

## Section 10 Climate Change Activity

### *"What are we already doing?"*

#### **Introduction**

The UK Climate Change Programme is co-ordinated by Defra in close collaboration with a wide range of other government departments. It is currently being updated following a public consultation and is scheduled for publication by the end of 2005. The programme has the widest possible scope across businesses, local government, the general public and many other stakeholders, and has been developed within existing departmental policy frameworks. As a consequence there are many policies and measures already being implemented that contribute to emissions reduction and climate change adaptation. Whilst it may not always be obvious what these policies are and how they contribute to the national response on behalf of UK plc, the key measures include:

- The climate change levy.
- The renewable energy obligation and target.
- European level agreements to improve fuel efficiency of new cars.
- The 10 year Transport Plan.
- A number of schemes to improve energy efficiency in the residential sector.
- Appliance standards and labelling.
- Improved performance standards in Building Regulations.
- Action on local air quality.
- A shift in the Common Agriculture Policy from production-related subsidies to an environmental focus.
- Programmes for woodland creation and management.
- The EU Landfill Directive and landfill tax.

The actions implicit in these and other measures are being manifested in Devon through the initiatives highlighted below.

#### **Planning – the Devon Structure Plan**

Sustainable development underpins the planning system. The County Structure Plan entitled "*Devon to 2016*" (DCC, 2004<sup>b</sup>) contains a range of policies and proposals that seek to reduce emissions of carbon dioxide and minimise the impact of development on the environment.

These policies and proposals are interpreted by the Local Development Frameworks prepared by district and unitary councils. The statutory basis of the planning system is an important factor that ensures policies are implemented consistently. The Structure Plan links to the climate change issue in four main ways:

- The development strategy of the plan directs most new development to urban areas where there is the best opportunity to locate housing, jobs, services and facilities close together, to reduce the need to travel and to create communities that are sustainable. The transport strategy element of the plan promotes the use of walking, cycling and public transport over the use of the private car. Policy CO11 aims to minimise the direct and indirect energy consumption of new development.
- The Structure Plan aims to reduce dependence on fossil fuels and for Devon to contribute to national targets to reduce the production of greenhouse gases. Policy CO12 contains a renewable energy target of 151MW of renewable energy for Devon, and positively promotes the development of a range of renewable energy technologies in the County. The implementation of this target is being taken forward by the DSP Renewable Energy Action Plan (DSP, 2004<sup>b</sup>), which aims to create the conditions for the renewables industry to thrive.
- The frequency and intensity of flooding is addressed through policies which aim to minimise the impact new development has on run off and to protect the natural functioning of river corridors and systems. There is a need to improve the management of drainage and to protect existing development from the risk of future flooding. Policy CO13 asks for new development to be subject to an appropriate drainage assessment and wherever possible appropriate sustainable drainage systems are promoted. Development is not permitted where it would lead to a deterioration in the quality, quantity or natural flow of underground, surface or coastal waters; where water resources and current uses will be compromised; where there is a direct risk from flooding or where development would increase the threat of flooding elsewhere; and where it is likely to adversely affect the natural environment.
- The plan includes habitat restoration targets which encourage planting of new woodland and restoration and encouragement of wetland habitats.

### **Waste Management**

Devon County Council is the Waste Disposal Authority for Devon and is responsible for the safe disposal of household waste. It is putting in place a Municipal Waste Management Strategy for Devon (DCC, 2003) under the campaign banner of '*Don't let Devon go to waste*'. This strategy is due for formal approval in Winter 2004/5.

In 2003/4, Devon's 289,000 households generated 376,500 tonnes of waste - that is approximately 1.3 tonnes per year or 25 kilograms per week for each household. Currently, we recycle 27% of this total. However, as about two-thirds of the average Devon dustbin is biodegradable, the annual amount of household refuse going to landfill could produce 1.4 million tonnes of CO<sub>2</sub> equivalent over its lifetime. This is equivalent to the greenhouse gas emissions of every one of Devon's 370,000 cars being driven 11,000 miles a year! Clearly, household waste has the potential to make the most significant contribution to the carbon footprints of both the Council and the county.

Whilst Devon has one of the highest recycling and composting rates for a Shire county, challenging statutory targets for improving performance have been set. Measures are in place to recycle or compost 36% of household waste by 2005/06. This target rises to 65% by 2025. In addition, by 2010 we are required to reduce the amount of biodegradable municipal waste sent to landfill to 75% of that produced in 1995. This target becomes increasingly more challenging as the biodegradable content has to be reduced to 35% of the 1995 level by 2020. Our waste management strategy also has a target of reducing the rate of growth of household waste to 1% by 2010. By meeting these targets the expected amount of household refuse in 2025 will have the potential to produce 0.94 million tonnes of CO<sub>2</sub> equivalent over its lifetime in landfill. This is roughly equivalent to a 2% year-on-year reduction in present emissions and is in line with the Government's target to reduce greenhouse gas emissions by 60% by 2050.

As landfill will continue to play a role for municipal waste management in Devon, the waste management strategy will put in place additional measures to recover value from residual waste through energy recovery processes. Landfill gas at Heathfield, Chelson Meadow and Deep Moor is collected and used to generate 9 MW of renewable electricity which is fed into the National Grid. It is also planned to introduce a similar facility at Broadpath as soon as there is sufficient gas generation to do so. In the long term landfill will only be used for those wastes which arise as residues from other treatment processes or cannot be managed in any other way.

In addition, Devon County Council retains a degree of responsibility for fifty-five closed landfill sites. The majority of the closed sites are small, have been restored to agricultural land and give no cause for concern. The more recently filled sites and those containing high levels of dustbin waste are closely monitored for landfill gas. The Council has a duty to restore former landfill sites to prevent pollution and monitor them until they are seen to be environmentally benign. The remediation work is largely complete.

## **Renewable Energy**

Renewable electricity can be generated from wind power, wave, tidal, solar photovoltaics (PV), small scale hydro and geothermal sources. In addition, electricity generation from biomass (i.e. energy crops, forestry products and agricultural waste) is considered renewable as it releases only the carbon already absorbed from the atmosphere when growing. Landfill gas is also classed as renewable under the Government's Renewables Obligation introduced in 2002 to provide incentives to generators to supply progressively higher levels of renewable energy over time.

If the UK is to achieve a 60% reduction in carbon emissions by 2050, renewables will need to be contributing at least 30% of our electricity generation by then. As a start, in January 2000 the Government announced (DTI, 2000) the target to supply 10% of UK electricity from renewable sources by 2010 with an aspiration (DTI, 2003) to double this by 2020. A variety of measures to support this ambitious programme have been put in place including exemption of renewable electricity from the climate change levy, and a strategic framework, organisation and financial support to expand offshore wind and improve the capability of the UK renewables industry to compete internationally. The UK will need to install 10,000MW of renewables capacity by 2010 to hit the 10% target – this is equivalent to a build rate of 1000 wind turbines (average capacity of 1.3 MW) per year. At the end of 2003 renewables accounted for nearly 4% of UK electricity supply with nearly half being provided by large scale hydro. Wind energy is the fastest growing renewable source with 4,560 MW of capacity operating, approved or planned.

In the South West, the Government Office for the South West (GOSW) in partnership with the South West Regional Assembly (SWRA) funded the REvision 2010 project to promote the installation of renewable capacity through the adoption of county-based targets. As a consequence the South West is committed to generating 11-15% of the region's energy from renewable sources by 2010 requiring over 550 MW of renewable energy generating plant to be installed. Regen SW has been set up by the South West of England Regional Development Agency (SWRDA) as a not-for-profit company with responsibility for driving forward the Regional Renewable Energy Strategy.

At county level, Devon's present installed capacity is 17MW with a target of 151 MW by 2010. Assessments suggest that two-thirds of this target will be provided by wind power. The target has been approved and incorporated in the Devon Structure Plan (DCC, 2004<sup>b</sup>). Devon's first wind farm consisting of 3 turbines with 2.7 MW capacity at Forest Moor, Bradworthy will start producing power in February 2005. There are also plans for a further 3 turbines at Higher Darracott near Torrington and 22 turbines at Fullabrook Down near

Ilfracombe. These arrangements will generate up to 70% of the estimated contribution that wind power can make in the period to 2010. The composition of installed and target capacity is shown at Table 1.

<b>Source</b>	<b>Installed Capacity (MW)</b>	<b>Target Capacity (MW)</b>
Landfill gas	9	9
Small scale hydro	6	5
Biomass – Anaerobic Digestion	1.5	3
Sewage gas	1	1
Solar PV	-	0.4
Energy Crops/Forestry	-	26
Biomass - Poultry Litter	-	4
Onshore Wind	-	103
<b>Total</b>	<b>17.5</b>	<b>151.4</b>

Table 1. The composition of Devon's installed and target renewable energy capacity.

Source: REvision 2010.

The Devon Strategic Partnership has produced a renewable energy strategy and action plan for Devon (DSP, 2004<sup>b</sup>) which is due for launch in Spring 2005 through a partnership of delivery organisations including DCC, EnVision, Devon EEAC, Global Action Plan, DARE and Trans-send. The project's working title is Renewable Energy Devon (RED) and will consist of an integrated programme of actions to grow the local market for RE installations and build the capacity of local businesses to meet the increased demand. In addition, a Devon Sustainable Energy Network (DSEN) is to be set up to bring together all those working on energy efficiency, renewable energy and fuel poverty issues in the county to develop co-ordinated actions and strategy.

It should be noted that the DCC County Estate Management Strategy 2002 - 2012 includes a commitment to take a lead role in exploring sources, development and use of renewable energy.

### **Energy Consumption by Devon Property**

Devon County Council holds a property estate with an asset value in excess of £650m. The estate comprises over 680 establishments (some 4000 buildings) including schools, libraries, farms, offices, day and residential centres plus other premises required to deliver services to the community of Devon. The Devon Property Business plan 2003/4 contains a commitment to contribute to the prosperity and sustainability of Devon through using local labour and

suppliers, purchasing renewable energy, and reducing CO<sub>2</sub> emissions and water consumption.

At an operational level DCC is a large consumer of electricity using about 75 gigawatt hours annually. Whilst 26% of UK electricity is generated from non-fossil fuel sources (large scale hydro, renewables and nuclear) only that certificated under the Renewables Obligation scheme can be regarded as non-polluting “green” electricity and zero-rated for greenhouse gas emissions. Consequently, despite ongoing attempts to purchase ROCs (Renewables Obligation Certificates) all of the electricity used by DCC produces CO<sub>2</sub> at the rate of 0.43 kg per kwh. The total CO<sub>2</sub> output from electricity consumption is about 32,000 tonnes annually, 55% of which comes from buildings and the remainder from streetlighting. In order to reduce CO<sub>2</sub> emissions from its 600 buildings, DCC monitors energy consumption and benchmarks performance against best practice figures. High usage properties are targeted for energy audits and advice is given on improving energy efficiency.

### **Local Transport**

In 2002 the Department for Transport estimate of traffic flows for Devon was 7.3 billion vehicle kilometres. This figure has been growing at a rate of 2.1% year-on-year for the last decade. As the traffic figure is about 1.5% of the total UK traffic flow (i.e. 474.1 billion kilometres in 2001), the total emissions from road transport in Devon is estimated at 1.9 Mt of CO<sub>2</sub> annually. Based on the national picture, half of these emissions are likely to come from private vehicles with a further 25% from HGVs.

In July 2004, the Government set out its transport strategy in “The Future of Transport: a network for 2030” White Paper. This made clear that while good transport is central to a prosperous economy, a balance must be struck between the increasing demand for travel and the goal of protecting the environment effectively. The environmental goal is being promoted by a shift to low-carbon vehicles and fuels (DFT, 2002) through measures that include voluntary agreements with the automotive industry to reduce the CO<sub>2</sub> emissions of the average car sold to 140 grams per kilometre by 2008/9 and a graduated Vehicle Excise Duty for new vehicles based on CO<sub>2</sub> emissions and fuel type. However, even with these measures the Government expects emissions from road transport to grow by 10% from 2000 levels by 2010 as the growth in traffic continues to exceed fuel efficiency gains. Thereafter, emissions are expected to fall by 5% between 2010 and 2015 as a consequence of slower traffic growth and continued fuel efficiency improvements. By 2015 vehicle CO<sub>2</sub> emissions may be marginally below the present level.

At a local level Local Transport Plans (LTPs) set out to deliver integrated transport opportunities in line with the Government's Ten Year Transport Plan. The local policy response is based on the promotion of 'soft' measures which affect travel choices made by individuals. Under the LTP strategy, Council's work in partnership with public transport operators, the Highways Agency and the private sector to develop walking, cycling and public transport facilities to enable more travellers to have the option of choosing sustainable transport modes. Present implementation is seen as '*low intensity*' and may result in a one-off 2% to 3% nationwide reduction in all traffic (Cairns et al, 2004) providing sufficient supporting policies are used to prevent induced traffic from eroding the effects. Soft measures include workplace and school travel plans, personalised travel planning, travel awareness campaigns, public transport information and marketing, and car sharing schemes. The supporting measures involve the re-allocation of road capacity and other measures to improve public transport service levels, parking control, traffic calming, pedestrianisation, cycle networks, congestion charging or other traffic restraint, other use of transport prices and fares, speed regulation, or stronger legal enforcement levels. It is worth noting that in order to meet the Government's aspirational target for emissions reduction these putative one-off savings need to be made year-on-year for the next four decades.

In Devon a mix of soft and supporting transport policies is being used through such initiatives as school and workplace travel plans, Devon Travelwise, CarShare Devon, public rights of way and cycling strategies, demand management strategies including variable message signing, intelligent transport systems and park and ride schemes, and the promotion of public transport via Traveline. In addition, the LTP capital programme directly supports three of Devon's Public Service Agreements targets – improving access to the countryside, increasing cycling and increasing public transport use. To date there has been no quantification of the effect of present policies on greenhouse gas emissions. However, unless the potential reduction of traffic from a successful low intensity implementation can be measured and realised, transport emissions will continue to rise.

### **South West Forest**

South West Forest is an independent, non-commercial partnership providing a service that is agreed and paid for by its funding partners. Devon County Council is one of those partners. In a climate change context the aim of the partnership is to promote the role of woodlands as a means to offset some of the negative impacts of climate change and explore the possibility of releasing the value of '*carbon credits*' into the rural economy. Moreover, it seeks to investigate the feasibility of developing the South West Forest as the regional focal point for carbon storage through woodland creation.

The forest covers 300,000 hectares and is broadly bounded by Bodmin Moor, Dartmoor and Exmoor. Since 1998 500 hectares of new woodland have been established each year. The aim is to increase tree cover to 15% from the current level of 10% over the next 15 years by increasing the rate of planting to 1000 hectares per year. With new planting being 75% broadleaf and 25% conifer it is estimated that the average figure for carbon stored in new woodland is 100 tonnes per hectare for a forest that grows to maturity. This is equivalent to 367 tonnes of CO<sub>2</sub>. Therefore, once the 15000 hectares of new woodland in the South West Forest is planted the potential exists to sequestrate an additional 5.5 million tonnes of CO<sub>2</sub> over the course of this century. This is approximately 55,000 tonnes annually.

### **Emergency Planning**

Within Devon there currently exists the Devon Flood Warning and Response Plan, which sets out the response to potential flooding of major urban areas and covers nearly 14,000 properties. At present this plan is based on the Environment Agency's modelling of 1 in 100 year fluvial flooding events and 1 in 200 year tidal flooding events. A major review of this plan is ongoing and will take account of recently produced changes to the Environment Agency's flood risk maps which alter the potential extent of flooding to reflect possible changes in climate.

Devon County Council is also involved in the revision of the Joint Emergency Services Major Incident Procedures (JESMIP). This revision will enhance the multi-agency response capability to all major incidents within Devon taking account of recent work to identify future risks, including extreme weather events. DCC is also continuing to work with the parish councils in order to improve the level of community resilience within the county. As of November 2002, 45% of parishes had undertaken a local risk assessment to identify whether there was a requirement to develop a Parish Emergency Plan; a third of these risk assessments have resulted in Parish Emergency Plans being developed. It is intended that this work will continue, targeting key areas where there is a known risk, particularly if changes in weather patterns are likely to exacerbate this risk.

### **Environmental Procurement**

Devon County Council has adopted a socially responsible environmental procurement policy based on the principles of sustainable development. Wherever possible the Council sources and specifies environmentally friendly goods and services having due regard for the following sustainable attributes:

- Durable, reusable, refillable or recyclable.
- Containing reused or recycled materials.

- Energy and resource efficiency.
- Using minimum packaging and encouraging waste reduction.
- Non (or minimal) polluting.
- Promoting fair-trade.
- Locally produced.
- Free from ozone depleting substances, solvents, volatile organic compounds and any other health and environmentally damaging substances.
- Traceable through legal and sustainable sources e.g. FSC accredited (Forest Stewardship Council) or equivalent.
- That cause minimal damage to the environment through sustainable production, distribution, usage and disposal qualities.
- Obtainable on competitive terms having regard to Best Value legislation.

In addition, when awarding contracts and when appraising on-going supplier performance consideration of suppliers' environmental policies and their impact on the environment are taken into account. The Council works with key suppliers to improve performance and develop appropriate environmental policies. Furthermore, all appropriate and significant purchases are made on the basis of whole life and environmental costing profiles. The procurement policy is promoted to a wide audience both internally and externally through procurement guidance and training.

### **Highway Maintenance**

A number of climate change adaptation measures have been introduced since 2000 to improve the performance of highway surfacing materials in both warmer summer and wetter winter conditions. These measures include the use of penetration grade bitumen and anti-stripping additives, asphalts designed for optimum deformation performance at 60°C rather than national norm of 45°C, binder additives to impart greater flexibility in the construction of pavements on soils prone to movement in variable moisture conditions and limiting permeability of asphalts to air and water in order to reduce the increased effect of oxidation in warmer conditions.

In addition, a number of measures are being taken to ensure highway drainage is able to cope with an increase in rainfall intensity. Designs for increased drainage capacity to 20% above current national guidance are being used together with gully gratings with better drainage characteristics and better resistance to blockage by debris. In addition, gully spacings for new developments have been reduced and sustainable drainage techniques that have low maintenance requirements are being evaluated. Alternative materials for road marking are also being trialled to provide greater durability in warmer conditions.

In terms of mitigation, low energy alternatives to conventional construction and maintenance materials and processes are being trialled. These include cold and foam mix asphalts, and the use of cement replacement materials for a number of applications from structural concrete to base layers in roads. The minimisation of road haulage of materials is a major element in specifications. The measures include:

- Use of thinner layers in road construction requiring less material to be transported.
- In-situ recycling of road layers means that less material needs to be transported away from site and less new material need to be brought in.
- Blending of aggregates to produce suitable levels of performance in order to maximise the use of locally available materials.
- Specifying back-haulage of quarry materials to reduce lorry movements.

Finally, negative textured road surfaces are being used to reduce rolling resistance leading to lower fuel consumption.

### **Sustainable Building**

“Sustainable Building” is a term applied to construction and refurbishment that minimises environmental impact, including mitigation of climate change, whilst maximising local economic impact and providing affordable, healthy environments for living and working. Such building techniques include the use of “environmentally friendly” materials, the incorporation of efficient waste management techniques, the recycling of water and other resources, and the use of renewable energy.

Globally, the building industry is responsible for 40% of the total flow of raw materials such as sand, gravel and clay. Moreover, it takes one quarter of all timber used and 16% of water withdrawals. The UK industry consumes 366 million tonnes of material each year – equivalent to 6 tonnes per head of population. Around half of the total UK CO<sub>2</sub> emissions arise from energy used in heating, lighting and cooling buildings, and 10% from energy used during the production and transportation of materials and construction of buildings. In addition, construction generates 72 million tonnes of waste per year - the South West region produces about 12.5 million tonnes of this waste figure. Clearly, the way in which we construct and operate buildings in Devon is key to reducing both emissions and waste.

The Government set out its commitment to sustainable building in ‘Building a Better Quality of Life’ (DETR 2000)<sup>b</sup> and has subsequently incorporated its thinking into Building Regulations and the publication of the Planning White Paper, the Communities Plan and the Energy White Paper. The sustainable building agenda is supported at regional level through

the 'Future Foundations' Initiative of Sustainability South West (Sustainability South West, 2001) as well as the Regional Assembly's Environment Strategy (SWRA, 2004)<sup>a</sup> and Waste Strategy (SWRA, 2004)<sup>b</sup>.

DCC along with key partners has been developing the Devon Sustainable Buildings initiative aimed at addressing sustainable construction on a county-wide basis by providing contacts, expert advice and guidance to all those involved in building in Devon. It has applied the sustainable construction principles enshrined in this initiative in its own construction programmes in order to reduce the environmental impact of new build and refurbishment schemes. The strategy is aimed at maximising the amount of recycled material used during construction and ensuring that materials are from sustainable sources and waste generation is minimal. The initiative will also work to localise building supply chains, reducing the distance goods have to travel and supporting the local economy. Reducing the energy consumed during the operation of the building is also a key concern. These principles are being applied in the design and development of the new communities at Sherford and in East Devon.

In an education context, Devon Property has been involved in developing the BRE's Environmental Assessment Method (BREEAM) for schools, which will enable an effective evaluation of the overall sustainability of school construction projects. Devon Property has also been looking into the procurement of sustainable materials and the design principles that will lead to more sustainable schools in the future.

### **Devon Food Links**

Devon Food Links is a local food initiative based in DCC's Economy and Regeneration department. Its purpose is to contribute to sustainable development in the county by encouraging sustainable agricultural and by streamlining the supply chain between grower and consumer. The principal climate change benefits arise from a reduction in CO<sub>2</sub> emissions from road transport by reducing food miles.

### **The County Farms Estate**

The management of the County Farms Estate has an important role to play in reducing the Council's carbon footprint. As part of the current 10 year Estate Management Strategy and Plan 2002 – 2012, the on-going delivery of the following key objectives will enable this process:

- The support, promotion and uptake of organic farming practices.

- The imposition of site specific conservation and land management clauses in all new tenancy agreements.
- The imposition of good agricultural and environmental management practices in all new tenancy agreements.
- The delivery of a robust landscape and conservation plan including an annual programme of deciduous woodland planting and development of farm 'conservation areas'.
- The use of 'set aside' ground for the production of renewable energy crops.

### **Coastal Management**

DCC has a role in ensuring that information relating to coastal issues is exchanged between the key players. The Devon Maritime Forum has an important part to play in ensuring that the appropriate interests are brought together to exchange information and experience. The Forum may also have a role in agreeing collaborative action to adapt to the effects of climate change on the coast. DCC also supports initiatives such as the Devon Living Coasts Conference and the Devon Area Estuary Officers Meeting, which provide an opportunity for estuary-based partnerships to meet and exchange knowledge. DCC also promotes the prioritisation of essential coastal defence works and the value of favouring natural processes where these can be accommodated.

### **Biodiversity and Countryside Management**

The present approach is towards landscape-scale conservation which seeks to influence land management practices over large areas, in particular concentrations of important sites and in areas with good opportunities for enhancement. This approach will maximise the potential for ecological adaptation, by providing the widest possible range of niche sites. For example, butterflies currently associated with warm, south-facing bracken-covered hillsides might, in the future, require less warm locations and so revert to cooler north-facing hillsides. This will only work if suitable sites are available for them to move to, even though such areas are currently not considered to be so important for their wildlife interest.

In order to promote effective wildlife adaptation strategies, robust ecological data and associated monitoring systems must be developed to track changes. DCC is helping to identify the monitoring priorities and systems. The Devon Biodiversity Record Centre will have a role in such work.

### **Vehicle Fleet Management**

DCC has a diverse fleet of more than 560 vehicles that includes minibuses, cars and light vans together with specialised vehicles like winter maintenance gritters, snow blowers and

library vans. This fleet is essentially diesel powered but does include 21 LPG-powered light vans.

Alternative-fuel vehicles (i.e. electric, hybrid diesel/electric, LPG, compressed natural gas – CNG, and bio-diesel) have been considered and/or trialled for use within the DCC fleet however, the proportion of alternative-fuelled vehicles remains small as a result of economic and environmental factors. Given the limited endurance of electric vehicles in a Devon context, the non-availability of hybrid vehicles of an appropriate type and the absence of service stations in Devon selling bio-diesel, the “alternative” choice is limited to LPG and CNG. In a climate change context where the emission of CO<sub>2</sub> is the principal consideration, LPG is more polluting than the diesel alternative. Moreover, whilst CNG is cleaner than LPG on both CO<sub>2</sub> and street level pollution counts, the experience is that CNG-powered vehicles are unreliable especially at higher mileages where cylinder head problems emerge. The CNG refuelling process is also a lengthy overnight operation using specialist facilities not available at local service stations. Therefore, for the majority of DCC vehicle fleet requirements there is no real alternative to the existing diesel-powered units which, in practice, actually represent the “cleanest” alternative in respect of CO<sub>2</sub> emissions.

In sum, the DCC vehicle procurement strategy is based on ordering appropriate vehicle types with the most fuel-efficient engine available. This is usually a diesel powered unit. If there is a growth in the availability of bio-diesel as the most realistic “green” alternative fuel, the implications of its use especially in terms of manufacturer’s warranty and street level pollution will need to be considered.

## **Education**

The Devon Education for Sustainability Working Group (DESWG) provides a co-ordinated framework of support, training and resources for the development of Education for Sustainable Development (ESD) initiatives within the curriculum and across subject areas. In addition to addressing climate change directly through science and geography, the DESWG provides support for actions which reduce school community’s negative environmental and economic impacts. Current initiatives include encouragement for sustainable modes of transport through School Travel Plans, support for waste reduction and sustainable waste management programmes through a Waste Education Strategy, guidance on energy reduction and conservation, and promotion of the use of school grounds to include food growing under the Local Food for Local Schools initiative. In addition, a pilot project is underway to illustrate how a whole school approach to ESD can successfully combine curriculum entitlement and school premises management.

## **Tourism**

The quality of Devon's natural environment is an important draw for tourism. In 2003 visitors spent over 33 million nights in Devon and contributed in excess of £1.1 billion to the county's economy. With such numbers the potential impact on the natural environment could be significant and DCC actively promotes sustainable tourism. Walking, cycling and horse-riding opportunities are continually being developed and the county has a comprehensive network of footpaths, cycle paths and bridle ways including elements of the National Cycle Network and the South West Coastal Path. In addition DCC promotes the use of sustainable transport by publishing online car-free itineraries for local attractions. DCC is also working with tourist attractions to develop green travel plans and with South West Tourism to develop a Green Accreditation Scheme to encourage tourism businesses to reduce their energy consumption and recycle waste efficiently. Information panels on climate change are planned for key visitor sites across Devon. Climate change is also a key theme for the proposed visitor centre in Exmouth.