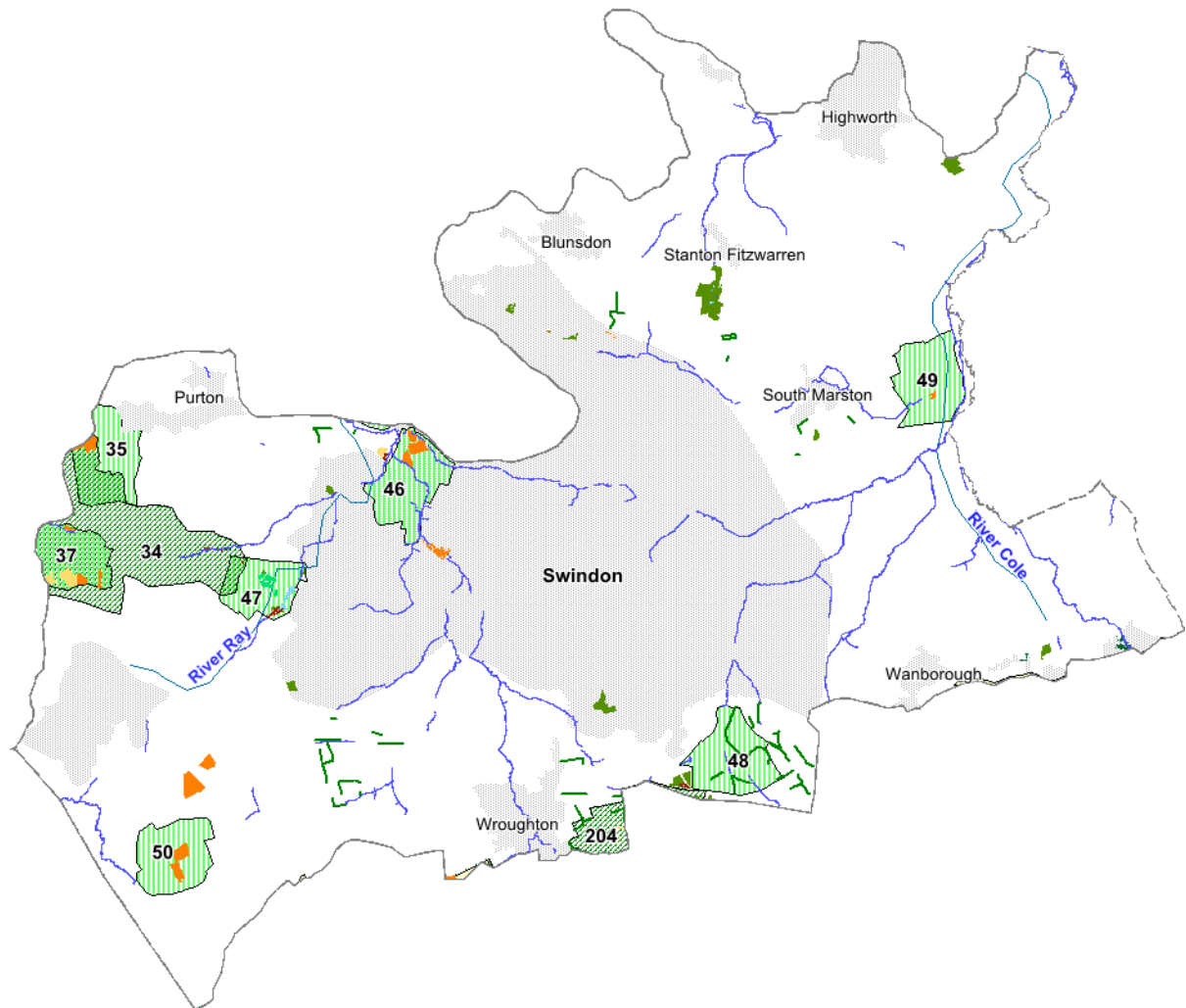


Area 02 - Swindon Ridge and Clay Lowlands



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Figure 4: The Swindon Ridge and Clay Lowlands Landscape Biodiversity Area indicating priority habitats and the labelled, numbered Strategic Nature Areas within this Area.

4.2.1 Area Profile

National Character Areas – [Upper Thames Clay Vales \(108\)](#), [Midvale Ridge \(109\)](#)

Landscaper Character Types – Rolling Clay Lowlands (11), Limestone Ridge (8)

Landscape Character Areas– Calne Rolling Clay Lowlands (11A), Swindon -Lyneham Limestone Ridge (8A)

AONBs – Directly borders the North Wessex Downs AONB

Related BAPs - None

SNAs – There are 9 SNAs and the Rivers Ray and Cole. See [here](#) for SNA targets for Area 02

Geology–The northern half of the Area has an underlying geology of corallian limestone or ‘coral rag’ which forms part of a limestone ridge that extends northeast into Oxfordshire and further southwest to the Avon Vale. Here it forms a ridge between the rolling clay lowlands of the Avon to the west and those to the east which neighbour the Marlborough Downs. The southern half of the Area is dominated by clays, both Kimmeridge and Gault, whilst the hill on which Swindon Old Town sits is formed by an area of younger Jurassic rock of Purbeck and Portland Stone. Okus and Great Quarry are SSSIs located in this Area which have been designated for their earth heritage, particularly their richness of molluscan fossil faunas.

Community Area Boards – Area 02 falls almost entirely within the Swindon Borough, with only the western end covered by the Royal Wootton Bassett & Cricklade Area Board.

4.2.2 Background

The limestone ridge which comprises the northern half of the Area is a narrow band of Coral Rag limestone which forms a series of hills running diagonally from the northeast corner of Wiltshire at Highworth, through north Swindon and southwest to the surrounding clay vales. This Ridge forms a low band of limestone hills, and is characterised by sandy, free draining soils that support a mix of dry woodlands, sandy pastures and arable fields interspersed with many small settlements. Generally a good network of hedgerows remains, with numerous hedgerow trees and intermittent woodland clumps. The level hills tops fall steeply away to the surrounding clay vales on the southern side and more gently to the east¹.

The area to the north of Swindon is quite sparsely settled and remains largely rural in feel with mainly arable and pastoral farmland and some significant areas of mixed deciduous woodland. Stanton Park, a County Wildlife Site comprising Great Wood, is an area of ancient semi-natural woodland which includes a pond known to support a rich dragonfly assemblage and which is designated as standing water priority habitat.

Sandwiched between the limestone ridge to the north and the high Marlborough Downs to the south, a narrow band of gently undulating land on underlying clay characterises the south of the Area. Here the land is comparatively level and open with a mix of arable and pasture land between the built up areas of Swindon and the surrounding villages including Wroughton and Chiseldon. Fields are bounded by hedgerows, with a good network of designated priority hedgerow habitats concentrated in the south of the Area. In places however hedgerows have been removed and replaced by fencing and hedgerow trees are sparse.

Swindon town dominates the centre of the Area with its elevated position atop the Portland Stone. The River Ray is an important biodiversity feature of the Town, acting as a wildlife corridor and supporting ecologically important riparian, meadow and woodland habitats along its length. Other significant sites include Restrop Farm and Brockhurst Wood SSSI which encompass a number of habitats including unimproved hay meadows, permanent pasture, mature hedgerows, scrub and ancient woodland with a diverse range of species. Coate Water SSSI on the southern outskirts of Swindon has several large areas of standing open water, originally constructed as reservoirs for the Wilt & Berks canal in the 1820s. Today it is protected as a Country Park with diverse breeding bird

¹ Wiltshire Landscape Character Assessment, 2005

populations, wet and dry woodlands, a healthy hedgerow network and areas of neutral grassland. It is an important site for wintering waterfowl, particularly teal, coot, great-crested grebe, Canada goose and mallard, and also supports a wide range of dragonflies and damselflies.

4.2.3 Priority Habitats

Priority Habitats	Area (ha)
Lowland mixed deciduous woodland	54.05
Lowland meadows	51.17
Rivers	27.59
Lowland calcareous grassland	15.19
Lowland beech and yew woodland	5.31
Wet woodland	4.85
Eutrophic standing waters	3.59
Lowland wood-pasture and parkland	3.2
Coastal and floodplain grazing marsh	0.45
Reedbeds	0.27
Ponds	0.06
Total area of Priority Habitats	165.73

4.2.4 Priorities and opportunities for conservation

1. **Rivers**
2. **Neutral Grassland**
 - Unimproved neutral meadows
3. **Woodland**
4. **Hedgerows**
5. **Built Environment**

Rivers – SNAs: 770, 771 – Cole; 772 - Ray

The Rivers Ray and Cole represent important wildlife corridors in Area 02, linking Swindon urban area with the surrounding countryside and supporting associated riparian, meadow and woodland priority habitats along their lengths. The river system is particularly vulnerable to pressures associated with the urban environment and transport systems which can lead to polluted run-off and raised sediment and chemical loads. It is important to maintain the integrity and ecological status of the riparian and adjacent habitats to safeguard these important corridors and their associated wildlife. Priorities for these habitats are:

- 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

- 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

Neutral Grassland – SNAs 47, 48, 50, 35, 46, 37

Unimproved neutral grassland

There are extensive areas of neutral grassland identified within the Area, although only 4% of this is designated as unimproved neutral meadow priority habitat. Meadows are generally located along the streams and rivers and act as important buffers and wildlife havens, reducing run-off into the river system and supporting a diverse range of plants and animals. To the west of the Swindon urban area priority neutral meadows are found in close association with the woodland of Lydiard Park and the Braydon Forest area. Priorities for neutral meadows in Area 02 are:

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

Woodland – SNAs: 204, 34

Significant areas of ancient and semi-natural mixed deciduous woodland are concentrated around the outskirts of the Swindon urban limits. Great Wood, Clout's Wood and Burderop Woods are all SSSIs, designated for their varied woodland structures, woodland fauna and rich ground flora including Spiked star-of-Bethlehem (*Ornithogalum pyrenaicum*), a species of nationally restricted distribution, Herb-paris (*Paris quadrifolia*) and Broad-leaved helleborine (*Epipactis helleborine*). There are significant areas of woodland to the west of the Area where it forms part of the wider Braydon Forest, a medieval hunting forest now characterised by a mosaic of woodland and neutral grassland sites. Deer grazing pressure has been noted as a significant issue within both Clout's Wood and Burderop Woods SSSIs, leading to a reduction in the level of woodland regeneration. Priorities for woodland in Area 02 are:

- Buffer / extend ancient woodland sites with appropriate new woodland planting
- Improve connectivity between ancient woodland sites through hedgerow and woodland planting
- Introduce appropriate deer control measures as required to monitor and control deer numbers and allow the natural regeneration of woodlands.

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

- Secure favourable management of existing ancient woodland sites, supported where possible by appropriate woodland grant schemes such as the England Woodland Grant Scheme.
- Restore woodlands through removal of rhododendron and other invasive species, where these are causing a problem

Existing conservation projects and initiatives

- **The Great Western Community Forest** –Area 02 falls within the target area for the Great Western Community Forest, one of the UK's 12 Community Forests. Collectively, these forests form the largest environmental regeneration initiative in England with the creation of over 10,000 hectares of new woodland and the management of a further 27,000 hectares of existing woodland. Offsetting and mitigation works in the Swindon Borough have been closely aligned with this project with investment coming from section 106 monies and the Community Infrastructure Levy. Areas of new woodland have been planted close to existing ancient woodland as part of the Great Western Community Forest. This includes sites such as King's Farm Wood which is adjacent to Clout's Wood near Wroughton and Stratton Wood to the north east of Swindon which adjoins Great wood.

Hedgerows

The land surrounding the built up areas of Swindon and the surrounding villages is generally characterised by a mix of arable and pasture land bounded by hedgerows, with numerous hedgerow trees and intermittent woodland clumps. The low-lying, gently undulating pastures to the south of the Area have a good network of designated priority hedgerow habitats which act as important wildlife corridors, connecting areas of woodland and priority grassland. In places however hedgerows have been removed and replaced by fencing and hedgerow trees are sparse. Priorities for hedgerows in Area 02 are:

- 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 buffer strips alongside hedgerows in arable fields

Built environment

Amenity parks and woodland act as stepping stones within the urban limits of the Swindon urban area, providing valuable refuges and food for wildlife. Significant areas of open green space are scattered within the urban area, with larger open areas on the outskirts of the town containing a rich variety of priority habitats including neutral meadows, ancient woodland and open water. Significant areas of development have been proposed for the areas surrounding Coate Water, Wichelstowe and the villages to the east of Swindon including South Marston. It is important to ensure that appropriate environmental considerations are incorporated into the development plans for these sites. Where possible this should include the retention of veteran trees, hedgerows and water










courses which act as important habitats and corridors to dispersal. Priorities relating to the built environment include:

- Targeted protection and enhancement of the green infrastructure within and surrounding the urban limits.
- Linking up of strategic GI networks both within the urban limits and to the surrounding landscape.
- ‘Greening’ of the urban centre through incorporation of green roofs, grass verges, trees, ditches and open green spaces into new urban planning.
- Incorporation of wildlife features into new designs including bat and bird boxes, ponds.

Existing conservation projects and initiatives

- **Swindon GI Strategy** – Swindon has a completed GI strategy for the Borough which it is hoped will provide the basis for a coordinated approach to the creation and sustained management of green infrastructure across Swindon and its neighbouring authorities. The GI network is identified within Swindon Core Strategy’s section on ‘Safeguarding our environment for future generations’ which includes policies to deliver a network of green spaces for people and wildlife. Continued work is required to identify opportunities to extend the network and increase connectivity.

4.2.5 Conservation Initiatives

	*Bees for Everyone!	A project to raise public awareness of the importance of bumblebees and the problems that they face, and conducting active habitat management to safeguard, restore and create valuable bumblebee habitats.	8, 9, 10	 Click folder for project details	
	Meadow research project	Foodplain Meadows Partnership (based at the Open University) has been monitoring the plants, soils and water of key Foodplain meadows for many years. This information is used to develop our understanding of how these rare plant communities change in response to wider environmental factors and help guide the management of Foodplain meadows elsewhere.	1, North Meads and Clatnage Farm SDC	 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, heathlands, ponds and rivers.	1, 2, 3 & 5	 Click folder for project details	

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