



Kirklees Council covers a large area of West Yorkshire, including two major towns, Huddersfield and Dewsbury.



# Applying the science

*Jeff Keenlyside works as an Environment Officer for Kirklees Council in West Yorkshire. Here he describes the part that local councils can play in tackling problems in the environment.*

Most scientists concerned with the environment accept the science of climate change and that it will have a serious impact on our lives. However, that scientific understanding is wasted if it is not applied in our everyday lives. Local authorities (councils) are often in the front line, applying the science and making it work to benefit the public.

## Reducing carbon emissions

Kirklees Council has been at the forefront in demonstrating the use of renewable energy technology. In order to help reduce carbon emissions it has pioneered the installation of photovoltaic cells and wind turbines to generate electricity on municipal buildings. Local woodlands are harvested to feed woodfuel boilers to reduce carbon emissions; at the same time, this improves woodland habitats for wildlife.

However, the emission savings made by using renewables are minor in the context of what we need to do. This is acknowledged in the national debate about how we move away from fossil fuels to alternative energy sources such as wind, wave and nuclear power. This debate ignores the gross inefficiency of our national housing stock. A large proportion of houses are poorly insulated so that much of the energy used to heat them is wasted.

Within Kirklees a decision has been taken to fund cavity wall and loft insulation for all homes within the district. The principle here is to apply technology appropriately and cost-effectively to deal with

energy inefficiency and reduce the demand for energy. This is a much more sustainable approach.

The council also aims to ensure that new houses and buildings are built to the highest standards of energy efficiency and have built in renewable energy installations, where possible, over and above that required by central government. This will help to minimise the increase in carbon emissions and air pollution.

## Local councils and sustainable lifestyles

We all have a personal responsibility to prevent environmental damage in our everyday lives. For example, it is better to walk or cycle a couple of miles to school or work than to travel by car. However, it isn't always easy for us to make the right environmental choices.

Local authorities can make a big difference here. For example, if we have traffic-free, safe cycle routes we are more likely to cycle than drive a car to get to local facilities. It is councils which play a leading role in providing such facilities. They are also involved in the wider planning issues which enable our towns, cities and countryside to be developed in more sustainable ways.

In Kirklees, we try to ensure that new developments are located where they will reduce the need to travel to work and to access other facilities, like shops and sports centres. This will help reduce carbon emissions and cut air pollution.

We are also developing a district wide Green Network of greenways and green spaces to provide safe and attractive cycling routes. This will make it easier for people to live healthier and lower-impact lifestyle. There's another benefit: a connected network of green spaces provides more opportunities for wildlife to move around and adapt to changing climatic conditions.



Solar PV panels and wind turbines help supply electricity to council buildings (Civic Centre, Huddersfield).



Houses with both solar water heating and PV electric panels at Primrose Hill Solar Village, Huddersfield. This development of 121 homes was part of a regeneration scheme, reducing fuel costs for tenants as well as greenhouse gas emissions. Some of the houses were reburbished, resulting in significant savings of emissions when compared to new buildings.

## Land use and the impact of climate change

Climate change may result in more extreme conditions – hotter summers and colder winters, more droughts and floods. Scientific understanding has a part to play in tackling this. Take changing patterns of rainfall, for example.

In the past, most land has been considered for single use such as agriculture, housing, industry, etc. It is only recently that we have realised the environmental implications of this. For example, the extensive hard surfacing of urban areas leads to rapid run-off of rainfall. This increases the

frequency and severity of flooding and reduces the amount of water stored underground. The lack of stored water then reduces river flows in drought conditions and results in less water being available for our own use.

Now we are trying to ensure that new development does not add to the rapid run-off of rainwater. We are exploring the possibility of storing water in wetlands – low-lying areas along the river valleys. This will help to reduce the incidence of flooding, stop rivers drying up in the summer and reduce the impact of water pollution.



Wetland areas like this should not be drained – they provide valuable protection against flooding.

## Working for the council

Increasingly, councils need to draw on people with a greater understanding of the science behind the issues and who can apply scientific principles to enable us to live a more sustainable lifestyle. I am one of those people.

I work in Kirklees Council's Environment Unit.. The Unit's role is to lead on delivering the council's Green Ambition. Our aim is to significantly reduce environmental impacts within the district, with a focus on carbon emissions and the more sustainable use of land.

I have an Environmental Science degree from Bradford University and my main work area is in the field of biodiversity. Others in the Unit have responsibilities which include: developing a low carbon planning system; supporting renewable energy projects (including wood fuel and small scale hydro schemes); managing the home energy efficiency work; monitoring the Council's involvement in the Emissions Trading Scheme; sustainability appraisals; and a whole range of work relating to greening the Council's business and operations.

It is important to be clear about what can be achieved within a local authority's remit, however, as its powers are limited and dictated by central government. Even so, the progress made at Kirklees and other leading councils is pioneering a way forward for others to follow and, hopefully, build on.



GIS (Geographical Information System) mapping tools build up layers of information so that we can see how they relate to each other.



Jeff at work