



Low-carbon
Lake District

2012

Lake District National Park Authority: Carbon Management Case Study

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Carbon Reduction Advisor

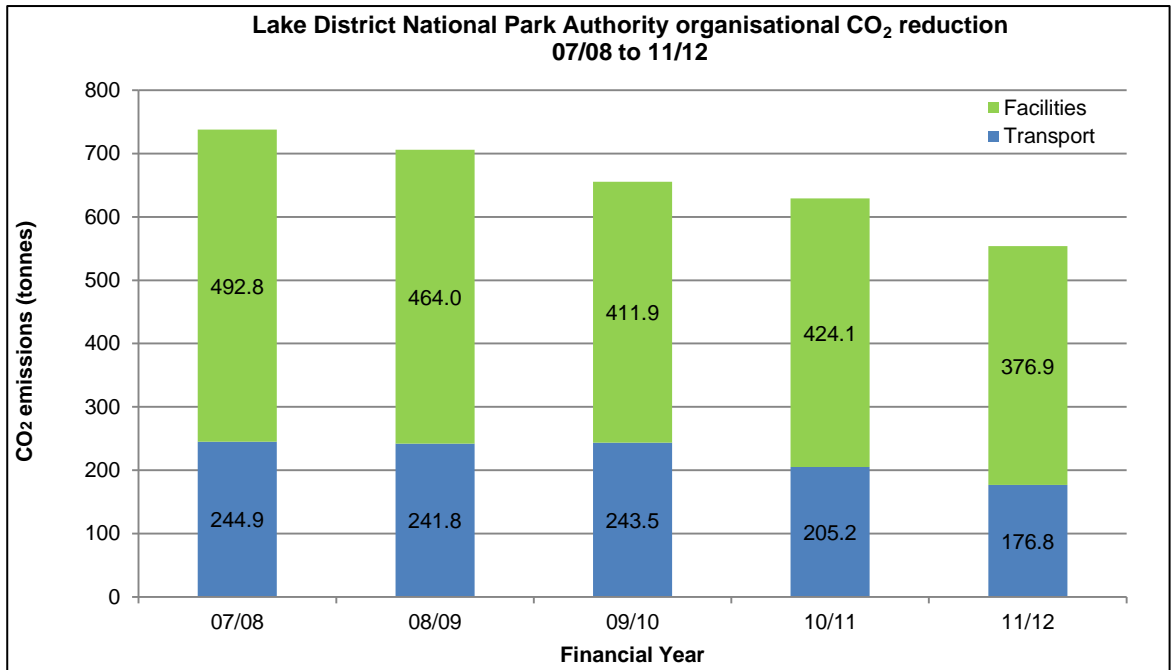
Lake District National Park
Authority

16 July 2012

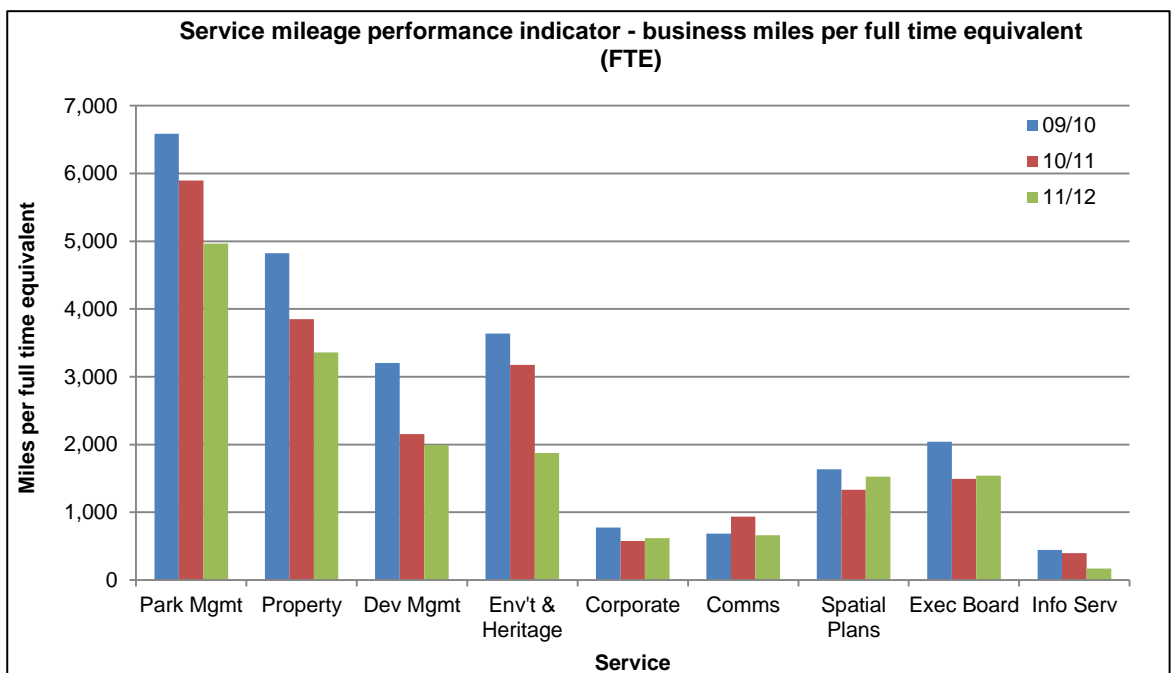
Lake District
National Park



Following our appointment of a dedicated Carbon Reduction Advisor in 2009, the Lake District National Park Authority has achieved a tremendous **25 per cent** reduction in CO₂ emissions from our own operations from 738 tonnes CO₂ in 2008 to 554 tonnes in 2012, **saving 184 tonnes of CO₂** by implementing a comprehensive package of projects to reduce our facilities emissions by 31 per cent (116 tonnes) and our transport emissions by 39 per cent (68 tonnes).



Our mileage reduction project has contributed significantly towards this overall success. Over the last two years our staff reduced the number of miles that they travel on behalf of the Authority by over **176,000 miles** (32 per cent), **reducing grey miles by 75 per cent** over four years. This has reduced Health and Safety risk and saved almost **70 tonnes of CO₂**, almost **£100,000** and over **4,400 hours of staff productive time**.



This year we have set a challenging new target to reduce our emissions by a further **15 per cent by 2015** with a view to achieving the English National Parks shared commitment to continually reduce net organisational carbon balance year-on-year, with a long term aim of being **zero-carbon by 2020**.

<p>1 Elements for a successful Carbon Management Plan</p>	<p>During the course of this Programme we have identified a number of elements that we believe are important for a successful Carbon Management Programme:</p> <ol style="list-style-type: none"> 1 Clear strategic commitment 2 Compile and analyse the baseline 3 Carbon reduction projects 4 Performance indicators and target setting 5 Regular progress review 6 Removing barriers 7 Staff engagement 8 Recognising and celebrating success 9 Accolades and achievements 10 Public reporting 11 Working in partnership: our wider influence 12 Adapting to climate change
<p>2 Clear strategic commitment</p>	<p>As the Lake District National Park Authority, we understand our potential influence on residents, businesses, organisations and visitors to the National Park and the powerful message that we can give by leading by example¹.</p> <p>In 2009 our Chief Executive signed the Cumbria Climate Change Commitment², committing, together with 40 partners across the county, to reduce our organisational CO₂ emissions and adapt to climate change. We updated our Business Plan³ to include a priority to become an exemplar in reducing carbon emissions; appointing a full-time Carbon Reduction Advisor to oversee the delivery of our Carbon Reduction Programme⁴, a comprehensive strategy, endorsed by our members and Executive Board, which detailed projects to reduce CO₂ emissions relating to our facilities, transport and ICT equipment.</p> <p>To demonstrate our ongoing commitment to reducing our environmental impact we publish our Energy and Water Objectives and Commitment⁵ signed by our Chief Executive and Chairman on an annual basis and have set up an invest to save budget, setting aside ten per cent of our annual gas and electricity costs to re-invest in energy efficiency projects. We also established a Carbon Management Board, which includes two members of our Executive Board, to review progress against target and any potential roadblocks on a quarterly basis, further illustrating senior level commitment to the programme.</p>
<p>3 Compile and analyse the baseline</p>	<p>We firmly believe that what you cannot measure, you cannot manage, so our first stage was to compile our baseline in order to fully understand the CO₂ emissions that arise as a result of our activities. This allowed us to clearly quantify any reduction in carbon emissions achieved as a result of implementing the projects in our Carbon Management Programme. Working with the experts, both the Carbon Trust as part of their public sector programme and undertaking an Energy Saving Trust⁶ Green Fleet Review, provided us with invaluable advice during the early stages of our journey.</p> <p>To ensure accuracy and obtain access to more detailed, half hourly, electricity consumption data we installed 'smart metering' technology but also ensured that staff continued to take monthly meter readings in case of technological failure.</p> <p>We have since developed our data collation systems to improve ease of compilation and accuracy. For example, we have set up an electronic expense claim system which both improved the authorisation process and allowed us to run a simple report to ascertain how many miles our staff drove on Authority business in a given period rather than conduct the time-consuming exercise of searching through paper expense forms. We have also set up a bespoke fleet management database to record pertinent information about our pool and fleet vehicles and opened an account with a train booking company to simplify the booking process and collate the journey information necessary to calculate our emissions.</p>

¹ www.lakedistrict.gov.uk/caringfor/projects/climatechange/authoritycarbonreduction

² www.cumbriastrategicpartnership.org.uk/Climate_Change/actionplans.asp

³ www.lakedistrict.gov.uk/_data/assets/pdf_file/0008/232793/BusinessPlan-2012-2015.pdf

⁴ www.carbontrust.com

⁵ www.lakedistrict.gov.uk/_data/assets/word_doc/0015/170250/energy_objectives_and_commitments_august_2010.doc

⁶ www.energysavingtrust.org.uk/

4 Carbon reduction projects

Our **Carbon Management Plan** focuses on **facilities, transport and technology**. We measure, benchmark, monitor and manage emissions to maximise savings. Carbon impact and energy efficiency are considered in respect to all projects and procurement that we undertake and we have introduced a **sustainable procurement toolkit** to ensure that environmental impacts are understood and addressed.

Facilities :

We refurbished our head office, to improve levels of energy efficiency. We also reduced demand by creating light and airy open plan offices painted white to reflect sunlight and reduce the need for electric lighting, investing in automatic lighting controls in areas of the building where appropriate. We installed new showers, changing rooms and lockers encourage staff to cycle to work. This year we are installing a **woodchip boiler** controlled by a building energy management system (BEMS) which will provide a key public demonstration of our commitment to reduce our impact on the environment. Next year we will begin a programme to replace the 6mm air filled double glazing at our Head Office with **20mm argon filled**.

Wherever we refurbish our properties we ensure that we minimise energy requirements and incorporate energy efficiency measures. We have established a sustainable **public toilet refurbishment programme** to improve levels of natural light, install LED lighting, low energy hand dryers, low flow toilets and waterless urinals. We are building a new **sustainable office** and workshop for our staff based in the North of the Park. The architect's design incorporates a range of energy efficiency measures and renewable technologies to further reduce our environmental impact.

Technology :

We have installed a number of new technologies which reduce emissions both by **optimising the voltage** of our supply, and by reducing demand through **server virtualisation, automatic power saving** and **printer rationalisation**. We have also installed a number of technologies to support our travel hierarchy, for example **teleconferencing** and **videoconferencing** facilities and equipment to **allow staff to work remotely**.

Transport :



It is imperative to understand the bigger picture before taking action. Our **Business Travel Recommendations report**, endorsed by our Executive Board, considered corporate and strategic priorities, Health and Safety and environmental and economic baselines. It also included a review of best practice and the results of our staff travel survey. Only the staff themselves understand the reasons behind their need to travel, the modes of transport that they choose and the reasons why and it is important to recognise these drivers before implementing any changes. Involving staff at an early stage resulted in a greater level of organisational buy in and staff and unions fully supported the resulting policy alignments.



Our low emission Low-carbon Lake District™ branded vehicle fleet

The recommendations were implemented by a **Cross-Service Business Travel Working Group**, allowing greater staff engagement with the development of a bespoke travel hierarchy, 'The Smart Way is the Green Way' with useful links to 'how to' guides and relevant travel planning websites. Our hierarchy focuses on reducing the need to travel, through **teleconferencing and videoconferencing**; using alternatives to car travel, such as public transport, cycling and walking; encouraging lift sharing in a low emission and managed **pool car**, and reducing the amount of uncontrolled 'grey fleet' travelling on behalf of the Authority. We also continue to reduce the average emissions of our fleet vehicles and in accordance with our four year **Fleet Strategy**. When a vehicle is due for replacement, if it is considered to be business critical it is replaced with the lowest emission vehicle appropriate for the task.

<p>5 Performance indicators and target setting</p>	<p>Once clear measurement systems were established, we created a comprehensive series of performance indicators to link our strategic intention to the delivery level. To ensure maximum levels of staff engagement and accountability, we ensured that all Services were assigned carbon reduction performance indicators to report against on a quarterly and annual basis. For example, each Service reports against a mileage reduction performance indicator which is calculated as the total of the number of miles that their team travel in fleet, pool and hire vehicles, together with mileage claims divided by the number of full time equivalent staff in the team. The Carbon Reduction Adviser sets specific, measureable, achievable and realistic (SMART) targets, together with Heads of Service, based on a clear understanding of business requirements.</p>																																																																														
<p>6 Regular progress review</p>	<p>It is essential to provide frequent performance updates, not only to those responsible for performance indicators but to all staff. It is important to remember that every member of staff has a direct impact on a Carbon Management Programme, whether it's as a result of their travel decisions or the procurement of new ICT equipment.</p> <div> <p style="text-align: center;">Lake District National Park Authority Head Office Electricity Consumption (kWh)</p> <table border="1"> <caption>Estimated Electricity Consumption (kWh) Data</caption> <thead> <tr> <th>Month</th> <th>07/08</th> <th>08/09</th> <th>09/10</th> <th>10/11</th> <th>11/12</th> </tr> </thead> <tbody> <tr><td>Apr</td><td>13,000</td><td>13,000</td><td>13,000</td><td>12,000</td><td>8,000</td></tr> <tr><td>May</td><td>13,000</td><td>10,000</td><td>14,000</td><td>10,000</td><td>9,000</td></tr> <tr><td>Jun</td><td>16,500</td><td>14,000</td><td>14,000</td><td>9,500</td><td>8,500</td></tr> <tr><td>Jul</td><td>13,000</td><td>14,000</td><td>13,500</td><td>9,500</td><td>8,500</td></tr> <tr><td>Aug</td><td>7,000</td><td>14,000</td><td>13,500</td><td>9,000</td><td>8,500</td></tr> <tr><td>Sep</td><td>11,000</td><td>14,500</td><td>13,500</td><td>9,500</td><td>8,500</td></tr> <tr><td>Oct</td><td>15,000</td><td>15,000</td><td>11,500</td><td>10,000</td><td>9,000</td></tr> <tr><td>Nov</td><td>17,500</td><td>15,500</td><td>13,500</td><td>10,500</td><td>10,000</td></tr> <tr><td>Dec</td><td>11,500</td><td>14,000</td><td>11,500</td><td>9,000</td><td>9,000</td></tr> <tr><td>Jan</td><td>14,000</td><td>15,000</td><td>12,000</td><td>10,500</td><td>9,500</td></tr> <tr><td>Feb</td><td>18,000</td><td>14,500</td><td>12,000</td><td>9,500</td><td>9,500</td></tr> <tr><td>Mar</td><td>14,500</td><td>15,000</td><td>14,500</td><td>9,500</td><td>9,000</td></tr> </tbody> </table> </div> <p>We provide regular fossil fuel consumption data to staff, supplying graphs to compare each building's recent performance with historical data to identify any increase in consumption at the earliest opportunity allowing them to understand and control it. If we identify an increase in electricity consumption, we review the detailed Smart meter data, together with the relevant staff, to understand and address the reasons behind the upturn. We also provide staff with a quarterly graphical review of the total number of miles that each Service has travelled on behalf of the Authority, together with the number of miles per full time equivalent. If there has been an increase, we review the business reasons why this should be the case with the responsible Head of Service. We publish regular articles in staff newsletters and on our intranet to offer continued encouragement and to ensure that staff understand our progress towards our carbon reduction targets.</p>	Month	07/08	08/09	09/10	10/11	11/12	Apr	13,000	13,000	13,000	12,000	8,000	May	13,000	10,000	14,000	10,000	9,000	Jun	16,500	14,000	14,000	9,500	8,500	Jul	13,000	14,000	13,500	9,500	8,500	Aug	7,000	14,000	13,500	9,000	8,500	Sep	11,000	14,500	13,500	9,500	8,500	Oct	15,000	15,000	11,500	10,000	9,000	Nov	17,500	15,500	13,500	10,500	10,000	Dec	11,500	14,000	11,500	9,000	9,000	Jan	14,000	15,000	12,000	10,500	9,500	Feb	18,000	14,500	12,000	9,500	9,500	Mar	14,500	15,000	14,500	9,500	9,000
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<p>7 Removing barriers</p>	<p>We review our progress at a senior level at quarterly Carbon Management Board meetings. These provide the opportunity to address and remove any barriers to progress. We also hold quarterly meetings of the Energy Team, chaired by the Head of Property Service, to review energy consumption and implement actions to reduce the Authority's use of gas and electricity.</p> <p>We have reviewed key policies with an impact on carbon reduction to ensure that they were aligned with our corporate objective to reduce our emissions. For example, our Travel and Subsistence Policy was updated to reduce the casual user allowance, remove essential user allowance and integrate our travel hierarchy 'The Smart Way is the Green Way'.</p>																																																																														
<p>8 Staff engagement</p>	<p>One of our Corporate Values agreed by staff, volunteers and members is that "We are ethical and care about the environment". Our Carbon Management Plan provides staff with a clear opportunity for engagement to demonstrate their commitment to this value.</p> <p>Our Director of Park Services chairs quarterly meetings of our Green Group, with staff representing each of our Services, which aims to generate action across the Authority to reduce its carbon footprint. We also established a suggestion scheme for all staff to record carbon reduction ideas on our intranet for review and implementation by our Energy Team. We have engaged with national campaigns such as 10:10, Energy Saving Week and Climate Week. We also post top tips on our intranet - for example, how to reduce fuel</p>																																																																														

<p>8 Staff engagement continued</p>	<p>consumption when driving or details of grants for home insulation. We also lend an energy monitor to staff to measure and reduce their electricity consumption in the home and arranged for them to attend Energy Savings Trust Smarter Driving⁷ courses. Our 2011-2014 Fleet Strategy includes an objective to provide further staff with this training opportunity.</p> <p>We have produced targeted training material for staff and encouraged staff to attend relevant seminars. We have also rolled out the Carbon Trust interactive e-learning tool⁸. We have also introduced a set of Heating, Cooling and Lighting Guidelines for our Head Office so that staff understand that our aim is to provide a suitable internal climate for the majority of staff during core hours while managing energy effectively to help reduce carbon emissions and utility costs. We conduct out of hours surveys and compare and communicate our Christmas electricity consumption each year to understand and encourage staff shut down behaviours.</p>
<p>9 Recognising and celebrating success</p>	<p>It is important to acknowledge the invaluable contribution of staff towards a successful Carbon Management Programme, whether it is by changing their travel habits or establishing a database to record pool car journeys. Without organisational buy-in and commitment our programme would not have been such a success. We ensure that we celebrate our successes with staff on a regular basis, for example by the Chief Executive presenting cake and a certificate to the winners of our annual mileage reduction challenge or arranging an all staff barbeque to celebrate our 25 per cent carbon reduction.</p>
<p>10 Accolades and achievements</p> 	<p>Our work has received national recognition which has energised and re-enforced staff support for our Carbon Management Programme. In 2009 we graduated from the Carbon Trust's Local Authorities Carbon Management Programme, and in 2010 we achieved independent accreditation in the form of the Carbon Trust Standard. We are proud to have achieved re-certification against this Standard in 2012.</p> <p>We won a North West Climate Leaders Award for our Carbon Management Programme in 2010 and were short-listed in the Green IT Team of the Year Awards (2011). We have also won four Energy Savings Trust Fleet Heroes Awards: Best Public Sector Fleet under 250 vehicles (2009), Leadership in the Public Sector (2010), Grey Fleet (2011) and Business Mileage (2011) and have worked with the EST Motorvate⁹ network to provide best practice presentations and case studies.</p>  <p><i>2010 Public Sector Leadership Fleet Hero award presented by Errol Taylor Deputy Chief Executive of the Royal Society for the Prevention of Accidents (RoSPA)</i></p>
<p>11 Public reporting</p>	<p>We believe that it is essential to be transparent; we therefore publish an annual Greenhouse Gas Emissions Report¹⁰ on our website and report our carbon reduction progress in our Annual report¹¹. We also report and compare our annual greenhouse gas emission reductions to the English National Park Authorities Association.</p>

⁷ www.energysavingtrust.org.uk/Transport/Business/Fleet-consultancy-and-certification/Smarter-Driving

⁸ www.carbontrust.com/resources/reports/advice/empower

⁹ www.energysavingtrust.org.uk/Transport/Business/Fleet-consultancy-and-certification/Transport-certification/How-to-join-Motorvate

¹⁰ www.lakedistrict.gov.uk/_data/assets/word_doc/0003/242256/GHG-Reporting-2012-Supporting-Explanations.doc

¹¹ www.lakedistrict.gov.uk/_data/assets/pdf_file/0018/177012/ldnpa_annual_report_web.pdf

<p>12 Working in partnership: our wider influence</p>	<p>The successes of our Carbon Reduction Programme has provided staff with a well-founded mandate to support partners, residents and visitors in cutting carbon, anticipating the effects of climate change and implementing effective adaptation and mitigation strategies.</p> <p>In 2008 we established the Low-carbon Lake District™ initiative. We have since worked through the Lake District National Park Partnership to develop the first consumption-based carbon budget for a local area in the UK and have been invited to give evidence on the scheme to the House of Commons Select Committee on Energy and Climate Change.</p> <p>The principle behind a carbon budget is simple: like a financial budget, we aim to find out how much carbon the Lake District is responsible for, and then reduce the carbon 'spend' year on year. With funding from the Northwest Regional Development Agency, we commissioned local carbon foot printing experts Small World Consulting to map emissions. The study revealed the Lake District is annually responsible for consuming 2.3 million tonnes of carbon dioxide and other greenhouse gases. Significant findings include:</p> <ul style="list-style-type: none"> • Visitors travelling to and from the Lake District account for 41 per cent of the total carbon footprint. Encouraging domestic tourism and longer stays would reduce this. • Road transport is a significant impact, at around a third of total emissions. Reducing dependence on private cars, by both visitors and residents, would reduce carbon and bring social and economic benefits too. <p>A selection of other partnership initiatives include:</p> <ul style="list-style-type: none"> • Our Sustainable Development Fund which provides funding for renewable energy projects such as small scale hydro developments and energy efficiency improvements to community buildings. • A new planning policy¹² to ensure that development within the National Park meets the highest standards of energy efficiency and, wherever possible, integrates low-carbon energy generation. We have also worked with the Energy Saving Trust to train our planning officers to help households and businesses reduce carbon emissions when they develop or refurbish buildings. • Developing a section on our website for students to learn about weather and climate¹³, with information about the predicted impacts of climate change on the Lake District landscape and wildlife and the measures we are taking to deal with these changes and reduce our contribution to climate change. We have developed climate change training resources and our staff attend school assemblies to engage with pupils about the National Park purposes and climate change. • A project in conjunction with tourism partners to develop a Low-carbon Lake District brand and marketing strategy, as well as practical projects to cut carbon, from energy-efficient accommodation, to sustainable transport options, and local sourcing of food. • The Go Lakes Travel Programme¹⁴ - a £6.9 million initiative funded by the Department of Transport and being delivered in partnership by Cumbria County Council, the Lake District National Park Authority and Cumbria Tourism. Between 2011 and 2015 it aims to generate a step-change in how visitors travel to and around the Central and Southern Lake District, enabling them to make greater use of sustainable modes of travel.
<p>13 Adapting to climate change</p>	<p>We are working with the Lake District National Park Partnership to help the Lake District adapt to inevitable changes in our climate. The severe floods of 2009 demonstrated the need to be prepared for a more turbulent future. Following the English National Parks Association's best practice model, in 2011 we reported to the Department of Energy and Climate Change (DECC) about our adaptation activities¹⁵ in seven areas: landscape; biodiversity; historic environment; access, recreation and tourism; community culture and economy; farming and land management; and the National Park Authority's own business continuity.</p>
<p>For further Information</p>	<p>Charlotte Smyrl – Carbon Reduction Advisor Lake District National Park Authority Murley Moss, Oxenholme Road, Kendal, Cumbria, LA9 7RL charlotte.smyrl@lakedistrict.gov.uk Telephone: 01539 724555</p>

¹² www.lakedistrict.gov.uk/planning/renewableenergy

¹³ lakedistrict.nationalparks.gov.uk/?a=174737

¹⁴ www.golakes.co.uk/information/golakes-travel-project.aspx

¹⁵ archive.defra.gov.uk/environment/climate/documents/adapt-reports/11public-bodies/pbs-lake-district.pdf

Who are the Lake District National Park Authority?

We:

- are the planning authority, making decisions on planning applications, advising people how to comply and creating policies to guide development
- promote and fund sustainable development
- support and work with communities within and outside the National Park
- develop and maintain access to the countryside, encouraging responsible use
- run events and learning activities
- run the Brockhole Lake District Visitor Centre, a boating centre at Coniston and three information centres
- manage over 8,000 hectares of land including woodlands and lakes, and operate car parks and public toilets
- enrich wildlife, heritage and landscape
- manage the effects of climate change.

The Authority is made up of 22 members. Six are appointed by Cumbria County Council, six are appointed by the District Councils covering areas within the National Park, six are appointed by the Secretary of State to represent the national interest and four are appointed to represent the National Park's Parish Councils.

We have 196 staff including park management and field rangers; information centres advisers, field workers, planners and specialists in ecology, archaeology, landscape and access. We also have a wealth of additional knowledge and experience to tap into in the form of our enthusiastic volunteer base.

Much of our work is with the other 23 organisations that form the Lake District National Park Partnership. The Partnership's Plan is the Management Plan for the National Park which tells everyone where we are heading, what the issues are and how we are going to tackle them with limited public funding.

The Partnership is also responsible for agreeing the Vision for the Lake District National Park in 2030:

The Lake District National Park will be an inspirational example of sustainable development in action, It will be a place where a prosperous economy, world class visitor experiences and vibrant communities all come together to sustain the spectacular landscape, its wildlife and cultural heritage. Local people, visitors and the many organisations working in the National Park or have a contribution to make to it, must be united in achieving this. We believe that by working cooperatively we can deliver better outcomes for people living, working, visiting and enjoying the National Park.