

### 3 Environmental Protection and the Wise Use of Natural Resources



### 3.1 Managing the impact of climate change

Scientific research now indicates that climate change is a very real issue both globally and locally. In the UK we are likely to experience changes to weather patterns, rising sea levels and increased frequency and intensity of extreme weather events, including 'storminess' and associated risks of flash flooding. Water supply may be affected due to longer, hotter and drier summers. A gradual increase in temperature and extremes of weather is, over time, likely to have major implications for the way people live and the local economy. It will also affect ecosystems, the plants and animals which depend on them and the overall appearance of the landscape.

Considerable research is being carried out in this area to predict the effects of rising sea-levels, which is due partly to climate change. Some work has also been carried out on the likely impacts on important habitats and species. It is less clear at present how the farmed landscape, local economy and recreational use of the area will be affected.

### 3.2 Coastal management and protection

From the Hampshire/ Dorset border to the edge of the Southampton conurbation, the coastline contains 64 km (40 miles) of varied, interesting and attractive scenery. World famous for sailing, the Solent and Southampton Water are also internationally important for their salt-marshes, wetlands and wading birds, and for their rich heritage of historical and archaeological features. Southampton Water is also a busy commercial waterway serving the Port of Southampton and the industrial and military installations that are a prominent feature of the shoreline. Christchurch Bay, with its beaches and crumbling cliffs, is important for geology as well as recreation.

The coastline is changing from both human impact and natural forces. Average sea-levels are rising due mainly to climate change. Combined with increased storminess this means some current coastal defences will soon be ineffective. In addition 'normal' dynamic coastal processes continue to re-shape the coastline and affect, for instance, the gravel spits and salt marshes which act as natural defences against flooding and erosion. Realistically it will not be possible to find resources for replacing all coastal defences in the future. 'Managed retreat' is therefore being considered as a way of allowing coastal habitats to 'migrate' inland over time, while continuing to protect some areas. Difficult choices will clearly have to be made on which areas are the priority for protection.

Management of the coastline is complex and involves a large number of different organisations and partnerships. The Solent Forum acts as an umbrella group which brings together a range of interests. A considerable number of plans and strategies have been produced, including a Coastal Management Plan for the District and a strategic Shoreline Management Plan covering a wider area of the Solent. A Coastal Defence Strategy for the Western Solent (between Hurst Spit and Calshot) is currently being produced to set out detailed proposals for future coastal protection.

None of these documents at present integrates coastal management with that of the marine areas off the coast, which are of major importance for environmental and economic reasons. The Government is keen to see Integrated Coastal Zone Management Plans drawn up for all areas.

### 3.3 Minimising impact of flooding

Flooding is not only an issue in the coastal areas, but also in the river valleys. Parts of most of the main settlements are identified by the Environment Agency as being in areas where flooding is a risk.

In these areas measures can be undertaken to try to minimise the impact of flooding when it occurs, for example, by providing effective flood warning systems and sustainable flood defence measures.

The damage to property and resulting unhappiness that can accompany floods can be avoided if homes and work places are located and designed to avoid, or at least reduce, the risk of damage from flooding. In considering new developments it is not only important to ensure that the development itself will not be at risk of flooding, but also that the development will not increase flood risk elsewhere. The use of sustainable drainage systems in the management of run-off can help to reduce flood risk.

### 3.4 Making wise use of natural resources

New building should also help deliver more sustainable forms of development, in terms of both location and design. For example, not only locating new development where it minimises the need to travel to jobs and local services, but also seeking to ensure the design of the buildings minimises energy and water consumption and the use of non-renewal materials. Homes are responsible for 27% of our total carbon dioxide emissions through their energy use, half of public water use and the generation of 8% of total UK waste.

The Government requires local planning authorities to set out policies aimed at minimising the resource consumption of new development. This can entail the inclusion of measures to make more efficient use or reuse of existing resources, rather than making new demands on the environment. Policies should also seek to promote and encourage, rather than restrict, the use of renewable resources (for example, by the development of renewable energy sources).

The design of new housing in particular can have a significant impact on sustainability and enable its occupiers to make sustainable lifestyle choices. Building Regulations set minimum environmental standards. These cover matters such as energy and water efficiency, waste management and use of materials. However, building to even higher environmental standards, such as the "Eco Homes standard", which balances environmental performance with the need for a high quality of life and a safe and healthy internal environment, would further contribute to sustainability. Achieving communities which are more sustainable will rely on all of the community changing its use of resources.

#### Water

Global climate change is likely to affect rainfall levels in southern England, and the region is predicted to become more 'water-stressed' in the future. If demand for water continues to increase, problems with supply and restrictions on its use will become more common. Measures to improve water efficiency in both new and existing homes, which could result in significant water savings, will become increasingly important.

Improvements to water resource efficiency in homes can be achieved by the use of water efficient toilets, taps and appliances (such as dishwashers). At present almost all homes use 100% fully treated water for all uses when only a small proportion is actually used for drinking. Opportunities for grey water and rainwater recycling, including garden water butts need to be encouraged.

The local water supply comes from abstraction from rivers, reservoirs (Testwood and Blashford Lakes) and groundwater sources (water from natural, underground rock stores). It is important for these supplies to be protected against contamination. Water catchment areas are defined by the Environment Agency around the rivers Avon and Test. Groundwater source protection zones and water catchment areas are subject to

advice in the Environment Agency's Policy and Practice for the Protection of Groundwater and in Local Environment Agency Plans, which include requirements for their protection from activities likely to pollute the water that they contain.

The issue of water quality is not only important in relation to our drinking water supplies, but the health of our rivers, lakes and the sea also has a significant impact on the local environment and is particularly important for wildlife and the enjoyment of recreational activities.

## **Energy**

In 2005 New Forest District had an average level of domestic and commercial electricity usage, in comparison with other local authorities in the South East.

In mitigation of the effects of, and adaptation to, climate change we need to consider ways to reduce energy consumption to help reduce greenhouse gas emissions.

The Home Energy Conservation Act 1995 requires all UK local authorities with housing responsibilities to prepare a local strategy for energy conservation identifying energy conservation measures, which it considers practicable, cost-effective and likely to result in a significant improvement in the energy efficiency of all residential accommodation in its area.

As well as by encouraging resource and energy efficient buildings, greater energy efficiency can be achieved by encouraging local community heating schemes, the use of combined heat and power, small scale renewable and low carbon energy schemes in new developments.

The development of renewable energy resources will also have an important part to play in meeting our energy needs in a more sustainable way. The Government has a target of meeting 10% of electricity requirements from renewable sources by 2010, to be increased to 20% by 2020. Such schemes could include wind turbines, geothermal heating and photovoltaic installations.

A growing number of planning authorities are developing policies which require all new major development projects to produce renewable energy on-site, for example by using solar panels and wind turbines, to reduce annual carbon dioxide emissions in the built environment.

However, the development of renewable energy sources can have adverse impacts on sensitive environments. Striking the right balance between the advantages and disadvantages of such development will be particularly important in protected landscapes within the New Forest.

## **Minerals and waste sites**

Due to its geology the area holds considerable reserves of sand and gravel, and Hampshire and south east Dorset rely heavily on the Avon Valley and southern coastal area in particular to fulfil its minerals allocation set by Government.

While the economic need to provide minerals for the construction industry and other uses is of high importance, there are serious concerns locally about the impact of large-scale mineral workings on the landscape, habitats, traffic levels, noise and general quality of life in the area.

Similar environmental concerns apply to waste sites in the area (whether landfill sites or waste transfer stations), including one (Pound Bottom) within the National Park.

This is of particular relevance to the National Park with its focus on conserving the special qualities of the area. The National Park Authority is working with Hampshire County Council and Southampton and Portsmouth City Councils to produce joint minerals plans for Hampshire and that part of Wiltshire within the National Park. Although there are no major sites proposed within the Park itself, the impacts of sites very close by will need to be carefully assessed.

In cases where sites are being restored there are opportunities for new landscapes to be created which help the farming and commoning economy, provide areas for outdoor recreation and have nature conservation benefits.

### 3.5 Reducing and managing waste

The treatment and disposal of household refuse creates significant environmental impacts in the UK. Most of the household waste generated in the UK is sent to landfill – a process that contaminates large areas of land, and generates greenhouse gases.

A national strategy of ‘reduce, reuse, recycle’ is promoted to achieve national targets. Household waste accounts for 8% of UK waste generation. In 2004, the national recycling target of 17% was met, and figures for 2005 suggest 23% of waste has been recycled.

New Forest District Council has one of the best recycling rates in the UK. Local residents have a strong commitment to recycling. More than one quarter of the household waste is recycled. The Clear Sack Recycling Scheme provides a weekly collection of paper, card, cans and plastic bottles. In addition to this, there are more than 100 recycling centres that take glass and other items. A Garden Waste Collection Scheme provides a fortnightly collection of garden waste for composting.

Household waste generation results from activities in the home and may be influenced by occupant behaviour as well as provision of facilities for recycling and composting. Reducing the generation of household waste to landfill depends heavily on the ease with which waste can be recycled by households. Rates of recycling by householders increase dramatically when doorstep collections are introduced. Space for collecting recycling in the home, is also vital, but may be more difficult to accommodate in high density developments providing small dwellings.

Dramatically reducing household waste to landfill, towards levels experienced in some other EU countries would require setting higher targets for household recycling and composting for 2010-2020.

### 3.6 Reducing pollution

Pollution can take many forms, and can generally be described as unwanted or unintended consequences of our activities. The primary aim of legislation is to protect public health by controlling pollution and public nuisances that are likely to have an adverse effect on the population or the environment.

Government planning guidance on pollution control is given in Planning Policy Statement 23 (PPS23), Planning and Pollution Control. The main sources of legislation for controlling pollution are the Environmental Protection Act 1990, the Water Resources Act 1991 and the Pollution Prevention and Control Act 1999.

#### Air quality

Clean air is an essential ingredient of a good quality of life. Local authorities are responsible for reviewing and assessing air quality in their area to make sure that national air quality objectives will be achieved. If a local authority finds any places where the objectives are not likely to be achieved, it must declare an Air Quality Management Area there and put together a plan to improve the air quality - a Local Air Quality Action Plan.

New Forest District Council carries out monitoring of air pollution levels at a number of locations. This monitoring is part of an ongoing programme of review and assessment of air quality across the area. Air quality within the area is generally good, although there are currently two Air Quality Management Areas at Lyndhurst (High Street) and Totton (part of town centre) both with high levels of nitrogen dioxide (resulting from vehicle emissions). There are also concerns about levels of benzene and sulphur dioxide in Fawley.

The location of new development and resulting traffic generation can have implications for air pollution, in particular where it draws additional vehicles through Air Quality Management Areas.

## **Noise and light pollution**

Noise pollution comes from a variety of sources – domestic, industrial, construction, traffic, mineral extraction, recreation activities, and security alarms. Some have a short-term localised impact; others affect wider areas for longer periods.

Large areas of the National Park are significantly affected by background noise, particularly from constant traffic noise from the M27/A31. Noise from recreational activities and aircraft from Bournemouth and Southampton airports, also has a significant impact on the tranquillity of parts of the National Park. Serious consideration needs to be given to reducing traffic noise through a combination of measures including traffic management, quiet road surfaces and noise screening.

Light pollution tends to be something which impacts on urban areas, and causes increasing environmental concern. It takes the form of light trespass/ light spillage or 'urban glow', and can result in wasted energy. The main source of light pollution is roadway lighting.

Light pollution is also a major issue in rural areas. Lighting can have a significant effect on the sense of wilderness and tranquillity of protected landscapes, such as the National Park. In particular it can have implications for individual species that are sensitive to sources of light.

## **Contaminated land and degraded land**

Land can be contaminated by numerous industrial processes, including landfill. Two thousand sites have been identified in a contaminated land survey of the area. These sites are mainly ex-industrial or landfill sites, but also include ex-sewage works, gas works and military sites.

## **Litter and fly-tipping**

Although this is not a major problem across the whole area, there are 'hotspots' which are particularly prone to fly-tipping and litter accumulation, including the coastline (in part from sea-borne litter), the countryside adjacent to the Waterside towns and villages, and some road-side verges and Open Forest edges. Litter does create an 'uncared for' feel to the area and can be a serious hazard to wildlife and commoners stock.