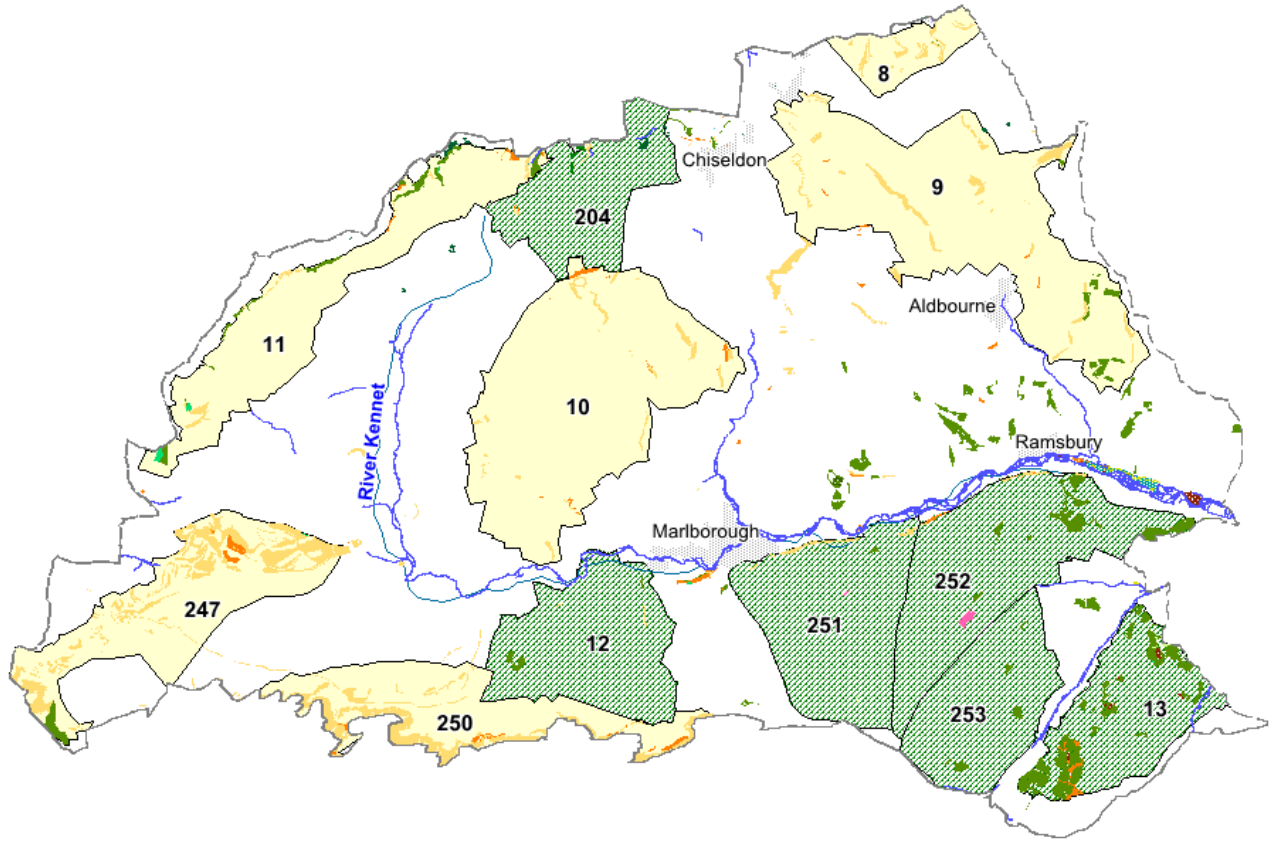
Area 05 – Marlborough Downs and Savernake Forest



Strategic Nature Areas by Main Habitat

- Chalk Downland
- Coastal and Floodplain Grazing Marsh
- Limestone Grassland
- Neutral Grassland
- Neutral Grassland and Woodland
- River
- Woodland
- Woodland and Chalk Downland
- Woodland and Neutral Grassland

Priority Habitats

- Lowland mixed deciduous woodland
- Lowland meadows
- Rivers
- Lowland calcareous grassland
- Wet woodland
- Eutrophic standing waters
- Purple moor-grass and rush pastures
- Lowland mixed deciduous woodland/Lowland wood-pasture and parkland
- Reedbeds
- Lowland fens
- Mesotrophic lakes
- Lowland wood-pasture and parkland
- Ponds
- Lowland beech and yew woodland
- Lowland fens/Coastal and floodplain grazing marsh
- Heathland
- Coastal and floodplain grazing marsh
- Lowland meadows/Coastal and floodplain grazing marsh
- Lowland dry acid grassland

Figure 7: Marlborough Downs and Savernake Forest Landscape Biodiversity Area indicating priority habitats and the labelled, numbered Strategic Nature Areas within this

4.5.1 Area Profile

National Character Areas – Berkshire and Marlborough Downs (116)

Landscape Character Types – Low Chalk Plain and Scarp (4), Open Downland (1), Chalk River Valley (5) and Wooded Downland (2)

Landscape Character Areas – Avebury Plain (4A), Horton Downs (1A), Marlborough Downs (1B), Kennet Chalk River Valley (5A), Savernake Plateau (2A)

AONBs – North Wessex Downs AONB

Related BAPs - None
SNAs – There are 12 SNAs in Area 5 and the River Kennet. See here for SNA targets
Geology –Cretaceous Middle and Upper Chalk form the main body of the plateau and create the scarp around the north-western boundary of the Area. Isolated deposits of Clay with Flint overlie the higher outcrops, such as Hackpen Hill, and alluvium forms the base of the many of the dry valleys that dissect the area. Sarsen stones occur across the Marlbourough *Downs* and are particularly outstanding at Fyfield and Piggledene, which have been designated SSSIs[1].
Community Area Boards – Swindon Borough, Marlborough, Royal Wootton Bassett &Cricklade, Calne, Devizes, and Pewsey

4.5.2 Background

The Marlborough Downs and Savernake Forest Landscape Biodiversity Area is typified by a landscape of high, undulating chalk downlands of rolling farmland with remnants of calcareous grassland, scattered woods, and dissected by dry valleys and coombes. The soils here are generally very thin with free draining, calcareous, nutrient poor soils which have been intensively farmed to create an open landscape of arable fields with few hedgerows and only small scattered clumps of trees, primarily beech. The landscape is generally devoid of water, with dry valleys and long steep scarps dissecting the downland[1].Running through the centre of the area however is the River Kennet, a tributary of the River Thames, which rises just west of Marlborough and runs east into Berkshire. The Area is entirely within the North Wessex Downs AONB which extends south into the Vale of Pewsey and north and east into Oxfordshire, Berkshire and Hampshire.

There are two distinct areas of high chalk downland within the Area: the Marlborough Downs which extends north of the Kennet River Valley and Pewsey Downs which rise from the lower lying Vale of Pewsey to the south. The steep scarps of the Pewsey Downs are considered one of the finest examples of chalk downland in southern England and have been designated a SSSI and a SAC in recognition of this rare habitat and the significant population of the scarce early gentian (*Gentianella anglica)* which is found here.

To the north and west of the open chalk downlands extends an area of low chalk plain which has a steep northern scarp slope, dropping steeply down to the clay vales which form its north and west boundaries. The land on the scarps comprises a mixture of pasture, parkland and woodland, whilst the open plains are dominated by large-scale arable fields with little tree or hedgerow cover.

In the southeast of the Area is an expanse of wooded downland, where deposits of clay-with-flint overlie the chalk, creating heavier soils which support the more wooded character of the Area[1]. Large areas of ancient semi-natural woodland and notable veteran trees can be found in Savernake Forest. Savernake, a former royal hunting forest, is derived from ancient wood pasture management and much of it is designated as a Site of Special Scientific Interest because of its outstanding lichens and fungi, flora, invertebrates and breeding bird communities. The large numbers of veteran trees are important in their own right, but also support a wide range of bat and bird species including woodpeckers, flycatchers and redstarts and other hole-nesting species. More particularly they are the stronghold for many rare species of lichen, fungi and invertebrates.

To the west of Savernake, West Wood comprises an area of ancient semi-natural beech woodland with a rich fungal diversity which is well known for its springtime display of bluebells. The surrounding area is a woodland-farmland mosaic, linked via hedgerows and containing arable fields.

4.5.3 Priority Habitats

Priority Habitat	Area (ha)
Lowland calcareous grassland	1151.54
Lowland mixed deciduous woodland	743.72
Lowland meadows	127.42
Rivers	83.61
Wet woodland	23.26
Lowland fens/Coastal and floodplain grazing marsh	21.76
Lowland wood-pasture and parkland	20.84
Lowland beech and yew woodland	12.87
Heathland	12.51
Coastal and floodplain grazing marsh	10.51
Lowland mixed deciduous woodland/Lowland wood-pasture and parkland	4.17
Lowland dry acid grassland	3.45
Lowland meadows/Coastal and floodplain grazing marsh	3.37
Reedbeds	1.1
Eutrophic standing waters	0.17
Ponds	0.13
Lowland fens	0.12
Purple moor grass and rush pastures	0.1
Total	**2220.65**

4.5.4 Priorities and opportunities for conservation

1. **Chalk Downland**
    - Lowland calcareous grassland
    - Chalk Downland butterflies
    - Farmland Birds
2. **Woodland**
    - Ancient woodland
    - Wood pasture and parkland
    - Bats & Dormice
3. **Rivers**
    - Chalk Rivers

1. Chalk Downland – SNAs 11, 247,250, 8, 9, 10

Lowland Calcareous Grassland

This priority habitat is mainly restricted to the steep chalk scarps and dry river valleys of the open downland which have avoided intensive agriculture and the associated improvement of soils via fertilisers. These tend to be floristically rich and support diverse communities of invertebrates,

including rare butterfly species such as Adonis Blue and Chalkhill Blue. While much of the remaining calcareous grassland is designated as SSSI or is recorded as County Wildlife Sites, there is a need to buffer and connect existing core areas against the effects of climate change and dependency on a limited number of landowners. In addition the quality of existing semi-natural habitat needs to be improved where this is unfavourable. Priorities in relation to this habitat include:

- Target areas identified through the Stepping Stones and Marlborough Downs NIA projects for reversion to chalk grassland
- Promote the use of agri-environment schemes to secure appropriate management and implement / increase grazing on under grazed calcareous grassland sites.
- Link areas of calcareous grassland by creating wide field margins and by planting hedgerows on arable field boundaries
- Maintain, and where possible, increase the population size and extent of UK BAP species associated with this habitat including: Early gentian, Juniper, Stone curlew, Skylark, Marsh fritillary, Silver-spotted skipper, and Adonis blue.

Chalk Downland butterflies

The downland butterflies that characterise the Marlborough Downs are all vulnerable to habitat loss and fragmentation exacerbated by unfavourable land management, vagaries of the weather and the effects of climate change. There has been severe loss of chalk grassland and butterfly populations due to grassland improvement, conversion to arable, use of pesticides and neglect (scrub encroachment), leaving small isolated habitats / populations. Priorities in relation to this species group include:

- Protect and secure favourable management on remaining calcareous grassland, in particular south facing slopes which are particularly important for a number of chalk downland butterfly species.
- Increase the resilience of known populations by improving habitat quality at existing key butterfly sites through promotion of suitable agri-environment schemes.
- Link known colonies through creation of chalk grassland corridors and stepping stones.
- Co-ordinate butterfly surveys and monitoring of chalk grassland sites

Farmland Birds

The Marlborough Downs are a hotspot for a number of farmland birds which have suffered severe national declines including Lapwing and Stone curlew. These species have been impacted greatly by changes in agricultural practices and it is important to take measures to secure their populations in those areas within which they still remain.

- Increase the uptake of agri-environment scheme options to implement management that benefits farmland birds including:
    - Sowing wild bird seed mixtures
    - Creating and maintaining skylark plots
    - Beetle banks
    - Fallow plots
    - Cultivated field margins

- Low input cereals
- Planting, restoring and sensitive management of hedgerows

- Sensitive crop management
- Support initiatives to co-ordinate the survey and monitoring of farmland bird species and the impact of management options on their continued survival.

Existing conservation initiatives and projects

- The RSPB's **North Wessex Downs Farmland Bird Project** is based within the AONB and provides help and advice for landowners to create and manage habitat for farmland birds via promotion of Environmental Stewardship Schemes. The project concentrates on farmland bird species, in particular ten of the most seriously declining - corn bunting, grey partridge, tree sparrow, turtle dove, lapwing, yellow wagtail, skylark, linnet, yellowhammer and reed bunting. The project also ties in advice on other species groups, for example bumblebees and butterflies, and arable plants in particular. This project has the potential to produce benefits that will be felt beyond this Area and it is important that efforts are made to find ways of connecting up those areas where active management for farmland birds is occurring.

- The **'Stepping Stones'** project is a partnership project between the North Wessex Downs AONBs, Cranborne chase and West Wiltshire Downs AONB, Natural England and the Wildlife Trust that is seeking to restore and link high quality calcareous grassland. In this Area the project has focussed on the area between the Pewsey Downs and Morgan's Hill to help support the establishment of chalk grassland species, including orchids.

- Nature Improvement Areas (NIAs) have been identified in the England Biodiversity Strategy Delivery Plan as a key mechanism for coordinating integrated landscape scale conservation. **Marlborough Downs Nature Improvement Area (NIA)** was one of the 12 NIAs identified in the first round of NIAs agreed by defra. It is a farmer-led initiative aiming to increase connectivity and improve the condition of priority habitats within the NIA boundary, with particular focus on restoration of calcareous grasslands and ponds.

- **North Wessex Downs AONB** – the whole of Area 05 is covered by the North Wessex Downs AONB, one of three AONBs within the county. This is a protected landscape where work is determined by a statutory management plan. In line with the government's England Biodiversity Strategy Delivery Plan, AONB partnerships must integrate Biodiversity 2020 and ecosystem targets into all AONB Management Plan Reviews by Mar 2014. Additionally, the plan includes actions to encourage and support new and existing large scale initiatives to improved ecological networks across the Area of Outstanding Natural Beauty (AONB) landscapes. The AONB is in a strong position to adopt a strategic overview of conservation initiatives within its limits which can be aligned to increase connectivity and provide landscape scale conservation benefits. To support small scale conservation projects that benefit the North Wessex Downs AONB, the AONB has a small Sustainable Development Fund. This allows those within the AONB to undertake conservation work that can contribute to the overall aims for the landscape.

2. Woodland – SNAs 12, 204, 251, 253, 252, 13

Ancient Woodland

Areas of ancient woodland are primarily concentrated in the southeast corner of Area 05, centred on the Savernake Forest. Issues leading to unfavourable conditions within the woodland include: loss of wood pasture management (grazing etc), lack of sufficient number of future veterans, encroachment by bracken and rhododendron, and insufficient deadwood of diameter >20cm necessary to support deadwood communities. In addition to this, grazing pressure has been identified in the most recent Natural England SSSI condition assessments as a significant factor contributing towards unfavourable condition of woodland sites in the Marlborough Downs and Savernake Forest Landscape Biodiversity Area. High deer grazing pressure leads to a lack of temporary open spaces and new growth which has led to a reduction in the level of woodland regeneration and will have long term detrimental impacts for the woodland if left unchecked. Woodland management and appropriate deer control measures are required to monitor and control deer numbers and allow the natural regeneration of these woodlands. Priorities in relation to this species group include:

- Secure favourable management of existing ancient woodland sites through promotion of woodland grant schemes such as England Woodland Grant Scheme (EWGS), agri-environment woodland options and the North Wessex Downs AONB Sustainable Development Fund.
- Buffer/extend ancient woodland sites with appropriate new woodland planting
- Improve connectivity between ancient woodland sites through hedgerow and woodland planting and integrate them into the wider landscape
- Identify future generations of veteran tree individuals and manage accordingly.
- Introduce appropriate deer control measures as required to monitor and control deer numbers and allow the natural regeneration of woodlands.

Wood pasture and parkland

Area 05 contains some regionally important areas of wood pasture and parkland with notable areas within the wider Savernake Forest such as at Tottenham Park and Littlecote Park. Threats to this habitat include the general problem of management neglect, in particular a decline in the practice of pollarding. Many of the key species associated with old trees depend on the presence of rotting wood that can only be found in trees of a certain age or condition, and usually in relatively open situations. The loss of trees which provide these conditions means it is increasingly important that replacement trees are coming along. It is equally important to maintain the management of surrounding pasture to prevent the characteristic open nature of the habitat from being lost. Recent condition assessments in the Savernake Forest has found that some meadows have not received sufficient management having been undergrazed and where cut, the arisings being left to form a thick thatch. Priorities for wood pasture are:

- Ensure care of veteran trees to secure their survival and succession
- Secure sufficient supply of replacement trees
- Secure management of the open grasslands which surround them.

Bats and Dormice

Savernake Forest is particularly important for a number of bat species, especially those closely associated with woodland habitats such as Barbastelle. Additionally, monitoring of nest boxes erected in Savernake has revealed the ancient woodland to be a stronghold within the county for dormice. Dormice are now only patchily distributed across southern Britain with a major factor in their decline being the increasing fragmentation of woodland. This has led to isolated, non-viable populations of these arboreal mammals for which even short distances can be a complete barrier to dispersal. Priorities for these woodland species include:

- Encourage wood pasture management by use of grazing
- Identify and favourably manage the next generation of mature/veteran trees
- Manage existing hedgerows and woodland used by bats for foraging and commuting
- Manage existing hedgerows and woodland used by dormice for nesting and foraging
- Manage and augment key flight lines between the ancient forest and known hibernation and mating sites for bats
- Maintain the important mosaic of woodland, grassland and woodland pond habitats that help support the rich diversity of bat species
- Identify and map important roosting sites and foraging grounds for bats
- Identify and map areas where dormice are present and aim to improve connectivity between disjunct areas

Existing conservation initiatives and projects

- **Savernake Forest** - The Savernake Forest is derived from ancient wood pasture management, has many veteran trees and is a priority for conservation within the Area. The Forestry Commission has previously implemented wood-pasture projects within the Forest and is implementing a Forest Design Plan to manage the woodlands to promote a more diverse age structure and encourage understorey growth. The woodlands in and around Savernake provide important habitats for a number of priority species including dormice and Barbastelle bats. These species would benefit from increased woodland cover and improved connectivity. Protection of veteran trees is important as these provide roosting sites for bat species, as well as supporting deadwood communities.

- **North Wessex Downs AONB** –The AONB Management Plan includes actions to encourage and support new and existing large scale initiatives to improve ecological networks across the Area of Outstanding Natural Beauty (AONB) landscapes. The AONB is in a strong position to adopt a strategic overview of conservation initiatives within its limits which can be aligned to increase connectivity and provide landscape scale conservation benefits. In addition to this the AONB can support small scale conservation projects via their Sustainable Development Fund. This allows those within the AONB to undertake conservation work that can contribute to the overall aims for the landscape.

3. Rivers – 773,774 (Kennet)

Chalk Rivers

The River Kennet, a tributary of the Thames, is an important chalk river bisecting an otherwise dry landscape. The flora of the River Kennet is generally species-rich and diverse with species such as stream water-crowfoot, starwort and watercress dominant in the upper half of the river where shallow water and gravel are typical[1]. The river is important in providing suitable conditions for priority habitats along its length including significant areas of lowland meadow, lowland fens, wet woodlands and coastal and floodplain grazing marsh, all habitats which have become increasingly rare within the county. Although designated as a SSSI its current condition is listed as "unfavourable no change". This is partly due to the presence of a number of non-native invasive species such as signal crayfish, problems with siltation, over abstraction and eutrophication from agricultural run-off. Priorities in relation to this habitat include:

- Contribute to programmes such as the Environment Agency's Catchment Sensitive Farming Scheme which aim to decrease run-off from agricultural land and limit disturbance of riverbanks.
- Work with key stakeholders to fulfil the Water Framework Directive aims as set out in the Thames River Basin Management Plan and the Kennet and Pang Catchment Abstraction Management Strategy to restore the natural functions of the River Kennet and reduce abstraction pressure.
- Improve riparian vegetation and enhance wetland mosaics to encourage associated wildlife including waders and lapwings
- Increase width of riparian vegetation strips to buffer the effects of siltation from arable farming practices

Existing Projects and Initiatives

- **River Kennet Water Abstraction** - Catchment Abstraction Management Strategies indicate that many of Wiltshire's rivers are over-abstracted or over-licensed, including the Upper Kennet which has a legacy of unsustainable water abstraction to meet the needs of the Swindon Borough. This puts stresses on the natural environment of this river which are likely to be exacerbated in the future due to climate change. Action for the River Kennet (ARK) is a conservation group undertaking work to improve and restore the chalk stream habitat along the River Kennet, as well as actively campaigning to reduce water abstraction to sustainable levels. The Wiltshire Core Strategy commits the council to increase water efficiency in new developments and to engage with infrastructure providers and neighbouring planning authorities to ensure an overall improvement to critical water resources. Through this and the work of the Environment Agency and local groups such as ARK the aim must be to restore natural function to the River Kennet and reduce the levels of water abstraction.

- **Catchment Sensitive Farming** – The Rivers Lambourn and Kennet form a priority catchment within the Environment Agency's Catchment Sensitive Farming Scheme. The Scheme

[1] Nature England SSSI citation, 2012

provides advice to farmers to help them implement changes in farming that improve the quality of habitats adjacent to waterways to reduce run-off, pollution, sediment, and invasive species. The aim of the work is to improve riparian vegetation and enhance wetland mosaics such as those at Chilton Foliat water meadows to encourage associated wildlife including waders and lapwings. A Catchment Management Plan is currently in preparation for the Kennet Basin District which will identify relevant priorities and objectives for the catchment.

A **Catchment Sensitive Farming Capital Grant Scheme** Target Area is centred on the area to the north east of Marlborough, along the River Kennet into Berkshire. The Hampshire Avon CSFCGS Target Area extends into the far southern section of the Area, following the southern end of the Wansdyke just north of the Pewsey Downs. Within these areas a range of capital items are available to farmers and landowners to help improve the ecological status of the priority rivers; for example watercourse fencing and roofing for manure stores and pesticide loading and wash down areas. This scheme presents an important opportunity to enhance the ecological status of the river system, which in turn will benefit the overall riverine environment and the associated habitats which it supports.

4.5.5 Conservation Initiatives

Bumblebee Conservation Trust	'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	Bumblebee Conservation Trust website
Floodplain Meadows Partnership	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 rare plant communities change in response to wider environmental factors and help guide the management of floodplain meadows elsewhere.	1 - North Meadow and Clattinger Farm SACs	Click folder for project details	Floodplain Meadows Partnership research site
Swindon Borough Council	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	Click icon for GWCF webpage

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