Lewes Neighbourhood Plan

Sustainability Appraisal Report

Annex C: Baseline Data

Prepared on behalf of:

Lewes Town Council and South Downs National Park Authority

Date: January 2019

Prepared by:

ClearLead Consulting Limited
The Barn, Cadhay, Ottery St Mary, Devon, EX11 1QT, UK
01404 814273

Contract Number: C0174

clearlead

Contract No:	C0174
Issue:	4
Author	V Pearson
(signature):	
Project Director	J Mitchell
(signature):	
Date:	January 2019

Version Control Record				
Issue	Status	Date	Reviewer Initials	Author Initials
1	Draft	29/03/17	VP	KD
2	Final (Pre Submission)	11/04/17		VP
3	Submission version	03/05/18		VP
4	Referendum Version	15/01/2019	VP	KD

Table of Contents

1 Introduction

This annex presents the baseline data and sustainability issues from the SA report.

The topics set out within the SEA Regulations have been expanded into a number of themes as presented within Table C.1.1 to include socio-economic topics as the LNP is being subject to an SA which involves assessing socio-economic impacts as well as environmental. The themes for this SA have been based on those used for the SA of the South Downs Local Plan: Preferred Options (2015), with the addition of the 'Soils' theme. This theme has been added in order to better address the SEA Directive topic of 'Soil'. The remainder of this section is structured around the SA themes. Key sustainability issues are identified for each theme.

Table C.1.1 SEA Regulations Topics & South Downs Local Plan SA Themes

SEA Regulations Topics	**SA Themes**
Air	Air, Noise and Light Pollution Transport
Biodiversity, fauna, flora	Biodiversity
Climatic factors	Climatic Change Mitigation Climatic Factors
Human Health	Community and Wellbeing
Population	Community and Wellbeing Economy
Material assets	Economy Transport Housing
Landscape	Landscape
Cultural heritage	Archaeological and Cultural Heritage
Water	Water
Soil	Soils

Analysis of baseline data is presented below. The following sub-sections set out the current baseline conditions within the Lewes Neighbourhood Plan area under the SA themes. For each theme, the likely evolution without the Lewes Neighbourhood Plan is considered and key sustainability issues are identified. Information on trends are also identified where information is available.

Some baseline data is only available for the Lewes District including the land which is within the South Downs National Park. Unless it is stated that the data relates to Lewes District, the data presented in this section relates to the Lewes Neighbourhood Plan area (which is also the Lewes Parish area).

Data gaps and difficulties encountered in gathering data have been identified at the end of this section. The key issues are those which should be reflected within an SA Framework of objectives and questions which form the scope of the subsequent assessment (see Section 5).

2 Air, Noise and Light Pollution

Pollution control is concerned with limiting pollution to the lowest practical level, through the use of measures to prohibit or limit the release of substances from a range of sources to the environment.

Emissions of air, noise and light are all potential sources of pollution. Light pollution is caused by excessive or intrusive artificial light arising from poor or insensitive design. Light pollution can have a detrimental effect on the character and amenity of an area after dark. Air quality is important in terms of health, biodiversity and overall quality of life and noise can also have a significant effect on people and wildlife.

In general, air quality in the area is good. However, in 2005 an Air Quality Management Area (AQMA) was declared in Lewes town centre for nitrogen dioxide, with motor vehicles comprising the main source of pollution[1] (see Figure C.2.1). The narrow streets, single lane steep hills are often bounded by tall buildings on either side of the road, can limit the dispersion of air pollutants and can lead to high localised concentrations of pollutants. Car ownership in the District is comparatively high and a number of key roads often suffer from congestion during peak times.[2] Lewes is a nodal point for several regional and local roads, including the A27, A26 and A275. A combination of these factors leads to higher emissions and consequently poorer air quality.

[1] Lewes District Local Plan, Part 1, Joint Core Strategy, May 2016

[2] Lewes District Council, Air Quality Action Plan, May 2009

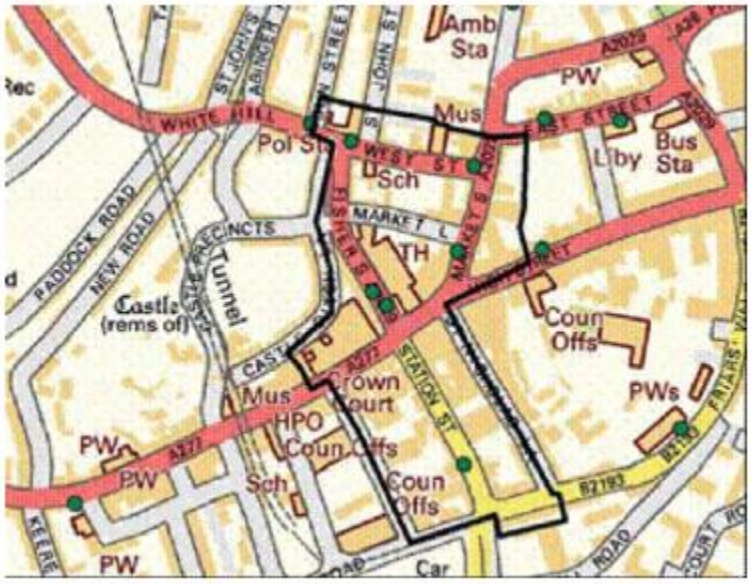


Figure C.2.1: AQMA in Lewes Town Centre[3]

Lewes District Council has historically undertaken continuous monitoring of air quality pollutants at West Street[4] in Lewes as shown on Figure C.2.2.

[3] Source: Lewes District Council Air Quality Action Plan, May 2009

[4] Lewes Air Quality Management Progress Report, 2013

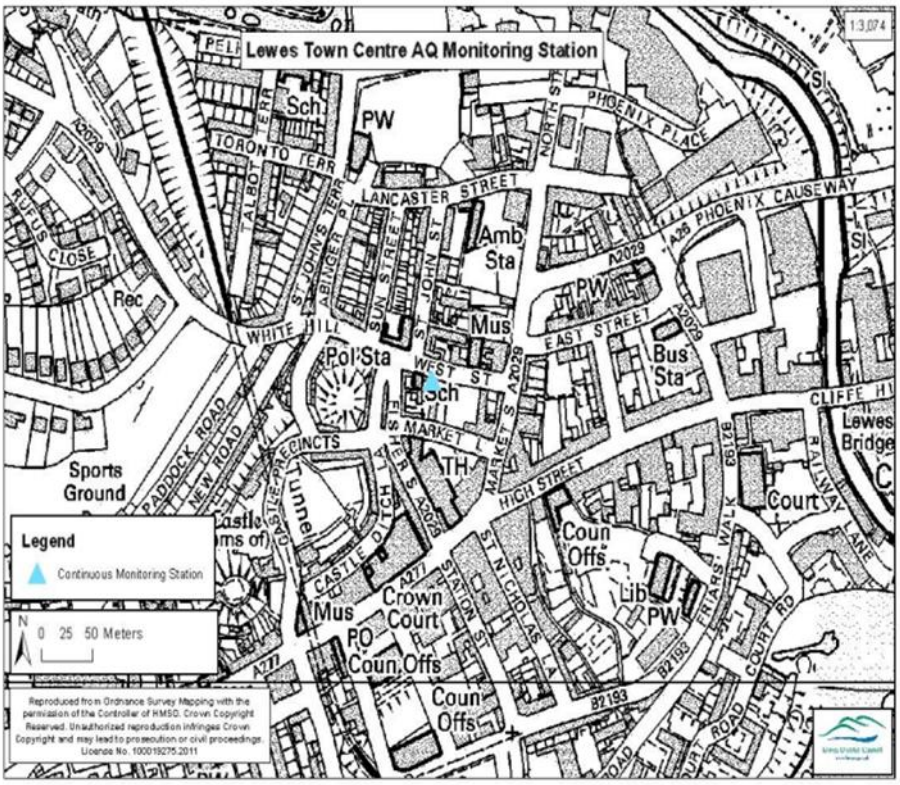


Figure C.2.3: Locations of the West Street Continuous Monitoring Station [5]

Habitats of the Lewes Downs Special Area of Conservation (SAC) are also vulnerable to air pollution. See section 5 for further details of the SAC.

Artificial light is an intrinsic part of modern life. However artificial light from premises can have a detrimental effect on the quality of the local environment. Comparative to the surrounding countryside, Lewes demonstrates high levels of light pollution much like the levels seen in nearby Brighton and Hove.

New employment, residential and retail growth can have significant effects on landscape quality, including through impacts on noise pollution, light pollution and broader effects on people's perceptions of tranquillity. Areas on the outskirts of Lewes are understandably considered far more tranquil than those in the centre of town. This can be seen in the Lewes Neighbourhood Plan Tranquility Map (See Figure D.1 Annex D).

Future Evolution of the Air, Noise and Light Pollution Baseline without the Lewes Neighbourhood Plan

Concentrations within and adjacent to the Lewes town AQMA still exceed the annual mean objective for nitrogen dioxide. There is a possibility that increased traffic flows and congestion in and around Lewes will lead to worsening air quality due to pollutants associated with transport.

Growth in residential and commercial areas in the town could have significant effects on noise pollution, light pollution and wider effects on people's perceptions of tranquillity.

Key Air, Noise and Light Pollution Sustainability Issues

- Air quality is important for health and well-being and the existing general good air quality across the District should be protected;
- Increased traffic flows could add to overall emissions and pollutants associated with transport (NH_3, SO_2, NO_2), leading to worsening air quality, particularly in areas which are already susceptible to high amounts traffic congestion.
- Air pollution can also affect habitats. Habitats sensitive to air pollution, particularly those designated as SSSIs, need to be protected from potential increases in air pollution from road traffic and industrial point sources; and
- Significant areas within the town have low levels of tranquillity.

3 Landscape

The character and quality of landscapes provides the framework within which the natural and built environment sits, contributing towards local distinctiveness and providing a sense of place. Landscape quality may also impact on local economies by influencing tourism opportunities.

The qualities of the landscape surrounding Lewes, as well as the appeal of the town itself, make a significant contribution to the SDNP, which encompasses the entire town and immediate surrounding area. Much of the centre of the town pre-dates 1800 (see landscape character maps Figure D.2 & D.3 in Annex D), which gives the town its distinctive character. Lewes sits within a chalk ridge between a break in the Downs, shaped by the River Ouse which runs through the middle of the town. The character of the town and surrounding landscape is influenced by the Downs, which border the town to the south, and the Low Weald landscape character area which extends out to the north. The unique landscape in an around Lewes offers an important source for health, leisure and tranquillity.

Beyond the town centre, the town consists of a number of distinct neighbourhoods. Some of these are of historic significance and provide good views to the castle and town centre. Several high quality green spaces are integrated into the urban grain and add to the pleasant character of the town[5].

The Lewes District Public Realm Framework identifies some 'distracting features' within the town, including the view of 'out of character' mid to late 20th Century architecture challenging Lewes Castle's skyline dominance. There are a number of intrusive industrial estates with little or no landscape mitigation and the high volume of traffic and parking are also considered to blight the experience of the public realm.

Future Evolution of the Landscape Baseline without the Lewes Neighbourhood Plan

The high value landscape and important environmental qualities of Lewes and the areas surrounding Lewes town, considerably reduce opportunities for significant development due to the potential impacts on the landscape character [6]. According to the South Downs Integrated Landscape Character Assessment[7], there is little capacity for development without having detrimental effects on the surrounding environment in the west of the town. There is however

[5] Lewes District Public Realm Framework, Chris Blandford Associates, July 2013

[6] Lewes District Council and South Downs National Park Authority, Landscape Capacity Study, September 2012

[7] South Downs Integrated Landscape Character Assessment, 2011

potential for development in areas west of the Malling residential estate which lies in the north of the town and to the east of the river.

Key Landscape Sustainability Issues

- The town has a range of landscape character types which all contribute to the local distinctiveness of the area;
- It is important to conserve and enhance the natural beauty, wildlife and cultural heritage of the area;
- The landscape offers an important resource for health, leisure, and tranquility;
- The town is located within the South Downs National Park, and has a number of SSSIs, sites of archaeological interest as well as the Lewes Downs SAC;
- Development on greenfield sites need to be considered appropriately. They should only be considered in exceptional cases once appropriate brownfield development is exhausted and where this does not adversely affect biodiversity or the natural environment; and
- The Lewes District Public Realm Framework includes opportunities to improve the town including promoting links between the countryside.

4 Soils

Soils are an essential, non-renewable resource, and provide a range of crucial ecosystem services including food, habitats, clean water, nutrient cycling, and carbon storage. Minerals are non-renewable resources that form the backbone of our economy and our way of life, providing the materials we use for construction, transportation, and power generation.

Soil quality has a strong influence on the quality of agricultural land. The Agricultural Land Classification system provides a method for assessing the quality of farmland to enable informed choices to be made about its future use within the planning system. The Agricultural Land Classification system classifies land into five grades, with the best and most versatile land is defined as Grades 1, 2 and 3. This land is deemed to be most flexible, productive and efficient.

The Lewes District has a high standard of soil, the majority of which is considered to be “Good to Moderate Quality” (Grade 3) agricultural land in the Agricultural Land Classification.[8] The history of heavy industry has led to the contamination of some sites which can present problems to future development and subsequent degradation of soil quality. [9]Lewes District Council Contamination Register identified 13 contaminated sites in small area of the town all of which have recently been remediated. Lewes District Council seeks to remediate contaminated sites by redeveloping on proportion of Previously Developed Land (PDL). Between 1st April 2010 and 31st March 2015 3% of new and converted dwellings were built on PDL[10]. This demonstrates that Lewes District Council is committed to protecting and improving soil quality throughout the District.

[8] Lewes District Council, Sustainability Appraisal / SEA Scoping Report, November 2013

[9] Lewes District Council Contaminated Land Register, Issue 7, April 2016

[10] Lewes District Local Plan, Part 1, Joint Core Strategy, May 2014

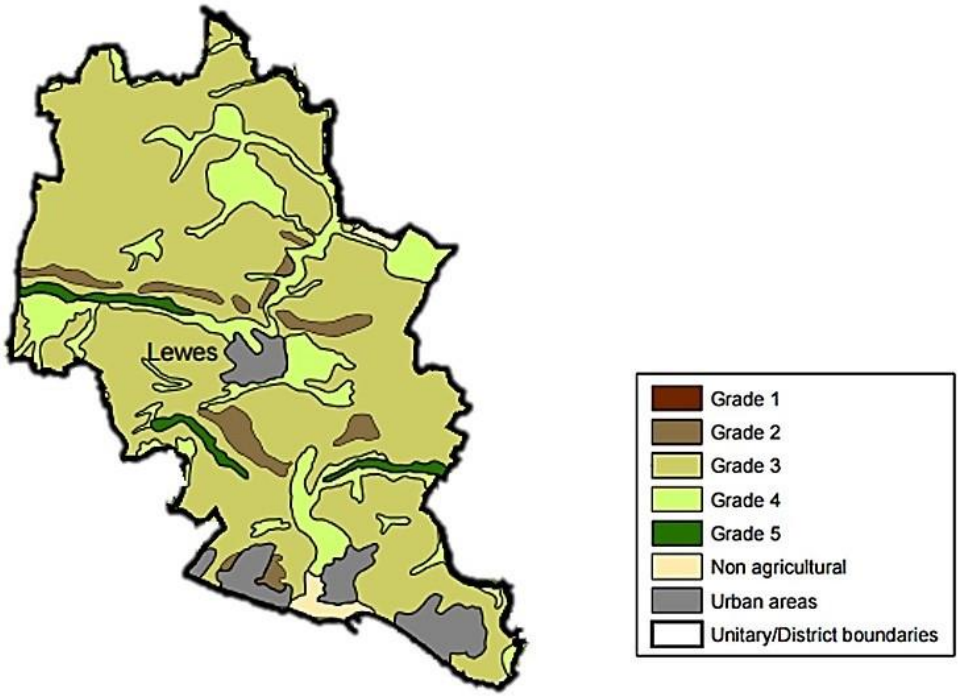


Figure C.4.1: Soil Classification for the Lewes District[11]

Future Evolution of the Soils Baseline without the Lewes Neighbourhood Plan

Soils are sensitive to effects of climate change; higher temperatures and repeated cycles of drought will have an effect on the soil's ability to retain/process water and nutrients for plants and habitats. Given Lewes' susceptibility to flooding, soils may become increasingly waterlogged. Both of these have potential to change the chemistry of the soil-water system and, consequently, soil aggregation. Loss of soil aggregation impacts agriculture by decreasing soil quality and crop production.

[11] East Sussex and Brighton & Hove Waste and Minerals core Strategy, Sustainability Appraisal

Key Soils Sustainability Issues

- Development around the town may have the potential to lead to a loss of soil productivity and function in some areas;
- There is pressure to locate new development on previously developed land, thus avoiding the unnecessary loss of greenfield land and valuable agricultural land; and
- Decrease in soil quality from incidents of flooding.

5 Biodiversity

Biodiversity includes not only the variety of individual species but also the genetic diversity within species and the range of ecosystems that support them. The UK Biodiversity Action Plan, published in 1994, sets out a programme for the conservation of the UK's biodiversity and led to the production of 436 action plans to achieve the recovery of many of the UK's most threatened species and habitats.

Located in the east of the town is the Lewes Downs SAC. SACs are areas that have been given special protection under the European Union's Habitats Directive, helping to increase the protection for a variety of animals, plants and habitats and are seen as a vital part of the global effort to conserve the world's biodiversity. Lewes Downs SAC falls within a recognised Biodiversity Opportunity Area (BOA) which represents a priority area for the delivery of Biodiversity Action Plan (BAP) targets (see Figure D.4 in Annex D). Lewes Downs is an isolated block of species-rich chalk grassland with assemblages of rare orchids including Musk Orchid and Burnt Orchid[12]. The site is also significant for its rich invertebrate fauna and an important breeding community of downland birds including the Corn Bunting and the Grasshopper Warbler.

There are also two other BOA in and surrounding Lewes, as shown on Figure D.5 (Annex D); the Mid Ouse Flood Zone BOA and the Lewes Brooks and the Ouse Valley BOA.

The Sussex Biodiversity Partnerhsip[11] identified the following potential opportunities for the BOAs:

- Policy integration;
- Education and community engagement;
- Landowner advisory and agri-environment schemes;
- Volunteer opportunities;
- Access improvements;
- Working with and attracting new businesses;
- Ecological networks;

[12] Sussex Biodiversity Partnership, Lewes Downs Biodiversity Opportunity Area, 2010

- Chalk grassland management, restoration and creation;
- Chalk grassland butterfly interest;
- Farmland bird interest;
- Wetland habitat management, restoration and creation;
- Coastal habitat management, restoration and creation
- Floodplain restoration and reconnection; and
- Water quality improvement.

Figure D.4 in Annex D, identifies BAP priority areas within the Neighbourhood Plan area.

The disused quarries in the south east of the town are home to three geological Sites of Special Scientific Interest (SSSIs). The Southerham Machine Bottom Pit and Southerham Works Pit SSSI are renown for the diverse array of fossilised fish. Cuilfail Down and Southerham Farm Site of Nature Conservation Interest (SNCI) provide a series of unimproved grasslands on steep slopes on the East Sussex Downs, with species such as Squinancywort, Dwarf Thistle and Marjoram. The Southerham Works Pit is the only one of these SSSI sites which sits within the plan area.

South of the town sits the Lewes Brooks SSSI [13]. This is a lowland wet grassland site, with over 4km of ditches. The site supports several breeding pairs of Lapwings and good numbers of Wintering Snipe. It is also notably the only site in the UK where the Lewes Water Beatle can be found (see Figure D.6, Annex D).

Local Wildlife Sites are also shown on Figure D.6 in Annex D. Although it's not nationally designated the Lewes Railway Land is an important local resource for Wildlife, education and recreation. The site is located between the River Ouse and the railway station to the South of the town. The site hosts a wet willow woodland, open grasslands and floodplain grazing meadows, as well as old railway features and relics. The site hosts a good range of bird, reptile, amphibian and mammal species including kingfishers, woodpeckers, kestrels, grass snakes, frogs, toads and newts.

Table C.5.2 provides information about the condition of the four SSSI sites which are located wholly or partly within the Lewes Neighbourhood Plan area. Areas of the Offham Marshes and Lewes Brooks are considered to be in an unfavourable but recovering condition. The Malling Down and Malling Chalk Pitts areas of the Lewes Downs is considered to have a medium risk of changes in condition. The same applies to pockets of the Lewes Brooks SSSI (see figure and

[13] https://www.rspb.org.uk/reserves-and-events/find-a-reserve/reserves-a-z/reserves-by-name/l/lewesbrooks/

Table C.5.1 below). Figure 6 in Annex C shows habitat management areas that have been designated by Lewes District Council.

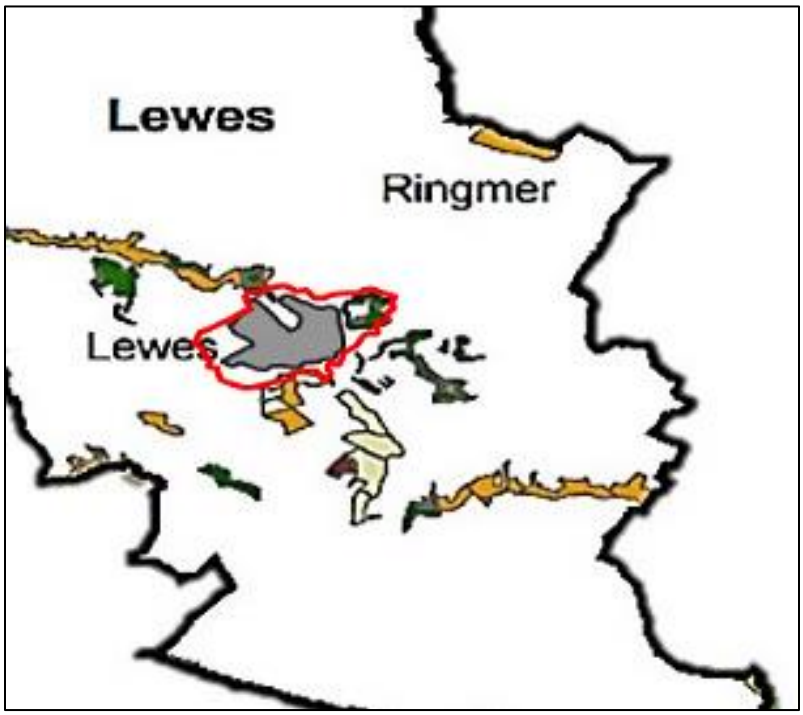


Figure C.5.1: Condition of SSSI sites within the Lewes District [14]

[14] East Sussex and Brighton & Hove Waste and Minerals Core Strategy, Sustainability Appraisal

Table C.5.2: SSSI Condition

SSSI	Classification	Overall Condition	Area in Lewes Boundary	Condition	Condition Threat Risk	Issues/Comments
Offham Marshes	Neutral Grasslands and Broadleaved mixed and Yew woodlands	61.74% is in a favourable condition, whilst 38.26% is said to be unfavourable but recovering	Macefield Baker	Unfavourable but recovering	No Threat	The ditches have not been well maintained and are in poor condition. Some poaching is creating bare ground.
			Secondary Woodland South	Favourable	No Threat	The woodland provides important terrestrial habitat for toads and for hibernation.
			Monnington	Favourable	No Threat	Provides an excellent habitat for amphibians, including a number of ponds and areas to shelter. Some poaching is creating bare ground.
Lewes Downs	Calcareous Grasslands - Lowlands	95.5% is in a favourable condition, whilst 4.45% is unfavourable but recovering	Malling Down	Favourable	Medium	There is considerable diversity throughout the unit and the balance between scrub, woodland and chalk grassland is constantly changing.

Table C.5.2: SSSI Condition

SSSI	Classification	Overall Condition	Area in Lewes Boundary	Condition	Condition Threat Risk	Issues/Comments
			Bible & Oxteddle Bottom	Favourable	No Threat	Grazing levels good and very little scrub on the slope. Negligible negative indicator species.
			Malling Chalk Pitts	Favourable	Medium	This unit has benefitted from recent scrub clearance, which has left the unit with no scrub present. Growing where it has been cut is mostly nettle and bramble, but this is likely to recover once the grazing animals are back on the site.
Southerham Works	Earth Heritage	100% Favourable	Southerham Works	Favourable	No Threat	Works were completed Feb 2006 to reveal the critical geological exposures. Further works are likely to soon be required

Table C.5.2: SSSI Condition

SSSI	Classification	Overall Condition	Area in Lewes Boundary	Condition	Condition Threat Risk	Issues/Comments
Lewes Brooks	Neutral Grasslands	4.97% is considered favourable, 88.58% is unfavourable but recovering, 6.45% is unfavourable and declining	Unit 1	Unfavourable but recovering	No Threat	Higher level stewardship in place to address management requirement.
			Unit 2	Unfavourable but recovering	Medium	Poor management of ditches. HLS in place to help manage
			Unit 3	Unfavourable but recovering	No Threat	HLS in place to manage site for SSSI objectives
			Unit 11	Unfavourable but recovering	No Threat	HLS in place to manage SSSI features to favourable condition.

Lewes falls within a proposed Biosphere Reserve which covers 389 square kilometres or 150 square miles (38,921 hectares / 96,175 acres). Three-quarters of this area is land and one-quarter is sea. It comprises three distinct but inter-related environments:

- Rural environment of the South Downs National Park block that lies between the River Adur in the west and the River Ouse in the east;
- Urban environments of the city of Brighton & Hove, and towns of Shoreham, Lewes, Newhaven, Peacehaven, Telscombe, Southwick and Shoreham Beach; and
- Coastal and marine environment of the English Channel, running from Shoreham Harbour in the west to Newhaven Harbour in the east, and extending out to 2 nautical miles in near-shore waters to include sub-tidal chalk outcrops.

Biosphere Reserves are not statutory designations nor restrictive areas that preserve nature in splendid isolation but instead are living, working places for people and the rest of nature[15] (see Table B.3 in Annex B for further details).

The Lewes District Informal Recreational Space Study[16] asked the opinions of local residents on how the local environment could be improved. The study identified that the large estates towards the north of the town have less access to the countryside, and opportunities should be explored and taken to provide better access. Half the respondents felt that provision of greenways is insufficient, and a third thought there was insufficient natural and semi-natural urban greenspace.

Future Evolution of the Biodiversity Baseline without the Lewes Neighbourhood Plan

There is potential for loss of valuable habitats which have yet to be designated for nature conservation as a direct result of development, however, it is likely that effects would be lessened as a result of the implementation of the South Downs National Park Partnership Management Plans.

Non-native invasive species and the planting of non-native trees may lead to the decline of some native species as well as the composition of certain woodlands. There is a chance that opportunities to improve the biodiversity of the town through the implementation of mitigation and enhancement measures may well be overlooked.

[15] Brighton & Hove and Lewes Downs Biosphere partnership, Biosphere Management Strategy, 2014 - 2019

[16] The Lewes District Informal Recreational Space Study, October 2005

Key Biodiversity Sustainability Issues

- Support is needed to achieve local BAP targets;
- The town is located within the South Downs National Park, and there are a number of SSSIs, local wildlife sites, sites of archaeological interest and the Lewes Downs SAC within the Neighbourhood Plan area;
- Areas of the Offham Marshes and Lewes Brooks SSSIs are considered to be in an unfavourable but recovering condition;
- Promote effective land-management to support, protect and enhance biodiversity;
- Consider and plan for the impacts of climate change on species and habitats;
- The need to control invasive species;
- The SA should include clear measurable objectives to protect and enhance biodiversity;
- Multifunctional GI networks should be identified and enhanced;
- A strong strategic network of natural habitats is needed through the plan area on a landscape-scale which will provide benefits relating to climate change mitigation and resilient of ecosystems; and
- The SA should carefully consider the location of known potential development sites and consider other effects which could impact upon biodiversity.

6 Archaeological and Cultural Heritage

The historic environment is reflected in archaeological sites, historic buildings, in the location and form of settlements, in the character of landscape, industrial structures, and in historic parks and gardens.

The built heritage of Lewes plays a vital role in defining its distinctive character and identity and it should be protected for its own sake and for its intrinsic value. However, it should also be seen as an important asset that can be the catalyst for a prosperous local economy, and an enhanced "quality of life" for those who live, and visit the town.

Lewes has a rich history and a vibrant arts, cultural and industrial heritage with over 500 listed buildings, including the Castle and Medieval Priory. It is considered to be one of the best preserved small market towns in England. High quality examples of regional vernacular architecture can be found throughout the town centre; these feature many different historic construction materials and techniques.

Lewes is classed as an archaeologically sensitive area[17]. Much of the centre of Lewes is a Conservation Area, due to its historical importance, density of scheduled monuments and high number of Grade I and II listed buildings. There is a second Conservation Area; 'Lewes Malling Deanery Conservation Area'. The extent of the Conservation Areas in Lewes are shown on Figure D.8 in Annex D. There are several locations where vantage points allow views over the town and its landscape setting, some of which contribute to the significance of heritage assets as well as allowing appreciation of the Conservation Areas as a whole.

The Historic Landscape Characterisation of the town is shown on Figure D.8 shows that Lewes has a medieval historic core of the town with a larger areas of post 1800 settlement and later 19th century expansion which are also of historic importance. The open valley floor and early enclosure landscapes that run into the historic core of the town from the wider countryside play a role in preserving a connection between the town and its rural setting. These areas are likely to be highly sensitive to change, both for their intrinsic historic landscape interest and in their role in revealing the interest of nearby areas including the conservation area.

Any buildings that are listed for their 'Special Architectural or Historic Interest' are protected under the Planning (Listed Buildings and Conservation Areas) Act 1990. The town also contains a number of undesignated historic assets which hold local value.

The East Sussex Historic Environment Record (ESHER, formerly the County Sites and Monuments Record) is a record of the known archaeology of the county. The ESHER contains

[17] South Downs National Park, Lewes Conservation Area Management Plan, July 2012

2108 archaeological records within Lewes Parish. The distribution of these are shown on Figure C.6.1 below.

Figure C.6.1: Archaeological Records held in the East Sussex Historic Environment Record

The town includes a high number of historic landmarks, including:

- The Castle;
- The Town Hall;
- The Crown Court;
- White Hart hotel;
- Fitzroy House;
- Ann of Cleves House;
- The Market Tower;
- The Maltings;
- Brack Mount;
- Priory of St Pancras ('Lewes Priory') – upstanding remains;
- Cliffe Bridge;
- The Pells; and
- The Dripping Pan.

Future Evolution of the Archaeological and Cultural Heritage Baseline without the Lewes Neighbourhood Plan

Historic towns like Lewes must constantly evolve if they are to thrive and function. There are multiplying pressures, from ever- increasing car use with its implications for town centre congestion, parking demands and the impacts of cars on historic narrow streets within the centre. All works should be conceived with specific regard to the potential archaeological interest (above and below ground) and historic interest of a site and its context within the town. Any intervention should reinforce those characteristics of the buildings, townscape and public realm of Lewes which make a positive contribution to the town and its local distinctiveness. [18] Unfortunately, the relative prosperity of the town has also brought with it the threat from new development which is not in keeping with the character of the Conservation Areas.

Climate change also presents a threat to historic assets and some assets may be required to adapt to the predicted hotter drier summers and wetter, more stormy winters. Such adaptation may require different or more maintenance.

Key Archaeological and Cultural Heritage Sustainability Issues

[18] Lewes Conservation Area, Character Appraisal, April 2007

- Many parts of the town are protected by Conservation Area status and a high proportion of buildings are listed;
- The high quality historic landscape is one of the key reasons why Lewes attracts people to live in the area;
- The LNP could play a role in conserving and possibly better revealing the archaeological interest, including the industrial history of the town, which Historic England states has been eroded over time;
- It is important to ensure that the town's Conservation Areas, historic buildings and features are conserved and enhanced;
- Climate change presents a threat to some historic assets, which may require different or more maintenance in the future as a result;
- The built heritage of the area plays a vital role in defining its distinctive character and identity and it should be protected for its own sake and for its intrinsic cultural value;
- The built heritage is also seen as an important asset that can provide the catalyst for a prosperous local economy and an enhanced "quality of life" for those who live, work and visit the area;
- The valley floor areas are likely to be highly sensitive to change. Their role of connecting the town with the countryside, providing intrinsic historic landscape interest and providing a setting for the conservation areas, should be protected and enhanced.
- Historic landmarks help to sustain a sense of local distinctiveness;
- All works should be conceived with specific regard to the potential archaeological interest (above and below ground) and historic interest of a site and its context within the town;
- New developments should respect the urban and historic context, by reflecting the character of housing as well as leaving a positive architectural legacy; and
- Help engage and educate residents and visitors with the rich history of Lewes.

7 Climatic Factors

Flooding is a natural process that can happen at any time in a wide variety of locations. Prolonged and intense rainfall can cause flooding from rivers, sewer flooding, overland flow and groundwater flooding. When it impacts on human activities, it can threaten people, their property and the environment. Assets at risk can include housing, transport and public service infrastructure and commercial, industrial and agricultural enterprises.

The frequency, pattern and severity of flooding are expected to increase as a result of climate change. Development can also exacerbate the problems of flooding by accelerating and increasing surface water runoff, altering watercourses and removing floodplain storage. Flooding from the River Ouse presents a significant risk to many parts of town in both commercial and residential areas of Lewes. The high tides at Newhaven can also contribute, posing an even larger flood risk to the town as the River Ouse is tidal at Lewes. There is also a potential flooding risk from the Winterbourne Stream which is a ground-water fed stream which only flows when the water level is high within the chalk beds. Either area could flood independently. [19] There are currently flood defences in place along the River Ouse through Lewes, which do provide a degree of protection for the more frequently occurring flood events. Much of the town is within flood zone 3 and many sites are at risk of flooding (see Figure D.10 in Annex D).

The town has suffered considerably from flooding in the past; no more so than the large scale flooding seen in 2000. Following days of exceptionally high rainfall, the River Ouse busted it's banks and broke through flood defences. 613 residential and 207 business properties were flooded, along with 16 public buildings[20]. 1000 people were displaced. 503 vehicles were damaged or destroyed and the total cost of the flooding was given as £88 million.

Future Evolution of the Climatic Factors Baseline without the Lewes Neighbourhood Plan

According to the Environment Agency there are currently 376 properties in Lewes town at risk from flooding with the potential for this to increase to 490 by 2100[21]. The high risk of flooding in Lewes has been highlighted by the large-scale flooding in October 2000. Flood defences within Lewes District provide varying levels of protection along the River Ouse and the coast. The Environment Agency has undertaken a significant amount of work following the October 2000 flood event to improve the standard of defences in the area. The likelihood of flooding is

[19] Lewes District Strategic Flood Risk Assessment, October 2009

[20] The Lewes flood of October 2000: A review of the recovery

[21] River Ouse Catchment Flood Management Plan, Summary Report, December 2009

anticipated to increase due to climate change causing more extreme weather conditions, meaning that dealing with flooding in Lewes is of high importance.

Key Climatic Factors Sustainability Issues

- A sequential test should be followed when potential allocation sites are considered;
- Flooding presents a clear risk to the town;
- As a high proportion of the town is liable to flooding, planning polices will be needed to ensure that future developments are resilient to flood risk, do not contribute to increasing flood risk and build capacity to adapt to achieve long-term, sustainable benefits;
- Mitigating design features should be considered including permeable surfacing materials, water butts, green roofs and cellular storage facilities;
- The functional floodplain should be protected from development and the use of green corridors in flood risk areas promoted. The natural course of rivers should be restored;
- The functional floodplain should be reinstated wherever possible (e.g. by reducing building footprints or relocating to lower flood risk zones);
- All new development should be 'safe', meaning that dry pedestrian access to and from the development is possible without passing through the 1 in 100 year plus climate change floodplain; emergency vehicular access is possible; and flood resistance and resilience is incorporated;
- No new building should be allowed in a flood risk area that is not flood resilient;
- The use of Sustainable Drainage Systems (SuDS) should be required in all Flood Zones in order to manage surface water runoff. These along with other flood prevention should contribute to 'green infrastructure'; and
- Good quality and well managed local accessible green space offer a range of benefits, including climate change adaptation, such as flood alleviation and these need to be protected and enhanced as important infrastructure within the town.

8 Climatic Change Mitigation

The Government aims to reduce the use of energy, use energy more efficiently, move to energy from renewable sources and use remaining fossil fuels cleanly. Energy efficiency is the cheapest and safest way of addressing these objectives and renewable energy is also likely to play a significant role in reducing carbon emissions (UK Sustainable Development Strategy).

The Government has put tackling climate change as one of the main issues facing the country. National planning policy advice is that climate change considerations should be integrated into all spatial planning concerns including transport, housing, economic growth, regeneration, water supply and waste management. The UK, under the Climate Change Act, has a legal commitment to reduce emissions by at least 80% from 1990 levels by 2050.

Lewes District Council is a signatory of the Nottingham Declaration on Climate Change. Thus, it has pledged to tackle the causes of climate change and prepare for its consequences. The generation of energy from non-renewable sources releases greenhouse gases and thus the District's consumption of energy contributes to climate change. As can be seen in Table C.8.1, carbon dioxide emissions per capita are lower in Lewes District than the national average.

Table C.8.1: Carbon Dioxide Emissions (2014) [22]

	Lewes District	East Sussex	National
Carbon Dioxide Emissions (kt CO2)	469.8	2500.9	403796.9
Carbon Dioxide Emissions (tonnes per capita)	4.7	4.6	6.3

Data from DECC shows a falling trend in Carbon Dioxide emissions for Lewes District, East Sussex and Nationally between 2005 and 2014 (i.e. an improvement). Of the total Carbon Dioxide emissions in Lewes District in 2014, the greatest proportion was attributable to transport (184.6 kt CO_2) compared with 173 kt CO_2 from domestic sources and 112.6 kt CO_2 from industry and commerce.

[22] UK local authority and regional carbon dioxide emissions national statistics: 2005-2014 from DECC, accessed on 21/12/16

DECC data indicates that domestic electricity consumption in Lewes District (185 GWh) is higher than non-domestic (155 GWh) in 2014. Average domestic consumption per household in Lewes in 2014 was 4199 KWh in Lewes District, lower than 4353 KWh in the South East region but higher than 4092 KWh in Great Britain[23].

Average domestic electricity consumption in 2005 in Lewes District was 4813 KWh, representing a falling (improving) trend in consumption since 2005.

Gas consumption data from DECC for 2014 shows that domestic consumption of gas (459 GWh) is far greater than non-domestic use (106 GWh)[24]. The total gas consumed in Lewes District in 2014 was therefore 565 GWh. Compared with a gas consumption in 2005 of 765 GWh, this represents a trend of reduced consumption over the past approximately 10 years i.e. an improving trend in gas consumption.

At present a minimal 5.6MWh of energy is generated from renewable sources within the South Downs National Park[25]. In Lewes town, there is a PV array on the roof of the Harvey's building but no other strategic renewables developments have been built to date in the town. Any developments in respect of renewables cannot be allowed to compromise the nationally important landscape character which National Park status is designated to conserve and enhance. The challenge for the SDNPA is to determine the right technology in the right place.[26]

The South Downs National Park Low Carbon and Renewable Energy Study phase 2 identifies that there is considerable opportunity for increasing the number of homes in the National Park heated through woodfuel. The Forestry Commission suggest that there is around 328km^2 of woodland cover across the South Downs. They estimate that this woodfuel would be capable of delivering 179,690MWh; heating for over 9,000 homes and saving over £8m if use instead of oil to heat homes. Additionally increasing the market for woodfuel allows more woodland to be effectively managed which can bring other benefits such as improved biodiversity.

[23] Sub-national electricity sales and numbers of customers 2005-2014, DECC accessed on 21/16/16

[24] Sub-national gas sales and numbers of customers 2005-2014, DECC accessed on 21/16/16

[25] Low Carbon and Renewable Energy Study Phase 2, December 2016

[26] Low Carbon and Renewable Energy Study Phase 2, December 2016

Future Evolution of the Climate Change Mitigation Baseline without the Lewes Neighbourhood Plan

- Electricity use, gas use and carbon dioxide emissions for the District of Lewes are all reducing and have been since 2005. It is assumed that these trends will continue as renewable energy developments come forward and energy efficiency increases.
- Evidence suggest that human activity is accelerating the rate of global warming. The key effects of climate change are longer hotter summers, wetter winters and increased risk of extremes in weather conditions and flooding. In the UK, average sea levels are rising by around 3mm a year; plants and animals are experiencing the earlier onset of spring and summer; winter rainfall is arriving in more intense bursts[27].
- Climate change is one of the principal drivers of environmental change for the South Downs National Park in the future. Its impacts are likely to be significant and profound across a whole range of areas and assets. The impact upon some of the key Ecosystem Services of the National Park are also potentially significant.

Key Climate Change Mitigation Sustainability Issues

- Residents of Lewes District, on average, consume more electricity in Lewes District than the rest of the country.
- The Lewes Neighbourhood Plan would need to support increasing energy efficiency and renewable energy generation in order to support improving trends in CO_2 emissions and gas and electricity consumption.
- In Lewes District, the largest proportion of CO_2 emissions come from transport, followed by domestic properties and then industry and commerce.
- There is a relatively high proportion of listed buildings and other buildings with historic interest that require imaginative solutions to incorporate renewable energy or efficiency measures;
- Increasing renewable energy sources whilst protecting and enhancing the high quality of local landscapes is a challenge; and
- The Lewes Neighbourhood Plan will need to encourage and facilitate climate change adaptation measures such as through the design of new developments to ensure that they and the areas fauna and flora, are resilient to future changes in climate.

[27] Reducing emissions and preparing for climate change: 2015 Progress Report to Parliament, Summary and recommendations: Committee on Climate Change, June 2015

9 Community and Wellbeing

This theme examines the population profile of Lewes and factors affecting it such as population structure and household composition.

This theme also considers health, community safety and crime issues, and the provision and quality of public spaces.

According to the 2011 Census, the usual resident population of Lewes parish is 17,297, of which 48.8% are males and 51.2% are females. Table C.9.1 shows the population structure of the Parish of Lewes. The population structure of Lewes Parish is largely similar to those of Lewes District, the South East region and England but the proportion of residents who are aged 0-15 and 45 – 59 is larger than the comparators and the proportions of residents aged 16-24 and 25-29 are smaller that the regional and national profiles.

Table C.9.1: Population Structure (percentage of usual residents)

	Lewes Parish	Lewes DC	South East	England
Age 0 to 15	20	17	19	19
Age 16 to 24	9	9	11	12
Age 25 to 29	5	5	6	7
Age 30 to 44	20	17	20	21
Age 45 to 59	22	21	20	19
Age 60 to 64	6	7	6	6
Age 65 to 74	9	11	9	9
Age 75 to 89	8	10	7	6
Age 90 and over	1	1	1	1

The SDNP had a population of 112,343 in 2011. This can be broken down into Housing Market Areas (HMA) and Local Authority areas. Table C.9.2 estimates the proportion of residents, households and dwellings in each local authority area which are in the SDNP.

Table C.9.2: Estimated Proportion of Residents, Households and Dwellings in South Downs National Park, 2011[28]

HMA	% Usual Residents	% Households	% Dwellings
Coastal Sussex HMA	**8%**	**7.90%**	**7.70%**
Adur	2.90%	2.30%	2.30%
Arun	2.60%	2.70%	2.70%
Brighton and Hove	1.70%	1.50%	1.50%
Chichester	25.80%	25.70%	25.70%
Lewes	24.30%	23.90%	24.00%
Worthing	0.60%	0.60%	0.60%
Eastbourne and Wealden HMA	**1.70%**	**1.90%**	**1.80%**
Eastbourne	1.40%	1.40%	1.40%
Wealden	1.90%	2.20%	2.10%
Northern West Sussex HMA	**1.30%**	**1.30%**	**1.30%**
Horsham	2.90%	2.90%	2.80%
Mid Sussex	0.80%	0.80%	0.80%
Central Hants HMA	**7.90%**	**8.10%**	**8%**
East Hampshire	26.80%	27%	27.10%
Winchester	8.50%	8.80%	8.60%

Four initial demographic projections have been run as a part of the Strategic Housing Market Assessment (SHMA) to look at how the population of the SDNP area might change in the future, as can be seen in Table C.9.3:

- 5-year population growth trends (core projection – broadly aligns with national projections);
- 10-year population growth trends;
- Zero net migration; and
- Constant population.

[28] Strategic Housing Market Assessment - South Downs National Park Authority, 2015

Table C.9.3: Demographic Projections				
	Population 2013	**Population 2033**	**Change from 2013**	**% Change from 2013**
5-year trends	113,756	125,744	11,988	10.50%
10-year trends	113,756	127,952	14,196	12.50%
Zero net migration	113,756	106,873	-6,883	-6.10%
Zero population growth	113,756	113,756	0	0.00%

The rising number of deaths relative to births reflects a growing older population relative to other age groups.

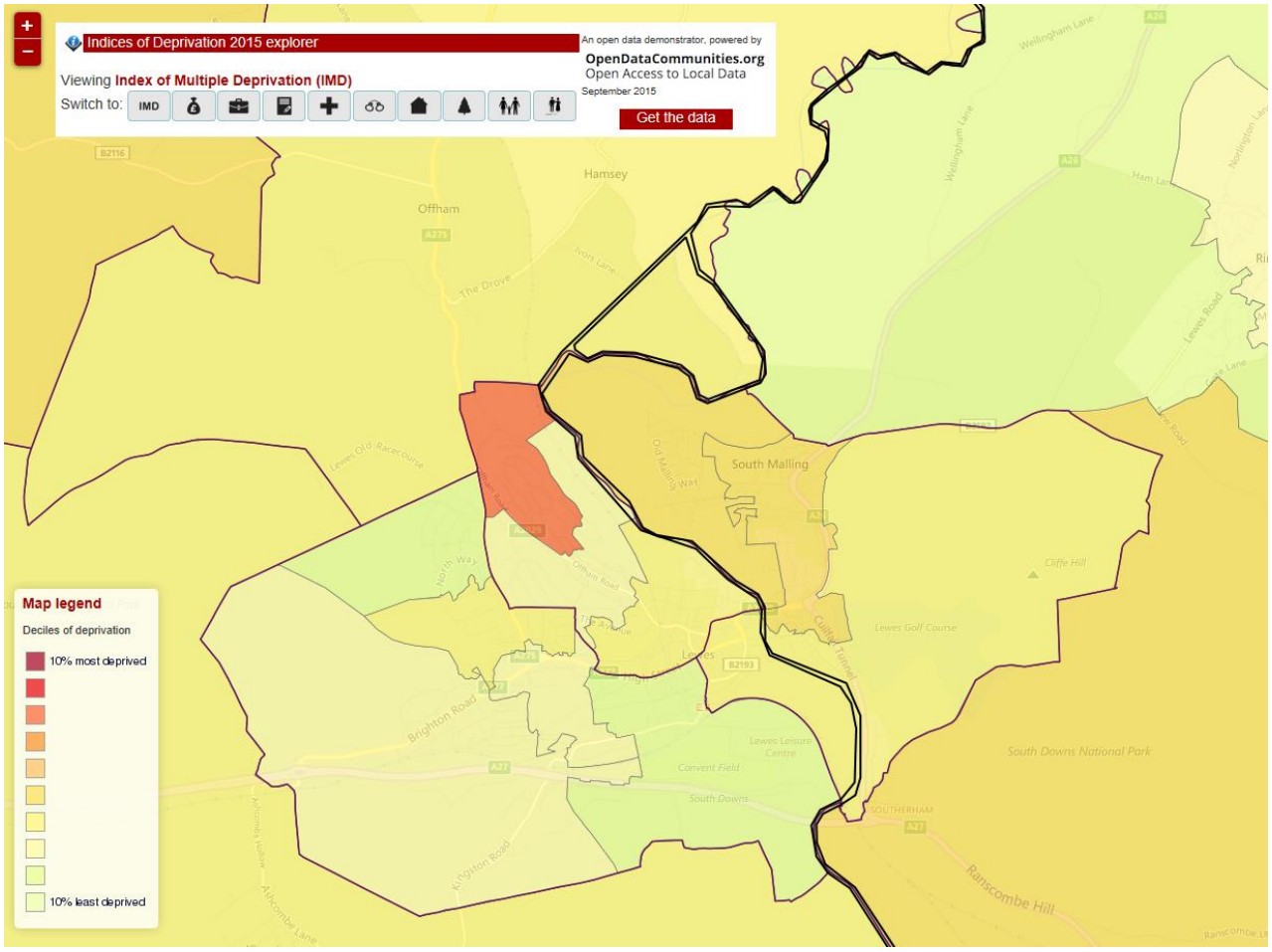
Table C.9.4: East Sussex Population Projections[29]			
	2014	2027	Percent growth 2014-2027
East Sussex	539,766	569,532	5.5
Lewes	100,229	106,997	6.8

Table C.9.4 shows that the population of Lewes District is predicted to increase by 6.8% between 2014 and 2027.

Figure C.9.5 shows that most of Lewes parish is ranked low on the indices of multiple deprivation (2015) apart from the Lower Super Output Area (LSOA) Lewes 003E which falls within the highest 20% of deprived areas nationally. This is due to barriers to housing, income deprivation (affecting children and older people), employment deprivation, education, skills and training, and health deprivation and disability.

In relation to crime, Figure C.9.6 shows that two other LSOAs (Lewes 003D and Lewes 003F) are ranked in the highest 20% most deprived areas of the country.

[29] Source: East Sussex County Council, Research and Information Team, January 2016. http://www.eastsussexinfigures.org.uk/webview/index.jsp?mode=area&submode=result&areaname=Lewes&areatype=LA



.

Figure C.9.5: Indices of Multiple Deprivation (2015)[30]

[30] Source: http://dclgapps.communities.gov.uk/imd/idmap.html accessed on 02/01/17

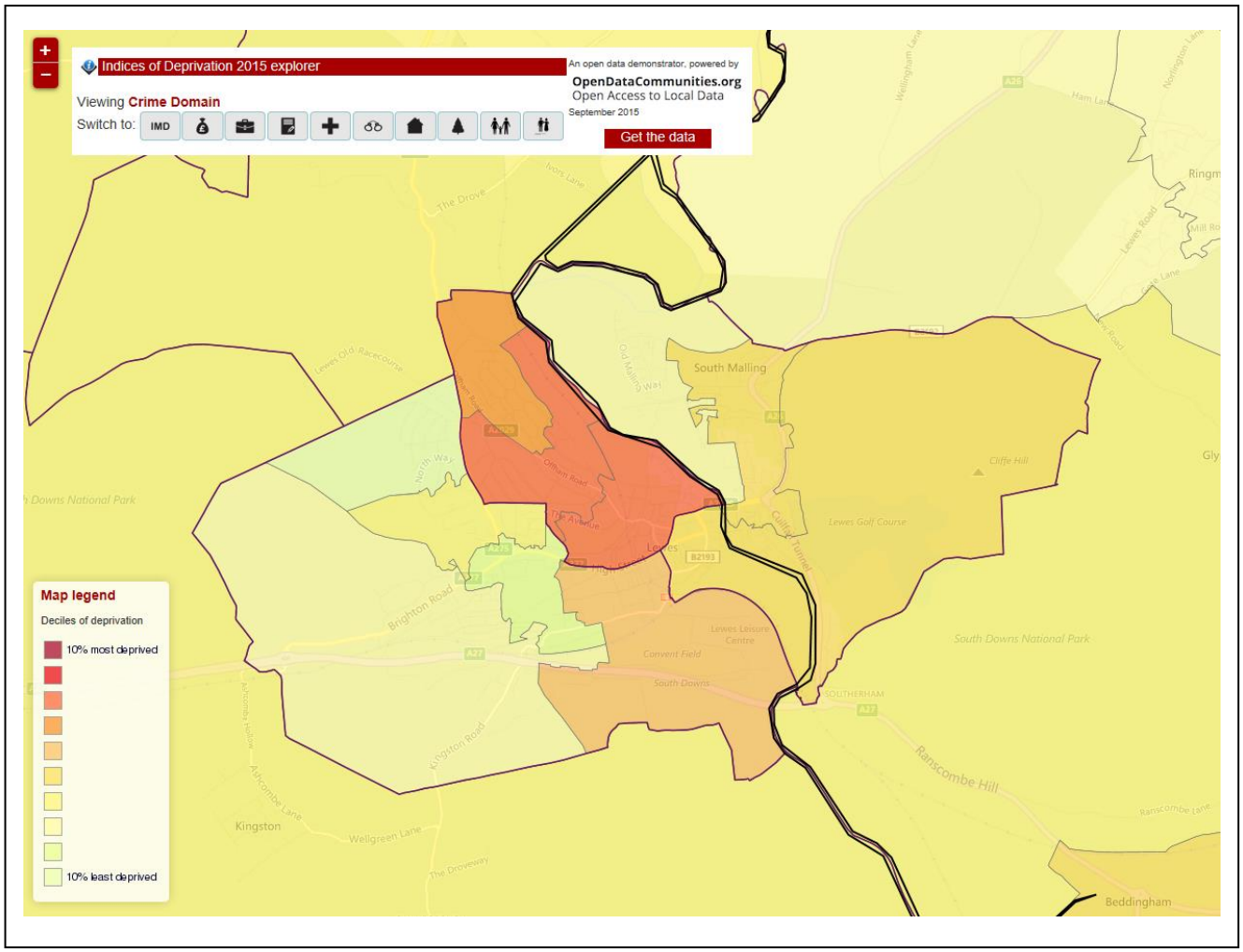
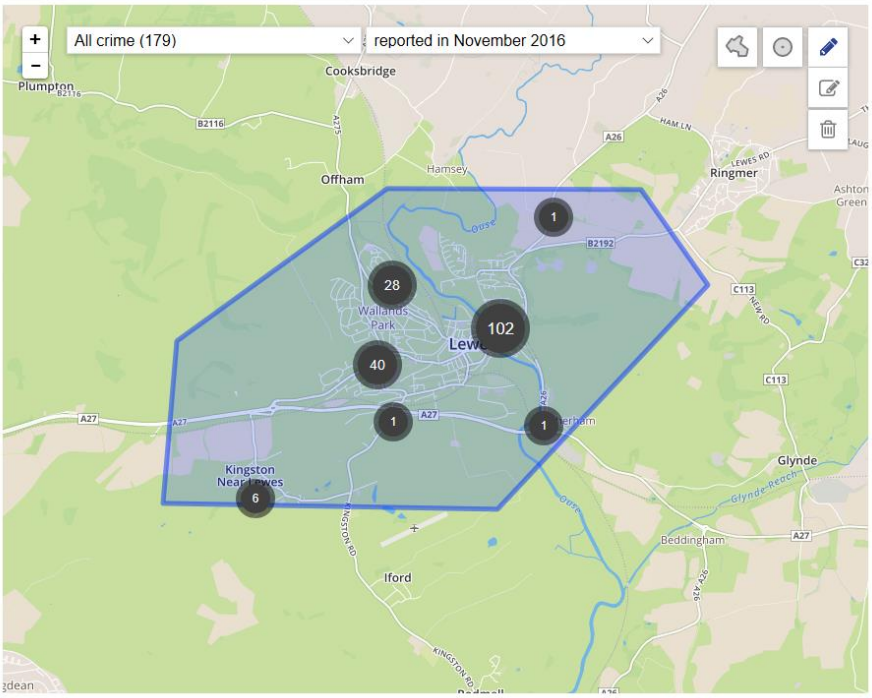


Figure C.9.6: Indices of Multiple Deprivation (2015), Crime Domain[31]

Figure C.9.7 shows that the majority of crimes recorded in Lewes within the last year are anti-social behaviour, violence and sexual offences and criminal damage and arson.

[31] Source: http://dclgapps.communities.gov.uk/imd/idmap.html accessed on 02/01/17



Recorded crimes between December 2015 and November 2016:

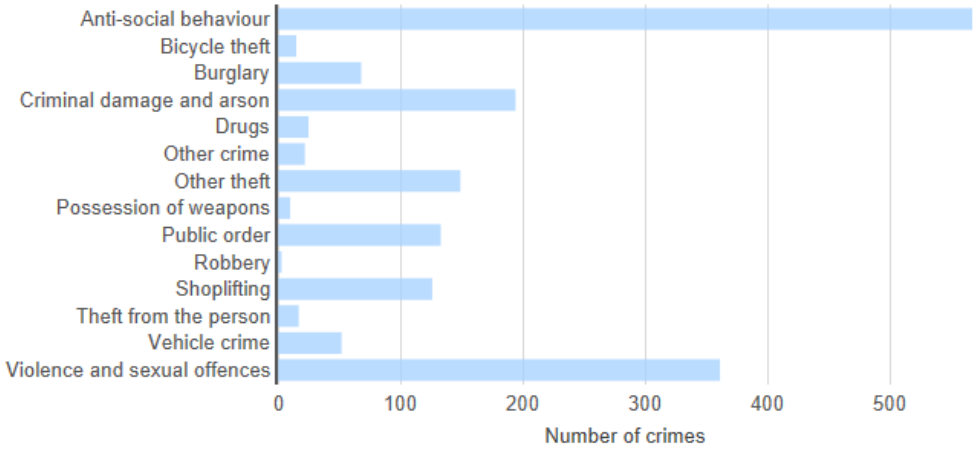


Figure C.9.7: Recorded Crimes in the Lewes Area[32]

[32] Source: https://www.police.uk/sussex/ accessed on 02/01/17

Good health is fundamental to achieving a good quality of life. Table C.9.8 below shows that the majority of the usual residents of Lewes Parish describe their health as very good, which is a greater proportion than in Lewes District or England.

Table C.9.8: General Health (Percentage of Usual Residents)

	Lewes Parish	Lewes Non-Metropolitan District	South East Region	England
Very Good Health	49	45	49	47
Good Health	34	36	35	34
Fair Health	12	14	12	13
Bad Health	3	4	3	4
Very Bad Health	1	1	1	1

Table C.9.9 shows hospital admissions data for April 2007 to March 2008. During this period, the majority of hospital admissions for people in Lewes Parish related to Coronary Heart Disease and Cancer (excluding non-melanoma skin cancer diagnoses).

Table C.9.9: Hospital Admission Episodes Aril 2007 – March 2008

	Lewes Parish	Lewes Non-Metropolitan District
All Finished Admission Episodes	3098	21725
Coronary Heart Disease (CHD); Diagnosis	239	2042
Cerebrovascular Disease (including Stroke); Diagnosis	59	448
Cancer (excluding non-melanoma skin cancer); Diagnosis	257	2237
Falls (basic accidental falls); External cause	157	1039
Coronary Artery Bypass Graft (CABG) and Percutaneous Transluminal Coronary Angioplasty (PTCA); Operation	19	148
Hip Replacement; Operation	15	127

Table C.9.9: Hospital Admission Episodes Aril 2007 – March 2008		
	Lewes Parish	Lewes Non-Metropolitan District
Knee Replacement; Operation	15	110
Cataract; Operation	111	819

Trend data since 2002 indicates that hospital admissions relating to falls (basic accidental falls), cancer (excluding non-melanoma skin cancer), Cerebrovascular Disease (including stroke) and Coronary Heart Disease have all increased between the periods April 2002 – March 2003 and April 2007 – March 2008.

According to the office for national statistics 2011 Census datasets[33], the majority of residents of Lewes Parish (89.5%) describe their ethnicity as 'White; English/Welsh/Scottish/Northern Irish/British'. Other ethnicities are presented in the Parish; the next highest proportions being 4.8% 'white; other' and 0.9% 'white; Irish'.

Lewes Town has an overall under-supply of sports pitches with a total of 1.9. There is an under-supply of football pitches of 2.5, hockey pitches of 1.8 and cricket pitches of 1.6. This is the largest under-supply in the district. There is a shortfall in children's play areas of -1.7ha in Lewes town[34].

Future Evolution of the Community and Wellbeing Baseline without the Lewes Neighbourhood Plan

The population in Lewes District is predicted to increase 6.8% between 2014 and 2027. In general, the area has an aging population.

No trend data on crime is easily accessible. It is difficult to determine whether crime rates are therefore improving or declining. The Neighbourhood Plan could influence crime by ensuring that new developments are designed to enhance public safety.

[33] http://www.neighbourhood.statistics.gov.uk/ - ethnic diversity data for Lewes Parish accessed on 04/01/17

[34] Lewes District Outdoor Playing Space Review 2004

National trends in health are expected to prevail in Lewes and the hospital admissions data (predominance of falls, cancer, Cerebrovascular Disease (including stroke) and Coronary Heart Disease are likely to continue as the population ages.

Future shortfalls of football, junior football, equipped and informal children's play space in Lewes town are predicted[35].

Key Community and Wellbeing Sustainability Issues

- The population structure of Lewes Parish is largely similar to those of Lewes District, the South East region and England but the proportion of residents who are aged 0-15 and 45–59 is larger than the comparators and the proportions of residents aged 16-24 and 25-29 are smaller that the regional and national profiles;
- The population of the town is likely to continue to grow in the future;
- The ageing population of Lewes District, which is already high, is likely to increase further, resulting in an additional strain on health and social care, particularly residential nursing care and intensive home care;
- Crime incidences are relatively low and are focused on the town centre. The majority of crimes recorded in Lewes within the last year are anti-social behaviour, violence and sexual offences and criminal damage and arson;
- Community cohesion should be maintained; and
- Deprivation[36] levels within the town are relatively good, with one particular localised area experiencing issues relating to access to affordable housing, access to education and training, income deprivation, employment deprivation and health deprivation;
- There are current and predicted future shortfalls of football, junior football, equipped and informal children's play space in Lewes town; and
- People's perceptions of general health in Lewes Parish are good overall.

[35] Lewes District Outdoor Playing Space Review 2004

[36] The IMD 2010 combines a total of 38 indicators from seven topic areas (domains) to arrive at an overall deprivation score and rank for each Local Super Output Area (LSOA) in England (the LSOA with a rank of 1 is the most deprived and 32,482 the least deprived). The seven domains are: Income Deprivation; Employment Deprivation; Health Deprivation and Disability; Education, Skills and Training Deprivation; Barriers to Housing and Services; Crime; and Living Environment Deprivation.

10 Economy

Provision of land for different employment uses in different locations is also an important condition for a diverse and resilient economy. Employment floor-space should be of the right quality, type and size to meet the needs of the businesses of an area and to support its competitiveness.

Developments in infrastructure, such as transport and communication systems, help to improve access and speed of transport, as well as communications between businesses and their customers and suppliers. Looking ahead, proposed developments in broadband technology and increased access to broadband for households should lead to a more flexible working environment, allowing more people to work from home. This, in turn, may help to reduce emissions from travelling to work by car and public transport.

Lewes has a thriving town centre with a healthy retail economy and a large number of independent shops. It lies entirely within the boundaries of the South Downs National Park which increases its already popular status as a tourist destination and potential for economic benefits.

Statistics for economically active residents of the three wards in Lewes are presented in Table C.10.1

Table C.10.1: Economic Activity

	Lewes Bridge Ward		Lewes Castle Ward		Lewes Priory Ward		Lewes District	England & Wales
	Count	%	Count	%	Count	%	%	%
Economically active	2604	83.0	2425	79.4	3560	75.7	78.9	76.8
In employment	2456	78.3	2251	73.7	3366	71.6	74.4	71.0
Employees	1898	60.5	1744	57.1	2546	54.2	59.1	60.6
Self employed	558	17.8	507	16.6	820	17.4	15.3	10.4
Unemployed	147	5.6	174	7.2	194	5.4	5.7	7.6

Table C.10.1 shows that the Lewes wards contains a comparable proportion of economically active people with the rest of Lewes District and England and Wales. Similarly, the proportion of economically active people in employment within the Lewes wards is similarly to that of Lewes District and is higher than the proportion for England and Wales. However, in Lewes Priory ward,

the proportion of economically active people in employment is lower than the other two Lewes wards and is comparable to the England and Wales situation as a whole. The Lewes wards contain a high proportion of self employed people when compared with the Lewes District and national proportions. Unemployment levels in the Lewes wards are lower than the District and national percentages apart from in the Lewes Castle ward, where 7.2% of economically active people are unemployed which is similar to the national percentage for England and Wales (7.6%).

Table C.10.2: Full and Part Time Work

	Lewes Bridge Ward		Lewes Castle Ward		Lewes Priory Ward		Lewes District	England & Wales
	Count	%	Count	%	Count	%	%	%
Full Time Employment	1725	66.9	1550	65.4	2253	63.4	66.4	70.7
Part Time Employment	852	33.1	819	34.6	1300	36.6	33.6	29.3

Table C.10.2 shows that the proportion of economically active people in the Lewes wards is comparable to the proportion for Lewes District but overall is generally lower than the national situation in England and Wales. As might be expected, therefore, the proportion of economically active people in the Lewes wards working part time is higher than the national situation in England and Wales but also reflects the proportion across Lewes District as a whole.

Table C.10.3: Employment by Occupation

	Lewes Bridge Ward		Lewes Castle Ward		Lewes Priory Ward		Lewes	England & Wales
	Count	%	Count	%	Count	%	%	%
Managers and Senior Officials	256	9.9	235	9.9	397	11.2	11.6	10.8
Professionals	572	22.2	595	25.1	1134	31.9	18	17.4

Table C.10.3: Employment by Occupation

	Lewes Bridge Ward		Lewes Castle Ward		Lewes Priory Ward		Lewes	England & Wales
	Count	%	Count	%	Count	%	%	%
Associate Professional & Technical	455	17.7	384	16.2	627	17.6	13.5	12.7
Administrative & Secretarial	248	9.6	198	8.4	315	8.9	10.7	11.4
Skilled Trades	278	10.8	247	10.4	301	8.5	12.9	11.5
Personal Services	215	8.3	209	8.8	244	6.9	10.9	9.4
Sales & Customer Services	167	6.5	158	6.7	187	5.3	7.6	8.4
Process Plant & Machine Operatives	126	4.9	111	4.7	87	2.4	5.8	7.2
Elementary Occupations	260	10.1	232	9.8	261	7.3	9.1	11.2

Lewes is home to London commuters as well as small craft workers and artisans. Table C.10.3 presents employment by occupation for the residents of the wards in the Lewes Neighbourhood Plan area and allows comparison with the rest of the Lewes District as a whole and the national situation. This table shows that the situation in Lewes town generally differs from the national and District proportions and demonstrates lower proportions of people employed as managers, administrators / secretarial, skilled trades, personal services, sales / customer services, and process plant and machine operatives (the latter being a much lower proportion than the District and national proportions). People employed in elementary occupations are also lower than the national proportions but in the Lewes Bridge and Lewes Castle wards the proportions are higher than Lewes District as a whole. The highest proportions of economically active residents in the Lewes wards are employed as professionals and associate professionals and technical occupations and the proportions are all higher than in the District and nationally.

The SA baseline reported in the Lewes Core Strategy SA Report[37] states that industry and business are suffering in parts of Lewes District, partly because of the recession, causing damage to local economies.

SDNP Employment Land Review (2015) identifies that there are four principal existing employment sites across the National Park which should be protected for B-class employment use. These included two sites in Lewes: North Street/Phoenix Quarter (post-redevelopment) and Brooks Road.

There are approximately 53,700 people in employment that live within the National Park. The largest percentage work in the Wholesale and Retail sectors (13%), Education (12%), Health and Social Work (11%). Within Lewes, key employers are public administration, the police force and local Universities.

The SDNPA is supporting three key business sectors: tourism and the visitor economy; food and drink and timber and wood.

There are 12 employment sites in Lewes, six of which are existing and the remaining are potential sites which could be developed into employment sites. The employment site on the Land East Of Malling Industrial Estate is 1.7Ha and is currently a vacant brownfield site but has planning permission to deliver additional employment land.

Development need in the area is likely to be driven by demand for office accommodation (and a lesser extent industrial). This also reflects the Lewes Core Strategy which identified this need for more modern and flexible start-up and move-on facilities in the town (both industrial and office).

A combination of more detailed and localised analyses shows that the main settlements in the National Park could potentially require between 8ha and 12ha of new employment land. This would include:

- About 3 Ha in Petersfield
- 3-6Ha in Midhurst and Petworth (and Chichester part of SDNP); and
- 2-3Ha in Lewes.

In 2014, there were 1076 visitor bedspaces offered in Lewes town; the majority provided at the 6 available campsites (428 bedspaces), followed by 206 bedspaces at the town's 3 hotels and 125 spaces at the 29 guest houses and B&Bs in the town. In addition, 112 bedspaces were available in self catering establishments, 38 at 2 glamping sites and 88 at 2 group and youth accommodation establishments[38].

[37] Lewes District Local Plan Part 1 Core Strategy – Submission Document Sustainability Appraisal (incorporating a Strategic Environmental Assessment), September 2014

[38] SDNPA Visitor Accommodation Review, 2014

Table C.10.4: Qualifications

	Lewes Bridge Ward		Lewes Castle Ward		Lewes Priory Ward		Lewes	England & Wales
	Count	%	Count	%	Count	%	%	%
Level 4 Qualifications And Above	1307	41.7	1295	42.4	2336	49.7	31.8	29.7
Level 3 Qualifications	420	13.4	412	13.5	561	11.9	14.6	14.5
Level 2 Qualifications	526	16.8	441	14.4	624	13.3	18.2	17.2
Level 1 Qualifications	409	13	402	13.2	501	10.7	16.6	15.2
Apprenticeships & Other Qualifications	169	5.4	143	4.7	243	5.2	6.7	8.6
No Qualifications	307	9.8	360	11.8	435	9.3	12.2	15

Table C.10.4 shows that the residents of Lewes town are generally well educated and the proportion of residents with level 4 qualifications and above are higher than the proportions reflected across the District and nationally in England and Wales.

Table C.10.5: Claimant Count by Sex - not seasonally adjusted (November 2016)

	Lewes Bridge Ward		Lewes Castle Ward		Lewes Priory Ward		Lewes	Great Britain
	Count	%	Count	%	Count	%	%	%
Males	25	1.8	25	1.8	20	0.8	1.4	2.2
Females	10	0.8	10	0.8	10	0.5	0.8	1.3

Table C.10.5 shows low levels of unemployment claims in Lewes town. The table shows that there are more males than females claiming unemployment benefits in the Lewes wards and that all claimant rates are lower than the national statistic. However, there is a higher proportion of male claimants than the District proportion in the Lewes Bridge and Lewes Castle wards. Proportions of female claimants are similar to the District proportions and are lower than the proportion for Great Britain as a whole.

Table C.10.6: Claimant Count by Age - not seasonally adjusted (November 2016)

	Lewes Bridge Ward		Lewes Castle Ward		Lewes Priory Ward		Lewes	Great Britain
	Count	%	Count	%	Count	%	%	%
Aged 16 - 17	0	-	0	-	0	-	-	-
Aged 18 – 24	5	-	5	-	5	-	-	-
Aged 25 - 49	20	-	25	-	25	-	-	-
Aged 50+	10	-	10	-	5	-	-	-

Table C.10.6 demonstrates that unemployment claimants are mainly aged 25 to 49.

Future Evolution of the Economy Baseline without the Lewes Neighbourhood Plan

The economy of the town and Lewes District is largely influenced by national and global factors and politics and it is difficult to predict how the economy of the town will evolve in the future. It is likely that the professional basis of the workforce in the town will remain, with also a high proportion of self employed and part time workers. The increasing costs of travel, particularly commuting into London by train, may affect the employment base of the town such as residents' places of work.

The SDNPA is supporting three key business sectors: tourism and the visitor economy; food and drink and timber and wood. Tourism may become increasingly important in the town as it provides a gateway into the National Park.

Key Economy Sustainability Issues

- The Lewes wards contain a high proportion of self employed people when compared with the Lewes District and national proportions;
- Unemployment levels in the Lewes wards are lower than the District and national percentages apart from in the Lewes Castle ward, where 7.2% of economically active people are unemployed which is similar to the national percentage for England and Wales (7.6%);
- Lewes town has more part time workers and fewer full time workers than are reflected by the national statistics;
- The situation in Lewes town generally differs from the national and District proportions of employment professions and demonstrates lower proportions of people employed as managers, administrators / secretarial, skilled trades, personal services, sales / customer services, and process plant and machine operatives (the latter being a much lower proportion than the District and national proportions);
- The highest proportions of economically active residents in the Lewes wards are employed as professionals / associate professionals and in technical occupations and the proportions are all higher than the District and national proportions;
- The residents of Lewes town are generally well educated. The proportion of residents with level 4 qualifications and above are higher than the proportions reflected across the District and nationally in England and Wales;
- There are low levels of unemployment in the town. Most of those who are unemployed and are claiming benefits are aged 25 to 49. There are slightly more males than females claiming unemployment benefits;
- Industry and business are suffering in parts of Lewes District, partly because of the recession, causing damage to local economies; and
- The SDNPA supports three key business sectors: tourism and the visitor economy; food and drink and timber and wood.

11 Housing

To promote sustainable patterns of development the focus for additional housing should be in locations providing ready access to jobs, key services and infrastructure. Housing development should be attractive, safe and designed and built to a high quality.

The Lewes District Affordable Housing Needs Assessment[39] summarises the affordability of housing within the Lewes District. The lower quartile house prices within the District have increased from 4.2 to 10.3 times the lower quartile income and therefore no part of the District is now affordable at low incomes. The private sector is failing to meet the need for affordable housing because there is limited supply of homes for rent in the District and housing costs are only affordable through the subsidy provided by housing benefit.

14.8% of District households currently claim housing benefit to help with housing costs; at least 8% of households needing housing benefit to pay rent are in work. District residents saw their incomes drop by 1.5% in 2013 while the cost of living has increased; CPI inflation being 2.7% in September, 2013[40]. Local anecdotal information that households are spending over 40% of gross income on housing costs is supported by ONS data that this is also the case nationally. The drop in household incomes coupled with increases in housing costs for both private sector and social housing will become unsupportable for lower income households[41].

Over a quarter of the District's households have incomes of less than £18,000, making it virtually impossible to afford any market housing. This means that potentially more than 11,000 households would only be able to afford a council one bed unit or might just afford a housing association two bed unit at social rent only. They would not be able to afford any home at affordable rent levels and no three bed or larger home at social rent would be affordable either. Low paid households can only afford these homes with housing benefit at current levels[42].

Lewes is home to London commuters as well as small craft workers and artisans. The incomes of the town's inhabitants therefore vary greatly and this is affecting housing affordability of residents on lower incomes.

Information from Zoopla.co.uk shows that in the 12 months prior to December 2016, the average price paid for a property in Lewes was £452,572. The average property value in Lewes in

[39] Lewes District Council, Affordable Housing Needs Assessment 2013 – 2018 (January 2014)

[40] ONS Release: Consumer Price Inflations September, 2013

[41] Lewes District Council, Affordable Housing Needs Assessment 2013 – 2018 (January 2014)

[42] Lewes District Council, Affordable Housing Needs Assessment 2013 – 2018 (January 2014)

December 2016 is £517,810. This has increased 3.27% from September 2016. Terraced properties sold for an average value of £426,202 and semi-detached properties valued £439,724. In the past year property prices in Lewes have increased 8.71%. By comparison, the UK average house price in October 2016 was £216,545[43].

The Lewes District Council Housing Strategy[44] identifies provision of suitable and sustainable housing for all parts of the community as a key aim; it also highlights the priority to address the housing needs of older people and small households, especially in rural communities.

The Lewes District Council Housing Strategy 2012 – 2016 highlights that:

- In 2007/08, one in every thousand households presented as homeless; and
- In the five years up to 2011, there has been a 44% increase in the number of households on the LDC housing register, from 1,485 to 2,142 households.

Table C.11.1 Dwelling completions in Lewes town council area

Financial year	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
Gross dwellings completed	35	112	19	18	9	40	23	22	116	33
Losses	3	3	7	6	1	3	2	2	5	1
Net dwellings completed	32	109	12	12	8	37	21	20	111	32

Table C.11.1 shows that there has been a steady net increase in dwellings in Lewes over the last 10 years.

Future Evolution of the Housing Baseline without the Lewes Neighbourhood Plan

Without the provision of affordable housing, residential property in Lewes will continue to be unaffordable for all low paid households in Lewes.

Key Housing Sustainability Issues

[43] https://www.ons.gov.uk/economy/inflationandpriceindices/bulletins/housepriceindex/oct2016

[44] Lewes District Council Housing Strategy 2012 - 2016

- High house prices far outstrip incomes. Affordability is a major issue.
- There is a need to provide suitable and sustainable housing for all parts of the community; and
- There is a need to address the housing needs of older people and small households, especially in rural communities.

12 Transport

Lewes supports a range of facilities and services including:

- Primary schools;
- 1 secondary and 1 further education facility;
- 3 supermarkets and 10 convenience stores;
- 1 train station;
- 4 doctor's surgeries;
- 4 pharmacies;
- 1 library;
- 1 post office; and
- 7 banks / building societies[45].

Lewes is linked by rail connections to London and Gatwick and towns along the Sussex coast and beyond. The port of Newhaven, approximately 9km to the south of Lewes, provides cross channel passenger and freight services to Dieppe in France. The A27 and A26 meet at Lewes and provide road access to Brighton and Hove to the south west, Newhaven to the south, Eastbourne to the east and Uckfield and Royal Tunbridge Wells to the north east. The A23 nearby also provides access to London via Brighton and Hove.

Table C.12.1: Car and Van Availability (2011 Census data)

[45] South Downs National Park Settlement Facilities Assessment Covering Report (September 2015)

	Lewes Parish	%	Lewes Non-Metropolitan District	%
No Cars or Vans in Household	2040	27	8488	20
1 Car or Van in Household	3833	51	19216	46
2 Cars or Vans in Household	1302	17	10986	26
3 Cars or Vans in Household	217	3	2585	6
4 or More Cars or Vans in Household	65	1	906	2

Table C.12.1 shows that there were 2040 households in Lewes in 2011 did not have a car or van. This is considerably higher than in surrounding parishes but comparable to some parishes on the coast, such as Seaford. Most households in Lewes (3833) in 2011 had access to one car or van.

While Lewes does have in some areas a challenging topography for active travel (e.g. walking and cycling) with some relatively steep slopes to the both east and west of the town centre, it also has a focal heart for its retail offer in the town centre, with only a few outlying areas of local shops and services. There are also single road and foot river crossings which forces the pattern of transport in the town. The result is that almost all movement patterns to access services and facilities are focused towards the town centre.

Future Evolution of the Transport Baseline without the Lewes Neighbourhood Plan

As Lewes is a market town and providing services for the surrounding hinterland as well as residents of the town, it is likely that current use of cars in and around the town will continue. Car journey distances may increase if facilities and services are not maintained in Lewes town.

Public transport services are will continue to be provided but are controlled by the providers and therefore any changes are difficult to predict.

Key Transport Sustainability Issues

- The key challenges for Lewes are reducing congestion and pollution from traffic, tackling safety issues, providing more sustainable travel options, and protecting and enhancing the character of the town to develop it as a key visitor and retail centre and a gateway for sustainable access to the SDNP;
- Car ownership is lower than in surrounding parishes and the in Lewes District as a whole;
- Parking is a problematic issue in Lewes town. Despite being an essential facility, car parks do not tend to enhance the character of the Conservation Area. Requirements for car parking cannot be ignored, as many retail and business users depend on an adequate provision for their survival; and
- The Lewes District Public Realm Framework[46] includes opportunities to improve the town including promoting links between the countryside, improving links from transport hubs to the town centre and promoting awareness of points of interest and the town centre and providing safe and legible pedestrian and cycle links within the town centre and to surrounding residential areas.

[46] Lewes District Public Realm Framework, Chris Blandford Associates, July 2013

13 Water

The River Ouse passes through the town of Lewes. The Environment Agency has provided a summary water body report for the River Ouse dated December 2016. The report confirms that overall classification of the water quality status in the river is moderate; the ecological status is moderate, chemical status is good and significant water management measures have been identified relating to physical modification of the river, the hydrological regime and dissolved inorganic nitrogen. Actions identified for the river include a review of the flood defence strategy.

As seen in Figure C.13.1, Lewes is underlain by a number of different groundwater source protection zones. Figure C.13.2 shows that Lewes is also underlain by a major aquifer with high vulnerability (mauve zones on Figure C.13.2). Areas immediately surrounding the town are underlain by a major aquifer with intermediate vulnerability (pink zones on Figure C.13.2). Ground water in these areas must be protected from pollution.

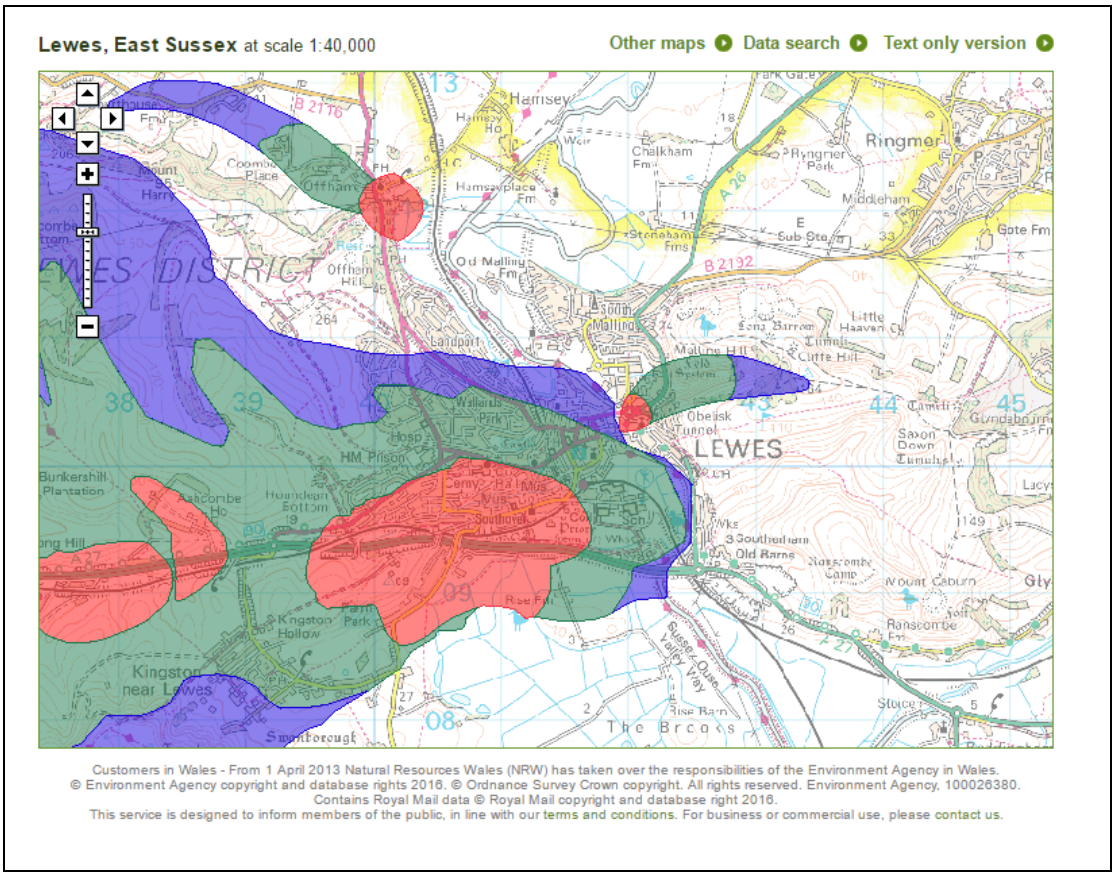


Figure C.13.1: Groundwater Source Protection Zones[47]

[47] Source: Environment Agency http://maps.environment-agency.gov.uk/wiyby/ accessed on 22/12/16

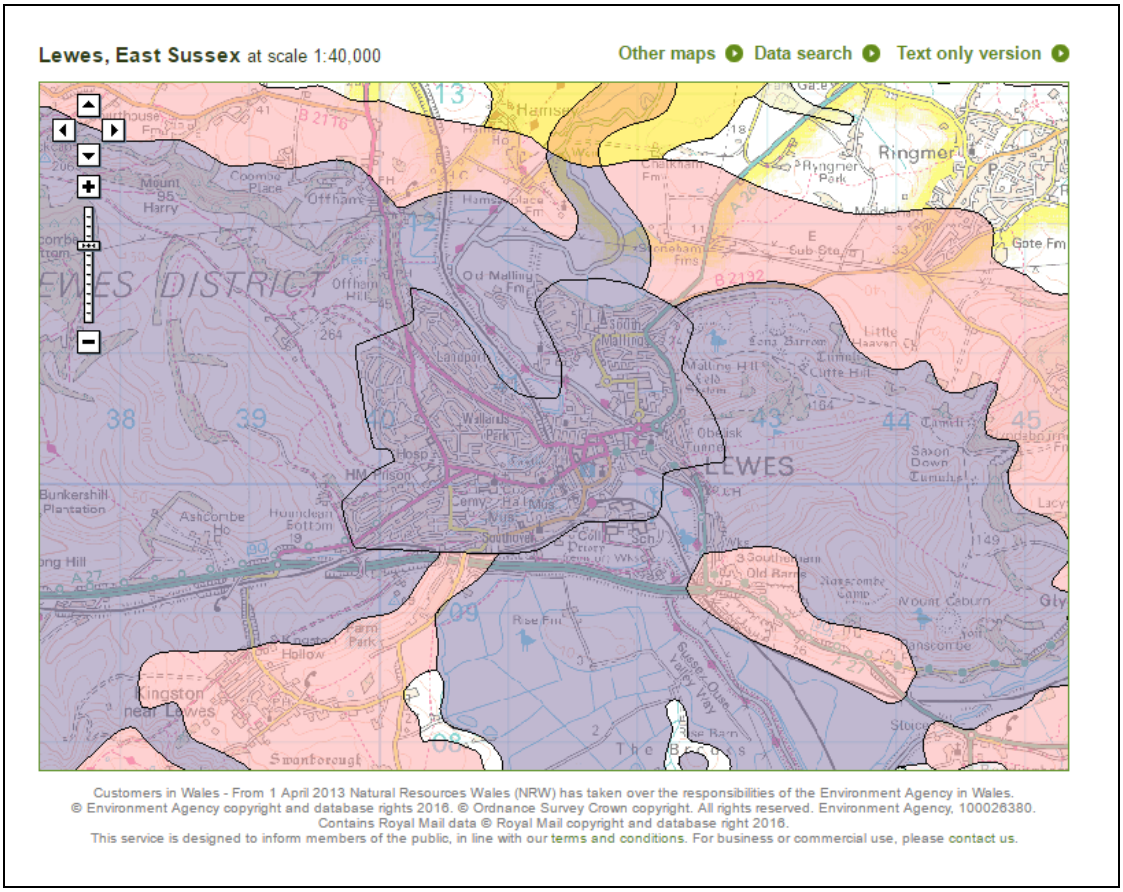


Figure C.13.2: Groundwater Vulnerability Zones[48]

Southern Water manages water supply in the Lewes Neighbourhood Plan area. The Water Cycle Strategy[49] states that Southern Water faces considerable challenges to resolve forecast supply deficits within the context of limited environmental water resources in the region. In fact, the whole of Southern Water's supply area has been classified by the Environment Agency as under serious water stress. This meant that Southern Water was required to consider the case for universal water metering as part of its statutory water resources management plan[50]. This compulsory metering formed a part of the company's programme of measures to balance demand and supply

[48] Source: Environment Agency http://maps.environment-agency.gov.uk/wiyby/ accessed on 22/12/16

[49] South Downs National Park Authority Water cycle Study and SFRA Level 1, Scoping and Outline Report, AMEC (April 2015)

[50] DEFRA, Southern Water, Universal Metering, 2013

and was launched in 2010. Since it has been introduced it has helped make a saving of 27 million litres of water a day across its network making a 15% reduction in water demand[51].

The Adur and Ouse Abstraction Licensing Strategy (March 2013) identifies that at low flows (measured by the 95th percentile 'Q95' on the flow duration curve) most of the water units have no water available for additional licensing or the volumes that are available are restricted. In such cases flows are below the indicative flow requirements to help support Good Ecological Status (as required by the Water Framework Directive). A small number of units have water available. The situation improves under higher flow conditions but is still largely restricted.

Water use in the Southern area of the country is higher than the national average[52].

Future Evolution of the Water Baseline without the Lewes Neighbourhood Plan

Increased demands could be placed on already stressed water resources from domestic properties as population increases and climate change results in warmer, drier summers.

The overall water quality status of the River Ouse is moderate and this situation could continue into the future.

Key Water Sustainability Issues

- There is a need to protect underlying vulnerable aquifers from pollution;
- There is a need to improve the quality status of the River Ouse; and
- Water resources are scarce and there is a need to encourage water efficiency.

[51] Southern Water Metering Programme, 2015

[52] OFWAT, October 2010