROW MCH16.	Bussage, adjacent to Eagle Close
Frithwood Cemetery	The Frith
Parish Centre And Open Space	Gerald's Way

### PARISH COUNCIL MAINTAINS BUT OWNERSHIP UNKNOWN/UNCLEAR

Land	Position	History
Vatch End	Junction of The Ridge and Ridgeway near Eastcombe	GCC investigated this and we believe it is owned by a holding company in London as a result of a previous owner's bankruptcy. We maintain this area.
The Ridgeway	North of Bus Shelter opposite Munday Close	The south of the shelter is maintained by SDC and we maintain the north of the area. We believe the owner was made bankrupt and we stepped in and maintained the area.
Rack Hill	Triangle of land above Red Lion, by Edgemont	Maintained by PC but do not know who owns it. Could be Common Land
Rack Hill	Steep strip of land near to Sycamore Cottage.	Maintained by PC but do not know who owns it. Could be Common Land
Rack Hill	Small strip of land below Greenbank.	Maintained by PC but do not know who owns it.
Parish Bank	At the side of Lynch Road, below pleasure Ground	Maintained by PC
Sturmyes Road	Small triangle of land near to Creeds Cottage	Maintained by PC

### OTHER LAND

Path leading up to rear of Bussage School	Two areas of land adjacent to Farriers Croft	We maintain this area but understand the 2 areas are owned by different houses in Farriers Croft.
Coppice Hill Car Park	Coppice Hill	The PC is following Adverse Possession, commencing 2017, in order to take ownership at the end of 12 years.