

# Human Health

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## 1.1 Human Health

### Policy Context

#### Environment 2010: Our Future, Our Choice (EU Sixth Environment Action Programme)

The latest Environment Action Programme gives a strategic direction to the Commission's environmental policy over the next decade, as the Community prepares to expand its boundaries. The new programme identifies four environmental areas to be tackled for improvements:

- Climate Change;
- Nature and Biodiversity;
- Environment and Health and Quality of Life; and
- Natural Resources and Waste.

#### Objectives, Targets and Indicators

To achieve a quality of the environment where the levels of manmade contaminants, including different types of radiation, do not give rise to significant impacts on or risks to human health.

#### Regional Spatial Strategy (RSS14) of the East of England (Draft Revision)

Bedfordshire now lies within the East of England region for planning purposes. RSS14 is based on the principles of the UK's Strategy for Sustainable Development and sets out a strategy to guide planning and development in the East of England to the year 2021. This includes the scale and distribution of provision for new housing and identifying priorities for the environment, transport, infrastructure, economic development, minerals and waste management. It aims to improve the quality of life and sets out proposals which will influence where people choose to work and live and how to move about the region. RSS14 is currently under review – the final RSS14 is due to be published in early summer 2007.

#### Objectives, Targets and Indicators

Local development documents will make provision for the land use needs of health, education, and social services providers in coordination with development. They will ensure that new built development addresses crime prevention, community safety and public health.

#### Luton's Community Plan 2002-2012

The Plan aims to involve local people in promoting the strategic vision for the town and identifying local needs and priorities. It also aims to assist in co-ordinating services provided by public, voluntary and community sectors, local communities and private organisations and helps to ensure that the local organisations work together to meet the needs of the local community. Sustainable communities with access to services.

#### Objectives, Targets and Indicators

Improve services, such as doctors, in local neighbourhoods;  
Encourage people to adopt a healthy diet;  
Improve the condition of housing;  
Reduce pollution; and  
Improve people's incomes.

**Designing for Sustainability – Luton Borough Council Supplementary Planning Guidance**

This document sets out what the Borough Council expects in terms of sustainable design and energy conservation.

**Objectives, Targets and Indicators**

Create and locate so people can easily get to facilities such as health, shops, social, recreation, religious and community.

**Mid-Bedfordshire Council Community Strategy**

The plan has split the community vision into 9 topics: Community safety, Housing and building communities, Improving the environment Improving health, Promoting leisure, Strengthening the economy, Developing opportunities and skills, Creating better transport and Including everyone-

**Objectives, Targets and Indicators**

The plan's vision has the following elements::

- Community safety- A Mid Bedfordshire that, in 2011, is safer than it is today and where people feel that it is safer.
- Housing and building communities- To work together in Mid Bedfordshire and beyond to promote and secure housing solutions which meet the needs of people in Mid Bedfordshire.
- Improving the environment- In 2011, Mid Bedfordshire should be cleaner and greener
- Improving health- By 2011, we would wish to have improved the health of Mid Bedfordshire people overall and to have reduced the gap in health experience between the most well off and the poorest.
- Promoting leisure- A Mid Bedfordshire which enjoys a more diverse mix of accessible leisure, sporting and cultural activities suitable for all ages and abilities

**Community Plan for the Borough of Bedford 2004-2010**

The production of this, the second Community Plan for the Borough of Bedford, has been co-ordinated by the Bedford Partnership Board, the Local Strategic Partnership for the Borough. The over-arching aim is "*Working Together to Improve Health and Well-Being*" and the objective is to lay the foundation stone for an improved quality of life for everyone who lives, works or visits the Borough.

**Objectives, Targets and Indicators**

The plan's vision has the following elements::

- Community safety- Safer place where all people will feel secure. People will respect each other, and nobody's freedom or opportunities will be constrained by crime.
- Housing and building communities- To provide more housing opportunities in the district, supporting people in need today and planning for the future – and to do everything to create better living environments and prevent neighbourhood decline.
- Improving the environment- Businesses and people in South Bedfordshire will save money by minimising waste, reducing excess packaging and wherever possible, products will be re-used or repaired. When this is not feasible, excellent local recycling facilities will mean that only the non-recyclable waste is sent to landfill sites. People in South Bedfordshire will use renewable resources to provide all their power needs.
- Improving health- The health of the population as a whole will be improved and especially the gap in health experience between the most well off and the poorest in society will be reduced.

## Baseline Review

- 1.1.1 This section addresses the baseline human health issues in Bedfordshire and Luton. The next section of the topic paper outlines how these issues specifically relate to waste management.
- 1.1.2 The 2001 census provides an indication of the state of health by providing numbers in relation to good health, fairly good health and poor health as well as information on the percentage of people with a limiting long term illness.
- 1.1.3 The percentage of people residing in Bedfordshire with good health is high (72.54%) in relation to the East of England Region (70.35%) and England and Wales (68.55%). Mid Bedfordshire has the highest percentage (74.19%) of the population with good health and Luton has the lowest (69.64%). For people residing in Bedfordshire considered to be not of good health the percentage is low (6.72%) in relation to the East of England Region (7.60%) and England and Wales (9.22%). Luton has the highest percentage (8.05%) of people not in good health.
- 1.1.4 Of the percentage of the population not of good health, 14.29% are classified as having a limiting long-term illness, of which 10.19% are of working age. These percentages are both lower than those for the East of England region, 16.21% and 11.40%, as well as for England and Wales, 18.23% and 13.56%. Bedford has the highest percentage (15.59%) of people with long-term limiting illness, where as Luton has the highest percentage (12.33%) of people of working age with limiting long-term illness.

## Issues associated with Waste Management

- 1.1.5 PPS10 states that one of the Government's key planning objectives in relation to waste is to *help secure the recovery or disposal of waste without endangering human health and without harming the environment, and enable waste to be disposed of in one of the nearest appropriate installations.*
- 1.1.6 As noted in PPS10, modern, appropriately located, well-run and well-regulated waste management facilities operated in line with current pollution control techniques and standards should pose little risk to human health.
- 1.1.7 This is reinforced by the Waste Strategy 2007 which makes the point that available evidence shows that waste management, has at most a minor effect on human health, particularly when compared with other health risks associated with day to day living.
- 1.1.8 The Department for the Environment and Rural Affairs (Defra) has undertaken a review on the research available on the health effects of management of municipal solid waste and similar wastes (Defra, 2004). This review examined over 600 papers covering a wide range of sources of information including journals (i.e. scientific texts), Government publications, Environment Agency publications, publications from other institutions (e.g. Greenpeace, and the National Society for Clean Air and Environmental Protection), and information from waste management operators. The study found that for most of the municipal solid waste

facilities studied, health effects in people living near waste management facilities were either generally not apparent, or the evidence was not consistent or convincing.

- 1.1.9 The health effects of some waste management facilities have been investigated in detail, in response to public concerns. The Defra review did not find a link between the current generation of municipal solid waste incinerators and health effects. Adverse health effects have been observed in populations living around older, more polluting incinerators and industrial areas. However, the current generation of waste incinerators result in much lower levels of exposure to pollutants. The study considered cancers, respiratory diseases and birth defects, but found no evidence for a link between the incidence of disease and the current generation of incinerators.
- 1.1.10 Another detailed UK study was carried out to investigate whether there is any indication that living close to landfill sites results in an increase in the occurrence of cancer. This study did not detect an increase in the occurrence of cancer.
- 1.1.11 Studies have been carried out to investigate the existence of a link between composting facilities and the occurrence of cancers and asthma. No link has been identified.

#### **Human health and air pollution**

- 1.1.12 Increased emissions under non-standard operating conditions could be a concern for processes such as open windrow composting, if the waste is not handled properly. Disposal of ash from incinerators needs to be carefully managed and landfills and other heat treatment methods can give rise to emissions to water, land or air unless properly managed.
- 1.1.13 Benzene is released by some waste management activities. Benzene is a substance of concern because it can cause cancer. The study found that less than 0.02% of UK emissions are due to municipal solid waste operations (this figure is of moderate quality). Transport is the main source of benzene, accounting for 47% of UK emissions.
- 1.1.14 Some members of the public are concerned about emissions of dioxins and furans (often referred to as just “dioxins”). Dioxins are associated with developmental and reproductive effects, and the immune system is also potentially sensitive. Dioxin is regarded as a probable human carcinogen (that is, it can probably cause cancer in humans). However, studies have shown (see Defra, 2004) that dealing with municipal solid waste accounts for only about 1% of UK emissions of dioxins, shared approximately equally between incineration and emissions from burning landfill gas. However, this figure is of poor quality because of uncertainty over dioxin emissions from other sources. Domestic sources such as cooking and burning coal for heating are the UK’s single largest source of dioxins, accounting for about 18% of emissions.

## Trends

- 1.1.15 There is no readily available information on health trends from earlier censuses.

## Scoping Consultation

### Key Issues and Implications for Waste Planning

- Some consultees disagreed with the assertion that incineration may have a greater effect on health than landfill.
- Consultees felt that the scoping report should include data on illnesses related to air pollution and that these should be monitored (e.g. that may be influenced by burning waste or the general smell from waste being stored). Unfortunately this data is not available due to the difficulties of separating cause and effect.

### Comments on the Objectives for the SA

- None suggested

## Relevant Objectives for the SA

- 1.1.16 Taking into account all of the above information the following objectives and indicators have been chosen for the SA.

SA Objectives	Appraisal Questions. Does the plan...
<ul style="list-style-type: none"> <li>• Reduce the impact of the waste industry on people's health and quality of life.</li> </ul>	<ul style="list-style-type: none"> <li>• Cause a change in the number of people (either alone or in combination with other projects) directly affected by waste management (living in close proximity to a site or an access route) whose impact cannot be mitigated?</li> </ul>

## Sources of Data

- Bedfordshire County Council – [www.bedfordshire.gov.uk](http://www.bedfordshire.gov.uk)
- Office for National Statistics, Neighbourhood Statistics – [www.neighbourhood.statistics.gov.uk](http://www.neighbourhood.statistics.gov.uk).
- Defra (2004): Review of Environmental and Health Effects of Waste Management: Municipal Solid Waste and Similar Wastes.

## Data Gaps

- The data gathered is from the 2001 Census. There was little information relating to human health issues for Bedfordshire and Luton.
- The review carried out by Defra (2004) recommends that a number of further studies would be helpful in improving our understanding of the health and environmental effects of waste management. The most important areas to investigate are:

- A field study of population exposure to substances emitted from landfill sites;
- A study to improve our understanding of releases of micro-organisms from all kinds of waste management facilities;
- A study to improve our understanding of releases of particulates, micro-organisms, VOCs and methane from composting of municipal solid waste;
- A study to improve our understanding of releases from MBT and anaerobic digestion of municipal solid waste.