National Character Area profile:

140. Yeovil Scarplands

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Introduction

As part of Natural England's responsibilities as set out in the Natural Environment White Paper,[1] Biodiversity 2020[2] and the European Landscape Convention,[3] we are revising profiles for England's 159 National Character Areas (NCAs). These are areas that share similar landscape characteristics, and which follow natural lines in the landscape rather than administrative boundaries, making them a good decision-making framework for the natural environment.

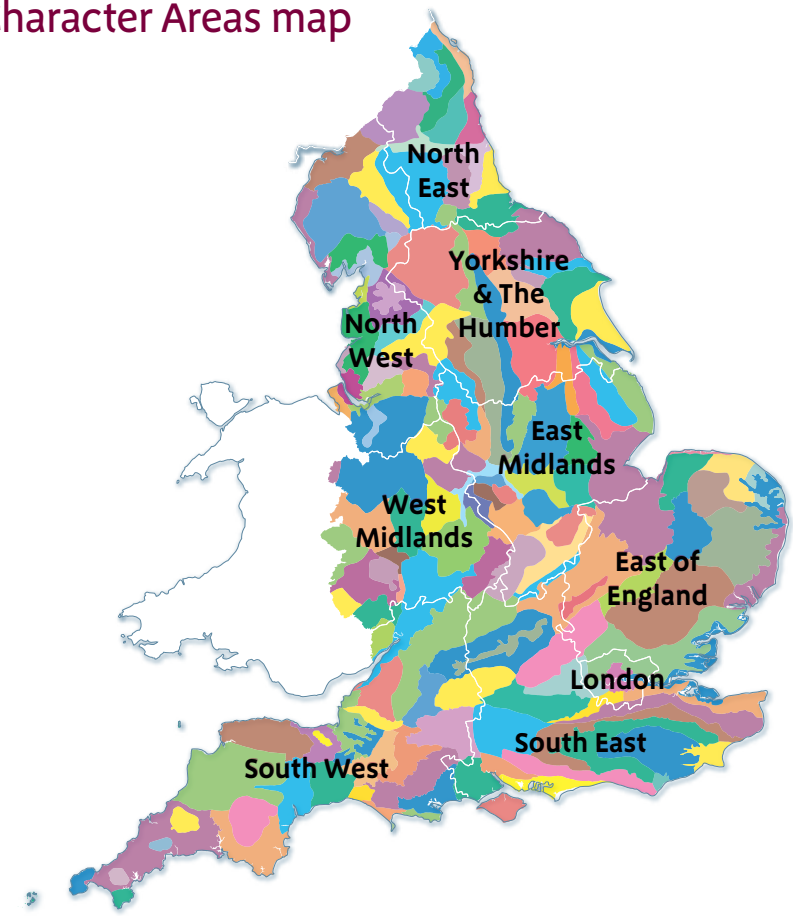
NCA profiles are guidance documents which can help communities to inform their decision-making about the places that they live in and care for. The information they contain will support the planning of conservation initiatives at a landscape scale, inform the delivery of Nature Improvement Areas and encourage broader partnership working through Local Nature Partnerships. The profiles will also help to inform choices about how land is managed and can change.

Each profile includes a description of the natural and cultural features that shape our landscapes, how the landscape has changed over time, the current key drivers for ongoing change, and a broad analysis of each area's characteristics and ecosystem services. Statements of Environmental Opportunity (SEOs) are suggested, which draw on this integrated information. The SEOs offer guidance on the critical issues, which could help to achieve sustainable growth and a more secure environmental future.

NCA profiles are working documents which draw on current evidence and knowledge. We will aim to refresh and update them periodically as new information becomes available to us.

We would like to hear how useful the NCA profiles are to you. You can contact the NCA team by emailing**ncaprofiles@naturalengland.org.uk**.

National Character Areas map



[1] The Natural Choice: Securing the Value of Nature, Defra (2011; URL: **www.official-documents.gov.uk/document/cm80/8082/8082.pdf**)
[2] Biodiversity 2020: A Strategy for England's Wildlife and Ecosystem Services, Defra (2011; URL: **www.defra.gov.uk/publications/files/pb13583-biodiversity-strategy-2020-111111.pdf**)
[3] European Landscape Convention, Council of Europe (2000; **URL: http://conventions.coe.int/Treaty/en/Treaties/Html/176.htm**)

Summary

The Yeovil Scarplands run, in an arc, from the Mendip Hills around the southern edge of the Mid Somerset Hills and the Somerset Levels and Moors to the fringes of the Blackdowns. This remote, rural landscape comprises a series of broad ridges and steep scarps separating sheltered clay vales. Less than 5 per cent of the area is urban, though Yeovil, lying in the south of the area, has grown to become a sizeable town with a busy industrial zone.

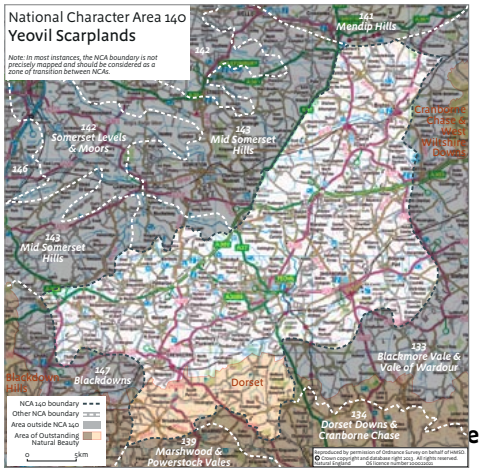
The area has a long history of settlement reflected through the archaeology, from Neolithic hill forts, through Roman villas, to remnant medieval open fields – along with many Listed Buildings. The area is known for its collection of fine manor houses and associated parklands.

The area also boasts a variety of limestones and sandstones from which distinctive local settlement character is derived. Foremost among these is the Ham Hill stone: Stoke-sub-Hamdon, South Petherton and the notable Elizabethan Montacute House are all constructed principally from this stone.

Approximately 85 per cent of the National Character Area (NCA) is farmed and, away from the towns, this sets the rural landscape character; indeed, in some places the NCA is intensely rural. The south-west of the area features arable systems with a tradition of growing soft fruit and vegetables, as well as a remnant scattering of orchards. The rest of the NCA is mainly pastoral in nature, though in some of the clay vales between the scarps mixed farming brings a variation of character.

Woodland, covering 4 per cent of the area, is relatively scattered, though where it sits on steep scarp slopes or fills the steep goyles cut into the scarps it can be a strong local feature.

The NCA's biodiversity is scattered and fragmented, though important grassland assemblages and ancient woodlands do occur. The southern extreme of the area is one of the most intensely rural parts, and it is here that the 12 per cent of the area lying within the Dorset Area of Outstanding Natural Beauty can be found.



Click map to enlarge; click again to reduce

Statements of Environmental Opportunities:

- **SEO 1:** Work with the local farming and land management community to adapt to evolving funding mechanisms and climate change, encouraging business choices that balance food production with provision of a range of ecosystem services.
- **SEO 2:** Protect, manage and enhance the diverse but coherent pastoral and mixed farming landscape character of the clay vales and limestone and sandstone scarps, their semi-natural grasslands and woodland and their characteristic wildlife. Manage the simple patterns of land use maintained by the long history of agriculture.
- **SEO 3:** Protect and manage the National Character Area's rich cultural inheritance, including its historic environment and geodiversity. Raise the profile of the Yeovil Scarplands as a landscape of distinction and, in many places, great beauty.
- **SEO 4:** Manage and plan for growth in the area around Yeovil and the other towns in this part of the National Character Area as they expand as employment and housing centres, ensuring that landscape character is used as a framework for future growth and enhancement.

In the south-west of the NCA soft fruit growing has been a traditional agricultural practice. Here, fields of blackcurrant are being grown.

Description

Physical and functional links to other National Character Areas

The rivers Brue, Parrett and Yeo flow through the National Character Area (NCA) towards the west, forming a significant part of the upper catchment of the Mid Somerset Hills and the Somerset Levels and Moors NCAs. The Axe Valley separates the NCA from the Marshwood and Powerstock Vales NCA to the south as the River Axe flows into the Blackdowns NCA to the south-west.

Both the A30 and A303 cross the NCA, linking it east to west with the Blackmore Vale and Vale of Wardour NCA and the Blackdowns NCA. The A37 forms the western boundary with the Mid Somerset Hills NCA between Ilchester and Shepton Mallet.

Two rail links cross the area, both serving Yeovil, but not meeting. One, the Exeter to Waterloo line, runs east to west from the Blackdowns to the Blackmore Vale and Vale of Wardour. The other, the Weymouth to Bristol line, runs northwards into the Blackmore Vale and Vale of Wardour and then into Avon Vale, and southwards into the Blackmore Vale and Vale of Wardour and then into Dorset Downs and Cranborne Chase.

Within the NCA, land rises to meet the Mendip Hills to the north, the Blackdowns to the south and Dorset Downs and Cranborne Chase to the south-east. Elsewhere, from the highest points of the limestone scarps there are panoramic and sometimes far-reaching views over the Mid Somerset Hills and the lowlands of the Somerset Levels and Moors and across the Blackmore Vale towards the Dorset Downs, Cranborne Chase and the Vale of Wardour.

Key characteristics

- Contrasting and varied but complementary rhythm of the scarps and vales, with the flatter margins of the Levels and Moors.
- Scattered woodlands, many on steeper scarp slopes and within deep 'goyles' (steep, narrow valleys) and wet valley floors. Conifer Plantations on Ancient Woodland Sites, relict orchards and poplar shelterbelts.
- Rural, agricultural character across the majority of the area, with distinct pastoral, mixed and arable areas.
- Several rivers draining east to west and a network of tributary streams, sometimes in goyles.
- Small villages and farmsteads contrasting sharply with urban and peri-urban Yeovil.
- Widespread earthwork remains, including medieval settlements, Roman villas and prehistoric forts, settlements and ritual sites.
- A range of principally Jurassic strata, particularly limestones and sandstones, giving rise to a suite of locally distinctive building stones, themselves imbuing distinctive local vernaculars.
- Relict open fields in the south-west contrasting with extensive thick hedgerows with frequent mature to veteran trees elsewhere.
- Winding rural lanes, bounded by verges and hedgerows, connecting villages and hamlets cut across by busy A roads linking larger towns and neighbouring NCAs.
- Manor houses and large mansions in landscaped parks.

Yeovil Scarplands today

Despite being crossed by the busy A303 and A30 and with Yeovil as its centre of population, the Yeovil Scarplands NCA has a rural character, often intensely so. This is a diverse landscape of gently undulating clay vales, deep goyles, hills and combes united by steep, exposed scarps. To the west are extensive flatter areas of Jurassic clays with a classic 'clay vale' character, similar to the neighbouring Blackmore Vale to the east and the Marshwood Vale further south.

The land is primarily in agricultural use, with a mixture of arable, dairying and stock rearing. Arable predominates on the good, fertile soils, particularly the Yeovil Sands around South Petherton, where a variety of crops are grown. More recently, a solar array has been installed next to the A303. However, the dominant landcover is grassland, from improved pastures in valley bottoms to rough pasture on hillsides and summits. Some of these, such as Babcary Meadows Site of Special Scientific Interest (SSSI) and Rampisham Down SSSI are significant areas of priority habitat.

The area is well settled, though there are few villages or towns of any size. Most settlements are located in the valleys, close to watercourses, with farmsteads on springlines. Winding minor lanes link the settlements to higher ground. Larger settlements include the market towns of Sherborne, Milborne Port and Yeovil – the latter having grown significantly, spreading out into the hills surrounding its older riverside core.

Small woods, copses and scrub are most frequent on the steep ridges and in deep goyles. Oak, ash and – in the wetter areas – alder predominate. There are few semi-natural ancient woodlands but the most significant, Bracket's Coppice, is an SSSI and, due to the presence of the rare Bechstein's bat population, a Special Area of Conservation (SAC); additionally, a section of the West Dorset Alder Woods SAC is found in the south-west corner of the area. Willow pollards and alder line many stream sides, particularly in the vales.

There are some coniferous plantations and scattered remnant orchards, some with poplar shelterbelts. Generally, hedgerows are thick, with substantial hedgebanks, and feature many, frequently veteran or ancient, hedgerow trees. In parts of the south-west of the area, around South Petherton, the survival of relict open fields of medieval origin has led to areas where hedgerows are non-existent or low. On higher ground there are occasional areas of drystone walls.

With their surrounding parklands of lime, oak and beech, mansions and 'gentry houses' such as Montacute, Barrington Court and Dillington House are conspicuous and frequent features in the landscape. The parks themselves are often of local and – in the case of Melbury Park – national biodiversity value for their old grasslands, fungi, veteran trees and lichens.

Tributaries of the Brue, Parrett and Yeo drain from the scarp slopes, cutting an intricate pattern of irregular hills and valleys. At Ham Hill and South Cadbury, prominent hills have been cut from the scarp and are the sites of prehistoric hill forts.

Building materials reflect the varied geology of the area and include Forest Marble, Fuller's Earth stone and the famous Ham Hill stone, characteristic

of the area. Other construction materials include cream- and pink-coloured limestones, sandstones, timber, straw thatch and, more recently, brick and slate. Geological interest includes Ham Hill, Horn Park Quarry and Bruton Railway Cutting. These locations are all designated as SSSI due to their nationally important stratigraphy.

The smaller settlements are linked by narrow lanes, but the area is cut across by major roads that tend to follow ridgelines or valley bottoms. Yeovil is a busy modern town, with good rail and road links. These have driven employment and housing growth, which still continues and gives the town a transitional peri-urban edge in places. The adjacent towns of Sherborne, Crewkerne and Ilminster have also experienced post-Second World War growth but have not reached Yeovil's size. Many of the smaller villages, such as Bruton, Ditcheat and Evercreech, have experienced low levels of new development and overwhelmingly maintain their rural character.

Most of the villages in the NCA feature a fine church and manor house. Here at Ditcheat the two stand side-by-side. The church has been listed at grade I, while the Manor is grade II*

The landscape through time

The NCA is geologically characterised by Lower and Middle Jurassic clays, sandstones and limestones that were deposited between 195 and 165 million years ago and reflect changing sea levels over this period.

Shallowing seas deposited the Down Cliff, Thorncombe and Bridport sandstones. These were capped by the Inferior Oolite Limestone when sea levels reached their lowest. After this, Fuller's Earth and Frome Clay marked the return of rising sea levels and subsequent Forest Marble a further fall. The fossil record shows that these were highly biodiverse seas: invertebrates such as cephalopods (ammonites and belemnites) and bivalve molluscs were abundant. The Beacon Limestone Formation and the Oolite of Horn Park Quarry provide good examples of this rich fauna.

Although sedimentation continued through the Jurassic, uplift and erosion around 100 million years ago removed the Late Jurassic and the Early Cretaceous rocks from this area. The rock layers were also tilted slightly to the east at this time. Marine deposition resumed across the eroded surface, laying down the Gault Clay, Upper Greensand and Chalk.

Early in the Cenozoic Era, further uplift of the area resulted in the removal of the Chalk and the development of an extensive erosion plain, destroying the overlying Chalk. Following regional uplift and dissection of the plain by rivers, little evidence of its presence remains except the shape of the flat tops of Upper Greensand-capped hills, as at Lewesdon Hill and Pilsdon Pen on the south-western fringes of the NCA. The tilted Jurassic limestones and sandstones have been eroded into the familiar arc of scarps and vales, giving way to the east to the Lias Group that underlies much of the Somerset Levels and Moors.

Occupation of the fertile, sheltered lands of this area is likely to have taken place from an early date; evidence dates from the Mesolithic. The most visible prehistoric features in the landscape are hill forts at South Cadbury and Ham Hill. It is possible that the downland ridges were cleared at an early date and the lower ground, especially the steeper slopes, remained more wooded. However, the best soils on the lower ground were probably in cultivation when the Romans occupied the area; several villa estates are found in the southern part of the area, with Ilchester their local centre. Post-Roman activity was focused at South Cadbury and Ilchester.

A general absence of woodland placenames indicates that the Saxons took over a substantially cleared and settled landscape, as with many other limestone plateau landscapes in England. From early Saxon times throughout the Middle Ages, other centres such as South Petherton, Crewkerne, and Bruton were of importance as Saxon burhs and later medieval boroughs. Thus the Normans occupied a relatively densely populated landscape.

By the medieval period the area had a complex pattern of settlement: villages developed surrounded by open fields, but there were also scatters of farmsteads and hamlets surrounded by more complex field systems. The plan forms of villages suggest that many were planned in the 11th–12th centuries, with central greens and Norman–French placename elements (for example, Haselbury Plucknett). Moated sites and small castles indicate the division of the area among minor lords in the 11th–13th centuries.

Deserted settlements represent the retreat of farming populations from the most marginal soils in the 14th and 15th centuries. Some of the dispersed settlement in this area relates to the enclosure of open fields in this period, and much of this landscape had been enclosed by the 1750s, with blocks of open

downland used as sheepwalks and woodland confined to the steeper slopes.

The area has a number of medieval deer parks, many forming the core of some large but mostly smaller-scale gentry estates from the 16th century and sometimes earlier. Country house estates developed from the 16th century, and smaller manor houses and gentry houses are another distinctive feature.

Montacute House was the peak of artistic and aesthetic refinement when constructed. It represented not only Elizabethan financial and political power but also, through its parkland and gardens, power over the surrounding landscape and the people who lived there.

Across much of the area, arable with cattle, particularly for dairying, was the predominant agricultural system. In the Vale of Sherborne, however, pastoral farming (specifically dairying) was more important – arable providing subsistence corn only. Quarrying and other rural industries, notably textiles, characterised the area into the 19th century. Hemp and flax grown locally supplied the net and sailcloth industries at Crewkerne, which declined as a centre of coarse woollen cloth production and developed as a clothing centre by the late 19th century. Castle Cary also had flax mills.

While most of the towns in the area have remained small and are dominated by a core of older stone buildings, Yeovil grew steadily as an industrial centre in the 19th and 20th centuries, boosted after 1915 by Westland Aircraft's factory in the town and the relationship with Yeovilton Royal Naval Air Station to the north of the town. The still-active airfield hangars are a significant feature in this flat part of the landscape.

The rural charm of the area has been widely celebrated. The Spanish Ambassador wrote in 1620 that 'From the fortress by Montacute [Ham Hill] can be seen one of the finest views in Europe',[4] and in the 1770s Daniel Defoe wrote positively of the area around Yeovil. However, the strongest literary association is with East Coker, the home of T.S. Eliot's Puritan ancestors. He is buried in the village church, which was the motif of the second of his Four Quartets.

The Dorset Area of Outstanding Natural Beauty (AONB), designated in 1959, covers some 14 per cent of the southern part of the NCA, including the intensely rural area around Broadwindsor, Corscombe, Halstock and Melbury Osmond.

[4] The Landscape of South Somerset, South Somerset District Council (1993)

Ecosystem services

The Yeovil Scarplands NCA provides a wide range of benefits to society. Each is derived from the attributes and processes (both natural and cultural features) within the area. These benefits are known collectively as 'ecosystem services'. The predominant services are summarised below. Further information on ecosystem services provided in the Yeovil Scarplands NCA is contained in the 'Analysis' section of this document.

Provisioning services (food, fibre and water supply)

- **Food provision:** The area is important for food provision, particularly extensive grazing stock, specialist poultry and pigs and, despite a significant decline, dairy.

- **Water availability:** Sutton Bingham Reservoir provides Yeovil's water supply. It is the only public water supply reservoir in the NCA.

Regulating services (water purification, air quality maintenance and climate regulation)

- **Climate regulation:** The large expanses of pasture and the frequent woodlands, hedgerow network and individual trees all contribute to carbon storage.

- **Regulating soil erosion:** The area has a high percentage of soils vulnerable to erosion; some current land use trends may, along with increasingly frequent extreme weather, lead to increased erosion and subsequent issues such as siltation in watercourses.

- **Regulating soil quality:** As with regulating soil erosion, the quality of the soil can be affected by over-cultivation, compaction and poaching, which cause structural damage.

- **Regulating water quality:** The effects of erosion, both in terms of siltation and nutrient pollution of watercourses, are felt in this NCA and those downstream.

- **Regulating water flow:** This NCA has several rivers that flow into the Somerset Levels and Moors. As such, it exerts an important influence on the flooding cycles that affect these areas during periods of high rainfall.

The ancient town of Bruton has been vulnerable to flash flooding due to its location, surrounded by steep hills with many small streams flowing off them. In order to protect the town from storm flows a flood storage reservoir and dam with spillway were constructed in 2008.

Cultural services (inspiration, education and wellbeing)

- **Sense of place/inspiration:** East Coker was the home of T.S. Eliot. He is buried in the village church. Local vernaculars, particularly the various stones used, create a strong sense of place, often between individual villages.

- **Sense of history:** The NCA plays host to a high density of mansions and manor houses with their associated parks, and many deer parks, with veteran trees and wood pasture habitats. The area is generally one of long-established occupation and agriculture, with abandoned settlements indicating population shift and reduction.

- **Tranquillity:** Away from the bustling A roads and Yeovil, there are many areas of quite intense tranquillity. An area to the south of the NCA was designated as part of the Dorset AONB in 1959, recognising the high-quality landscape and the tranquillity of this area.

- **Biodiversity:** The NCA's biodiversity is quite fragmented and there are few designated sites. However, an SAC and part of another are found here, along with a several SSSI and a widespread suite of local wildlife sites that principally represent grassland and woodland interest.

- **Geodiversity:** The NCA features several geological SSSI noted for their Jurassic stratigraphy, as well as a range of building stones that have played a fundamental role in setting the vernacular and sense of place across the NCA and into neighbouring areas.

Away from the main roads a network of lanes and tracks join the farms, hamlets and villages. The form of these often indicate their age - whether defined by piecemeal or more organised enclosure of the land.

Statements of Environmental Opportunity

SEO 1: Work with the local farming and land management community to adapt to evolving funding mechanisms and climate change, encouraging business choices that balance food production with provision of a range of ecosystem services.

For example, by:

- Working with farmers and other land managers to shape the way that land is managed, innovating and diversifying to maintain the agricultural economy while simultaneously conserving and enhancing the physical, ecological and cultural landscape that is highly valued by local people and visitors.
- Making the connections between changing agricultural land management choices, increasingly frequent severe weather patterns and the downstream implications for flood risk management.
- Investigating the need for and potential to repair and enhance ecosystem services. Take a place-based approach to identify (using sufficiently robust and accessible evidence) and prioritise areas where action will provide services both within and outside the National Character Area (NCA).
- Alongside established agri-environment schemes, identifying and implementing a system of payment for the protection and enhancement of ecosystem services, allowing land managers to make choices that are not always driven by the traditional commodity markets.
- Creating new habitats in the NCA that are tailored to the farmed landscape and the management techniques employed there. These will include wetlands along rivers and streams, legume- and herb-rich grasslands, scrub/coppice and, in the urban environment, a system of green infrastructure and sustainable drainage systems. Provision of ecosystem services will be as important in design and location as wildlife.
- Increasing land manager understanding of the importance of the soil resource and the need for its sympathetic management for the delivery of a range of benefits and services and to enable better management of the costs of agricultural production.
- Working with farmers and landowners to promote best practice in fertilizer application, nutrient and manure management, cultivation and soil management through catchment sensitive farming principles.
- Promoting land use patterns on the arable areas which create groundcover in the autumn and winter months, arresting water flows, reducing erosion and boosting aquifer recharge. Seek to minimise negative impacts of compaction and soil organic matter loss from excessive tillage.
- Working with owners and managers of both large and small estates to ensure that the significant positive influence they exert on the landscape is maintained while enabling them to continue adapting to changing economic and farming developments and societal expectations.

SEO 2: Protect, manage and enhance the diverse but coherent pastoral and mixed farming landscape character of the clay vales and limestone and sandstone scarps, their semi-natural grasslands and woodland and their characteristic wildlife. Manage the simple patterns of land use maintained by the long history of agriculture.

For example, by:

- Describing the links between the current distribution of semi-natural habitats and the strong landscape character with the history of settlement and land use over the last 4,000 years.
- Ensuring that the Special Areas of Conservation, the suite of biological Sites of Special Scientific Interest and the local wildlife sites in the NCA are managed appropriately.
- Returning traditional management regimes to those habitats that require them, particularly grazing to the range of grasslands and active management interventions in woodlands.
- Encouraging the management and restoration of parklands and gardens associated with historic estates.
- Restoring and strengthening the matrix of connecting landscape/habitat features within a functional farmed environment, such as hedgerows, copses, thickets, streams and ditches, to increase permeability and migratory opportunities for wildlife.
- Conserving the pattern of field boundaries with veteran trees (particularly in the north), avoiding further loss, restoring hedgerows and establishing a new generation of hedgerow trees.
- Returning Plantations on Ancient Woodland Sites to broadleaved species. Explore and promote local wood fuel/produce schemes across the woodland resource in the NCA.
- Identifying potential impacts of climate change on grassland and woodland habitats and targeting climate change adaptation actions.
- Understanding the implications of and planning potential responses in vegetation cover to environmental changes and pathogens, with particular attention being paid to loss of ash from ash die-back and oak from 'acute oak decline'.
- Giving high regard to the guidelines contained in the Dorset Area of Outstanding Natural beauty (AONB) Landscape Character Assessments and ensuring that the relevant policies outlined in the Dorset AONB Management Plan are implemented.

SEO 3: Protect and manage the National Character Area's rich cultural inheritance, including its historic environment and geodiversity. Raise the profile of the Yeovil Scarplands as a landscape of distinction and, in many places, great beauty.

For example, by:

- Maintaining the settlement pattern of hamlets, and isolated farmsteads with a strong vernacular architecture and the network of winding lanes and piecemeal enclosure, reflecting past enclosure activity.
- Maintaining the setting of the numerous manor houses and parkland within the NCA.
- Ensuring that the wealth of heritage assets, including above-ground and buried archaeological features such as earthwork remains, Roman remains, manors, parkland and traditional farm buildings, are protected, conserved and enhanced, and are appropriately managed.
- Conserving and enhancing hedgerows and the many veteran trees and orchards to maintain these features in the landscape, and ensuring continuity through planting and management.
- Maintaining the diversity of geology and traditional buildings that contribute to the NCA by using, promoting and encouraging locally sourced materials and skills for building repair and construction.
- Recognising that sourcing traditional building stone locally can enhance geodiversity by creating new temporary or permanent geological exposures or by improving existing exposures.
- Ensuring that the sense of place imparted by the localised use of specific building stones is maintained and, as often as possible, reinforced by new development.
- Promoting, through engagement with local communities, an understanding of the combined effect that multiple historic features and farm and settlement patterns have on the landscape character and the importance of their conservation and presentation.
- Bringing all heritage assets within the NCA into sympathetic management, seeking communities' engagement in the process of restoring and maintaining their heritage, and explaining English Heritage's Heritage at Risk register.
- Describing the connections between the geology of the NCA and its settlement and land use history.
- Protecting important features, for geological/geomorphological interpretation, from inappropriate changes in land use, for example maintaining the views from the tops of the limestone scarps.

SEO 4: Manage and plan for growth in the area around Yeovil and the other towns in this part of the National Character Area as they expand as employment and housing centres, ensuring that landscape character is used as a framework for future growth and enhancement.

For example, by:

- Creating plans for the growth of these areas which take advantage of the full range of positive impacts they can have on the surrounding countryside and existing developed areas.
- Softening the impacts of the A303 on the surrounding landscape through use of strategic tree planting and ensuring that new road-related infrastructure is accompanied by good quality landscape design.
- Minimising light pollution emanating from industrial developments and road infrastructure.
- Creating new semi-natural habitats close to existing and new development, which will soften the impact of new developments and provide resilience to water flows in extreme weather events.
- Using elements of traditional vernacular in new developments to maintain the sense of place and to create links to the existing built environment.
- Planting new woodland, using native broadleaved species, between and within new developments, to filter views and preserve the tranquillity of the area.
- Providing access opportunities and natural open spaces close to where people live, linked to wider multimodal routes.
- Making sure that key views to and from settlements are retained or improved when developments occur.
- Providing access to quality greenspace through well-designed green infrastructure, which will benefit health and wellbeing and provide habitats that increase the permeability of the urban landscape to biodiversity.
- Ensuring that new developments provide biodiversity enhancement rather than just mitigation.
- Using new developments to create links for new and existing residents to connect to their rural hinterland, both physically and culturally – using new access routes, community orchards, allotments, links with local producers and local produce, and so on.

The A303 is a major trunk road that crosses the NCA east to west, duelled, as here, for much of its length it in places dominates the landscape but in more undulating areas can be happened upon quite suddenly.

Supporting document 1: Key facts and data

Yeovil Scarplands National Character Area (NCA): 78,579 ha

1. Landscape and nature conservation designations

The Yeovil Scarplands NCA contains 9,477 ha of the Dorset Area of Outstanding Natural Beauty (AONB), which is 12 per cent of the total NCA area.

Management plans for the protected landscape can be found at:

- www.dorsetaonb.org.uk/

Source: Natural England (2011)

1.1 Designated nature conservation sites

The NCA includes the following statutory nature conservation designations:

Tier	Designation	Designated site(s)	Area (ha)	% of NCA
International	n/a	n/a	0	0
European	Special Protection Area (SPA)	n/a	0	0
	Special Area of Conservation (SAC)	Bracket's Coppice SAC, West Dorset Alder Woods SAC	62	<1
National	National Nature Reserve (NNR)	Hardington Moor NNR, Horn Park Quarry NNR	9	<1
National	Site of Special Scientific Interest (SSSI)	A total of 30 sites wholly or partly within the NCA	369	<1

Source: Natural England (2011)

Please note: (i) Designated areas may overlap (ii) all figures are cut to Mean High Water Line, designations that span coastal areas/views below this line will not be included.

There are 422 local sites in the Yeovil Scarplands NCA covering 3,368 ha, which is 4 per cent of the NCA.

Source: Natural England (2011)

- Details of individual Sites of Special Scientific Interest can be searched at: http://www.sssi.naturalengland.org.uk/Special/sssi/search.cfm
- Details of Local Nature Reserves (LNR) can be searched at: http://www.lnr.naturalengland.org.uk/Special/lnr/lnr_search.asp
- Maps showing locations of Statutory sites can be found at: http://magic.defra.gov.uk/website/magic/ – select 'Rural Designations Statutory'

1.1.1 Condition of designated sites

Condition category	Area (ha)	% of SSSI land in category condition
Unfavourable declining	1	<1
Favourable	284	77
Unfavourable no change	10	3
Unfavourable recovering	71	19

Source: Natural England (March 2011)

- Details of SSSI condition can be searched at: http://www.sssi.naturalengland.org.uk/Special/sssi/reportIndex.cfm

2. Landform, geology and soils

2.1 Elevation

Elevation in the Yeovil Scarplands NCA ranges from a highest point of 270 m above sea level to a low point of 4 m above sea level.

Source: Natural England (2010)

2.2 Landform and process

A very varied landscape of hills, wide valley bottoms, ridgelines and combes united by scarps of Jurassic limestone. Landslips have occurred on many of the hills where the springs, emerging on the Gault Clay, have undermined the overlying Greensand causing slumping onto the clay below. Many of these landslips are still mobile. Rivers, like the Brue, Parrett and Yeo, drain from the higher ground of the Scarplands, cutting an intricate pattern of irregular hills and valleys.

Source: Wessex Vales Natural Area Profile, Yeovil Scarplands Countryside Character Area Description

Hardington Moor NNR.

2.3 Bedrock geology

The Yeovil Scarplands are underlain mainly by Jurassic rocks which are alternations of clays, limestones and sandstones with Triassic mudstones in the low-lying land in the west of the area. During the time this bedrock was being laid down this area was under marine conditions. This bedrock consists of Lias clays, sands and silts, the Yeovil Sands, Ham Hill stone, Inferior Oolite, Fuller's Earth, and Forest Marble and Cornbrash limestones. The limestones and sandstones tend to form a series of scarps which trend east–west but are much broken by faults in the south around Yeovil. In the north of the area the scarps move to a north–south orientation.

Source: Wessex Vales Natural Area Profile, Yeovil Scarplands Countryside Character Area Description, British Geological Survey Maps

2.4 Superficial deposits

The Yeovil Scarplands was not glaciated but was affected by permafrost during glacial periods and fluctuating sea levels during temperate interglacials. There are superficial deposits of alluvial fans of clay, silt, sand and gravel.

Source: Wessex Vales Natural Area Profile, Yeovil Scarplands Countryside Character Area Description, British Geological Survey Maps.

2.5 Designated geological sites

Designation	Number
Geological Site of Special Scientific Interest (SSSI)	21
Mixed interest SSSI	2

There are 31 Local Geological Sites within the NCA.

Source: Natural England 2011

- Details of individual Sites of Special Scientific Interest can be searched at: http://www.sssi.naturalengland.org.uk/Special/sssi/search.cfm

2.6 Soils and Agricultural Land Classification

The soils are largely calcareous clays and brown earths, with small areas of stagnogleys.

Source: Yeovil Scarplands Countryside Character Area Description

The main grades of agricultural land in the NCA are broken down as follows (as a proportion of total land area):

Agricultural Land Classification	Area (ha)	% of NCA
Grade 1	4918	6
Grade 2	9579	12
Grade 3	56040	71
Grade 4	5878	7
Grade 5	653	1
Non-agricultural	n/a	n/a
Urban	1513	2

Source: Natural England (2010)

- Maps showing locations of statutory sites can be found at: http://magic.defra.gov.uk/website/magic/ - Select 'Landscape' (shows ALC and 27 types of soils)

3. Key water bodies and catchments

3.1 Major rivers/canals

The following major rivers/canals (by length) have been identified in this NCA.

Name	Length in NCA (km)
River Axe	8
River Brue	16
River Cary	15
River Isle	14
River Parrett	20
River Yeo	25
Whitelake	1

Source: Natural England (2010)

Please note: other significant rivers (by volume) may also occur. These are not listed where the length within the NCA is short.

Tributaries of the Brue, Parrett and Yeo drain from the scarp slopes, cutting an intricate pattern of irregular hills and valleys.

3.2 Water quality

The total area of Nitrate Vulnerable Zone is 34,429 ha, which is 44 per cent of the NCA.

Source: Natural England (2010)

3.3 Water Framework Directive

Maps are available from the Environment Agency showing current and projected future status of water bodies at: http://maps.environment-agency.gov.uk/wiyby/wiybyController?ep=maptopics&lang=_e

4. Trees and woodlands

4.1 Total woodland cover

The NCA contains 4,386 ha of woodland (6 per cent of the total area), of which 1,251 ha is ancient woodland.

Source: Natural England (2010), Forestry Commission (2011)

4.2 Distribution and size of woodland and trees in the landscape

The surrounding parklands of lime, oak and beech are conspicuous features, especially when, as at Sherborne Park, the adjacent tree-cover is not extensive. Small woodlands, scrub and copses are present, particularly in the sunken hollows and 'goyles'. Woodland is most frequent on the steep slopes and, although there has been some planting of conifers, a number of semi-natural ancient woodlands survive. At Lower Eastcombe, near Batcombe, the characteristic mixed farming pattern of the scarplands is evident. There has been a general loss of both woodland and hedgerow trees (the latter particularly as a consequence of Dutch elm disease), and grubbing up of orchards. There has been a general lack of woodland management and some conversion of broadleaved woodland to conifers.

Source: Yeovil Scarplands Countryside Character Area Description

From the heights of Ham Hill the views range over several National Character Areas, including the Somerset Levels and Moors, Mid Somerset Hills, Blackdowns, Blackmore Vale and Vale of Wardour, and Mendip Hills.

4.3 Woodland types

A statistical breakdown of the area and type of woodland found across the NCA is detailed below.

Area and proportion of different woodland types in the NCA (over 2 ha).

Woodland type	Area (ha)	% of NCA
Broadleaved	3,083	4
Coniferous	805	1
Mixed	201	<1
Other	297	<1

Source: Forestry Commission (2011)

Area and proportion of Ancient Woodland and Planted Ancient Woodland within the NCA:

Type	Area (ha)	% of NCA
Ancient semi-natural woodland	623	1
Ancient re-planted woodland (PAWS)	628	1

Source: Natural England (2004)

5. Boundary features and patterns

5.1 Boundary features

Boundaries in the NCA consist of substantial hedgerows, more sparse on the Yeovil Sands. There was a tradition of pollarding hedgerow ash trees, which no longer continues. Hedgerows are non-existent or low in the south-west, they are thick with substantial hedgebanks elsewhere. On higher ground there are scattered areas of drystone walls.

Source: Yeovil Scarpland Countryside Character Area Description; Countryside Quality Counts (2003)

Boundary hedges.

5.2 Field patterns

Although there is a mixture of arable, the dominant landcover is grassland, ranging from improved pastures in valley bottoms to rough pasture on steep hillsides. Scattered patches of anciently-enclosed (pre-17th century) land, forming a small minority of enclosure patterns in the area overall, are more concentrated to the south adjacent to Marshwood and Powerstock Vales. Piecemeal enclosure, with outlines of medieval strips reflected in distinctive curved boundaries, is the predominant form of enclosure; the product in turn of the dominance of open field farming in the medieval period. Enclosure was a process complete in some areas by the 17th century, but not complete in others (for example, around Ilminster) until the early 19th century. The process of acquiring strips, the timing of enclosure and the subsequent construction and – particularly in the 19th and 20th centuries – removal of boundaries has resulted in a mixture of pre-17th century enclosure, with later modifications, and 18th century and later enclosure. The latter is concentrated to north-east and east of Yeovilton and on the higher land north of Sherborne and to the east of the area, where post-1940 arable intensification has been most marked. Some of the higher ridges remained as open downland or subject to regular and large-scale enclosure in late 18th and 19th centuries.

Source: Yeovil Scarpland Countryside Character Area Description; Countryside Quality Counts (2003)

6. Agriculture

The following data has been taken from the Agricultural Census linked to this NCA.

6.1 Farm type

There were 1,051 commercial holdings in 2009; this was a decrease of 61 compared to 2000. The most notable change was the decline in the number of mixed farms which had fallen from 85 in 2000 to 52 in 2009. All livestock holdings made up 54 per cent of the total type of farming. Other farm numbers had stayed relatively stable.

Source: Agricultural Census, Defra (2010)

6.2 Farm size

Survey data from 2000 and 2009 showed that there were numerous holdings in all size brackets with no farm size particularly dominant. Farms of more than 100 ha accounted for more than 60 per cent of the farmed area. Conversely, there were fewer holdings of all other sizes in 2009 than there had been at the start of the millennium, with farms between 20 ha and 100 ha showing marked reductions in the total land covered.

Source: Agricultural Census, Defra (2010)

6.3 Farm ownership

2009 Total farm area = 63,213 ha; owned land = 42,134 ha
2000 Total farm area = 64,350 ha; owned land = 44,110 ha

Source: Agricultural Census, Defra (2010)

6.4 Land use

Survey data from 2000 and 2009 showed a 47 per cent increase in specialist poultry farming from 17 to 25 holdings. By 2009 there were 14 more cereal holdings, but a smaller area was being used for this purpose. There was a 31 per cent decrease in dairy farming holdings from 274 to 188; a 38 per cent decrease in mixed farming holdings from 80 to 52, oilseeds areas increased by 120 ha from 1,061 ha to 1,180 ha, while grass and uncropped land increased by 260 ha to 42,423 ha.

Source: Agricultural Census, Defra (2010)

6.5 Livestock numbers

Survey data from 2000 and 2009 showed that the number of cattle decreased by 5,000 to 78,800, but on 86 fewer holdings. There were 17,100 fewer pigs than in 2000, but specialist pig production had increased by 1 farm to 10 holdings. There were 17,025 fewer sheep than in 2000. Grazing livestock (lowland) holding had increased from 299 to 329. Specialist poultry units had increased from 17 holdings to 25 commercial holdings.

Source: Agricultural Census, Defra (2010)

6.6 Farm labour

Survey data from 2000 and 2009 showed a decrease of 151 principal farmers from 1,575 to 1,424. The number of full-time workers had decreased by 186, down to 382. The number of casual/gang workers also decreased by 75, down to 209. The number of part-time workers had increased from 219 to 261, a rise of 42 over this time.

Source: Agricultural Census, Defra (2010)

Please note: (i) Some of the Census data is estimated by Defra so will not be accurate for every holding (ii) Data refers to Commercial Holdings only (iii) Data includes land outside of the NCA belonging to holdings whose centre point is within the NCA listed.

7. Key habitats and species

7.1 Habitat distribution/coverage

There are areas of grazing marsh at the western boundary of the Scarplands by the rivers Yeo and Parrett, and wet woodlands along the eastern and southern boundaries along the scarp. There are smaller patches of other priority habitats such as lowland calcareous grassland and lowland meadows throughout the NCA. Purple moor grass and rush pastures are found mainly on higher, steeper land at the south of the NCA.

Source: Natural England 2011

Bee orchid on Hardington Moor NNR.

habitats and species are identified in Biodiversity 2020, but references to BAP priority habitats and species, and previous national targets have been removed. Biodiversity Action Plans remain a useful source of guidance and information. More information about Biodiversity 2020 can be found at; **http://www.naturalengland.org.uk/ourwork/conservation/biodiversity/protectandmanage/englandsbiodiversitystrategy2011.aspx**

The NCA contains the following areas of mapped priority habitats (as mapped by National Inventories). Footnotes denote local/expert interpretation. This will be used to inform future national inventory updates.

Priority habitat	Area (ha)	% of NCA
Broadleaved mixed and yew woodland (broad habitat)	2,057	3
Coastal and flood plain grazing marsh	926	1
Lowland meadows	394	1
Fens	290	<1
Lowland calcareous grassland	248	<1
Purple moor grass and rush pastures	57	<1
Reedbeds	21	<1

Source: Natural England (2011)

Maps showing locations of priority habitats are available at

- **http://magic.defra.gov.uk/website/magic/** select 'Habitat Inventories'

7.3 Key species and assemblages of species

- Maps showing locations of priority habitats are available at: **http://magic.defra.gov.uk/website/magic/**
- Maps showing locations of S41 species are available at: **http://data.nbn.org.uk/**

8. Settlement and development patterns

8.1 Settlement pattern

Although average rates of development are low, there are local concentrations; for example, there is evidence of expansion of urban and fringe areas into peri-urban around Yeovil, Ilminster and Crewkerne, and scattered development throughout the lowland vales of the western part of the NCA.

Source: Yeovil Scarplands Countryside Character Area Description; Countryside Quality Counts (2003)

8.2 Main settlements

Although the area is well settled, there are few villages or towns of any size. Most settlements are located in the valleys, close to watercourses with farmsteads on spring lines. Winding minor lanes link the settlements to higher ground. Larger settlements include the market towns of Sherborne and Yeovil; the latter having grown to a significant size, largely due to its industrial sector. The total estimated population for this NCA (derived from ONS 2001 census data) is 127,998.

Source: Yeovil Scarplands Countryside Character Area Description; Countryside Quality Counts (2003), Natural England (2012)

8.3 Local vernacular and building materials

Building materials are varied, although local Ham Hill stone is most characteristic of the area, reflected in visually dominant churches. Other construction materials include cream- and pink-coloured limestone, sandstones, timber, thatch and more recently, brick. Of the many materials used for the buildings, Ham Hill stone, seen particularly at Sherborne, Crewkerne, Ilminster and Martock, is the most celebrated. Before the widespread accessibility of stone, the older style of building was timber frame and thatch. Some of these elements still survive although most roofs are now pantiles or grey slate.

Source: Yeovil Scarplands Countryside Character Area Description; Countryside Quality Counts (2003)

Yeovil is a thriving town under constant pressure to expand, both for housing and, as here, employment development. As the town pushes into open countryside and encroaches on neighbouring settlements careful design will be required to prevent adverse impacts upon landscape character.

9. Key historic sites and features

9.1 Origin of historic features

Although occupation of the fertile, sheltered lands of this area is likely to have taken place from an early date, and there is certainly evidence dating from the Mesolithic, the main prehistoric features in today's landscape are the hill forts at South Cadbury and Ham Hill, which were the foci of activity from the Neolithic to the Iron Age.

As well as at South Cadbury, there was a focus of post-Roman activity at Ilchester. From early Saxon times throughout the Middle Ages, other centres like South Petherton, Crewkerne, and Bruton were also of continued importance as Saxon burhs and later medieval boroughs. The general absence of woodland placenames indicates that the Saxons took over a substantially cleared and settled landscape and, by the time of Domesday Book, the area was quite densely populated. Moreover, the numerous sites of deserted settlements indicate that the area was probably densely settled in the Middle Ages.

In the north, the grey oolitic limestones tended to be used instead of Ham Hill stone and to the east the complicated geology provides sandstones, limestone and greensand. The older buildings are commonly of local stones but the 19th century ones are more predominantly of brick. Before the widespread accessibility of stone, the older style of building was timber frame and thatch. Some of these elements still survive, although most roofs are now pantiles or grey slate.

Source: Draft Historic Profile, Countryside Quality Counts, Yeovil Scarplands Countryside Character Area Description

9.2 Designated historic assets

This NCA has the following historic designations:

- 13 Registered Parks and Gardens covering 1,861 ha.
- 0 Registered Battlefields.
- 74 Scheduled Monuments.
- 4,317 Listed Buildings.

Source: Natural England (2010)

- More information is available at the following address: **www.english-heritage.org.uk/caring/heritage-at-risk/**
- **www.english-heritage.org.uk/professional/protection/process/national-heritage-list-for-england/**

River Axe and overhanging trees.

10. Recreation and access

10.1 Public access

- 1 per cent of the NCA (663 ha) is classified as being publically accessible.
- There are 1,479 km of public rights of way at a density of 1.8 km per km2.
- There are no National Trails within the NCA.

Source: Natural England (2010)

The following table shows the breakdown of land which is publically accessible in perpetuity:

Access designation	Area (ha)	% of NCA
National Trust (accessible all year)	34	<1
Common Land	41	<1
Country Parks	216	<1
CROW Access Land (Section 4 and 16)	233	<1
CROW Section 15	0	0
Village Greens	3	<1
Doorstep Greens	1	<1
Forestry Commission Walkers Welcome Grants	15	<1
Local Nature Reserves (LNR)	45	<1
Millennium Greens	1	<1
Accessible National Nature Reserves (NNR)	9	<1
Agri-environment Scheme Access	76	<1
Woods for People	185	<1

Sources: Natural England (2011)

Please note: Common Land refers to land included in the 1965 commons register; CROW = Countryside and Rights of Way Act 2000; OC and RCL = Open Country and Registered Common Land.

Where a layer of clay-with-flints persists on the Chalk, areas of acid grassland can develop. Here at Rampisham Down some 70 hectares of this habitat, with great botanical interest, has survived and is now a Site of Special Scientific Interest.

11. Experiential qualities

11.1 Tranquillity

Based on the CPRE map of tranquillity (2006) the most tranquil areas lie in the vales where the tranquillity value rises to a maximum of 36, away from the urban, less tranquil parts of the NCA where the tranquillity values drop to -66.

River Axe.

A breakdown of tranquillity values for this NCA are detailed in the table below:

Category of tranquillity	Score
Highest	36
Lowest	-66
Mean	-1

Sources: CPRE (2006)

More information is available at the following address: **www.cpre.org.uk/what-we-do/countryside/tranquil-places/in-depth/item/1688-how-we-mapped-tranquillity**

11.2 Intrusion

The 2007 Intrusion Map (CPRE) shows the extent to which rural landscapes are 'intruded on' from urban development, noise (primarily traffic noise), and other sources of visual and auditory intrusion. This shows intrusion has increased considerably along major transport routes since 1960, but away from these some areas are still un-intruded. A breakdown of intrusion values for this NCA is detailed in the following table.

Intrusion category	1960s (%)	1990s (%)	2007 (%)	Percentage change (1960s-2007)
Disturbed	8	27	47	39
Undisturbed	91	72	50	-41
Urban	1	1	3	2

Sources: CPRE (2007)

Notable trends from the 1960s to 2007 were a 40 per cent decrease in undisturbed area and a corresponding increase in the disturbed area.

- More information is available at the following address: **www.cpre.org.uk/resources/countryside/tranquil-places**

12. Data sources

- British Geological Survey (2006)
- Natural Area Profiles, Natural England (published by English Nature 1993-1998)
- Countryside Character Descriptions, Natural England (regional volumes published by Countryside Commission/Countryside Agency 1998/1999)
- Joint Character Area GIS boundaries, Natural England (data created 2001)
- National Parks and AONBs GIS boundaries, Natural England (2006)
- Heritage Coast Boundaries, Natural England (2006)
- Agricultural Census June Survey, Defra (2000,2009)
- National Forest Inventory, Forestry Commission (2011)
- Countryside Quality Counts Draft Historic Profiles, English Heritage (2004)*
- Ancient Woodland Inventory, Natural England (2003)
- Priority Habitats GIS data, Natural England (March 2011)
- Special Areas of Conservation data, Natural England (data accessed in March 2011)
- Special Protection Areas data, Natural England (data accessed in March 2011)
- Ramsar sites data, Natural England (data accessed in March 2011)
- Sites of Special Scientific Interest, Natural England (data accessed in March 2011)
- Detailed River Network, Environment Agency (2008)
- Source protection zones, Environment Agency (2005)
- Registered Common Land GIS data, Natural England (2004)
- Open Country GIS data, Natural England (2004)
- Public Rights of Way Density, Defra (2011)
- National Trails, Natural England (2006)
- National Tranquillity Mapping data, CPRE (2007)
- Intrusion map data, CPRE (2007)
- Registered Battlefields, English Heritage (2005)
- Record of Scheduled Monuments, English Heritage (2006)
- Registered Parks and Gardens, English Heritage (2006)
- World Heritage Sites, English Heritage (2006)
- Incorporates Historic Landscape Characterisation and work for preliminary Historic Farmstead Character Statements (English Heritage/Countryside Agency 2006)

Please note all figures contained within the report have been rounded to the nearest unit. For this reason proportion figures will not (in all) cases add up to 100 per cent. The convention <1 has been used to denote values less than a whole unit.

Supporting document 2: Landscape change

Recent changes and trends

Trees and woodlands

- Between 1999 and 2003, the amount of eligible National Inventory of Woodland and Trees woodland covered by a Woodland Grant Scheme rose from 7 to 25 per cent.

- Between 1999 and 2003, the amount of eligible woodland on ancient woodland sites in the National Character Area (NCA) – ancient woodland sites account for approximately 29 per cent of the NCA's woodland – covered by a Woodland Grant Scheme rose from 5 to 32 per cent.

- Currently 953 in-field trees are protected, and 384 ha of woodland and 241 ha of wood pasture and parkland under Environmental Stewardship (ES) management options. It is impossible to say with current data that this is an improvement in coverage, but it is at least likely to indicate maintenance of coverage.

Boundary features

- The estimated boundary length for the NCA is 6,522 km. Total length of boundaries covered by ES agreements between 1999 and 2003 was equivalent to about 6 per cent of this total.

- The total length of ES agreements as of February 2014 was equivalent to approximately 22 per cent of the total; an increase of some 16 per cent.

- Increases in the area of arable production (see key facts and data section) may have put pressure on hedgerows, including in-field and hedgerow trees through ploughing and compaction, there is however only conjectural evidence to support this view.

Agriculture

- Between 2000 and 2009 there was a reduction in the number of livestock in the area by almost 30,000 animals. It is however likely that while dairy cattle declined in number, beef cattle may have increased.

- The area of grass and uncropped land increased in the period 2000–2009, even with a marked decline in the numbers of dairy holdings. This does appear to allay fears of extensive arable conversion that were expressed in the early 1990s.

- There was a 6 per cent reduction in the total number of holdings, with only a 2 per cent reduction in the farmed area between 2000 and 2009, indicating farms expanding through purchase of adjacent holdings as they become available.

- The relatively small areas of traditional orchard left in the area have continued to decline with most new orchards planted with non-traditional species and forms. This maintains the culture of cider production but not the characteristic landscape character and associated biodiversity.

Settlement and development

- The growth of Yeovil, both in terms of housing and industrial floor space, has resulted in further expansion of its footprint over some of the surrounding hills. This has created some areas where boundaries are weakened with negative impacts on adjacent landscape character.[5]

- Installation of solar panel arrays and associated infrastructure in some of the countryside around the A303 has eroded the rural character.

- Modern farm buildings are of a size and range of materials that clash with the established character and vernaculars, particularly on the flatter, open areas to the south-west of the character area.

- Away from the larger towns and villages there has been little in the way of development.

Semi-natural habitat

- The last ten years have seen some 1,375 ha of priority habitat, including broadleaved mixed and yew woodland, lowland meadows and lowland calcareous grasslands, brought under management options through the Environmental Stewardship Scheme.

- More than 96 per cent of Sites of Special Scientific Interest are in favourable or recovering condition. This represents a continued improvement in condition over the last ten years.

A small proportion of historic parkland and wood pasture remains in the NCA.

[5] The Landscape of South Somerset, South Somerset District Council (1993)

- In the north of the NCA, veteran trees in hedgerows are a significant biodiversity asset. Lack of management and the identification of replacement hedgerow trees may see a gap in their presence as the current generation senesce and die.

Historic features

- Recent large-scale excavations of the fort on Ham Hill are making important discoveries from the Iron Age and early days of the Roman invasion of the area.

- There is likely to have been damage to archaeological sites by arable conversion and deep ploughing; however, in 2014 there were 242 ha of archaeological options live under ES agreements, some of which directly address such issues.

- Some of the lesser historic parks are not in active management. Here, scrub encroachment and deterioration of parkland trees may become a problem. There are 241 ha of wood pasture and parkland under live ES agreements options helping to restore and maintain some of these historic parks.

- Extension of the Ham Hill quarrying operation for a further 80 years will ensure a continued supply of this highly characteristic stone, helping to maintain the distinctive local vernacular.

- About 79 per cent of listed historic farm buildings remain unconverted. About 95 per cent are intact structurally.

Coast and rivers

- Forty-four per cent of the NCA has been designated as nitrate vulnerable zone (34,429 ha).

- Approximately 23 per cent of surface waters in the area are considered as having good or better ecological status and potential. Phosphate levels, physical modification and low dissolved oxygen are principal drivers of less than good status.[6]

- The NCA has been included within a Defra Priority Catchment[7] that includes the Upper Parrett and Upper Brue which, in addition to problems of sedimentation, suffer from nutrient loss, with phosphate pollution a particular problem in the Upper Brue.

- This area appears to be showing a slow positive response to the efforts to reduce nutrient levels entering the streams and rivers.

Minerals

- There are seven active quarries in the NCA all producing limestone. Of the two active quarries at Ham Hill,[8] one has recently been granted an 80-year extension. While the number of quarries and intensity of extraction have probably reduced or remained stable over recent years, this reflects the low level of demand for stone, other than for restoration works.

[6] River Basin Management Plan, South West River Basin District, Environment Agency (December 2009)

[7] Defra catchment priorities identified under the England Catchment Sensitive Farming Project (URL: www.gov.uk/catchment-sensitive-farming)
BGS GeoIndex (URL: http://mapapps2.bgs.ac.uk/geoindex/home.html?theme=minerals)

Drivers of change

Climate change

- Increased rainfall, especially in extreme events, is likely to exacerbate soil erosion issues on the light, easily eroded Yeovil Sands around South Petherton. Elsewhere, decisions made about crop type, timing of cultivation and location will have impacts on erosion and subsequent siltation.

- Increased storminess and rainfall is likely to place increased downstream pressure on the rivers draining from this NCA into the Somerset Levels and Moors. This is likely to increase the frequency and duration of flooding downstream and possibly locally within the NCA though with less severe impacts.

- Hotter, drier summers may increase the demand for irrigation of the light, freely draining soils of the Yeovil Sands, placing the rivers Yeo and Parrett under stress.

- Generally warmer temperatures, and especially warmer winters may see increased problems with pest species, both native and new arrivals from the continent. These may have a particular impact in the areas of arable production and lead to increased biocide use.

- The trees and woodland in the NCA could be adversely affected by various aspects of climate change as currently manifested. Increased storminess will increase the numbers of trees lost to wind throw, especially in areas where rooting depth is shallow and exposure high, along the limestone scarps. Such occurrences will be increased when wind is accompanied by long spells of wet weather, reducing the cohesiveness of soils and the effectiveness of tree root systems to stand the subsequent forces. Conversely, periods of drought will result in drought-stress damage (often leading to secondary issues of disease), loss of limbs and fire, particularly in conifer stands.

- Veteran trees – for which this NCA's hedgerows and parklands are recognised – and the lichens that grow upon them are particularly susceptible to drought. Lichens can simply desiccate and die, while the trees themselves will be weakened and in extreme cases will shed entire limbs.

- The area's semi-natural habitats are likely to suffer from drought stress, which may in certain habitats, particularly grasslands and wetlands, see a shift in the vegetation communities found. Reduced groundwater flows may see long-term contraction of wetlands as springs and seepages produce less water. Fire could also affect some areas if dry conditions persist. Flooding followed by prolonged periods of standing water can lead to anoxic conditions that can kill much of the vegetation and soil fauna of an area.

- Increased average temperatures will see a generally northward migration of the range of some species.

Other key drivers

- Yeovil and the surrounding towns in South Somerset District are likely to see moderate growth up to 2026. This is likely to put pressure on this part of the NCA.
- Renewable energy infrastructure may become a driver of change in character; as much of the NCA is not within designated landscapes, permissions may be more easily gained.
- Increased cultivation of maize and other crops that leave the soil without vegetation cover at vulnerable times of the year coupled to increased flashiness of rainfall events and surface water flows will see sedimentation and associated nutrient enrichment of watercourses continue.
- A possible trend towards more arable production and localised increase of field size may have an impact on character and biodiversity/resilience due to hedgerow removal.
- With continued problems of flooding across the Somerset Levels and Moors, opportunities may arise in the Yeovil Scarplands to provide incentives for developing features that provide ecosystem services to reduce these pressures.

Scattered broadleaved woodlands, relict orchards and poplar shelterbelts are common in the landscape.

Supporting document 3: Analysis supporting Statements of Environmental Opportunity

The following analysis section focuses on a selection of the key provisioning, regulating and cultural ecosystem goods and services for this NCA. These are underpinned by supporting services such as photosynthesis, nutrient cycling, soil formation and evapo-transpiration. Supporting services perform an essential role in ensuring the availability of all ecosystem services.

Biodiversity and geodiversity are crucial in supporting the full range of ecosystem services provided by this landscape. Wildlife and geologically-rich landscapes are also of cultural value and are included in this section of the analysis. This analysis shows the projected impact of Statements of Environmental Opportunity on the value of nominated ecosystem services within this landscape.

In the south of the NCA is an area of complex geology with outliers of the Chalk surviving as the highest hills, underlain by Upper Greensand, Gault Clay, sandstones and valley floors of Frome Clay. This gives rise to a spectacular landscape of wooded hills and steep valleys, many springs and flushes and rich fertile vales. This area is one of the most intensely rural in the NCA and is included within the Dorset AONB.

Statement of Environmental Opportunity	Ecosystem Service																		
	Food provision	Timber provision	Water availability	Genetic diversity	Biomass provision	Climate regulation	Regulating water quality	Regulating water flow	Regulating soil quality	Regulating soil erosion	Pollination	Pest regulation	Regulating coastal erosion	Sense of place/Inspiration	Sense of history	Tranquillity	Recreation	Biodiversity	Geodiversity
SEO 1: Work with the local farming and land management community to adapt to evolving funding mechanisms and climate change, encouraging business choices that balance food production with provision of a range of ecosystem services.	↔ **	↗ **	↗ **	↔ **	↔ **	↑ ***	↑ ***	↑ ***	↑ ***	↑ ***	↔ **	↔ **	n/a	↗ ***	↔ ***	↗ ***	↔ **	↗ **	↔ ***
SEO 2: Protect, manage and enhance the diverse but coherent pastoral and mixed farming landscape character of the clay vales and limestone and sandstone scarps, their semi-natural grasslands and woodland and their characteristic wildlife. Manage the simple patterns of land use maintained by the long history of agriculture.	↗ **	↗ **	↗ **	↔ ***	↔ ***	↗ **	↗ **	↗ **	↗ **	↗ **	↗ **	↗ **	n/a	↑ ***	↑ ***	↑ ***	↑ ***	↑ ***	↑ ***
SEO 3: Protect and manage the National Character Area's rich cultural inheritance, including its historic environment and geodiversity. Raise the profile of the Yeovil Scarplands as a landscape of distinction and, in many places, great beauty.	↘ **	↔ **	↔ **	↔ ***	↔ **	↗ ***	↔ **	↔ **	↔ **	↔ ***	↔ **	↔ **	n/a	↑ ***	↑ ***	↑ ***	↑ ***	↑ ***	↑ ***
SEO 4: Manage and plan for growth in the area around Yeovil and the other towns in this part of the National Character Area as they expand as employment and housing centres, ensuring that landscape character is used as a framework for future growth and enhancement.	↘ ***	↗ ***	↔ ***	↔ ***	↗ **	↗ **	↔ ***	↗ **	↔ ***	↗ **	↔ ***	↔ ***	n/a	↗ ***	↗ ***	↗ **	↗ ***	↗ **	↔ ***

Note: Arrows shown in the table above indicate anticipated impact on service delivery: ↑ = Increase ↗ = Slight Increase ↔ = No change ↘ = Slight Decrease ↓ = Decrease. Asterisks denote confidence in projection (*low **medium***high) ° symbol denotes where insufficient information on the likely impact is available.

National Importance; Regional Importance; Local Importance

Landscape attributes

Landscape attribute	Justification for selection
Series of mansions, manors and surrounding parkland.	■ Large houses, built from local stone, and their surrounding parklands have a significant positive effect on landscape character within the NCA. ■ They represent an important suite of listed houses and registered parks and gardens that chart the rise of noble and gentry classes. ■ Parks are often host to important assemblages of veteran trees and their associated lichen communities and the semi- and unimproved-grasslands can host important fungal flora.
Arc of rolling scarps and vales landscape.	■ The arc of scarps and clay vales sets the tone of this NCA. Subtle contrasts between each scarp and vale add variety but within a coherent overriding rhythm. ■ The scarp tops provide long views over the NCA and beyond. ■ Elevated viewpoints over flat landscape creates 'big skies' and adds to the impacts of varying weather conditions.
Predominantly agricultural rural landscape with pasture most prominent but important areas of mixed farming.	■ Pastoral agriculture dominates the character of the NCA. Grasslands, thick hedgerows and frequent hedgerow trees – many of which are veterans – result in an enclosed and often intimate character. ■ Areas of mixed farming, particularly reflecting underlying geological and topographical variations, add an important character element. ■ Around Yeovil an area of longstanding arable production with few hedgerows again adds variety to the NCA and gives a strong local sense of place.
Suite of semi-natural habitats.	■ Remnant meadows associated with pastoral systems and calcareous grassland on the rougher, steeper parts of some of the limestone scarps provide a locally important resource of priority habitats. ■ Woodlands, including ancient woodland, provide a habitat for internationally important species and a cultural link to the past. ■ Two Special Areas of Conservation (SAC), 10 biological SSSI and 422 local sites. ■ Hedgerows and streams provide important habitat infrastructure for species migration and are a fundamental element of the character across much of the NCA.
Important resource of Jurassic geology.	■ Ham Hill stone is of great commercial, historical and character value to the NCA and beyond. ■ There are important locations for the understanding of Jurassic stratigraphy. ■ One National Nature Reserve, 21 geological SSSI (further 2 mixed interest), 31 Local Geological Sites.
Areas of tranquillity.	■ Despite some large towns and busy roads there are areas of great tranquillity, especially to the north and far south of the NCA.

Landscape opportunities

- Maintain the strong sense of tranquillity, remoteness, traditional grazing and hay production, and distinctive skylines and sky-spaces; an undeveloped, pastoral landscape underpinned by a viable agricultural community and economy.
- Promote and maintain the extensive management of semi-natural grasslands to allow greater floristic diversity and biodiversity.
- Plan to develop robust networks of semi-natural wetland habitats, to store water in the upper reaches of the rivers Brue, Parrett and Yeo to alleviate flooding in the Somerset Levels. Ensure these also reinforce landscape character, increase biodiversity and reduce the risk of local flooding.
- Plan for the creation of new landscapes associated with the expansion around the urban fringes of Yeovil while incorporating the distinctive character of existing hedgerow networks, small woodlands, copses, shelterbelts, open spaces into green infrastructure.
- Protect and maintain the largely remote and diverse landscapes ranging from hills and ridge tops to wide valley bottoms and combes united by limestone scarps running east–west.
- Protect from damage and loss, and appropriately manage historic parks and gardens, and historic and archaeological features.
- Protect and manage species-rich neutral and calcareous grasslands that contribute to the distinctive pastoral landscape.
- Manage and enhance hedgerows, trees and orchards as principal landscape elements.
- Protect and manage the area's geological resource, especially important geological sites.

Winding rural lanes, bounded by verges and hedgerows, connect villages and hamlets.

Ecosystem service analysis

Service	Assets/attributes: main contributors to service	State	Main beneficiary	Analysis	Opportunities	Principal services offered by opportunities
Food provision	Good arable soils in south-west part of the area Dairy products Beef Lamb Pigs Poultry	Sixty-seven per cent of the NCA's agricultural area is under grass or uncropped land. This supports just over half the farms engaged in livestock production. Arable production is found across the NCA, often in mixed systems, but where the light, fertile Yeovil Sands occur, arable, horticulture and fruit growing predominate. Maize is grown as a fodder crop. Soils are generally good with Grade 2 accounting for 12 per cent and Grade 3 71 per cent.	Regional	Relative stability for a long period has seen the landscape adapted to pastoral, principally dairy, systems but with important numbers of mixed farms, and in the south-west part of NCA more arable. More recent trends in the dairy industry have brought a reduction in the number of holdings (down 31 per cent 2000–2009) but a possible intensification that has maintained production. Some of the dairy herds appear to have been replaced with grazing livestock (up 10 per cent). Specialist pig and poultry rearing is important in the area, up 11 and 49 per cent respectively (2000–2009). A decline in mixed farming of 39 per cent from 2000–2009 is notable. Intensive arable on the Yeovil Sands gives good harvests but is resulting in high levels of soil erosion and consequent siltation of rivers. Similarly, increased growing of fodder maize may be increasing soil compaction and vulnerability to erosion. Root vegetables and fruit growing also declined sharply over the period 2000–2009.	Work with farmers and land managers to maintain a balance between profitability and the long-term viability of food production levels, and the protection and enhancement of the natural and historic environment and sense of place. Provide livestock farmers with encouragement and advice on integrating extensive beef production and sheep grazing with management of the semi-natural grasslands within the NCA. Work with the farming community to ensure good soil and nutrient management, thereby securing a sustainable future for farming, protecting environmental features within the area, and supporting the supply of other ecosystem services. Encourage management of remaining traditional orchards and sympathetic management of new orchards to maximise their benefits for biodiversity and their contribution to sense of place and culture. Develop links between local food producers and local tourism, hotels, pubs, schools and others. Highlight links between the way in which food has been and is produced and the valued landscape it produces.	**Food provision** **Regulating soil quality** **Regulating soil erosion** **Climate regulation** **Regulating water quality** **Sense of place/ inspiration** **Sense of history** **Biodiversity**

Service	Assets/attributes: main contributors to service	State	Main beneficiary	Analysis	Opportunities	Principal services offered by opportunities
Timber provision	Broadleaved woodland Well-timbered hedgerows Conifer plantation	Approximately 805 ha of conifer woodland with 628 ha of this Plantation on Ancient Woodland Sites (PAWS). More than 3,000 ha of broadleaved woodland, much of this in small farm woods and 623 ha of Ancient Semi-natural Woodland.	Local	It is unclear if the timber provision from this NCA is of any more than local importance. Much of the broadleaved woodland is on steeper scarp slopes and within the deep goyles and therefore extraction would be uneconomic. Much of the coniferous woodland is planted on Ancient Woodland Sites and, under current forestry policy, would be suitable and targeted for restoration to broadleaved woodland. It is likely that some of the parkland and estate woodland could provide suitable trees for bespoke works.	When current crops are harvested from PAWS careful consideration needs to be given to restoring sites to broadleaved trees. As with the loss of English elm in the 1970s, ash die-back may have an impact on current timber opportunities and future timber planting decisions. Expansion of broadleaved woodland identified by the Forestry Commission for this area may provide enough 'critical mass' to promote a small-scale timber industry.	**Timber provision** **Sense of place/ inspiration** **Regulating water flow** **Regulating soil erosion** **Biodiversity**
Water availability	Rivers Brue, Yeo, Cary, Parrett, Isle and Axe Chard and Sutton Bingham reservoirs	The main rivers are the rivers Yeo, Brue and Parrett which drain into the Somerset Levels and Moors. Sutton Bingham Reservoir is the public water supply for Yeovil, while the Chard Reservoir is a Local Nature Reserve, not supplying drinking water.[9] Groundwater resources are mainly from the limestones outside of the NCA. According to the Catchment Abstraction Management Plan[10] surface water is available for abstraction in the north of the NCA but is 'not available' in the centre and west of the NCA and is 'over abstracted' in the south around Sutton Bingham Reservoir. Groundwater generally has a 'no water available' status within the NCA and abstraction is 'over licensed' in the west.	Regional	Water is abstracted throughout the whole NCA but while the NCA includes scarps of limestone (the Brue rises from these) and sand, interspersed with clay vales, the fragmented nature of the strata means that groundwater comes from aquifers outside the NCA. Additional abstraction takes place from wells and boreholes in the Yeovil Sands, but yield and licensed volumes tend to be lower than in the more productive limestones. Water is abstracted for fish farms and hydropower generation and then returned back to the watercourse downstream. A much smaller quantity is abstracted for industrial and commercial use, agriculture, amenity and private water supply. The Somerset Levels and Moors (SPA/Ramsar site) is downstream of the NCA. The impact of any water shortage in the NCA area could be felt in all or part of this internationally important site.	With Yeovil's continued expansion and subsequent demand for water in an over abstracted area, every effort should be made to include water-saving and water-harvesting features in new and where possible existing housing. Small-scale winter water capture and storage schemes could aid those areas where abstraction for agriculture and private water supply is now limited or denied. These may also, in a small way, help alleviate high winter river flows and downstream flooding.	**Water availability** **Food provision** **Biodiversity**

[9] Chard Reservoir was built to feed the Chard canal in 1842, not as a public water supply
[10] Parrett, Brue and West Somerset Streams CAMS (Catchment Abstraction Management Plan), Environment Agency (December 2012)

Service	Assets/attributes: main contributors to service	State	Main beneficiary	Analysis	Opportunities	Principal services offered by opportunities
Genetic diversity	Relict commercial and farm orchards	Many scattered and neglected orchards are found across the NCA; survivors from a period when cider production was an important element of the local economy.	Local	As well as being an important cultural legacy for the area, these orchards may contain useful genetic material in the form of old varieties of cider apple which can be used in modern cross-breeding to produce new strains.	Raise local awareness of orchards and apple varieties. Link owners of orchards with local fruit and cider producers and suppliers. Encourage regeneration of existing orchards and new planting with local varieties.	**Genetic diversity** **Biodiversity** **Sense of history** **Pollination**
Biomass energy	Broadleaved and coniferous woodland Hedgerow and streamside trees	Yield maps show that the majority of the NCA has the potential for a high yield of short rotation coppice, and a medium yield for miscanthus.	Local	The total woodland cover of 6 per cent offers limited opportunities for the production of biomass as a by-product of commercial forestry production and by bringing unmanaged woodlands back under management. Short rotation coppice could be introduced without damaging character if carefully planned and located. Miscanthus can have a greater impact if thoughtlessly placed and can lead to soil compaction and erosion issues due to life and harvesting cycle. For information on the potential landscape impacts of biomass plantings within the NCA, refer to the tables on the Natural England website. www.naturalengland.org.uk/ourwork/farming/funding/ecs/sitings/areas/default.aspx	Careful consideration will have to be given to the potential negative impacts of large-scale biomass production in this NCA. If highly mechanised, short rotation coppice and miscanthus production can have adverse impacts on soil structure and levels of erosion that could exacerbate siltation.	**Biomass energy**
Climate regulation	Soils Grasslands Woodlands	Carbon storage in the soils is low throughout the NCA, ranging from 0 to 5 per cent with occasional areas reaching 10 per cent. The soils underlying woodlands and permanent pasture are likely to be of higher carbon content. The regularly tilled arable soils of the Yeovil Sands are likely to have very low carbon/organic content.	Local	This NCA has a relatively low carbon storage potential as soils tend to be loamy clayey which do not have high carbon storage capacity. However those underlying woodland and permanent grassland may have increased capacity and an ongoing sequestration role, especially if organic matter content is increased. Some of the regularly tilled soils are principally mineral soils and have little or no organic material within them. Woodlands, hedgerows and hedgerow trees will be good at capturing and storing carbon.	Carbon sequestration in the majority of the area's soils can be increased by increasing organic matter inputs and/or by reducing the frequency/area of cultivation. Increasing the area of woodlands (currently 6 per cent) will also benefit climate regulation through ongoing sequestration of carbon. Creation of wetland areas where peaty soils can form would also store carbon.	**Climate regulation** **Biodiversity** **Biomass energy** **Timber provision**

Service	Assets/attributes: main contributors to service	State	Main beneficiary	Analysis	Opportunities	Principal services offered by opportunities
Regulating water quality	Semi-natural habitats Grasslands Rivers Sutton Bingham Reservoir	The NCA falls within a Defra Priority Catchment that includes the Upper Parrett and Upper Brue which, in addition to problems of sedimentation, suffer from nutrient loss from surrounding land, with phosphate pollution a particular problem in the Upper Brue. Forty-four per cent of the NCA is in a nitrate vulnerable zone. Soil erosion issues are particularly associated with intensive dairy, pig, poultry and maize production, as well as more general diffuse agricultural pollution exacerbated on steeper slopes and vulnerable soils. Most of the rivers have a 'moderate' ecological quality, although parts of the Yeo to the south-east have been classified as 'poor'. Where information is available, ground water quality is considered to be good, although there is a pocket of poor quality groundwater to the south-east.	Regional	It is likely that shifts from traditional pastoral management to pig rearing and increasing areas of arable production in this NCA are creating conditions for increased erosion of farmland. Increased cultivation on steeper slopes, crops that leave bare ground during periods of high rainfall and a reduction in the extent of pasture all contribute to erosion and sediment transport into watercourses. Similarly, poor stock management, slurry management and fertiliser application can and have led to elevated levels of nitrate and phosphate in the area's rivers.	Work with landowners to implement best practice approaches in water quality management including grazing regimes, stocking rates, applications of organic matter and fertilizer, maintenance of farm infrastructure, and cultivation and cropping activity. Work with farmers and landowners to identify mechanisms for the lowering of application rates of fertiliser and pesticide. Promote the use of contour ploughing and buffer strips to watercourses, the creation of woodlands and hedgerows and the creation of riparian semi-natural habitats. Buffer strip creation will help reduce surface flows and will capture sediments. Promote improvements in farm infrastructure and waste management. Encourage positive management of vegetation along watercourses that maintains water flow, but helps trap sediments and nutrients.	**Regulating water quality** **Regulating soil erosion** **Water availability** **Biodiversity**

Service	Assets/attributes: main contributors to service	State	Main beneficiary	Analysis	Opportunities	Principal services offered by opportunities
Regulating water flow	Rivers Semi-natural habitats	Most of the NCA is either at little or no risk of flooding, with the area characterised by relatively small and steep watercourses that keep flooding to a minimum. There are pockets of higher risk, particularly in the north-west and central parts of the NCA, along the River Yeo, on various small streams with associated surface water and sewer flooding. Yeovil is situated on a relatively high plateau, well above the flood plain of the adjacent River Yeo, but some communities, namely Crewkerne, Martock, South Petherton and Ilminster do have localised problems from the Upper Isle and the Upper Parrett and their tributaries, exacerbated (particularly in Crewkerne) by small culverted watercourses which are prone to blockage or are undersized. In South Petherton flooding has been exacerbated by farming practices which have increased field run-off locally, contributing to localised flooding well outside of the fluvial flood plain area.	Regional	The upper reaches of rivers are often affected by isolated flooding as a consequence of complex interactions of fluvial and surface water. Yeovil, above the flood plain of the Yeo, is only minimally at risk. While local solutions to small-scale flooding experienced within the NCA can be achieved through the actions identified within the River Parrett, and the North and Mid Somerset Catchment Flood Management Plans, these also need to be developed with a mind to reduce peak flows leaving this NCA and entering the Somerset Levels and Moors. The nature of these rivers' upper reaches and networks of tributaries means that effective placing of small but widespread measures could be the best approach. Particular attention should be paid to land use patterns that aggravate both the mobilisation of sediment and the cross-surface flows of water at periods of highest flood risk (generally the winter).	Measures identified in the River Parrett, and the North and Mid Somerset Catchment Flood Management Plans[11] should be implemented. Work with the farming community to encourage best practice farming and soil management, paying particular attention to water/run-off management at a farm-scale and improvements in water quality. Investigate mechanisms to slow water flows in strategic locations to both protect local communities and to slow the rate at which water enters the neighbouring Somerset Levels and Moors.	**Regulating water flow** **Regulating water quality** **Biodiversity** **Sense of place/ inspiration** **Regulating soil erosion** **Biodiversity**

[11] Parrett Catchment Flood Management Plan, Environment Agency (June 2012)

Service	Assets/attributes: main contributors to service	State	Main beneficiary	Analysis	Opportunities	Principal services offered by opportunities
Regulating soil quality	Soil types Geomorphological processes Geodiversity Semi-natural habitats Groundwater levels	There are seven main soilscape types in this NCA: ■ Slightly acid loamy and clayey soils with impeded drainage (26 per cent). ■ Lime-rich loamy and clayey soils with impeded drainage (23 per cent). ■ Freely draining slightly acid loamy soils (17 per cent). ■ Slowly permeable seasonally wet slightly acid but base-rich loamy and clayey soils (14 per cent). ■ Shallow lime-rich soils over limestone (13 per cent). ■ Freely draining lime-rich loamy soils (3 per cent). ■ Loamy and clayey flood plain soils with naturally high groundwater (3 per cent).	Regional	The slightly acid and lime-rich loamy and clayey soils with impeded drainage (26 and 23 per cent respectively) are easily poached by livestock and compacted by machinery when the soil is wet. Weak topsoil structures can be easily damaged, with careful timing of activities required to reduce the likelihood of soil compaction. Careful management of weak topsoil will help to maintain a good soil structure, with minimum tillage, such as direct drilling, working well on these soils. The shallow lime-rich soils over limestone (13 per cent) are typically shallow and droughty but due to their calcareous nature have a degree of natural resilience. These and the freely draining slightly acid loamy soils (17 per cent) may, to a limited extent, be valuable for aquifer recharge, requiring the maintenance of good structural conditions to aid water infiltration and requiring the matching of nutrients to needs to prevent pollution of the underlying aquifer. The slowly permeable seasonally wet slightly acid but base-rich loamy and clayey soils (14 per cent) may suffer compaction and/or capping as they are easily damaged when wet. In turn this may lead to increasingly poor water infiltration and diffuse pollution as a result of surface water run-off. All of the above soils have some potential for increased organic matter levels through management interventions.	Work with the farming community to encourage best practice management of their soils: to increase organic matter, judge best times to carry out operations, avoid compaction and poaching, and apply only required levels of fertiliser to the soil. Promote the use of green manure crops and nitrogen fixing legumes to both enhance soil structure and fertility and maintain an erosion-resistant vegetation cover throughout the year.	**Regulating soil quality** **Regulating water quality** **Regulating water flow** **Biodiversity** **Food provision**

Service	Assets/attributes: main contributors to service	State	Main beneficiary	Analysis	Opportunities	Principal services offered by opportunities
Regulating soil erosion	Soil types Groundwater levels Soil management Semi-natural habitats	The majority of soils covering the NCA (82 per cent) are at risk of erosion. The Upper Parrett (whose upper tributaries rise within this NCA) and the Upper Brue have problems with sedimentation arising from soil erosion associated with surface water run-off in areas of intensive dairy, pig, poultry and maize production, especially on more vulnerable soils and on steep slopes.[12]	Regional	The loamy and clayey soils are at risk from both capping and slaking in dry weather, and compaction, from either livestock or vehicle use, when soils are too wet. Both increase the risk of soil erosion when water runs across the soil instead of percolating through it. This is especially so on steeper slopes and on intensively managed arable land where organic content binding the soil particles is at low density. Careful management of vegetation cover and timing of operations is essential. The freely draining slightly loamy soils have enhanced risk of erosion on moderately or steeply sloping land where cultivated or bare soil is exposed, often exacerbated where organic matter levels are low after continuous arable cultivation or where soils are compacted.	Ensure that agricultural operations are situated in locations where increased soil erosion is not a likely outcome. Introduce measures to slow cross-field water flows, such as grass strips and beetle banks. Maintain vegetation cover using the likes of winter stubbles and green manures.	**Regulating soil erosion** **Regulating soil quality** **Regulating water quality** **Regulating water flow** **Water availability**
Pollination	Semi-natural habitats Orchards Arable crops	There are 650 ha of calcareous grassland and lowland meadows, a small number of relict orchards and an extensive network of hedgerows all potentially supporting populations of pollinating fauna.	Local	Pollination services are patchily distributed around the NCA. Semi-natural habitats do provide islands of pollinator-friendly species, but as a network this is probably quite weak. Pollination services for agriculture are probably in most demand in the arable areas around South Petherton; unfortunately it is in this area that semi-natural habitats (including hedgerows so characteristic of the rest of the NCA) are most poorly represented.	Manage the existing semi-natural grassland resource to maintain or restore its floristic diversity. Identify areas where pollinator habitat is absent and introduce measures to restore and re-create floristically-rich habitats. Create and manage flower-rich field margins to increase pollinator food sources. Work with local communities and landowners to identify suitable locations for planting new orchards using local, traditional apple varieties.	**Pollination** **Pest regulation** **Biodiversity** **Genetic diversity** **Food provision**
Pest regulation	Semi-natural habitats	There are 650 ha of calcareous grassland and lowland meadows, a small number of relict orchards and an extensive network of hedgerows.	Local	As with pollination services above, the habitats and niches that are favoured by natural predators are patchily distributed across the NCA.	The same actions that benefit the pollinators above will have a beneficial effect upon species that provide important pest regulation services.	**Pest regulation** **Pollination** **Biodiversity** **Genetic diversity** **Food provision**

[12] DEFRA catchment priorities identified under the England Catchment Sensitive Farming Project (URL: www.gov.uk/catchment-sensitive-farming)

Service	Assets/attributes: main contributors to service	State	Main beneficiary	Analysis	Opportunities	Principal services offered by opportunities
Sense of place/ inspiration	Rolling scarp landform Hill forts Variety of limestone types used in local buildings Mansions, manors and parklands Long views over and out of the area	Sense of place is provided by the rolling landform of dramatic scarps and broken hills divided by broad valleys with slow moving, meandering rivers. The area has a distinct rural character, with small irregular arable or pasture fields separated by species-rich hedgerows and numerous small woodlands. Fragments of wet, marshy grassland in the flood plains and calcareous grasslands on the sculpted limestone scarps and hills are very characteristic. This rural character is emphasised by hamlets and villages that are hidden from view at the foot-slopes of scarps or within small valleys, with older buildings built from the varied but unifying local stone. Much of the higher ground has an open, almost downland-like character affording far-reaching views. Abandoned quarries are distinctive in the landscape and provide access to important exposures of fossil-rich rocks and strata. Strong literary association with T.S. Eliot, who is buried in the village church at East Coker. Sense of inspiration and escapism are likely to be especially associated with the prominent hill forts at South Cadbury and Ham Hills, as well as the open ridgeline summits that afford far-reaching views over surrounding land. The designed landscapes and gardens of Montacute, Barrington Court, Sherborne Park and numerous 'gentry houses'.	Regional	The physiographical features that provide a sense of place – scarp and vale landscape – are in good condition with character mostly intact. Villages and towns are still usually maintained within their vale settings, with only Yeovil starting to sprawl out and over its encircling scarps. Farming patterns have changed somewhat with mixed farming showing a sharp decline. This may be having an impact on the scarp and vale landscape in terms of replacing the highly heterogeneous land use patterns with a more homogenised one. Similarly, the decline in dairy holdings may have knock-on effects in terms of land use and landscape character. The characteristic building materials of the NCA are potentially available for repair and new build via a number of open quarries: Ham Hill stone will certainly remain available for many decades to come. Most of the major historic houses and parklands are under positive management and contributing to the sense of place. However, many of the smaller houses and parks are in need of survey and some restorative actions. Pressure for change is greatest around the southern half of the NCA, with Yeovil the main area of both economic and housing activity. However, towns like Crewkerne, Ilminster and, just outside the NCA, Wincanton are all expanding, creating an area of growth along the A303. Tranquillity and sense of place are weakened or highly modified in these areas.	The ridge lines and hilltops that provide expansive views across the NCA should be maintained free of development. Where appropriate farmers should be encouraged to maintain the mixed farming and land use systems that characterise large parts of the NCA. Main opportunities lie with managing the growth of settlements along the A303. Ensuring use of green infrastructure principals and developments that work with the landform are employed.	**Sense of place/ inspiration** **Sense of history** **Tranquillity** **Biodiversity** **Recreation** **Geodiversity**

Service	Assets/attributes: main contributors to service	State	Main beneficiary	Analysis	Opportunities	Principal services offered by opportunities
Sense of history	Prehistoric hill forts at South Cadbury and Ham Hill Roman remains at Ilchester and in the south Saxon burhs such as South Petherton, Crewkerne, and Bruton Moated sites and castles such as Castle Cary Field patterns reflect post-medieval enclosure of medieval strip fields 13 Registered Parks and Gardens covering 1,861 ha 74 Scheduled Monuments 4,317 Listed Buildings	Aspects of history likely to be most evident to the non-specialist include the prominent hill forts at South Cadbury and Ham Hill, the medieval castle remains such as at Castle Cary, the mansions and surrounding parklands such as Montacute, Barrington Court, Dillington House and Sherborne Park, and the older buildings of traditional local stone, most notably the distinctive Ham Hill stone.	Regional	The current land uses, patterns of enclosure, location of towns, villages, historic houses and gardens all reflect and combine to give the NCA its sense of its history. The assets are all generally in good condition and their 'story' is still legible. However, increasing urbanisation around some of the larger towns and changes in agricultural land use are eroding that sense and legibility. To some extent this is merely the continued 'imprint' of history being formed, but these changes can be made in ways that do not necessarily damage the existing assets.	Ensure that historic houses and gardens are in best possible management. Avoid damage to buried archaeology and upstanding earthworks from agricultural activities. Maintain the important suite of Listed Buildings and work to remove any that appear on the Heritage at Risk register. Ensure that suitable quarries are able to provide stone for the various local built styles and traditions. Ensure that land use patterns representing Medieval open field systems are not enclosed by new hedgerow or other boundary creation. Maintain a sense of local vernacular in new buildings and the restoration of older buildings for new uses.	**Sense of history** **Sense of place/ inspiration** **Recreation** **Geodiversity** **Tranquillity**
Tranquillity	Intimate rural landscapes Intricate network of rural highways and byways Long uninterrupted views from scarps over landscape Low levels of infrastructure away from larger towns Strong sense of local vernacular and historical continuity through large houses, churches and domestic buildings	The NCA is still tranquil and remote, away from the bustling A303 corridor. The south of the NCA is less tranquil than the north, though areas such as those around Halstock and Corscombe in the Dorset part of the NCA are very tranquil. Tranquillity has declined from 90 per cent in the 1960s to around 50 per cent in 2007. Tranquillity 'scores' range between 36 and -66.	Local	Tranquillity in this NCA is worth describing in terms of the contrast between the busy, built, expanding and noisy A303 corridor, which includes Yeovil, Sherborne, Crewkerne, Wincanton and Ilminster and the rural pastoral north around Bruton and the deeply remote-feeling area around Corscombe and Halstock. Sensitive design of urban extensions, new roads and infrastructure and softening the edges of existing urban areas can all help to decrease the levels of intrusion.	Prevent increases over current levels of intrusion by keeping significant development within the currently intruded envelope. Attempt to reduce negative impacts on tranquillity through measures to screen and soften hard urban edges, industrial and road infrastructure and reduce night-time light pollution.	**Tranquillity** **Sense of place/ inspiration** **Sense of history** **Biodiversity**

Service	Assets/attributes: main contributors to service	State	Main beneficiary	Analysis	Opportunities	Principal services offered by opportunities
Recreation	1,500-kilometre network of rights of way (at a density of 1.88 km/km²) MacMillan Way, Liberty Trail, Monarch's Way, Celtic Way, Strawberry Line (National Cycle Network route 26) Ham Hill Country Park and Yeovil Country Park 663 ha of publically accessible land (covering just 1 per cent of the NCA). Sutton Bingham and Chard reservoirs	Yeovil Country Park is a 51 hectare urban fringe countryside site that wraps itself around the southern and eastern side of the town, is well used and holds a Green Flag award. The 164 hectare Ham Hill Country Park has a wider catchment and also holds a Green Flag award.	Local	Recreation is not a particular priority for this NCA. It has very little in terms of nationally recognised infrastructure, though National Cycle Route 26 runs from Portishead on the North Somerset Coast to Portland Bill in Dorset passing through this NCA via Yeovil. The burgeoning urban population could usefully be provided with more opportunities for accessing some of the surrounding countryside as well as access to very local open space, probably doubling as green infrastructure and sustainable drainage systems.	More links directly from urban areas into the rural footpath network would be a useful addition to the recreational resource.	**Recreation** **Sense of place/ inspiration** **Sense of history**

Service	Assets/attributes: main contributors to service	State	Main beneficiary	Analysis	Opportunities	Principal services offered by opportunities
Biodiversity	A scattered and sometimes sparse resource of semi-natural habitats Hedgerows Rivers and streams Woodlands	Priority habitats in this area cover 3,200 ha (4 per cent of the NCA). Ten biological SSSI, 2 SAC and 422 local wildlife sites. Extensive hedgerow network and rivers and streams.	International	Woodland is probably the most widespread biodiversity resource in the NCA with some 623 ha of ancient woodland and a further 628 ha of Plantations on Ancient Woodland Sites. The grassland resource is made of lowland meadows (394 ha) and lowland calcareous grasslands (248 ha). Ninety-six per cent of SSSI are in favourable or recovering condition, with less than 1 per cent actually declining. The 2 SAC in the NCA are Bracket's Coppice – a location for rare Bechstein's bat – and the West Dorset Alderwoods which straddle the boundary with the Marshwood and Powerstock Vales NCA. The area has not been a priority for biodiversity conservation work up to now, though a Somerset Wildlife Trust (SWT) Living Landscapes project is looking to carry out work to restore biodiversity across the old Selwood Forest area. Historic parks and old deer parks are associated with many of the historic houses in the NCA. Many of these feature valuable wood pasture and parklands habitat types and host important assemblages of lichens and fungi, as for example at Melbury Park.	Existing semi-natural habitats should be brought into suitable management to maximise their biodiversity. In the north of the area, the SWT Selwood Forest Living Landscape project should be supported to enhance biodiversity across the farmed and peri-urban landscape. In the south of the NCA, work to link and buffer existing sites and create new habitat in and around Yeovil and the other expanding towns should focus on the provision of ecosystem services such as water flow regulation and soil erosion regulation.	**Biodiversity** **Sense of place/ inspiration** **Sense of history** **Pollination** **Pest regulation** **Regulating soil erosion** **Regulating water flow** **Water availability** **Regulating soil quality** **Regulating water quality** **Recreation**

Service	Assets/attributes: main contributors to service	State	Main beneficiary	Analysis	Opportunities	Principal services offered by opportunities
Geodiversity	21 geological SSSI 1 NNR (Horn Park Quarry) 31 Local Geological Sites Strong links to geodiversity through landscape form Very clear links to geological strata and local building stones	Ninety-six per cent of SSSI are in favourable or recovering condition. Several quarries are still active and thus present fresh, worked faces for study. Landform is not obscured by inappropriate development or infrastructure, allowing interpretation. A varied and interesting suite of buildings exist which display the range of building stones quarried in this area (and from beyond) and the particular uses to which they have been put.	National	The exposures of Jurassic limestones and sandstones within the NCA are important for both their stratigraphical and building qualities. Stratigraphically, there are several sites, all SSSI, where various strata are found in thin beds which allows whole sequences to be seen and studied. Sites such as Bruton Railway Cutting SSSI and Horn Park Quarry NNR offer valuable opportunities to study the rich fossil assemblages in order to unravel the complex stratigraphy of the Inferior Oolite Group of this area; an understanding of which facilitates the dating of rocks of a similar age elsewhere in England. Architecturally, the great variety of stones found in a relatively small area has expressed itself in a series of localised vernaculars. Most important among these is the Ham Hill stone which adorns many high status buildings in this and adjacent NCAs. Many of the areas' churches and manor houses are finished in this material, such as Montacute House.	Continue to make the geological resources of SSSI and NNR available to scientific research and for local schools to teach various aspects of geology, geomorphology and evolutionary principles, as well as for general interest and local studies. Encourage the use of local stone, where feasible, in new structures to maintain a sense of the geological identity of the various villages in the NCA. Produce high quality interpretive materials to explain and promote the area's geodiversity. Use the expertise of the Jurassic Coast World Heritage Site team to make links between these inland geological exposures and the exposures at the coast.	**Geodiversity** **Sense of place/ inspiration** **Sense of history** **Biodiversity**

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