

## Resources (Previously developed land, Soil, Energy, Waste)

### This topic addresses:

#### SA Objective:

(2) To encourage urban renaissance by improving efficiency in land-use, design and layout and to create and sustain vibrant communities

(12) To maintain and improve water quality, and manage water resources

(13) To increase energy and resource efficiency (including minimising waste) and renewable energy, with the aim of mitigating climate change

**SEA Theme:** Soil, Climatic Factors

## Introduction

Using scarce resources efficiently is vital to ensuring Oxford's sustainable growth and development. Oxford is a small city with a tightly drawn administrative boundary and a growing population. It is important to ensure that energy use per capita continues to reduce as well as the amount of waste that goes to landfill is reduced and that the percentage of waste that recycled increases. This background paper examines the efficient use of resources and focuses on soil, land density, energy and waste.

## Plans Policies and Programmes

### National Planning Policy Framework (NPPF)

#### Soil

The NPPF promotes the protection and enhancement of valued soils and geological conservation interests, as well as offering policy protection to soils from unacceptable levels of pollution or land instability. The NPPF promotes the mitigation and remediation of despoiled, degraded, contaminated and unstable land, where appropriate.

In considering soil types specifically, the NPPF advocates a system of ensuring the best agricultural land is preserved from development and poorer quality agricultural land is used where appropriate.

The NPPF states that new development should be appropriate to its location. This is in order to prevent unacceptable risks to development from pollution and land stability. The NPPF also sets out that contaminated land should be remediated so that it is suitable for use and no longer considered as contaminated under the Environmental Protection Act 1990.

#### Previously Developed Land and Density

The NPPF states that planning should encourage the effective use of land by re-using land that has been previously developed (brownfield land), provided that it is not of high environmental value.

The NPPF also states that LPAs can consider whether to set a locally appropriate target for the use of PDL and also that they should set out their own approach to housing density to reflect local circumstances.

## **Energy**

The NPPF encourages the use of renewable and low-carbon energy and sets out the following in terms of what LPAs should do:

- Have a positive energy strategy to promote energy from renewable and low-carbon sources
- Design their policies to maximise renewable and low-carbon energy development, while ensuring that adverse impacts are addressed satisfactorily, including cumulative landscape and visual impacts;
- Consider identifying suitable areas for renewable and low-carbon energy sources, and supporting infrastructure, where this would help secure the development of such sources;
- Support community-led initiatives for renewable and low-carbon energy, including developments outside such areas being taken forward through neighbourhood planning;
- Identify opportunities where development can draw its energy supply from decentralised, renewable or low-carbon supply systems and from co-locating potential heat customers and suppliers

## **Waste**

In terms of waste and waste management the NPPF considers that:

*“LPAs should set out strategic policies to deliver the provision of infrastructure... including waste management and that LPAs should work with other authorities to assess the capacity and infrastructure for... waste, and its ability to meet forecast demand.”*

## **Planning Practice Guidance (PPG)**

Planning Practice Guidance (PPG) contains specific planning considerations relating to hydropower, active solar technology, solar farms and wind turbines. Many of the considerations relating to these technologies (for example landscape and visual impact assessment) can be applied to other forms of energy generation. PPG also contains guidance on light, noise and odour pollution/air quality and also on planning considerations for climate change, including mitigation and adaptation.

## **Climate Change Act, 2008**

The Climate Change Act was passed in 2008 and established a framework to develop an economically credible emissions reductions path. The Act commits the UK to reducing emissions by at least 80% in 2050 from 1990 levels. The Act requires Government to set legally binding ‘carbon budgets’. A carbon budget is a cap on the amount of greenhouse gases emitted in the UK over a five year period. The first four carbon budgets have been put into legislation and run to 2027.

The fifth carbon budget is expected to be set by the end of June 2016. The Government will then be able to set out more detail about how the targets will be met. A new emissions reduction plan is expected towards the end of 2016 and will set out the proposals in full.

## **Directive to Promote Electricity from Renewable Energy (2009/28/EC)**

This Directive establishes a common framework for the promotion of energy from renewable sources. It sets mandatory national targets for the overall share of energy from renewable sources in gross final consumption of energy and for the share of energy from renewable sources in transport. It lays down rules relating to statistical transfers between Member States, joint projects between Member States and with third countries, guarantees of origin, administrative procedures, information and training, and access to the electricity grid for energy from renewable sources.

## **National Planning Policy for Waste (October, 2014, DCLG)**

This document sets out that National Planning Policy for Waste which is applicable to Local Authorities that are waste management authorities. The National Planning Policy for Waste document states that:

*All local planning authorities should have regard to its policies when discharging their responsibilities to the extent that they are appropriate to waste management.*

## **Waste Management Plan for England**

The Waste Management Plan for England sets out the Government's ambition to work towards a more sustainable and efficient approach to resource use and management.

## **Land Strategy for Oxford City Council (2014)**

This strategy seeks to ensure that Oxford's residents and natural environment are not exposed to unacceptable risks from land contamination and to improve our environment for a sustainable future. It achieves this by working with developers, landowners and other key stakeholders to manage the risks from land affected by contamination efficiently and effectively.

Implications for planning policy of the strategy:

*Objective 1: To deal with contamination through development control and building control wherever possible.*

- **Ensure that land contamination is taken into account when developing planning policy documents**

## **Current Situation**

### **Soil**

Oxford contains several wedges of agricultural land. The best and most versatile agricultural land (Grades 1, 2, and 3a) is considered to be a national resource and should not be lost. Most of the agricultural land in Oxford is not of this quality, but there are some parcels of Grade 2 agricultural land north of Binsey and in the Cherwell Valley.

Oxford has seen significant industrial change to the present day. Oxford's industrial history has resulted in a substantial amount of land affected by contamination.

Almost all of the major former industrial sites have been remediated and redeveloped, such as Lucy's in Jericho and the former car factory site in Cowley. However, there remain a significant number of smaller sites that may still have the potential to be affected by contamination.

In 1989 Oxford City Council commissioned a review of former landfill sites in the city. It was a comprehensive piece of work that has allowed the city council to manage risks associated with those sites. A review of council owned allotments sites was also undertaken in the 1990s following some concerns about the quality of the land as a growing medium. Since then council owned land, such as former depots, have been redeveloped to housing and the necessary site investigations and remediation secured through the planning process.

Much of the land in Oxford is located near a water source and as result has been raised to avoid flooding. The resulting ground is often contaminated with materials used in the filling process.

Oxford City Council maintains a public Contaminated Land Register in accordance with the legal requirements. There are currently no entries on the Contaminated Land Register. It is worth noting

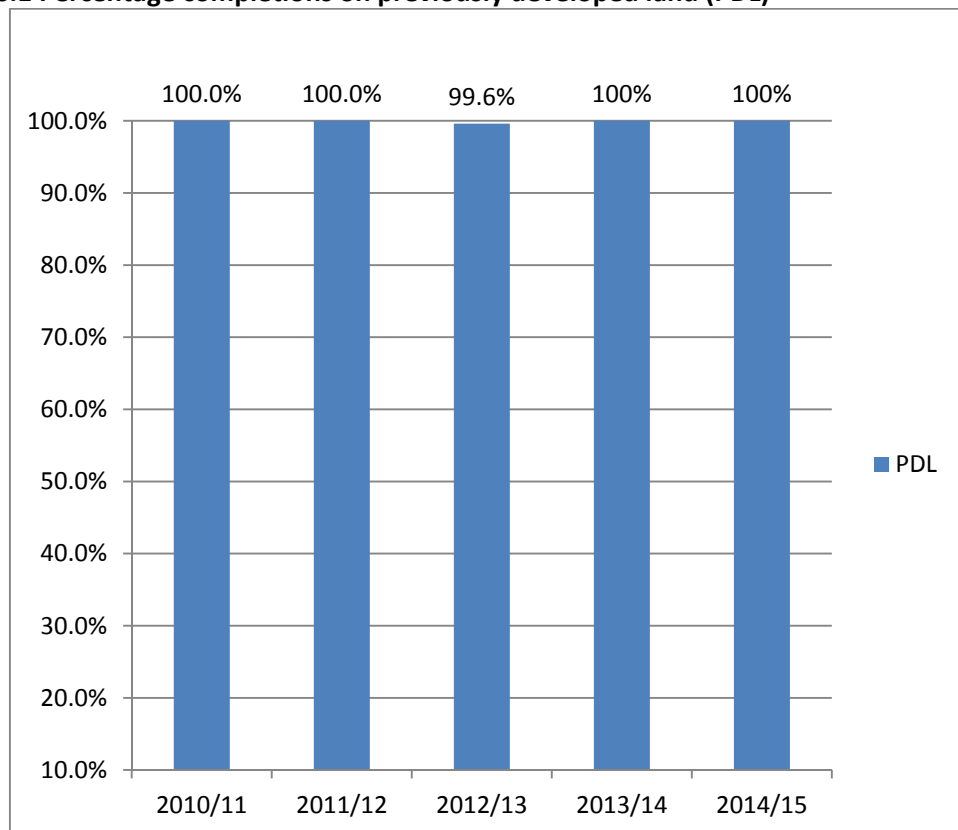
that the register does not include details of sites that have been remediated through the planning process.

### **Previously Developed Land**

The NPPF does not include a target for development on previously developed land and leaves it to LPAs to determine the most appropriate target. The Core Strategy includes a target of 90% of new housing to be developed on brownfield land during the period 2009-2014. After 2014, to reflect the implications of the allocation and progress through the planning process of large strategic greenfield sites such as Barton Park, this target is reduced to 75%. Figure 5.6.1 shows the percentage completions on PDL and garden land.

Since the 2010/11 monitoring year, all years have shown 100% completions on PDL except in the 2012/13 monitoring year where 99.6% of completions were on brownfield land. One dwelling was permitted on greenfield land in that monitoring year.

**Figure 5.6.1 Percentage completions on previously developed land (PDL)**



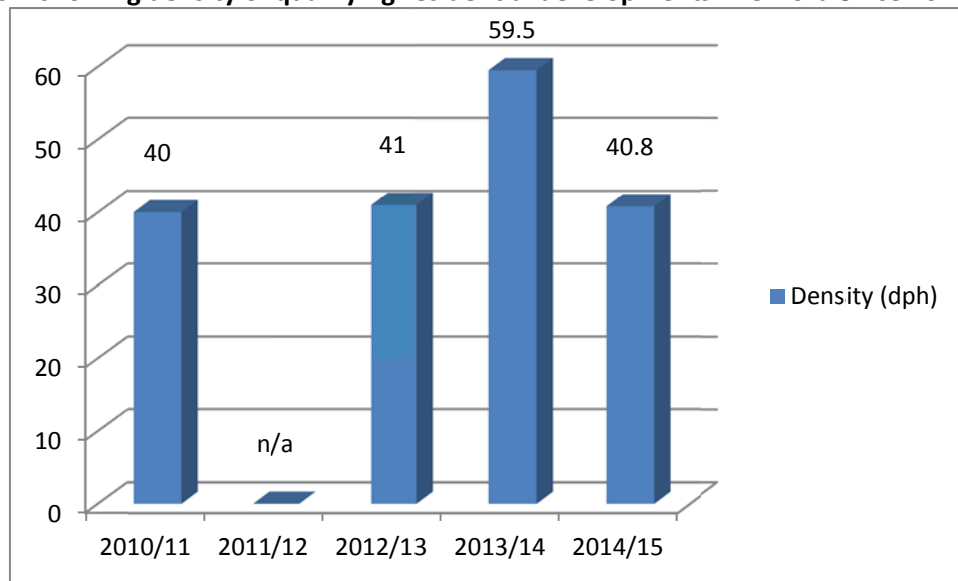
Source: Oxford City Council Annual Monitoring Report 2014/15

### **Residential Density**

The Annual Monitoring Report includes a target that housing development within the City and District Centres is of a higher residential density than those developments elsewhere. Policy CP.6 of the Local Plan includes a policy with a minimum density of 40dph. This policy applies to developments of 10 units or more.

Figure 5.6.2 shows the residential densities of developments within Oxford since the 2010/11 monitoring year. The graph shows that the locally set density target of 40 dwellings per hectare has been met. (There were no qualifying developments completed over 10 units in the 2011/12 monitoring year).

Figure 5.6.2 showing density of qualifying residential developments in Oxford since 2010/11



Source: Oxford City Council Annual Monitoring Report 2014/15

### **Energy**

Oxford's CO<sub>2</sub> emissions per capita were 5.88 in 2013<sup>1</sup>. Oxford has reduced its CO<sub>2</sub> emissions by 14% from 2005 to 2013<sup>2</sup>.

Monitoring the amount of renewable energy take-up in Oxford is difficult as much of this type of development is deemed permitted development, and therefore no records exist at Local Authority level. Information does exist for larger schemes and this is monitored and recorded through the Annual Monitoring Report. Oxford is meeting its internal target of ensuring that all qualifying new developments in the city provide a minimum of 20% of their total energy consumption by renewable sources.

The average domestic consumption of electricity per household in Oxford for 2014 was 3,936kWh. This is lower than the national average for England (4,039kWh) and has reduced from 4,488kWh in 2005.<sup>3</sup>

The average domestic gas consumption in Oxford was an average of 13,876GWh in 2014, while the non-domestic sector consumed an average of 425,277GWh during the same period. This has reduced from 2005, when average domestic consumption was 15,289GWh and the non-domestic sector consumed an average of 519,577GWh<sup>4</sup>.

<sup>1</sup> [www.centreforcities.org/city/oxford/](http://www.centreforcities.org/city/oxford/)

<sup>2</sup> CO<sub>2</sub> emissions within the scope of influence of Local Authorities 2005-2011, Department of Energy and Climate Change

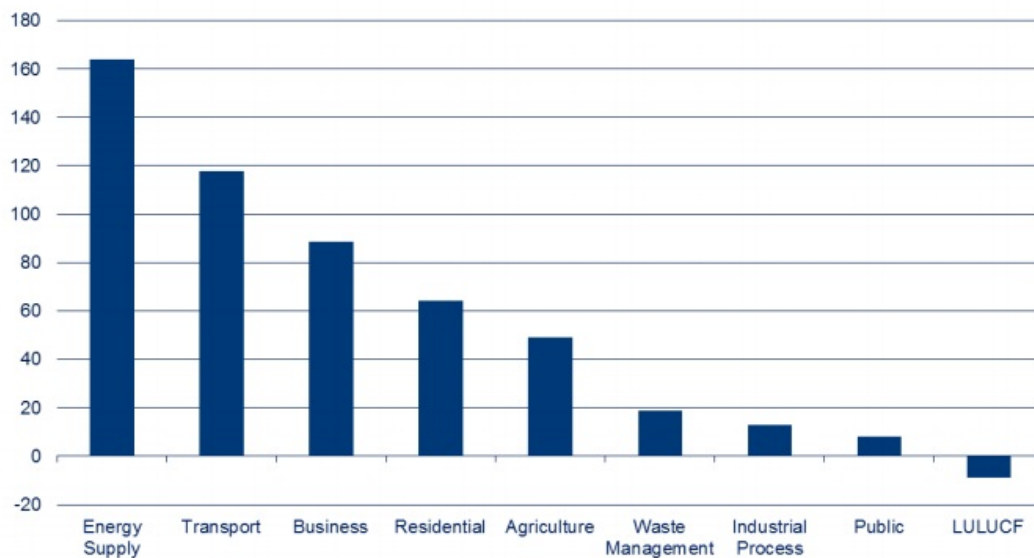
<sup>3</sup> Regional and local authority electricity consumption statistics: 2005-2014, DECC

[www.gov.uk/government/statistical-data-sets/regional-and-local-authority-electricity-consumption-statistics-2005-to-2011](http://www.gov.uk/government/statistical-data-sets/regional-and-local-authority-electricity-consumption-statistics-2005-to-2011)

<sup>4</sup> Regional and local authority gas consumption statistics: 2005-2014, DECC

<https://www.gov.uk/government/statistical-data-sets/gas-sales-and-numbers-of-customers-by-region-and-local-authority>

**Figure 5.6.3: total emissions in 2014 across all sectors in the UK.**



### **Waste**

The work of the Oxfordshire Waster Partnership has reduced the amount of household waste generated by 8%. The amount of household waste recycled and composted has reduced from 38.5% in 2006/7 to over 60% in 2011/12. The amount of household waste sent to landfill has reduced from 61.4% in 2006/7 to 38% in 2011/12. These reductions in household waste are mainly to do with initiatives outside of the scope of planning. For instance the City Council has undertaken a campaign to increase awareness of recycling which has involved reducing the sizes of bins which go to landfill and keeping the sizes of the recycling bins the same.

### **Likely trends without a new Local Plan**

#### **Soil**

There is likely to be a continued need for the remediation of contaminated land in order that land is recycled and used efficiently.

#### **Previously Developed Land and Density**

As the population of Oxford continues to grow, it is likely that there will be increased pressure for development within the City, which could result in higher residential densities and increased pressure to develop sites that are constrained in some way.

#### **Energy**

Reductions in greenhouse gas emissions nationally have been documented in the Department of Energy and Climate Change (DECC) Report which shows a reduction of 42.9 MtCO<sub>2</sub>e across all sectors.

Reductions in residential emissions nationally have been noted and between 2013 and 2014 when there was a 17% decrease in greenhouse gas emissions. This is attributed to the fact that 2014 was warmer than 2013<sup>5</sup>. In fact, total emissions from all sectors (excluding international aviation

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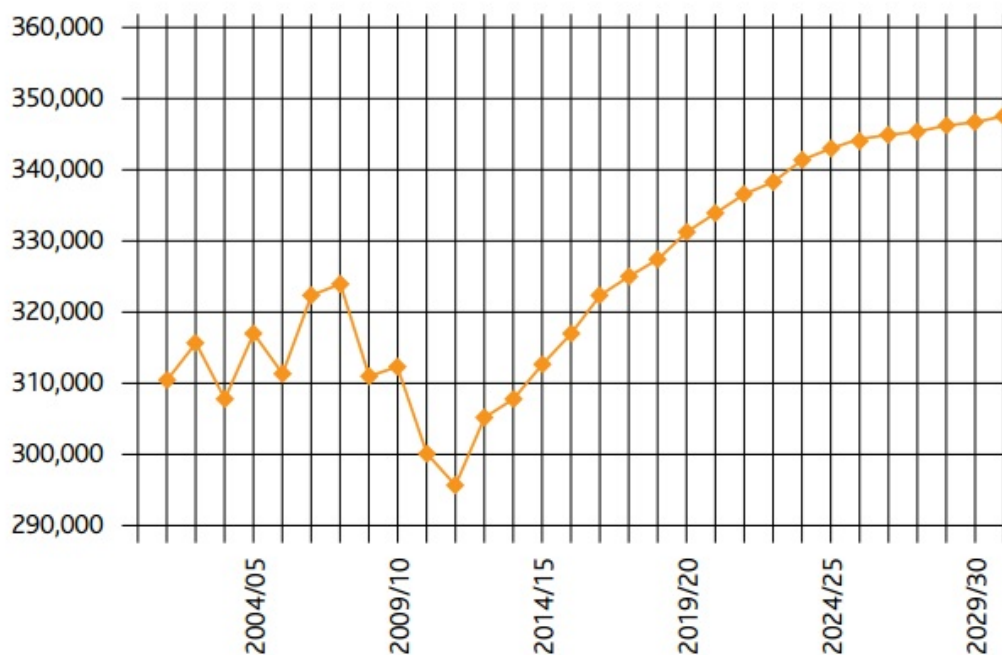
<sup>5</sup> Department of Energy and Climate Change (DECC) Report 2014 UK Greenhouse Gas Emissions

resulted in a reduction in carbon dioxide emissions in 2014. As temperatures continue to rise (as a result of climate change and further efficiencies are made) it is likely that emissions may continue to fall in this sector.

### Waste

Future Trends in Waste Management are shown in the Joint Waste Management Strategy. Figure X.X shows that after several years of continual waste reduction, while the total amount of waste per household is not expected to increase, the number of households will increase. To 2030 this will see total waste increase from less than 300,000 tonnes per year (2011/12) to just under, 350,000 tonnes per year (2029/30).

**Figure 5.6.4 showing the predicted increases in total waste up to 2030**



#### **Sustainability/Plan Issues**

- Higher costs associated with dealing with contaminated sites could increase pressure to develop greenfield sites
- Attractiveness of renewable energy technologies are likely to grow as costs fall with increased uptake
- Although waste levels per household are not predicted to grow, the total amount of waste will increase as the number of households increase.