



## **Adapting to Climate Change in the Lake District National Park: Update and forward strategy, November 2014**

### **Summary**

In January 2012 the Lake District National Park Authority published its first climate change adaptation risk assessment, following the invitation from Defra to contribute to the UK-wide climate change risk assessment, a process established in the 2008 Climate Change Act.

The report can be found here:

[http://www.lakedistrict.gov.uk/\\_data/assets/pdf\\_file/0016/233611/Climate-Change-Adaptation-Report-20-Jan-2012.pdf](http://www.lakedistrict.gov.uk/_data/assets/pdf_file/0016/233611/Climate-Change-Adaptation-Report-20-Jan-2012.pdf)

This report:

- Provides an update on evidence and progress since January 2012;
- Details the links to our strategy for climate change mitigation through carbon reduction; and
- Explains how we will organise our work on climate change adaptation for the year ahead.

### **Update**

The attached table details our current and planned work on climate adaptation. We have made significant progress since our report in 2012, as the table shows. Most of our work in this area is done collaboratively, and managed through the Lake District National Park Partnership (<http://www.lakedistrict.gov.uk/aboutus/partnership>). Highlights include:

**Climate adaptation and community resilience through valley planning:** A project was undertaken in 2013, with Defra funding, to look at climate change and community resilience. This links to the wider process of 'valley planning' for the National Park. Valley planning sets out what people want to see happening in their area in the future. It is a geographical approach to partnership working to improve delivery of community aspirations.

A pilot Valley Planning process was carried out in the Ullswater Valley in 2013, and as part of this, we worked with the community to look at community resilience in the face of

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climate change. Further information on the project is available at the link below. Following the pilot, we will be continuing work in Ullswater and undertaking a Valley Planning process for Grasmere/Rydal/Ambleside.

<http://www.lakedistrict.gov.uk/caringfor/projects/valleyplanning/ullswatervalleyplanning>

**Resilient Rights of Way:** Following severe floods in 2009, we implemented a three-year 'Paths for the Public' plan to increase the future flood resilience of paths. As part of this, we carried out repairs or replacements on 253 bridges, repaired or replaced gates, stiles and signs on 70 paths, and restored a further 85 paths. We have also continued with our Fix the Fells upland path restoration programme. Work has already been completed on 220 paths, and a further 120 will be restored. There is clear evidence of faster deterioration due to more extreme weather events.

**Sustainable Water Management:** We have new programmes in place to promote water quality, including the 'Greener Boating' initiative for boat users, and the development of a Lakes ScoreCard to focus work on water quality. We are working in partnership to prevent the spread of invasive species by lake users, through the 'Ditch the Hitchhikers – check, clean, dry' campaign. We are also undertaking catchment management and practical works in river corridors and uplands to slow down flood waters and reduce sedimentation.

**Biodiversity:** The LDNP is working closely with the new Local Nature Partnership, to implement integrated landscape-scale approaches to safeguarding biodiversity. Projects are already underway to conserve arctic-alpine species most at risk from climate change.

**Cumbria Peat Partnership:** This partnership was established to co-ordinate work on peatland restoration. It has a target to restore 150ha of peatland habitat by 2016, and to secure funding for further work.

**Business continuity and resilience:** We continue to improve our own performance in this area, notably with the completion of our new Northern Area Office which includes adaptive measures such as raised electrics and vinyl flooring and coving. Properties in high flood risk areas have been retrofitted with adaptive measures.

### Links to climate change mitigation and carbon reduction

Our work on adaptation is part of our wider Low-carbon Lake District Initiative, which provides a strategic response to climate change across the Lake District. We work through the Lake District National Park Partnership, and convene a Climate Change Subgroup, with representatives from public sector agencies, the voluntary and community sector and business representatives.

Our mitigation work is based around a 'local carbon budget', the first of its kind in the UK, which allows us to measure carbon emissions and map progress toward an area-wide carbon reduction target. More details of this work are here:

<http://www.lakedistrict.gov.uk/caringfor/partnership/carbonbudget>

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Many carbon saving projects also have significant benefits for adaptation. For example, our pioneering 'carbon brokering' service rewards land managers for woodland creation and peatland restoration, which save carbon and improve resilience.

### **Future work**

The attached table provides updated detail on current, planned or potential actions across the seven themes of the climate change risk assessment. Our workplan for climate adaptation and mitigation is integrated within the Partnership Plan, the strategic plan for the Lake District National Park Partnership.

Specifically, the Climate Change Subgroup, described above, plays a role in co-ordinating our strategic response to climate change.

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### Lake District National Park Adaptation Risk Assessments

A simplified version of the completed ENPAA CCWG Climate Change Risk Assessment spreadsheets has been incorporated into this report. The scores were obtained by using this detailed matrix to assess the combination of likelihood and impact which was summarised to low medium or high impact as below.

**Figure 6: Detailed Risk/Opportunity Matrix**

<b>Risk</b>	-5	Catastrophic	-5	-10	-15	-20	-25
	-4	Major	-4	-8	-12	-16	-20
	-3	Moderate	-3	-6	-9	-12	-15
	-2	Minor	-2	-4	-6	-8	-10
	-1	Slight	-1	-2	-3	-4	-5
	0	No Change	0	0	0	0	0
<b>Opportunity</b>	1	Slight	1	2	3	4	5
	2	Minor	2	4	6	8	10
	3	Moderate	3	6	9	12	15
	4	Major	4	8	12	16	20
	5	Fantastic	5	10	15	20	25
			Rare	Unlikely	Possible	Likely	Almost certain
			1	2	3	4	5
			<b>Likelihood</b>				

**Figure 7: Summary Risk/Opportunity Matrix**

Risk/Opportunity Assessment Score (+/-)	Level of Impact	
1-6	Low	
7-15	Medium	
16-25	High	