

Abbey Road Conservation Area

Steypning

Ecological Report and Management Plan



Abbey Road Conservation Volunteers

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(Updated December 2024)

Compiled by : Roger Brown



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Map 3. Defra MAGIC map of Abbey Rd area showing habitat designations

Site Photos.

1. Introduction

The Abbey Road Conservation Area is hidden away amongst the housing developments to the west of the A283 Steyning by-pass. It is owned by Steyning Parish Council and had been left mostly unmanaged for 20+ years, apart from grass cutting and essential tree maintenance.

This had allowed the site to mature and develop to a point where it needed some gentle attention to maintain what was there, whilst improving other areas that had become overgrown or swamped by more rampant growth.

Most people who see this site for this first time are surprised by how many different habitats are represented here, including chalk stream, wet woodland, ditch, pond, meadow, hedgerow and scrub. None are very extensive, but together they make up a valuable mix, that with gentle management, has become an important biodiverse site in this part of Steyning.

A group of volunteers (Abbey Road Conservation Volunteers) began working here in 2020, holding work parties most months to carry out maintenance and other conservation tasks. We now have 21 volunteers with 3 more carrying out specific wildlife surveys. We have an average of 8 volunteers at our work days. Our volunteers give a collective 200 hours per year helping to look after this site.

2. Site Description

2.1 Location and boundaries

The Abbey Road Open Space comprises 4.5 acres (1.8 hectares) divided by the residential road Abbey Road, into two areas, referred to for the purposes of this report, as Abbey Rd North, and Abbey Rd South.

Abbey Rd North is the larger of the two at about 2.75 acres and with the A283 Steyning by-pass forming its eastern limit.

Abbey Rd South comprises about 1.75 acres with the grounds of Gatewick House forming the south western boundary. Abbey Road South is primarily a recreational space with mown grass and mature trees on its western boundary. A small Orchard is being developed by Steyning Community Orchard at the southern end by Church Mead.

2.2 Ownership

The whole Abbey Road Open Space is owned by Steyning Parish Council. It was land given by the developers of the new houses around Abbey Rd in the mid 1990's, presumably because it forms part of the flood plain for the Tanyard Stream and is too wet for building houses on.

It was designated as a Village Green (VG95) in June 2016. This gives local people the legal right to use the land for informal recreation and protects it from future development.

2.3 Site management structure

The Communities Committee of the Parish Council is responsible for the day-to-day management of the Open Spaces in Steyning, including the Abbey Road site.

An 'Abbey Road Conservation Volunteers' group (ARCVs) was established to manage the site in collaboration with the Parish Council

The Group holds work parties at least monthly on the site implementing this Management Plan.

The members of the ARCVs include: a Parish Councillor, residents living close to Abbey Rd and other local residents. We are lucky to have several volunteers with experience of working with environmental groups such as the Knepp Foundation, Sussex Wildlife Trust and the Steyning Downland Scheme.

The leader of the ARCVs will liaise with the nominated Parish Council member to update and inform the Communities Committee of progress, and request resources where these are needed to carry out this plan. Other sources of funding will also be explored where appropriate.

A small Advisory Group was set up in 2021 to give advice on managing the site. This included representatives from The Environment Agency, The Ouse and Adur Rivers Trust (OART), Sussex Wildlife Trust (SWT) and the local Birding group. Two regular and continuing experts have been Rachel Paget from OART, and Dr Tony Whitbread (now President of the SWT)

2.4 Site Infrastructure

2.4.1 Physical features

The site is low lying and slopes gently from south west to north east towards the A283 Steyning by-pass. The highest part of the site is just 6 metres above mean sea level, dropping to 4 metres at the lowest part of the site close to the A283 by-pass.

The Steyning Museum confirmed that this area is believed to be the location of the 11th Century Port of St Cuthman. when it was an inlet from the River Adur tidal estuary. Saxon remains were found during the 1989 archaeological investigation of the old Market Field just to the south of the site.

A chalk stream known as the 'Tanyard Stream' flows on the western side of the site. This stream emerges as springs on the Downs by the Rifle Range a mile to the west and flows through the Court Mill Pond and behind St Georges Place cottages. It is then ducted in a culvert under the lower High Street until it emerges as an open stream in the garden of the Star pub, where Brown Trout can often be seen. From here it runs via Tanyard Lane (in a culvert under the front gardens here) into the grounds of Gatewick House and into the Abbey Road Conservation Area. It runs under Abbey Road itself in a large culvert, through the northern part of the site, and then leaves via another large culvert taking it under the A283 by-pass and out towards the River Adur.

The Environment Agency(EA) are responsible for the stream as it forms part of the flood defence for Steyning and is classed as a 'Main River' upstream as far as the Star Pub on the High Street. It has recently been agreed with the EA that our volunteers will take over the management of the stream and bankside from the EA. This involves clearing unwanted vegetation from the stream and stream banks and keeping the Abbey Rd culvert clear of obstructions.

The Steyning Community Plan had this to say about Abbey Road:

Steyning Community Plan: Character Appraisal. 2019. *There is no prospect of the open spaces off Abbey Road being developed as they now have village green status, so the spacious feel of this 1980s/1990s development should continue. Consideration should be given to improving the recreational facilities on the western side of the village green and to maintaining the east side as a natural wildlife area.* <https://www.steyningcommunityplan.co.uk/>

Geological Profile (from British Geological Survey)

The site is part of the ancient Adur river estuary, and because of this, has overlying superficial deposits of clay, silt and sand. The BGS Geological Map shows these overlay a bedrock of Gault clay/mudstone.

In 1969, 2 boreholes were sunk into the area prior to the building of the Steyning by-pass. The first was sunk 6 metres deep by the Tanyard stream. It recorded different types of clay down to 6 metres. The second was at the foot of the new road embankment on the Abbey Rd side. This was also sunk to 6 metres. It registered clay down to 3 metres, then a 1.5m layer of chalky clay with flints, then more clay down to 6 metres. From these surveys we can be sure that the Site is clay down to several metres. This has been confirmed by the digging we have done when deepening part of the pond area and when tree planting.

2.4.2 Biological habitats

Abbey Road North includes the following habitats:

Stream. As already described, the Tanyard chalk stream runs along the western border of the site. It is one of only 260 Chalk streams/rivers in the world, with 224 of these in England.

Unfortunately, this stream is badly polluted with agricultural silt and road run-off from Mouse Lane during much of the winter period, and at other times when heavy rain storms overwhelm the lower High Street drains. This run-off water joins the Tanyard stream under the High Street at the Star pub.

The Tanyard stream then joins 2 other chalk streams (Fletcher's Brook and The Black Sewer, emanating from Wiston Pond), just north of the site before entering the River Adur via a sluice gate about 1km to the east.

Stream bank area. This is an 8-metre-wide strip to the east of the stream, bounded by a 1m high bank. This was probably created during the house building period, to provide some water storage during flood periods. This happens several times a year, sometimes in even in summer when heavy thunderstorms can cause the stream to overflow.

The rest of the year it is a damp grassy area with bramble, nettles and reeds, and a number of water-loving wildflowers.

Pond. This is a winter pond, with the water draining away in by late Spring

From Autumn onwards it fills with rainwater draining from the rest of the Abbey Road site. When this happens, it is full of clear clean water. When the stream overflows as described above, the whole area is inundated with muddy polluted water including the pond.

At its largest extent the pond covers 34m x 64m. (just over 2,000 sq. m: equivalent to 4 tennis courts) Winter ponds are a rare and valuable habitat. Some occasional dredging is necessary to maintain this.

The pond is the breeding ground for a very large Frog population. Numbers vary each year, but we have had up to 35 clumps of frogspawn, implying a population of over 70 frogs. This is why it is important to maintain water levels in the pond until the tadpoles have had a chance to metamorphose into baby frogs.

Ditch. A drainage ditch runs the length of the site at the foot of the by-pass embankment. The eastern end is hidden beneath dense scrub, but the western end drains into the Tanyard stream just as it enters the culvert under the A283 by-pass.

Woodland. There is a mixture of mature and semi-mature deciduous trees mostly on the north and eastern parts of the Site. These are typical wet woodland species such as Willow, Alder and Birch with some Oak and Narrow-leaved Ash.

Since 2020 we have planted 9 Black Poplar, 6 Silver Birch and 5 Alder trees and also 10 Alder Buckthorn and 30 Hawthorn to provide nectar and cover for wildlife.

Open Meadow. Closest to Abbey Road itself is an open grassy area of approx. 2,000 sq. m. The initial idea of creating a wildflower meadow here has proved problematic. 'Cut and collect' is the usual method of reducing soil fertility to encourage wildflowers. Ideally this happens late Spring and/or early Autumn, but at this site it has often been too wet to carry out these cuts when scheduled.

So, we needed to have a re-think. Having taken advice from our guiding experts, especially Dr Tony Whitbread, it was decided to cut (and collect if possible) half the meadow area one year and the other half the following year. The cuts scheduled being scheduled for mid-late Summer. We have now achieved this in the last 2 years. This allows overwintering wildlife such as butterflies, spiders, grasshoppers etc to survive in half the meadow, ready to re-populate the cut half the next year.

We are also encouraging existing wildflowers that like wet conditions to thrive here, and add other appropriate wildflowers where we can.

Hedgerow. In 2021 Steyning for Trees (SFT) planted a mixed deciduous hedge on the edge of this area adjacent to the footpath. In order to maintain the open aspect of this site, SFT have agreed to have it professionally laid in winter 2024/5. We will then maintain the height by cutting it back to 3-4ft high each year.

Grassy glade. This is a small (c 500 sq. m) grassy area surrounded by deciduous trees on all sides, to the north east of the pond area.

Scrub To the east of the site is a heavily overgrown area of scrub including bramble, hawthorn and blackthorn. Further smaller scrub areas are scattered across the Site

Abbey Road South is the area to the south and west of Abbey Road and includes the following habitats:

Recreational space a large area with mown grass,

Scrub A mix of Hawthorn, Hazel, Nettles, Bramble bordering the Tanyard stream and the boundary with Gatewick.

Trees There are many fine mature trees here, mostly on the boundary with Gatewick. These include Field Maple, Common Lime, Norway Maple, Wild Cherry, White Poplar and Alder. More recent plantings have included English Oak and Black Poplar.

Orchard Steyning Community Orchard is planting an orchard at the far end of this space adjacent to Church Mead. As of Dec 2024, 9 Apple trees have been planted, all sponsored by local residents. 3 more are due to be planted in March 2025.

2.5 Official Designations

The UK Govt MAGIC database pulls together information about the environment from many government departments including the Environment Agency, DEFRA and Natural England.

Across the A283 to the north-east of the site are 2 areas of **Priority Habitat** under the UK Biodiversity Action Plan:

1).Deciduous Woodland and 2).Coastal and Floodplain Grazing Marsh. This is the floodplain of the Adur River. (See Map 3. The green and blue areas)

Data from Natural England on this MAGIC database shows the fringe of the Abbey Road Open Space closest to the by-pass marked as a “Network Enhancement Zone 2” and the rest of the Abbey Road site (north and south) is marked as a “**Network Expansion Zone**”: (see Map 3, the area ringed in red).

A **Network Expansion Zone** is land within relatively close proximity to the Network Enhancement Zone that has potential for expanding, linking/joining networks across the landscape. Action can be targeted in this zone to improve these connections.

The Knepp-inspired **Weald to Waves** project includes the Abbey Road area in its “Radiant zone” between the Core Corridors of the Adur and the Wiston Estate. We have pledged the Abbey Road Conservation Area with them, to say that we support the initiative and that Abbey Road is playing its part in connecting habitats together across the area.

3. Priority and Rare Species found at Abbey Road

Priority species are those identified as being the most threatened and requiring conservation action under the UK Biodiversity Action Plan (UK BAP)

The following ‘Priority and Rare Species’ have been found at Abbey Road since 2021.

Toad
Noctule Bat
Soprano Pipistrelle Bat
Brown Trout

These birds are on the British Trust for Ornithology Lists of ‘Birds of Conservation Concern’ and have been seen at Abbey Rd between 2021 and 2024.

On the **RED** list (species of High Conservation Concern)

Greenfinch
House Sparrow
Starling

Herring Gull
Nightingale
Swift

On the **AMBER** list (species of Some Conservation Concern)

Black-Headed Gull
Grey Wagtail
Moorhen
Sedge Warbler
Sparrowhawk
Wren

Common Whitethroat
Mallard
Redwing
Song Thrush
Stock Dove

Full lists of wildlife sightings are listed in Item 6.

4. Management Objectives

- 4.1) To maintain the current balance between woodland and specimen trees, pond, stream, scrub and grassy meadow area, so that no one habitat become dominant.
- 4.2) By sensitive and gentle management, to preserve and enhance the biodiversity of both fauna and flora on the site.
- 4.3) By regular surveying, to monitor and record the fauna and fauna on the site.
- 4.4) To liaise and continue to work with agencies such as The Sussex Wildlife Trust, the Ouse and Adur Rivers Trust, The Environment Agency and others, to ensure that expert advice is sought to guide the future management of the site.
- 4.5) To maintain public access to the site by maintaining existing walkways around the site and creating new ones where appropriate. These may be mown paths through the grass, or possibly in future constructed all-weather paths through the wetter areas.
- 4.6) To maintain local community interest and engagement by regular updates and reports through the Parish Council Newsletter and community publications such as Your Steyning.
- 4.7) To support the Abbey Road Conservation Volunteers
- 4.8) To support and liaise with Steyning Community Orchard in their planting and maintenance of the orchard here.

5. Management Recommendations

Objective	Actions
1 <i>Maintain the current balance between habitats</i>	- Ensure that each of the existing habitats are kept in balance - Intention is to make small changes, then monitor the effects of those changes before making further changes. This is still a new and mostly unrecorded site. We don't want to damage any habitat and possibly lose what species might be there, in an effort to improve another habitat. Softly, softly should be the approach.

2 <i>Preserve and enhance biodiversity</i>	- We have been collecting some survey data from 2021 onwards to establish what is present in each of the habitats on site - Aim is to keep what we have whilst improving habitats to increase biodiversity further. - Continue to add appropriate trees, shrubs and plants to further this aim.
3 <i>Monitor and record the fauna and fauna</i>	- Continue regular botanical surveys with our volunteer plant recorders.(Bob and Fran) - Ask our volunteer bird recorder (Colin) to continue periodic bird surveys. - Carry out bat surveys between May and September - Continue with butterfly surveys between March and October - With OART, carry out further biological stream surveys - We intend to improve and extend these and other surveys to be able to monitor wildlife and report progress. - This could include use of trap cameras for larger animals, and field surveys using pitfall traps for invertebrates and refugia sheets for reptiles.
4 <i>Liaise with experts and agencies</i>	- Maintain regular contact with OART and the Environment Agency regarding the Tanyard stream. - Use other experts such as those at the SWT, Knepp and our local Steyning Downland Scheme to guide and assist in guiding this Management Plan and any future changes that may be made to it.
5. <i>Maintain public access to the Site</i>	- This is primarily a wildlife site, with access for the public. - We will encourage public access by maintaining a network of cut grass pathways. We have created two paths across the meadow and one behind the pond, while closing a path to the south of the pond to allow it to connect up to an area of scrub. - We will clear overgrowing vegetation from the pathways as necessary. - Investigate improving the pathways that become waterlogged in winter. - Guide visitors away from more sensitive wildlife areas by use of brushwood fences.
6 <i>Community interest and engagement</i>	- Produce regular updates and reports for the Parish Council and local residents. - Write occasional items for the Your Steyning magazine - Invite local residents to take part in events such as bat surveys, BioBlitzes, 'Open Days' - Install an Interpretive Board to explain the Site to visitors.
7 <i>Abbey Road Conservation Volunteers</i>	- We will hold at least monthly work parties to carry out conservation work on site - Produce regular updates to the Volunteers to keep them engaged and informed of work being done on the Site, and what is planned in the future. - Use this group as a 'sounding board' for ideas/suggestions that can then be shared with other stakeholders.
8. <i>Steyning Community Orchard</i>	- Liaise with Steyning Community Orchard and assist them with maintenance of the orchard and its surroundings when needed.

Species Lists

The following is a list of species that have been recorded on site from 2020 to 2024. These lists are growing all the time, partly because we are surveying more, but hopefully also because we are managing the site with a view to increase biodiversity.

Flora:

Trees and Shrubs 18 species,

Narrow-leaved Ash, Italian Alder, English Oak, Silver Birch, Goat Willow, White Willow, Golden Weeping Willow, other Willow spp, Blackthorn, Common Hawthorn, European Ash, Field Maple, Norway Maple, Lime, Cherry, Common Alder, Black Poplar, Alder Buckthorn.

Wildflowers

The **Sussex Botanical Recording Society** found 108 wildflowers in 3 surveys they carried out here in 2022. Our own surveys have so far found **75 species**. (We are not as expert as them, and only carry out occasional surveys). We have introduced a limited number of new species that we might have expected to find here, such as Snowdrops and Gypsywort.

We have the full lists if needed, but notable species include;- Amphibious Bistort. Cuckoo Flower, Hemlock Water-dropwort, Lesser Water Parsnip, Marsh Thistle, Meadowsweet, Purple Loosestrife, Ragged Robin, River Water Drop-wort, Water Figwort and Water Mint,

Fauna

Butterflies: 19 species

Brimstone, Small Tortoiseshell, Peacock, Red Admiral, Orange Tip, Marbled White, Gatekeeper, Speckled Wood, Large White, Small White, Small Copper, Meadow Brown, Comma, Common Blue, Green-veined White, Brown Argus, Ringlet, Small Skipper, Holly Blue.

Bats: Common Pipistrelle, Soprano Pipistrelle, Nathusius' Pipistrelle, Noctule

Birds: 43 species

Black-headed Gull, Blackbird. Blackcap. Blue Tit, Buzzard. Carrion Crow. Cetti's Warbler, Chaffinch, Chiffchaff, Collared Dove, Dunnock. Goldcrest, Goldfinch, Great Spotted Woodpecker, Grey Wagtail, Great Tit, Greenfinch, Grey Heron, Herring Gull, House Sparrow, Jackdaw, Jay, Kingfisher, Little Egret, Long-tailed Tit, Magpie, Mallard (pair), Moorhen, Nightingale, Pied Wagtail, Red Kite, Redwing, Robin, Sedge Warbler, Siskin, Song Thrush, Sparrowhawk, Starling, Stock Dove, Swift, Whitethroat, Wood Pigeon, Wren

Amphibians and reptiles Frog, Frogspawn and Tadpoles, Toad, Common Lizard,

Other:

Fox, Badger, Four Spot Orb-Weaver Spider, Wasp Spider.

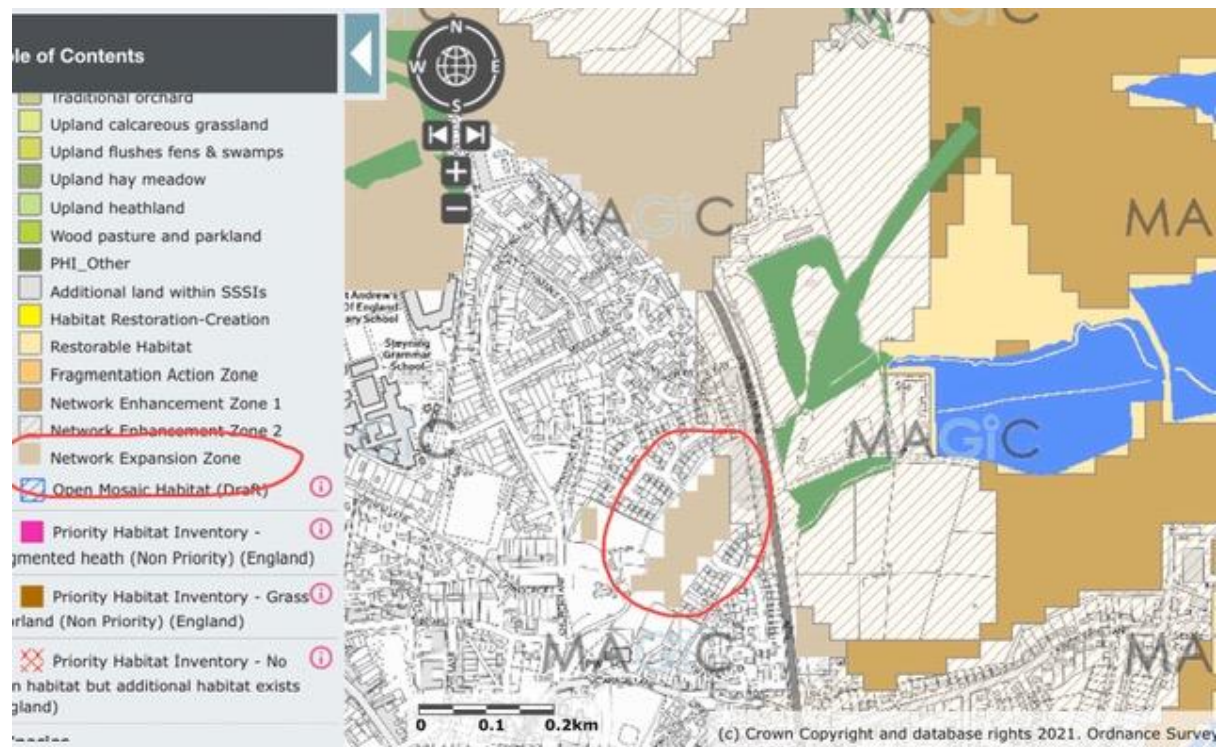
Map 1. Abbey Road Open Space. Location and Boundaries



Map 2. Plan of Abbey Rd North (The Site) showing the main features



Map 3 Defra MAGIC map of Abbey Rd showing habitat designations



Pictures of the Abbey Road Conservation Area,



Tanyard Stream



Meadow Area



Mature Weeping Willow



Coppiced Goat Willow in the pond basin



'Pond' in Summer.



Pond in Winter