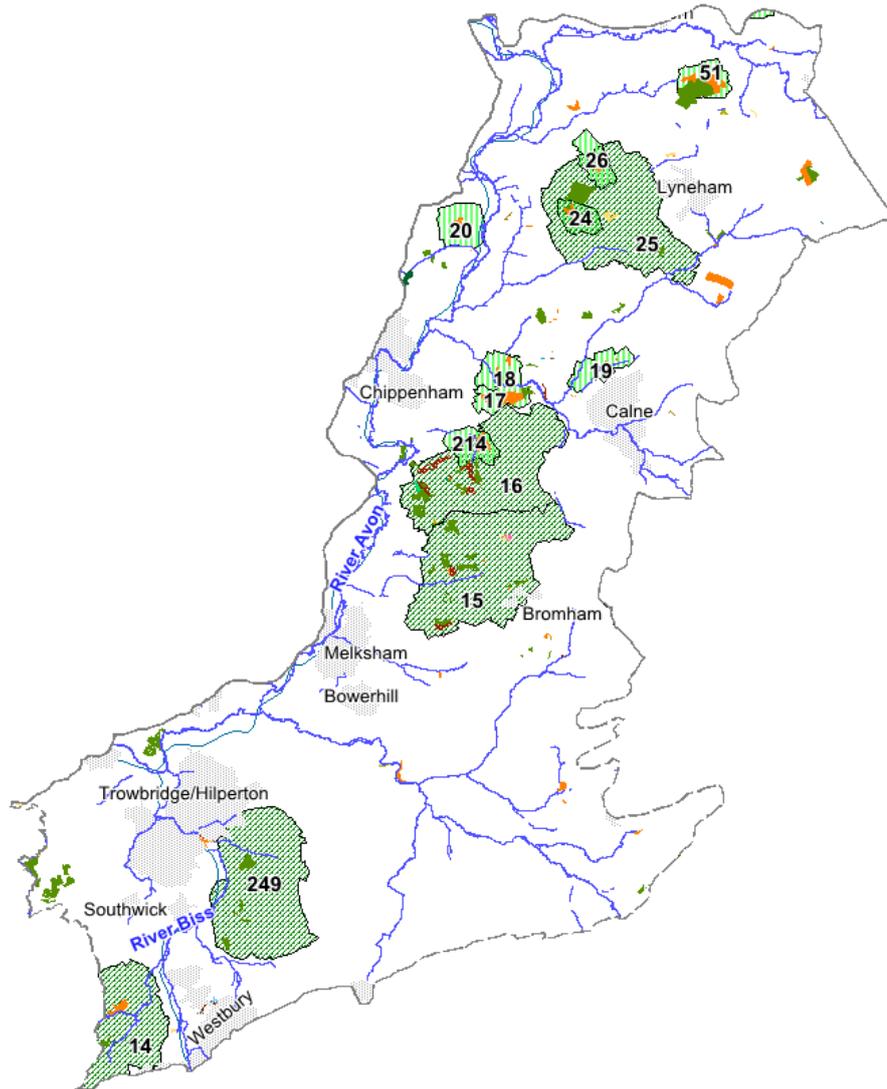


Area 06 - Bristol Avon Vale



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Strategic Nature Areas by Main Habitat	
[Light yellow box]	Chalk Downland
[Blue box]	Coastal and Floodplain Grazing Marsh
[Orange box]	Limestone Grassland
[Green box with vertical lines]	Neutral Grassland
[Green box with diagonal lines]	Neutral Grassland and Woodland
[Blue box]	River
[Green box with diagonal lines]	Woodland
[Brown box with diagonal lines]	Woodland and Chalk Downland
[Yellow box with diagonal lines]	Woodland and Neutral Grassland

Priority Habitats	
[Dark green box]	Lowland mixed deciduous woodland
[Orange box]	Lowland meadows
[Blue box]	Rivers
[Light orange box]	Lowland calcareous grassland
[Brown box]	Wet woodland
[Light blue box]	Eutrophic standing waters
[Yellow box]	Purple moor-grass and rush pastures
[Dark green box]	Lowland mixed deciduous woodland/Lowland wood
[Brown box]	Reedbeds
[Teal box]	Lowland fens
[Dark green box]	Lowland wood-pasture and parkland
[Purple box]	Ponds
[Green box]	Lowland beech and yew woodland
[Pink box]	Heathland
[Light green box]	Lowland dry acid grassland

Figure 8: A map of the Bristol Avon Vale Landscape Biodiversity Area indicating priority habitats and the labelled, numbered Strategic Nature Areas within this Area.

4.6.1 Area Profile

National Character Areas – [Avon Vale \(117\)](#)

Landscape Character Types – Rolling Clay Lowland (11), Open Clay Vale (12), Limestone Ridge (8), Wooded Greensand Hills (7)

Landscape Character Areas –Avon Open Clay Vale (12B), Swindon-Lyneham Limestone Ridge (8A), Calne Rolling Clay Lowland (11A), Bowood Greensand Hills (7C), Trowbridge Rolling Clay Lowland (11C)

AONBs – N/A

Related BAPs - None

SNAs – There are 13 SNAs and two rivers; the Bristol River Avon and the River Biss. See [here](#) for SNA targets for Area 06

Geology – The Bristol Avon Vale is a low-lying clay-dominated landscape bounded by the dip slope of the Cotswolds to the west and by a band of Corallian Limestone and Greensand to the east, with the Salisbury Plain and West Wiltshire Downs beyond. In the south there is a gradual merging with the clay of Blackmore Vale and the Vale of Wardour⁶.

Community Area Boards – Malmesbury, Royal Wootton Bassett & Cricklade, Chippenham, Calne, Devizes, Melksham, Trowbridge, Bradford on Avon, Westbury, and Corsham Community Area Boards

4.6.2 Background

The Bristol Avon Vale is an area of predominantly open clay vales and rolling clay lowland, following the course of the Bristol River Avon, its tributaries and several other streams and rivers. The Bristol Avon Vale is characterised by intensively managed permanent pastures, whilst the river floodplain is dominated by arable agriculture, with pockets of neutral, generally damp grassland together with scattered woodland blocks. The floodplain has retained a strong hedgerow network, and mature trees, particularly crack willow *Salix fragilis* and the native black poplar *Populus nigra* subsp *betulifolia* are often found along ditches and streams. There are sparse hedgerow trees plus willows lines (some pollarded) marking the waterways and poplar shelter belts. Woodland blocks, including ancient woodland types and wet woodland of high ecological value, are also present and form important habitat, particularly for woodland bird assemblages. Green Lane and Biss Wood in the south of the Area are of international importance for bats, particularly Bechsteins (maternity roosts) and also Barbestelle and Horseshoe bats¹.

Formed by a narrow band of coral rag limestone, a series of hills runs diagonally from the north east corner of the Area, stopping just north of Calne. These hills rise sharply from the lower clay vales to the west while along their eastern slopes there is a more gradual transition back down to the neighbouring clay vales. The land along this ridge is used primarily for pastoral farming and significant features include the airbase at Lyneham which has exploits the level hilltops characteristic of this area. On the slopes below the airfield, Catcomb Wood is a large, mainly ancient semi-natural woodland with a species-rich composition including wych elm and wood vetch.

An area of rolling greensand hills lies at the southern end of this limestone ridge. The landform is varied by the many small valleys which the tributaries of the River Avon and Marden have eroded into the hills. Considerable concentrations of lowland mixed deciduous woodland and wet woodlands are found in this region. Historic houses with parklands and wooded estates dominate the area: Bowood to the north, Spye Park to the south and Bowden Park to the east¹. Spye Park is an important SSSI situated at the heart of the Bristol Avon Vale Biodiversity Landscape Area and represents a mosaic of habitats including large expanses of some of the finest examples of

¹ Wiltshire Landscape Character Assessment, 2005

alderwoods in the country, along with oakwoods, parkland and an area of dry acidic grassland containing several locally uncommon plant species. Spye Park is one of the richest sites for epiphytic lichens in Wiltshire and also supports communities of bryophytes and vascular plants communities which flourish in the wet soil conditions present across large areas of the site.

The Kennet and Avon canal runs from Bradford on Avon to Devizes through the south of the Bristol Avon Landscape Biodiversity Area and represents an important wildlife corridor that extends the entire width of the county and beyond. The banks of the canal provide a valuable habitat for a variety of wildlife including dragonflies, water birds, water voles, crayfish, and otters, while flower rich towpaths and hedgerows often line the canal providing important linear habitats for a range of species. In addition to this the line of the former Wiltshire and Berkshire Canal runs from here right up through Wiltshire, Swindon and Oxfordshire and provides a series of linear wetland features through the landscape.

4.6.3 Priority Habitats

Priority Habitats	Area (ha)
Lowland mixed deciduous woodland	465.27
Lowland meadows	209.06
Rivers	183.49
Wet woodland	63.81
Lowland calcareous grassland	23.17
Lowland wood-pasture and parkland	11.11
Purple moor-grass and rush pastures	8.37
Lowland dry acid grassland	4.4
Lowland beech and yew woodland	4.26
Heathland	3.93
Eutrophic standing waters	3.02
Lowland fens	1.78
Reedbeds	1.64
Lowland mixed deciduous woodland/Lowland wood-pasture and parkland	0.37
Ponds	0.02
Total	983.7

4.6.4 Priorities and opportunities for conservation

- 1. Neutral Grassland**
 - Neutral meadows
 - Arable plants
- 2. Woodland**
 - Ancient Woodland
 - Hedgerows
 - Bats
- 3. Rivers**
- 4. Standing Water**

1. Neutral Grassland - SNAs: 17, 18, 19, 20, 24, 26, 51, 214

Neutral Meadows

The heavy clays of the Avon Vales support many small, diverse neutral meadows where the land has not been subject to agricultural improvement, as is the case for the majority of these meadows through the area. Knowledge of the extent of the habitat is reasonable and most sites have been notified as County Wildlife Sites. Many of these sites are at risk of agricultural improvement, conversion to arable, development and neglect (scrub encroachment). The remaining sites are relatively isolated, but often occur in clusters. Priority areas are therefore:

- Informing landowners and managers where they own / manage important neutral meadow sites
- Identify clusters of neutral grassland sites and target action on areas within and between cluster areas to act as stepping stones
- Protect and secure favourable management of known neutral meadows
- Restore degraded meadows using seed of local provenance
- Enlarge existing neutral sites through habitat creation
- Sow species-rich neutral grassland at new sites where ground conditions are suitable

Arable Plants

The Severn and Avon Vales is recognised as an important area for rare arable plants, which have gone through significant declines due to advanced seed cleaning, increased use of fertiliser, new high yielding crop varieties and the introduction of herbicides. Knowledge of arable plant populations in the area is poor. As with arable birds, rare arable plants are also vulnerable to changing crop prices, development (particularly photovoltaic farms) and policy reform which might favour less sensitive land management practices.

- Surveys to identify important sites / areas for rare arable plants
- Target important sites and surrounding areas for sensitive management
- Create uncropped cultivated margins – no herbicide / pesticide
- Control pernicious weeds in September (if necessary)

Existing conservation projects and initiatives

- A notable lack of project information relating to Area 06 has been submitted during the writing of this Landscape Conservation Framework. Nationally applicable schemes such as agri-environment and woodland grant schemes are available in this Area, but little project work relating to a number of the priority habitats and species outlined in this section appears to be focussed here. The project information in this document reflects only what has been submitted to us by partners during the writing of this framework. More projects will be in place that we are not aware of and persons wanting to highlight such projects should contact the LNP coordinator at info@link2nature.org.uk.

2. Woodland – SNAs: 14, 15, 16, 25, 249

Ancient Woodland

The vales include some localised well wooded areas to the east of Chippenham / Melksham, between Westbury and Trowbridge, and the areas surrounding Lyneham. While the cover of woodland is well understood and remains fairly stable, many of the woods are undermanaged and in poor condition, with rhododendron causing problems in many (probably having been introduced at Bowood). Priorities in relation to this habitat therefore include:

- Secure favourable management of existing ancient woodland sites
- Restore woodlands through the removal of rhododendron and other invasive species, where these are causing a problem
- Buffer / extend ancient woodland sites with appropriate new woodland planting
- Improve connectivity between ancient woodland sites through hedgerow and woodland planting

Hedgerows

The hedgerow networks across much of this area are in a generally degraded state as a result of Dutch elm disease, but also poor management practices and increasing arable field sizes. Use of fertilisers, herbicides and pesticides also reduce ground flora diversity due to generally intensive agricultural practices in the area. The remaining hedgerows network will not recover naturally, but will require management intervention at a landscape scale. Hedgerow networks also play an important role for connectivity in relation to several other priorities in the area including woodland and bats, and help to mitigate sediment and nutrient run-off from arable fields. Priorities in relation to this habitat therefore include:

- Lay / coppice degraded hedgerows, planting up gaps
- Allow mature standard trees to develop within hedgerows
- Replant species-rich hedgerows where these have been completely lost
- Manage hedgerows regularly to maintain a wide and dense base
- Maintain grassland strips alongside hedgerows in arable fields

Bats

The Bristol Avon Vale contains a number of important sites for some of our rarest UK bat species, many of whom rely on the woodlands and open pastures present within the Vale. Horseshoe bats are at the edge of their known range in the western side of this area, but may be expanding. A breeding population of rare Bechstein's bats is also known to occur in the south of the area, however it may also occur further north and its use of the wider landscape is not currently well known. Barbastelle bats have been recorded, but there are currently no known roosts in the area. While the roosts are well protected by law, the surrounding habitats are vulnerable to changes in land management practices and development. Priorities for bats in this area are therefore:

- Study important roosts to improve understanding of how bats use the surrounding landscapes for commuting / foraging
- Protect and enhance suitable habitats around important roost sites

- Maintaining mature and veteran trees, particularly those known to be used for roosting
- Identifying and favourably managing the next generation of mature / veteran trees
- Managing existing hedgerows and woodland used for foraging and commuting routes
- Hedgerow planting and woodland creation to improve connectivity between key roosting / foraging sites
- Maintaining the important mosaic of woodland, grassland and open water habitats which help support such a rich diversity of bat species
- Identifying and mapping important roosting sites and foraging grounds for the rarest species

Existing conservation projects and initiatives

- West Wiltshire has been identified as a priority for Heritage Lottery Funding and although the area is known to be very important for bats, with the EU recognised Bath and Bradford-on-Avon Bats SAC near Winsley and Box, only limited work has been conducted to assess population levels and enhance suitable habitats. The **Wiltshire Batscapes Project** is currently in the process of applying for Heritage Lottery Funding, with the aim of improving habitats for bats in west Wiltshire and increasing bat monitoring efforts. The aim is to take a strategic view of bat conservation across west Wiltshire, linked with the Bath and Bradford-on-Avon Bats SAC. West Wiltshire is not within a target HLS area but this project aims to help farmers within the Batscapes project area into Entry Level stewardships and, in the case of exceptional farms, Higher Level stewardship, as well as providing capital works grants towards habitat restoration for bats.

3. Rivers – SNAs: 665, 666 – Bristol Avon; 669 - Biss

The Bristol Avon forms an important wildlife corridor through Wiltshire and is likely to become increasingly important as a north-south route aiding the movement of species in response to climate change. The river has extensive floodplains as it flows through some of the flatter landscapes of the clay vales. However, floodplain grassland and wet woodland have been largely lost due to agricultural practices, leaving a predominately arable landscape in the floodplain, which in turn causes problems for water quality in the river and downstream. Riparian habitats have also been damaged by poaching, development and flood defences. Opportunities should be taken to enhance the riparian environment including planting/ pollarding of riparian tree species such as willow, alder and black poplar; create/restore riparian woodland, alder cars and floodplain meadows. These measures will not only benefit the biodiversity of the riparian habitat but will link with aims relating to the Water Framework Directive to reduce agricultural runoff, pesticide leaching and siltation by increasing the buffer zone along our waterways. Although not identified as one of the Environment Agency's Priority Catchments the Bristol Avon has considerable issues relating to water quality and the presence of invasive species, such as Himalayan balsam and the American signal crayfish, along its length. Priorities in this area are therefore:

- Identify sites with suitable conditions for restoration of floodplain meadows (MG4)
- Restore meadows and wet woodland habitats in the floodplains
- Protect, enhance and sensitively manage riparian habitats through
- Revert arable land in the floodplain to permanent pasture and plant woodland / buffer strips to intercept runoff

- Improve fish habitats by removing barriers and securing sensitive bankside management²

4. Standing Water

The Kennet and Avon canal represents the most significant area of standing open water and a highly important wildlife feature within Area 06. It is important to maintain and enhance this wildlife corridor to maximise its potential within the wider ecological network. The canal system represents an important link within the Wiltshire Green Infrastructure network that should be recognised and enhanced further. Further restoration works are also planned along the line of the Wilts and Berks canal which will have significant effects on these wetland features, but also provides opportunities to create new features and create a more continuous wetland feature if carried out sensitively.

Priorities for this habitat therefore include:

- Ecological survey work to identify sensitivities of each section
- Appropriate timing and sensitive working methods to reduce potential impacts
- Channel designed and managed to support marginal wetland habitats
- Offline wetland features, tree planting and grassland creation alongside the canal (where land available), to maintain and improve its value as a wildlife corridor

Existing conservation projects and initiatives

- **Wiltshire Invasive Plants Project** - The project aims to control invasive plants in the north of Wiltshire, where they can spread rapidly. The main plant targeted is Himalayan balsam, which is controlled by organising volunteer tasks to pull it. The project also tackles other invasive plants, particularly giant hogweed and Japanese knotweed. This is mainly done by raising awareness with landowners, but the project officer and some volunteers are trained to use pesticides. There is potential to increase the scope of this project to cover the Bristol Avon, particularly in the north of Area 06 around Chippenham which has been identified as a problem area for Himalayan Balsam.

4.6.5 Conservation Initiatives

Please see the attached table of current conservation initiatives within the particular Landscape Biodiversity Areas

	'Seen for Everyone'	A project to raise public awareness of the importance of bumblebees and the problems that their loss and conducting active habitat management to safeguard, restore and create valuable bumblebee habitats.	6, 5, 10	Click folder for project details	
	Meadow research project	Floodplain Meadows Partnership (based at the Open University) has been monitoring the plants, soils and water of key floodplain meadows for many years. This information is used to develop our understanding of how these meadows communities change in response to wider environmental factors and to guide the management of floodplain meadow meadows.	1 - North Meadow and Clatford Farm SACs	Click folder for project details	
	Great Western Community Forest	The purpose of GWCF is to create a multi purpose forest throughout Swindon from the centre of the town and into the surrounding countryside. Multi-purpose forestry encompasses the creation and use of a diverse natural and built environment including trees and woodland, grassland, wetlands, hedgerows, ponds and rivers.	1, 2, 3 & 5	Click folder for project details	

² Contact the Environment Agency / Wiltshire Council drainage team before planning or carrying out any works to the channel as a licence may be required