

# How healthy is our environment?

## The lay of the land in 2007

Arlesey. Photo by David Jones

A healthy environment is vital to our well being. We need clean water for drinking and fertile soil to grow our food. We want nice places to walk, look at and explore. And we want future generations to inherit these as well.

Monitoring the condition of our habitats lets us see over time where we're doing well and where we need to do better. It shows us how human activities are affecting our environment, and whether we need to treat it a little more gently.

To assess the health of our environment, we use environmental indicators. These are measures of key environmental conditions. Indicators show us how our environment changes over time. This summary focuses on four types of indicators. These are: water quality, condition of designated nature areas, condition of the countryside and public access to the countryside. In this report we present the results of our indicator monitoring for 2007. We also compare these results to what we found in 2006.

So how healthy is our environment? What might the future hold? Read on and find out...

Prepared in partnership by:



## Water quality in our rivers and canals



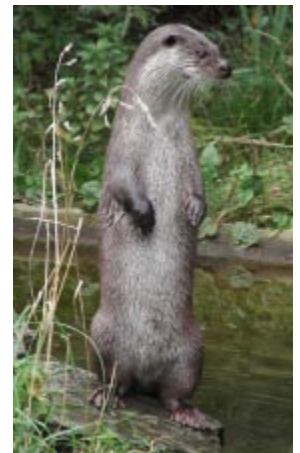
Water quality continues to improve, but nitrate levels are still high

England's water quality is measured in three ways. These are: biological quality, chemical quality and nutrient levels. Nutrients in our water consist of nitrates and phosphates. These compounds come from two main sources: sewage and agricultural runoff. Nutrients feed algae, causing them to multiply so much that they use up all the water's oxygen. Plants and animals in the water can suffocate as a result.

During the 1990s water quality improved quite a lot. This was mainly due to improved sewage treatment. Since 2000 the biological and chemical quality of our waterways have improved slowly. These indicators are expected to continue to improve over the short and long term.

However our rivers and canals continue to have very high nutrient levels. Nitrate levels have stayed the same, being high in 80% of our waterways. Phosphate levels are high in 90% of our rivers and canals, down very slightly over the previous year.

Another indicator of water quality is the presence of otters. In the past, high levels of pesticides leaked into our rivers. They were then absorbed by fish, which became toxic to the otters that ate them. Once common, by 1979 otters were thought to be extinct in Bedfordshire and Luton. But our water quality has improved and otters can now survive here. The return of otters to the county's waterways continues, confirming the improving water quality.



## Condition of important wildlife and geological sites



Many of our grassland and aquatic sites are in poor shape and need to improve

Sites of Special Scientific Interest (SSSI) are nationally designated areas. They represent the very best wildlife sites in the county. In Bedfordshire and Luton we have 40 SSSIs, adding up to 1411 hectares (ha). The condition – or health – of these sites is checked on a regular basis. This is a useful indicator of the quality of our best habitats.

SSSI condition is ranked on a scale from “unfavourable” to “favourable”. The proportion of our SSSIs in favourable condition (86%) did not change over the last year. Prior to that it had increased steadily since 2001. This will need to improve if our SSSIs are to meet the government target of 95% in favourable condition by 2010.

There is also 7161 ha of land designated as County Wildlife Sites (CWS). The health of these sites is being monitored over a number of years. With 400 or so sites, this is a big job. So far only a quarter of the area has been monitored, and very little was monitored last year. Of the area that has been checked, 59% is thought to be in favourable condition.

Over all of our designated sites, several habitats are of particular concern. Our bogs, heathlands, acid and neutral grasslands are in the worst shape.



## Condition of the wider countryside



Since 2000 there has been a 172% increase in land in schemes delivering higher levels of environmental benefit

More and more landowners are working to protect and conserve the 90% of the county that is outside designated sites. We cannot know in detail what is happening to habitats and species on this land. But landowners can apply for grants to manage their farms and woodlands for nature. The amount of land being managed in this way is one indicator of the health of our countryside.

In 2005 these grant schemes changed, so there is very little information on past trends. Over the years the data will build up and we will start to see a picture emerge. What we do know, however, is that approximately 40% of the county (roughly 56% of farmed land) is in one of these schemes. And land is increasingly being placed in schemes demanding a higher level of environmental benefits.

Organic farms produce food without the use of harsh pesticides. Instead they use natural systems to manage pests and fertilise the soil. Studies have shown that organic farmland supports more wildlife than conventional farmland. As such it is an indicator of land that is being farmed in an environmentally friendly way.

The amount of land farmed organically rose very slightly last year, from 579 ha to 596 ha, on 8 organic farms. This is less than 1% of the county's farmland, and less than regional and national averages. So in spite of the year's slight improvement, the projected trends for this indicator are downward.

Birds are very useful indicators of the health of the countryside. They are found in a wide variety of habitats, often near the top of the food chain. They are also surveyed extensively by bird watchers. So there is a lot of information available on birds.

Regionally and nationally, populations of all native bird species are now slightly higher than in 1970. Farmland and woodland bird numbers declined for decades. They now appear to be stable but have not really started to recover yet. However populations of wintering wetland birds are on the rise. Overall the long term prospect is thought to be a slow improvement.

This year we added a new indicator to our list. Bedfordshire and Luton are home to a number of plant and animal species that are declining or at risk nationally. A number of these "national priority" species have their own action plans for the county.

However, the status of these species is a cause for concern. Most of our priority species are thought to be declining; in some cases they may already be lost from the county. We are currently reviewing our action plans to make them more effective. This is one indicator we will be keeping a close eye on.



More of Bedfordshire and Luton's countryside was opened for public access last year

























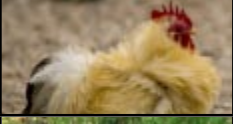






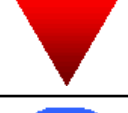





## Access to the countryside

Access to land rich in wildlife can contribute greatly to our quality of life. About 2.5% of Bedfordshire and Luton is both managed for nature and open to the public. In 2006 this figure was 2.3%. This small but steady increase is due to two factors. First, more land is being managed for nature conservation. Second, more landowners are allowing public access to their land as part of grant-aided schemes.



## So what does the future hold?

We don't know for certain. But we can predict future trends based on what has happened in the past and what we know about the present. The chart presented below summarises the changes that have happened in Bedfordshire and Luton over the short and long term.

	Indicator	Short term trend	Long term trend
	River quality: biological		
	chemical		
	River nutrient levels: nitrates		
	phosphates		
	Otter distribution		
	SSSI condition		
	CWS monitored and in favourable condition		
	Area in agri-environment schemes		
	Area of organic farmland		
	Area in woodland grant schemes		
	Wild bird populations		
	Status of BAP species		
	Public access land managed for nature	