

Lake District National Park

With its world renowned landscape, the National Park is for everyone to enjoy, now and in the future.

It wants a prosperous economy, world class visitor experiences and vibrant communities, to sustain the spectacular landscape.

Everyone involved in running England's largest and much loved National Park is committed to:

- · respecting the past
- caring for the present
- planning for the future

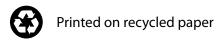


Lake District National Park Authority Murley Moss Oxenholme Road Kendal Cumbria LA9 7RL

Phone: 01539 724555
Fax: 01539 740822
Minicom: 01539 792690
Email: hq@lakedistrict.gov.uk
Website: www.lakedistrict.gov.uk



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Photographs by:

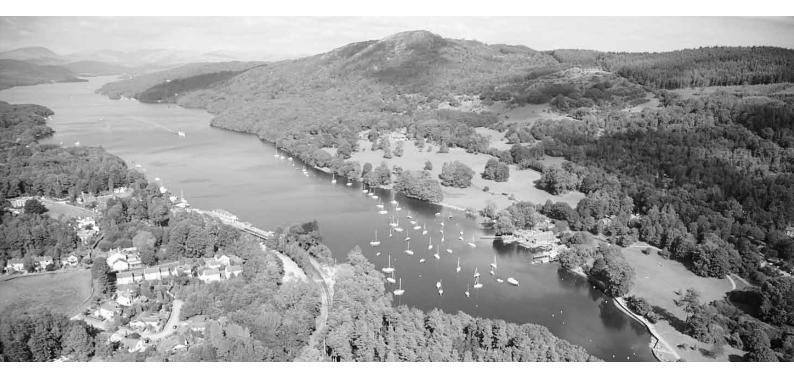
Ben Barden, Karen Barden, Chris Brammall, Val Corbett, Cumbria Tourism, John Eveson, Charlie Hedley, Andrea Hills, Si Homfray, LDNPA, Keith Molloy, Helen Reynolds, South Windermere Sailing Club, Phil Taylor, Peter Truelove, Michael Turner, Tony West, Dave Willis.

Contents

Introduction		Introduction 2
		National Park Purposes 3
		National Park Vision 3
		South Lakeland District Council Vision 4
Section A		A1 Current context 9
A Prosperous		A2 Challenges and opportunities 2011 11
Economy		A3 Recent successes 13
		A4 What we are going to do 13
Section B		B1 Current context 16
World Class		B2 Challenges and opportunities 2011 21
Visitor Experience		B3 Recent success 22
		B4 What we are going to do 23
Section C	Traffic and Transport	C1 Current context 27
Vibrant		C2 Challenges and opportunities 2011 28
Communities		C3 Recent successes 29
		C4 What we are going to do 30
	Historic environment	C5 Current context 31
		C6 Challenges and opportunities 2011 34
		C7 Recent successes 34
		C8 What we are going to do 35
Section D	Landscape	D1 Current context 37
Spectacular		D2 Challenges and opportunities 2011 38
Landscape		D3 Recent successes 39
		D4 What we are going to do 39
	Water	D5 Current context 40
		D6 Challenges and opportunities 2011 43
		D7 Recent successes 44
		D8 What we are going to do 45
	Nature conservation	D13 Current context 46
		D14 Challenges and opportunities 2011 49
		D15 Recent successes 50
		D16 What we are going to do 51
Annexes		Annex 1: References 54
		Annex 2: Asset Management Plan 5 54
		Annex 3: Key Local Development Framework Policies 55
		Annex 4: Landscape Character Area Summary 58
		Annex 5: Technical terms 60
		Annex 6: Existing actions 61
		Annex 7: Windermere Catchment Restoration Programme 63

Introduction

Windermere is England's largest and longest natural lake and an iconic part of the Lake District National Park. Both local residents and the millions of people who visit each year enjoy the recreational opportunities, spectacular scenery and culture Windermere offers.



With a public right of navigation on the lake, Windermere has a rich boating history, including a public highway crossing the lake by way of a ferry. The busiest of all the lakes in the National Park, the lake and its shoreline are popular for many recreational activities. Bowness, Windermere and Ambleside are the main settlements around the lake, attracting high numbers of visitors. Many accommodation providers, businesses, retail and food outlets rely on tourists visiting the area.

The wider catchment of Windermere, the area from which water drains from before entering the lake, includes fells such as the Langdale Pikes, rivers such as the Rothay and Brathay and several other waters and tarns including Esthwaite, Rydal Water and Grasmere. Home to a rare fish, the Arctic charr, Windermere has been subject to significant long term scientific monitoring by the Freshwater Biological Association, based on its shores. It is also a source of drinking water and a receiving water for treated sewage.

The lake is at the centre of the local community, important both for the economic benefits it brings, but also for the health and well-being of local residents. With a variety of uses and pressures on this valuable water resource, it is vital that we look after the lake and its wider catchment.

Windermere faces challenges including concerns over water quality, lake levels and the impacts of climate change. The Windermere Management Strategy sets out how we, the Lake District National Park (LDNP) and South Lakeland District Council (SLDC) alongside our partners and other agencies, are addressing these challenges, and what opportunities we can take advantage of to protect and enhance Windermere for future generations.

It is five years since the Windermere Management Strategy 2005 was produced, and this revised strategy sets out:

- progress and completed actions since 2005
- what new issues and opportunities have arisen
- what new and existing actions we will achieve by 2015 to work towards our Vision.

Our Vision for Windermere is to create a lake that is:

- a beautiful, clean and peaceful lake
- a valuable and safe home for wildlife
- a place we can all enjoy for its scenery, culture, and recreation
- a focal point for local communities and visitors; and which is
- central to sustaining a vibrant and healthy local economy.

To achieve our vision, we need to:

- · promote safe and enjoyable use of the lake
- provide and improve public access to the lake and its shoreline
- help to maintain and enhance the lake's spectacular landscape, its ecology and wildlife, water quality and its cultural heritage
- work towards a prosperous local economy and vibrant communities
- help people to understand the lake landscape, wildlife, culture and history.

National Park Purposes

The statutory purposes of the Lake District National Park designation are:

- To conserve and enhance the natural beauty, wildlife, and cultural heritage of the National Parks
- To promote opportunities for the understanding and enjoyment of the special qualities of the National Parks by the public.

In carrying out these two responsibilities, agencies and organisations within the National Park have a duty to:

 Seek to foster the economic and social well-being of local communities within the National Park.

National Park Vision

Since the original strategy was produced the Vision for the Lake District National Park has been agreed by the Lake District National Park Partnership as the mechanism to bring together everyone to achieve the purposes of the National Park. The Vision for 2030 is:

The Lake District National Park will be an inspirational example of sustainable development in action. It will be a place where its prosperous economy, world class visitor experiences and vibrant communities 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 which have a contribution to make to it, must be united in achieving this. The Windermere Management Strategy will play a key role in achieving this vision.



South Lakeland District Council Vision:

'Making South Lakeland the best place to live, work and visit'

The four key **priorities** for the Council over the next five years are:

Housing:

- People in housing need have an increased availability of affordable homes to purchase and rent.
- Homelessness is reduced.

Economic development:

- Increased business start up and survival rates.
- Sustainable growth in creative, environmental, knowledge based and manufacturing sectors.
- A quality environment in which the visitor economy can achieve sustainable growth.

Visit:

- Reduced quantity of waste we send to landfill and maximise the materials that are recycled.
- · Reduced carbon emissions in South Lakeland.
- Enhanced local environmental quality.

Culture and the arts:

- communities, voluntary clubs and societies and businesses have increased participation in sport, physical activity, heritage and the arts.
- festivals and events of local, national and international reputation are a character of life in South Lakeland.
- the Olympics and Commonwealth Games have inspired a tangible legacy of enhanced appreciation of and participation in cultural activities by residents of the District.

Who reviewed the strategy, and why?

The LDNP and SLDC prepared the original strategy in 2005. Although we are lead partners, many other organisations and individuals have assisted in preparing the review of the strategy and will play significant roles in implementing actions.

When the strategy was produced we said we needed to be flexible and able to respond to changes, so we would review it in five years. Much has changed and we have updated the strategy and action plan to make it as relevant as possible.

During the review of the strategy, the government completed its Comprehensive Spending Review, and reviewed the financial support given to many of the organisations involved in this strategy. We considered this when developing actions, recognising that by working in partnership we are better able to achieve our objectives with the resources available. The strategy also helps to deliver the government's agenda of localism and local delivery of community priorities.

How did it take place?

The timetable was approved by the Windermere Lake User Forum and the Windermere Management Strategy Working Group. The Forum was set up



to advise and help deliver the strategy. The Working Group consists of LDNP members and SLDC councillors who monitor progress of the strategy and action plan.

During August and September 2010 we held a public consultation on proposed actions, and amended the strategy.

Timetable for review process

Date	Action
April – July 2010	Consultation with relevant organisations and agencies
August – September 2010	Public consultation on proposed actions and request for comments and additional actions
27 September 2010	Windermere Lake User Forum meeting: Review consultation document and provide advice and comment
18 October 2010	Windermere Management Strategy Working Group: Analysis of responses
27 October 2010	LDNP Park Strategy and Vision: Draft report and analysis of responses discussed
November February 2010-11	Final draft report produced incorporating comments from the consultation process
February 2011	LDNP Park Strategy and Vision Committee: Draft report discussed
February 2011	SLDC Lake Admin Committee: Draft report discussed
14 March 2011	Windermere Lake User Forum meeting: Draft report discussed
28 March 2011	Windermere Management Strategy Working Group meeting: Draft report discussed
April 2011	SLDC Lake Admin Committee: Final report considered
19 April 2011	Park Strategy and Vision Committee: Final report considered
June 2011	Windermere Management Strategy 2011 published



What is the scope of the Windermere Management Strategy?

The vision and actions in the strategy support 'The Partnership Plan' – A Management Plan for the Lake District 2011-2015. The plan sets out the guiding principles and policies for managing the National Park, based on the National Park's special qualities. The strategy details more specific actions and practical projects that will address challenges and opportunities identified in the Windermere area.

The strategy focuses on the lake and its immediate surroundings, however, we cannot consider the lake in isolation, and many challenges include a wider geographical area than the lake itself. For example, lake water quality depends on water quality in the rivers that flow into the lake; visiting the lake depends on transport links from nearby areas and further afield.

As such, the revised strategy incorporates actions from, in particular, the Windermere Catchment Restoration Programme, which was set up in 2008 to address water quality concerns within the catchment (Section D), and the Lake District Sustainable Transport Framework which sets out priorities for transport improvements in the Lake District National Park (Section C).

Several actions cite Windermere Reflections as the lead partner or a partner in their delivery. Windermere Reflections is a partnership scheme which has gained £1 million from the Heritage Lottery Fund as part of the Windermere Catchment Restoration Programme. The partnership will run 19 projects involving conservation of the built and natural heritage, access, community involvement, education and training between 2011 and 2014 to help conserve, restore and improve the landscape and water quality of the Windermere catchment. Several projects link closely with the vision of the Windermere Strategy and are included within the actions of the strategy. Partners include the Environment Agency, The Lake District National Park Authority, The University of Cumbria and the National Trust.

The strategy does not set out LDNP policies, as the planning authority for the Windermere area, for control of development or the allocation and use of land. Since 2005 such policies have been reviewed, and the LDNP adopted the Core Strategy of the Local Development Framework for the Lake District National Park in October 2010 (Outlined in Section A). Figure 1 shows how the strategy fits in with other policy and strategy documents within the Lake District National Park.

What is the timeframe for the 2011 Windermere Management Strategy?

The Windermere Management Strategy 2011 has a timeframe of five years. However we recognise the need to be flexible and will review the strategy sooner than this, should new developments or opportunities occur.

How do I use the Windermere Management Strategy?

The original document covered issues under eight separate sections. Since then, the Vision for the Lake District National Park has been adopted, and the topics and actions the strategy covers are organised against the Vision's objectives.

Prosperous economy

• Sustainable tourism, development and planning, lake level management

World class visitor experience

· Recreation, access and outdoor education

Vibrant communities

Cultural heritage, traffic and transport

Spectacular landscape

· Landscape, water quality and nature conservation

Each topic in the report includes:

- Current context giving background information
- Challenges and opportunities 2011 revised to show what is relevant to that topic
- Recent successes outlining what we have achieved
- Action plan outlining actions we propose to carry out, along with a completion date, and a list of partners who will work together on each project.

Legislation and Guidance

- Water Framework Directive
- · Bathing Water Directive

Regional Strategies

- Housing
- Economic
- Tourism
- Minerals and Waste
- EA North West Regional Recreational Strategy
- Sport Sector Strategy for England's Northwest 2010-2020

Parish Plans

- Community Strategies
- Local Area Agreements

The Partnership's Plan

Local Development Framework

Sub-regional Documents

- Local Transport Plan
- Destination Management Plan
- Housing Strategy
- Historic Environment Strategy
- Joint Structure Plan
- Cumbria Economic Plan
- Biodiversity Action Plan
- Waste Management Strategy
- Economic Futures Study
- Landscape Character Assessment
- Adventure Capital UK Strategy
- Eden and South Lakeland Forward Delivery Plan

Lake District National Park Authority

- Business Plan
- Climate Change Action Plan
- Access to Lakes, Rivers and Coast Strategy

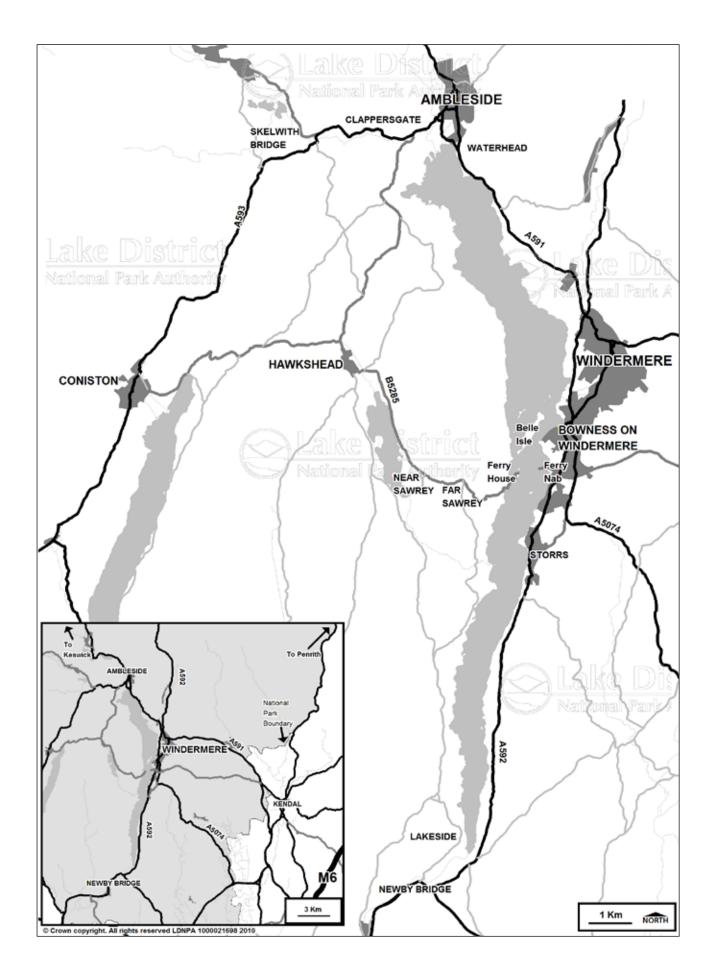
South Lakeland District Council:

- Corporate Plan
- Five year strategy

Lake and Valley Catchment Plans, Master Plans

- West Cumbria
- Keswick
- Ambleside
- Windermere and Bowness
- Windermere Catchment Restoration Programme
- Windermere Management Strategy 2011
- Windermere Reflections

Map 1 Windermere and catchment



Section A

A Prosperous Economy

Businesses will locate in the National Park because they value the quality of opportunity, environment and lifestyle it offers – many will draw on a strong connection to the landscape. Entrepreneurial spirit will be nurtured across all sectors and traditional industries maintained to ensure a diverse economy.



A1 Current context

- A1.1 Approximately 17,500 people live in the Windermere catchment mainly concentrated in Windermere, Bowness and Ambleside. The lake is a focal point for local communities and visitors, and the economic and social well-being of the area heavily depends on the quality of its unique natural and cultural environment.
- A1.2 The LDNP has a duty to seek to foster the economic and social well-being of local communities, in pursuing National Park purposes.

 As a National Park Authority, the LDNP has land use planning and National Park management functions. SLDC is more directly involved in providing local services, housing and business support. Both organisations support and enable economic development initiatives and projects.
- A1.3 There are a number of issues related to economic and social well-being in Cumbria that are significant in the Windermere area:
 - loss of jobs in traditional industries such as farming.
 - the high cost of housing.
 - a narrow range of job opportunities.
 - a low wage economy.

- a high reliance on the tourism industry.
- highly seasonal employment.
- passenger transport services that are patchy and seasonal, with fares that do not compete with car use.
- increasing demands on health and community care due to the higher percentage of older age groups.

Sustainable tourism

- A1.4 Windermere has a long history of tourism, which is now the major industry in the area. Almost 16 million visitors come to the National Park each year spending over 23 million visitor days (STEAM, 2009). A significant number of these visitors come to the Windermere area which includes one of the top ten most popular paid for visitor attractions in England Windermere Lake Cruises. An estimated 50 per cent or more of all economic activity in the National Park is directly or indirectly linked to tourism. In the Windermere area this may well be greater. The lake and its landscape setting are major attractions for visitors, and it is essential that we maintain and enhance these natural assets.
- A1.5 The Government Circular 2010 for English National Parks and the Broads promotes sustainable tourism and refers to the Principles for Sustainable Tourism developed by the National Park Authorities and Areas of Outstanding Natural Beauty. These documents guide tourism development, management and marketing to ensure development brings benefits including helping the environment and local communities.
- A1.6 Cumbria Tourism represents many businesses in the Windermere area and as the appointed Destination Management Organisation for tourism they are responsible for:
 - developing the tourism industry.
 - improving standards.
 - promoting Cumbrian tourism within the United Kingdom.
 - coordinating tourism industry projects in Cumbria.
- A1.7 As well as tourism providing employment in hotels, visitor attractions and catering, many more people are employed in tourism-related and supply chain industries such as retail, public transport and professional and trade services. Cumbria Tourism undertakes tourism business performance surveys and monthly occupancy surveys of visitor accommodation to assess the health of the visitor economy and future growth prospects.
- A1.8 Tourism in the Windermere area depends on the quality of the environment, and we must maintain and enhance the lake's special qualities for future generations. The Tourism Strategy for Cumbria 2008 to 2018 is based on quality and sustainability. It recognises the landscape as the key asset that attracts visitors to the area. Future developments must not detract from this spectacular landscape.
- A1.9 Cumbria Tourism and Nurture Lakeland, a charity supporting Visitor Payback, assist tourism businesses in improving environmental practices. Nurture Lakeland, the Friends of the Lake District and the National Trust's Lake District Appeal also offer visitors opportunities to contribute to conservation and environmental projects.



Development and Planning

- A1.10 The future management and development of the Windermere area is likely to involve proposals requiring planning permission. As the planning authority, the LDNP considers any planning application against its policies. In 2004 the government agreed a new planning system of Local Development Frameworks which will eventually replace Joint Structure Plans and Local Plans.
- A1.11 The Framework contains criteria and area based policies to guide development in the National Park. It shows how we will deliver the Lake District National Park Vision strategically and spatially. The Core Strategy of the Framework was formally adopted in October 2010.
- A1.12 Many of the policies are of significance in relation to the Windermere Management Strategy and are detailed in Annex 3. These include:
 - CS07: Central and South Eastern Distinctive Area Policy.
 - CS08: Windermere Waterfront Programme.
 - · CS28: Lakeshore Development.
 - CS24: Delivering sustainable tourism.
- A1.13 The lake shore businesses which supply lake related services include boat repair and maintenance, marinas, moorings, boat sales, outdoor pursuits, education and training. This creates a unique economic environment which the Framework supports through specific policies regarding Lake shore development and the Windermere Waterfront Programme.
- A1.14 Alongside the Framework, this strategy offers some guidance as to the nature of development appropriate for the lake, the lakeshore and its surroundings. When assessing any development proposals around the lake, the LDNP will use this strategy as a material consideration to assess whether the proposals are consistent with our vision and objectives for Windermere, and whether they address the challenges and opportunities raised in this strategy.



Links between the environment and the economy

- A1.15 The quality of the lake environment, and in particular the water quality, underpins the visitor economy and experience. This was clearly demonstrated in 2010 with the cancellation of the Great North Swim (a mass participation swimming event in Windermere) due to blue-green algae in the lake, which had subsequent significant economic impacts on the local tourism economy.
- A1.16 The flooding events of October 2008, November 2009 and the drought conditions of spring and summer 2010 have also demonstrated the impacts of extreme weather events on local businesses and recreational activities. Actions related to water quality and lake levels are outlined in Section D.

A2 Challenges and opportunities 2011

A2.1 Windermere, Bowness and Ambleside provide a range of accommodation, shops, services and attractions. We recognise that wealth generation is important for local communities. We also want to provide a quality experience for visitors.

- A2.2 Consultation on the original strategy showed support for maintaining a strong link between lakeshore businesses and lake use (e.g. boat repair and maintenance, sailing tuition and boat hire). Cumbria Chamber of Commerce and Windermere and Bowness Chamber of Trade aim to help businesses in the area develop. SLDC provide marketing grants via the Cumbria Rural Enterprise Agency to help businesses in South Lakeland.
- A2.3 The National Park has historically had a distinct seasonal visitor pattern but in recent years tourism trends have shown a lengthening tourism season, as visitors increasingly take short breaks throughout the year. This has significant benefits for employment and helps support local businesses all year round. But we also need to ensure there is not excessive use of sensitive areas or that we diminish the tranquillity of the lake. Any proposal which needs planning permission must balance the benefits with the potentially adverse effects of year round tourism.
- A2.4 Through consultation, a need to improve the public realm in Windermere and Bowness has been identified. The change and improvements will be managed through the Bowness Bay and the Glebe strategic regeneration project as part of the Windermere Waterfront Programme (Policy CS08 in Annex 3). The new economic climate we are now facing demands close working between public and private sectors to ensure that enhancements to the public realm can be achieved.
- A2.5 The original consultation indicated that we are losing boat building and boat maintenance skills from the area, which has been an important source of employment. The Lakeland Arts Trust has, since 2005, started an ambitious project to increase Windermere's heritage of steamboats and classic lake craft at the Windermere Steam Boat Museum. Part of the Windermere Waterfront Programme's aim to develop a world class visitor experience, it will allow people to learn about and enjoy Windermere's unique boating heritage. The project could also enable skills in traditional boat building to be learnt.
- A2.6 The redevelopment of Brockhole, the Lake District Visitor Centre as an exemplary National Park Visitor Centre, will establish a gateway to Windermere and the National Park, and offer a taster for experiences that the area offers.
- A2.7 The Windermere Waterfront Programme will also expand the southern end of the lake's role as a visitor destination, with potential to provide a southern entry point to the lake, it attractions and the wider area via the High and Low Newton bypass. This will potentially include sustainable transport connections to Grizedale Visitor Centre. The area includes: Lakeside, Fell Foot Park, Backbarrow Motor Museum and Haverthwaite Railway terminal.
- A2.8 The flood events in 2008 and 2009 had a serious economic impact on businesses based on the lake shore. Tourism is a significant part of the economic prosperity of the area and extreme weather events are likely to increase as a result of climate change. It is important that measures are taken to reduce the impacts of such events and mitigate against flooding to avoid damaging the visitor experience and reputation of the area. Actions related to this are highlighted in Section D.



A3 Recent successes¹

- A3.1 The Local Development Framework has key policies relating specifically to lake shore based businesses, recognising the important role they play in the local economy of lakes such as Windermere (H3.1; H3.2).
- A3.2 The Windermere Waterfront Programme is the most prominent regeneration project in the Lake District National Park, aiming to deliver a sustainable world class visitor experience. Part of the Windermere and Bowness Enhancement Masterplan (H3.4) it aims to enhance and improve key sites around the lake, especially the public realm. It seeks to link these sites via the lake and other sustainable transport options, including the national rail network at Windermere. Bowness Bay and the Glebe have been identified as a strategic location to help deliver this enhancement.
- A3.3 Recent developments as part of the Windermere Waterfront Programme include the opening of the Lakeland Motor Museum in 2010, which will become an important visitor destination at the south of the lake. Improved transport links from a new rail halt will help to develop a sustainable transport network. Planning permission has also been granted to secure the future of Wray Castle, a listed building on the north western shore of the lake, as a hotel.
- A3.4 Adventure Capital, the Cumbria Tourism-led strategy to make Cumbria and the Lake District the Adventure Capital of the UK by 2018, with an unrivalled reputation for outdoor adventure, aims to increase sustainable world class outdoor experiences, and deliver social and economic benefits to the area. Windermere is a key location for this. Large events such as the Great North Swim, supported by Adventure Capital, contribute to the economic prosperity of the area. Promotion of the large array of events, activities, and leisure providers is provided on both the Cumbria Tourism and the LDNP websites (H3.5).
- A3.5 Additional events such as those associated with Lakes Alive, which has provided new outdoor performance events in the area up to 2012 as part of the Cultural Olympiad, boost the local economy.
- A3.6 Developing from the Lakes Market Towns Partnership, South Lakeland Development Trust was set up in 2004 and delivered key initiatives under the Market Towns Initiative to support economic vitality in the area. These included developing and delivering the Windermere on Water event (H3.8) and a Windermere Town Enhancement Programme which have had positive impacts on the Windermere area.

A4 What we are going to do²

	Action	Achieved by	Lead partners Potential partners
A4.1	Using the experience from Keswick, work with local businesses to develop a Business Improvement District, or similar style alternative programme.	2013	Windermere and Bowness Chamber of Trade

continues

¹ Actions from the 2005 Windermere Management Strategy are referred to in brackets

² Existing 2005 actions status are summarised in Annex 6

	Action	Achieved by	Lead partners Potential partners
A4.2	Encourage lake related businesses to engage with local Chambers of Commerce and Trade.	2013	Cumbria Chamber of Commerce SLDC Windermere Lake User Forum Commercial User representative
A4.3	Assess proposals for year- round visitor activity alongside potential adverse impacts on the landscape, nature conservation, or residents' interests in line with Local Development Framework Policy CS24.	Ongoing	LDNP
A4.4	Implement the Windermere Waterfront Programme to create a world class destination with high quality public open spaces and facilities for residents and visitors. Known timescales for projects (depending on securing planning permission):	Ongoing	LDNP SLDC Windermere Steam Boat Museum Low Wood Hotel The Lake District Visitor Centre at Brockhole National Trust Lakeland Motor Museum Windermere Lake Cruises
	Bowness Bay and the Glebe	From 2011	
	Low Wood Hotel	2013/14	
	Windermere Steam Boat Museum	Implemetation by 2013/14	
	Lakeland Motor Museum: Rail halt	2012/13	
	Windermere Waterfront Programme Southern Node Development.	2013/14	
A4.5	Increase opportunities for training and courses teaching traditional skills, to include skills such as boat building, woodland crafts, forestry skills and land management.	2014	Windermere Steam Boat Museum Windermere Reflections University of Cumbria Kendal College

continues

	Action	Achieved by	Lead partners Potential partners
A4.6	Redevelop the Lake District Visitor Centre at Brockhole as an exemplary National Park Visitor Centre.	2014	LDNP
	Stage 1: New jetty, watersports provision and high ropes course	2011	
	Stage 2: Restoration of gardens	2011/12	
	Stage 3: Watersports centre	2013	
	Stage 4: New visitor centre.	2014	
A4.7	Promote business to business dialogue for the purposes of strengthening local supply chains and business growth.	Ongoing	SLDC Cumbria Rural Enterprise Agency









Section B

World class Visitor Experience

High quality and unique experiences for visitors within a stunning and globally significant landscape. Experiences that compete with the best in the international market.



B1 Current context

- B1.1 Windermere is a popular, and at times busy lake. The wide variety of recreational activities that are available on, in and along the lake shore from walking and picnicking along the lake shore to more active leisure pursuits on the water, are an important part of its character and appeal. The scenery and atmosphere the lake provides, the wide range of facilities, the proximity of major villages on the shore, and its relative accessibility from major roads, makes Windermere unique amongst lakes within the Lake District National Park.
- B1.2 Early industrial traffic on Windermere has led to a public right of navigation allowing anyone to navigate in any type of craft, for leisure or commercial purposes, provided they can lawfully access the water. The Countryside Act 1968 allows the LDNP to make and enforce byelaws to minimise potential conflict between different activities on the lake, and between activities and nature conservation values.
- B1.3 Bowness is the major centre on the lake shore providing facilities for the different craft using the lake. There are marinas for powered and sailing craft, boat yards and maintenance facilities, public and private jetties, and a number of swinging moorings off-shore. Waterhead at the northern end of the lake provides similar facilities on a smaller scale. There are also jetties and moorings at several other points around the lake; some of these are public jetties but most are privately owned. Map 2 (page 20) shows the current location of publicly owned jetties around Windermere.

- B1.4 Ferry Nab is the main public launching point, owned by SLDC. Being relatively central, Ferry Nab provides access to both the north and south basins of the lake. A public car park, toilet and shower facilities, public jetties, toilet pump-out, sailing dinghy and tender storage are all part of the Ferry Nab facilities. Ferry Nab is the only public slipway available for powered and large boats. Small motor boats (5 horsepower or less) may launch from Waterhead. Sailing dinghies, canoes and rowing boats may launch from several areas on National Trust land, Rayrigg Meadow, and Beech Hill.
- B1.5 The National Trust-owned Fell Foot Park at the southern end of the lake also provides a well-used public jetty, onshore boat and canoe storage, shower and sailing club facilities. In addition, there are several private and commercial launching points around the lake. These are predominantly located on the eastern shore, and include yacht sailing and power boat clubs, caravan parks, commercial jetties and marinas, and several outdoor pursuit and activity centres.

Lake Patrol Team

B1.6 The LDNP Lake Patrol Team enforces the Registration and Navigation Byelaws. The Lake Patrol Team, alongside SLDCs Lake Wardens perform an important lake rescue service, and are an integral part of Cumbria County Council's Major Lakes Emergency Action Plan.

Windermere Registration and Navigation Byelaws

- B1.7 The byelaws include (but are not limited to):
 - a 10 nautical mph speed limit for powered craft on Windermere.
 - a 6 nautical mph speed limit for all craft at the northern and southern ends of the lake White Cross Bay, and in the central area between Bowness and Ferry House on the western shore.
 - regulations aimed at promoting safe navigation.
- B1.8 The 10 nautical mph speed limit for powered craft on Windermere came into effect in 2005 and requires all powered craft to travel at or below 10 nautical mph, except for enforcement or rescue activities.
- B1.9 During 2010 surveying of shoreline activities as well as the annual on-lake survey was undertaken by the Lake Patrol Team. This has formed a base-line data set which we can compare future survey results to.

Changes to the Registration and Navigation Byelaws

- B1.10 In 2008 the LDNP, following a comprehensive consultation, proposed amendments to the Windermere Registration and Navigation Byelaws to: improve clarity; reflect current management issues; reduce conflict between users; minimise health and safety risks and make enforcement more effective.
- B1.11 The Secretary of State for Natural Environment and Fisheries confirmed the Registration Byelaws in January 2011 enabling the LDNP to develop a single registration scheme for the lake. Fees for membership of the registration scheme cannot exceed the cost of administering and enforcing the scheme.



17

- B1.12 The Secretary of State did not confirm changes to the Navigation Byelaws. This is because he felt there was insufficient evidence to support the case for defining the speed limit as 10 knots, when the 1996 public inquiry led the independent inspector to conclude that 10 statute miles per hour was the appropriate limit. Nonetheless, the Secretary of State has acknowledged that 10 knots is the current legally effective speed limit. The Secretary of State was unable to confirm other proposed amendments to the Navigation Byelaws as the LDNP's submission had been for a consolidation of all relevant navigation byelaws as well as additional amendments. The LDNP has agreed to consult informally on options for either re-submitting some or all of the amendments or continuing under the provisions of the existing byelaws.
- B1.13 Meanwhile, the existing Navigation Byelaws remain in place and will be enforced.

Moorings

B1.14 As owners of the lake bed, SLDC administer and have planning permission for over 1,000 moorings, currently leasing around 850. The majority are leased to private boat owners. Some are also leased to commercial users and as short-term holiday moorings. SLDC grants an annual licence, which permits mooring holders to place their mooring equipment on the bed of the lake. Mooring holders renew their application each year, with existing holders having the first option of renewal.

Clubs

B1.15 There are a variety of clubs and outdoor centres based around the lake. These are an important resource for improving people's skills and provide effective communication links between different user groups and the Lake Patrol Team. Outdoor centres bring many visitors to the lake, including the young and disadvantaged, often for the first time, and are a significant employer and contributor to the local economy.

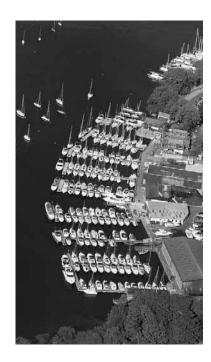
Shoreline activities

B1.16 Parts of the shoreline are popular for walking, cycling, and horse riding and there are four 'Miles without Stiles' routes suitable for people with limited mobility. While most of the eastern shore is privately owned, the public has extensive access to large areas of the western shore, much of which is owned by the National Trust. Fell Foot Park, Borrans Park, Brockhole, Miller Ground, and the National Trust land on the western shore are all popular picnic sites.

Access to lakes, rivers and the coast

B1.17 In 2009 the LDNP conducted research into needs and preferences related to access and recreation on and to lakes, rivers and the coast. The research identified a large number of potential participants living in and around the National Park, and a variety of popular sports which appeal to beginners – the most popular being sailing. The research found that whilst nine out of ten people felt their needs were being met by the Lake District National Park, a number of needs were



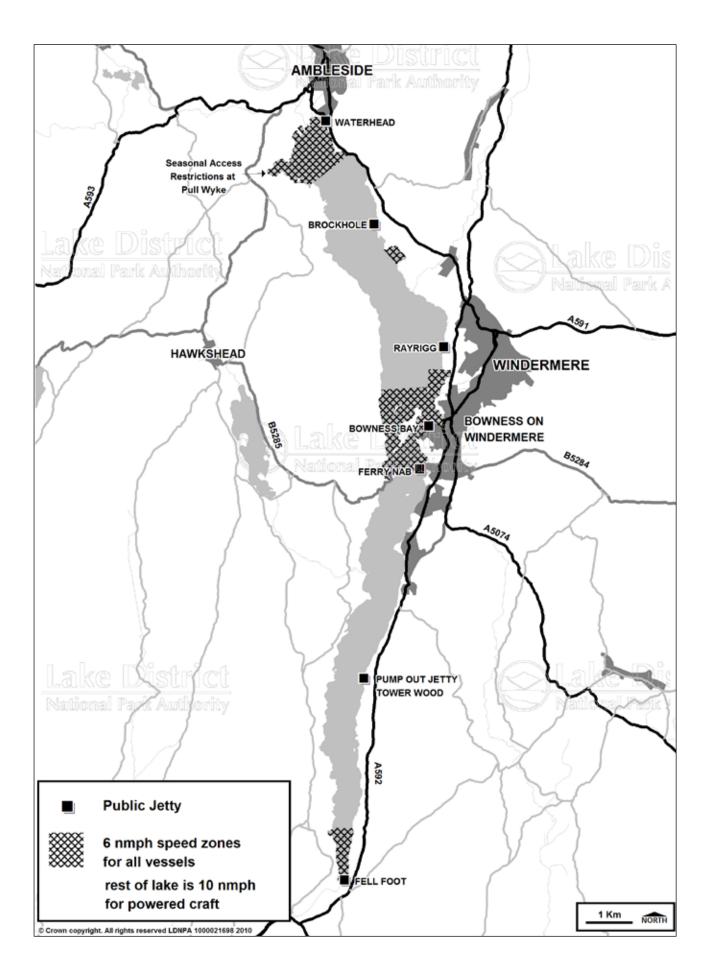


identified, many of which are applicable to Windermere. These include:

- Good access to water by foot (provision of footpaths near water) and by car.
- Provision of public toilets.
- Space to park cars near lakes, parking for extended periods, and somewhere to keep trailers.
- Raise awareness of where and when to go.
- Clear and effective byelaws.
- Better access by public transport (shuttle buses, park and ride).
- Good water quality.
- Easy access to water, such as jetties, moorings and ramps.
- · Launch areas.
- Raise awareness of codes of conduct and mutual respect; more dissemination of information about no-go areas and collision regulations.
- Good warden facilities, presence of wardens.
- B1.18 The research enabled the LDNP to develop a framework and action plan to improve access. Actions related to Windermere have been included in the Windermere Strategy. The research can be found at: www.lakedistrict.gov.uk/accesstowater

Blue Horizons 2010 to 2015

- B1.19 In 2010 the Environment Agency produced a report into developing and improving water related recreation in North West England from 2010 to 2015. Their report states that everyone should have the opportunity to enjoy safely, responsibly, sustainably and with confidence the full range of lawful water related recreation activities on our coast and inland waters and recognises that water related recreation can and should play a key part in improving the economy, health, environment and quality of life of everyone in the North West.
- B1.20 The report highlights a number of trends in water related recreation including:
 - An expectation that the number of people taking up water based activities will increase in the future.
 - A shift towards an 'experience economy' where people will prefer experiences to material goods.
 - An ageing population with a growing interest in health and well-being.
 - Increasing demand for activities, and potential for more pressure on resources due to climate change.
- B1.21 The report identifies priorities and initiatives which will help to address gaps in information or activity provision in the North West. Related specifically to the Lake District National Park it recognises that water related recreation needs to be fully integrated into the Lake District National Park Partnership Plan and cites the Great North Swim in Windermere and the Windermere Lake User Forum as examples of best practice.



B2 Challenges and opportunities 2011

- B2.1 Since the 10 nautical mph speed limit was introduced, Windermere lake usage has changed. We need to monitor levels of different activities regularly, so that we can assess the change and ensure we are promoting opportunities for the enjoyment of the lake in the best ways. In 2010 the LDNP undertook a new survey monitoring shoreline activities as well as on-lake activities. This showed that the most popular shore-line activities were walking and sitting along the shores of the lake. This base-line data can be used in the future to assess trends in visitor use.
- B2.2 The win lake organization of the win lake difference with the win lake difference with the window of the wind
 - B2.2 There are many different users of the lake, from the more active windsurfers, boaters and canoeists to those who enjoy taking a lake cruise or a walk along the shoreline. Some belong to clubs and organisations, whilst others are independent. Different recreational activities may sometimes conflict. We have considered zoning the lake for different activities in the past, but varying conditions on different parts of the lake at different times make this impractical. We are also unable to, as this would contravene the public right of navigation on the lake.
 - B2.3 There is a strong heritage of swimming in Windermere, with long-standing events such as the annual Lake Windermere long distance swim, and the cross lake swim recognising the unique challenges that Windermere provides. With the welcome arrival of new events such as the Great North Swim (a mass participation swimming event, which in 2009 took place over two days, with 6,000 swimmers taking part) we have seen an increase in people participating in open water swim events and also in discovering open water swimming generally. However, this has increased the number of near misses between boats and swimmers. Education is required for swimmers, in how best to make themselves visible to other users, and for boat users in being aware of their presence.
 - B2.4 Lake shore access remains limited, particularly on the eastern shore where major road links and settlements are located. This is due to the high proportion of land around the lake that is in private ownership. However, the LDNP and others actively pursue Rights of Way improvements in the area.
 - B2.5 Public consultation continues to confirm high demand for public jetties around the lake shore. Demand is high in summer and at weekends, when there are often not enough jetty spaces available for the number of people wanting to land. This particularly applies at Waterhead and Lakeside. Larger craft and sailing boats are unable to access some of the public jetties, particularly in dry summers when the water level is too low for larger craft to come in close to shore.
 - B2.6 Use of moorings on the lake depends on accessibility from shore by tender. There is currently much informal tender storage on the shoreline. Dragging tenders up and down the shoreline degrades the hydrosere and wildlife habitat. Informal storage along parts of the shoreline adversely affects the landscape.
 - B2.7 Wash from boats travelling too close to the shore or too close to other vessels and moorings can disturb other users, including wildlife, and cause shoreline erosion.

- B2.8 Public consultation continues to suggest that mandatory insurance for boats or driver competency tests are desirable by the public and users. We will investigate options available to require boats to have insurance on Windermere and support any initiative to introduce mandatory insurance for boats or driver competency tests.
- B2.9 Working with clubs and training organisations offers opportunities for promoting responsible behaviour, improving skills, and raising awareness of the lake's special qualities. Windermere Reflections 'Training the Trainers' project will work with outdoor education providers to increase awareness of catchment management within outdoor education groups.
- B2.10 Irresponsible behaviour causes adverse effects on the lake shore, for example, litter, beach fires, unauthorised launching of boats and trespass. Litter is unsightly and reduces public enjoyment of the lake. It is also potentially hazardous to wildlife.
- B2.11 There are opportunities to improve the public rights of way network around the Windermere shoreline. The B4 (boat, bus, bike and boot) Network is an example of a project that has improved routes for cyclists, walkers, horse riders and people with limited mobility, and has established the Cross Lakes Shuttle and this will be further improved through the Windermere Reflections B4 Network development project.
- B2.12 People should be able to easily access a full range of information on recreational opportunities, the lake's special characteristics and safety on the lake.
- B2.13 The redevelopment of the Lake District Visitor Centre at Brockhole will enable increased access to the lake, through the development of a watersports centre allowing people to 'have a go' at a variety of water sports such as canoeing and sailing on the shores of Windermere. This is particularly important in encouraging families and the 'dabbler' market to experience watersports.
- B2.14 New opportunities for improving access and recreation will also be created through Windermere Reflections. In particular the 'Access to the Western Shore' project will improve access to the National Trust land on the western shore between Ferry House and Wray Castle.
- B2.15 The proposed Windermere Waterfront Masterplan will incorporate improved access, including increased jetty provision. The Windermere Lake User Forum has also suggested investigating the development of a fund into which local lake users and businesses could contribute, which would help to develop new facilities on the lake.

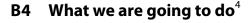
B3 Recent successes³

B3.1 Lake usage and annual boat registrations have been monitored each year and reported as part of the Lake Patrol Team reports, showing the number of boats registered on the lake (B3.1; B3.2). However the need for more comprehensive surveying taking into account new activities on the lake such as canoeing or swimming, or activities on the shoreline of the lake has been identified. As a result of this the first shoreline activity survey took place in 2010 to complement the on-lake monitoring and it will be repeated annually in the future.



³ Actions from the 2005 Windermere Management Strategy are referred to in brackets

- B3.2 In 2009 to 2010 we reviewed the basis of partnership working between the LDNP and SLDC (B3.4) and from April 2010 the LDNP Lake Patrol Team has had sole responsibility for enforcing the registration and navigation byelaws.
- B3.3 Codes of conduct are now in place for outdoor centres, commercial operators and clubs to improve the way rescue operations and rescue training events are run, to help ensure the safety of lake users (B3.5; B3.6).
- B3.4 The National Trust at Fell Foot Park have improved access, enabling those with limited mobility to access jetties (B3.7).
- B3.5 The Windermere Lake User Guide has been re-published, new information boards have been installed and web pages provide information and contact details for businesses and clubs around the lake. Two new leaflets have been produced promoting swimming and canoeing as part of Adventure Capital and the Access to Lakes, Rivers and Coast Project, available in the Windermere area (B3.11; B3.19; B3.22; B3.23).
- B3.6 An additional project has provided two new webcams on Windermere, to enable people to see what the weather conditions are, prior to visiting the lake, improving the information available to users.
- B3.7 The Windermere Lake User Forum is now three years old, and is an influential forum providing guidance and advice to the LDNP and SLDC as well as lobbying other agencies and stakeholders on behalf of lake users. Links to lake users have increased significantly through the user forum representatives (B3.18).
- B3.8 The public rights of way network continues to be maintained and improved. Most recently work has taken place to improve a route from the YMCA on the shores of Windermere, to High Dam reservoir (B3.20).
- B3.9 The LDNP commissioned a feasibility study into developing a cycle route between Bowness and Ambleside in 2010, which outlined challenges and opportunities with developing any route (B3.21).
- B3.10 Winderclean (D3.12) is now an annual event with litter being collected both from the lake shore and in the lake and will be expanded through Windermere Reflections to increase participation. Litter bins in the area were reviewed in 2008 by SLDC (D3.10).



	Action	Achieved by	Lead partners Potential partners
B4.1	Annual monitoring programme to capture information on recreational activity on and around Windermere.	Annual survey – Ongoing	LDNP
	Results reported to Windermere Lake User Forum and in annual Lake Report.		

⁴ Existing 2005 actions status are summarised in Annex 6



		Achieved by	Lead partners Potential partners
B4.2	Maintain an effective Lake Patrol Team, with good communications between it and other agencies, lake side businesses and users.	Ongoing	LDNP SLDC National Trust Police Environment Agency
B4.3	Maintain an effective lake warden service.	Ongoing	SLDC
B4.4	Increase public jetty provision.	Ongoing	LDNP SLDC National Trust
	Creation of agreed strategy for new and replacement public jetties in the north and south basin taking account of the Windermere Waterfront Programme.	October 2011	LDNP
	Assess sites for new jetties in accordance with the strategy and relevant planning policies and guidance.		
B4.5	Provide formal tender storage racks close to established car parking areas.	2012	National Trust LDNP SLDC
B4.6	Increase visibility of signage of public jetties from the water.	2012	LDNP SLDC
B4.7	Support the Windermere Lake User Forum to provide advice, guidance and challenge to help us deliver the strategy and action plan.	Ongoing	LDNP SLDC Windermere Lake User Forum Technical Advisors
B4.8	Improve the public rights of way network and informal recreational areas around Windermere.	Ongoing	LDNP National Trust Landowners
	Implement Windermere Reflections project: Access to the Western Shore. We will ensure that new lake shore footpaths do not affect sensitive lake shore habitats.	2014	National Trust Windermere Reflections Landowners

continues

	Action	Achieved by	Lead partners Potential partners
B4.9	Extend and link cycle routes around the lake.	Ongoing	LDNP Cumbria Tourism SLDC Cumbria County Council Sustrans National Trust
B4.10	Increase accessibility of outdoor activities, for example making easier booking for outdoor activities either on-line or through Adventure Hubs.	2013	Cumbria Tourism (Adventure Capital) Outdoor centres Clubs
B4.11	Investigate feasibility of a development fund by local lake users and businesses to improve services and facilities on the lake.	March 2012	Nurture Lakeland SLDC LDNP Windermere Lake User Forum
B4.12	Promote the variety of watersports and activities available on Windermere to encourage sustainable access and recreation.	2011 and ongoing	Cumbria Tourism (Adventure Capital) LDNP SLDC Active Cumbria Sport England
B4.13	Provide advice and guidance to large recreational events taking place on Windermere.	Ongoing	LDNP SLDC Environment Agency Cumbria Tourism
	Record all events taking place on the lake. This will be reported to the Windermere Lake User Forum annually.	Ongoing – annual report	Cumbria rounsin
	Link to the Windermere Reflections Project - Sustainable Outdoor Recreational and Challenge Events (SORCE) to minimise the environmental impacts of events in the Windermere catchment.	2011 - 2012	
B4.14	Review and update the lake user guide and map as required.	Ongoing	LDNP
	Update lake user guide regarding amended byelaws.	2011	continues

continues

	Action	Achieved by	Lead partners Potential partners
B4.15	Investigate the increased swimming activity in Windermere and possible improvements to facilities.	2012	LDNP SLDC Cumbria Tourism (Adventure Capital)
	Provide clear guidance for swimmers and other lake users regarding swimming best practice and lake safety through website, lake user guide and leaflets.		Windermere Lake User Forum
B4.16	Provide 'have a go' taster sessions at the Lake District Visitor Centre at Brockhole.	Ongoing	LDNP
B4.17	Work with outdoor centres, clubs and organisations to publicise open days and 'have a go' sessions to encourage wider access.	2013	Cumbria Tourism (Adventure Capital) SLDC National Trust
B4.18	Support and expand annual 'Winderclean' event as part of Windermere Reflections.	2011 - 2014 and ongoing	LDNP Windermere Reflections School and community groups National Trust
B4.19	Investigate options available for requiring boats to be insured on Windermere.	2013	LDNP SLDC
	Support any initiative to introduce mandatory insurance for boats, or to introduce driver competency tests	Ongoing	





Section C

Vibrant Communities

People successfully living, working and relaxing within upland, valley and lakeside places where distinctive local character is maintained and celebrated.



Traffic and transport

C1 Current context

- C1.1 Motor vehicle use in the National Park including the Windermere area is intensive, with studies showing that 92 per cent of visitors arrive by car and a significant proportion go on to sightsee by car. The wide variation in traffic volumes at different times of year suggests that visitor traffic at peak times is the main pressure on roads and parking spaces.
- C1.2 The wider issues associated with traffic and transport are not unique to the Windermere area, but are national issues:
 - The impact of traffic on the environment.
 - The damage to the visitor experience.
 - The resultant lack of reliability of all modes of transport.
 - The need to ensure all forms of transport are used more efficiently and are better integrated.
- C1.3 The National Park Vision has a key delivery aim to enable provision of an integrated transport network offering attractive alternatives to the car.
- C1.4 Cumbria County Council is the transport authority for the National Park. The County Council's Local Transport Plan outlines transport policy. Since 2006, the key priorities for South Lakeland (incorporating Windermere) have been: road safety, rural accessibility and peak hour traffic in Kendal. Other aims include decreasing traffic congestion in



Windermere, Bowness and Ambleside, especially during the summer months, when as many as 15,000 people travel along the A591 over a 12 hour period. It is anticipated that the existing plan will be replaced by the new Local Transport Plan for Cumbria in June 2011. This has been delayed from April 2011 to ensure the new Governments proposals in the Local Transport White Paper are fully taken account of.

- C1.5 Linked to the Plan is the Transport Framework for a Sustainable Lake District. The partnership (between Cumbria County Council, the LDNP and others) has agreed five priority work streams into which specific initiatives and projects can be developed and delivered. These are:
 - Sustainable transport hubs including parking strategies.
 - Traffic management including access management.
 - · Cycling and horse riding network development.
 - Passenger Transport improvement including integrated ticketing, transport information and publicity development, and improvements for integrated 'end to end' journeys.
 - Low carbon vehicle programme including development of electric and other alternative fuelled vehicle networks and shared car clubs.
- C1.6 The Transport Framework has several core principles:
 - A transport network based on fewer cars, more pedestrians, cyclists and greater use of lake borne transport.
 - Reduced traffic and movement between the distinct areas of the Park identified in the Local Development Framework.
 - Priority for pedestrians in all towns and villages.
 - The encouragement of cycling on the rural network.
 - The development of passenger transport services along key routes between transport hubs with adequate car parking.
- C1.7 We would like people to use public transport, cycle, walk or ride where feasible. Some people may still need to use private cars, but it is important to promote healthy and environmentally sustainable alternatives. We aim to encourage people to see other forms of transport as positive alternatives to the car. We also want to encourage visitors to use the lake for public transport, as a way of reducing car trips and helping people to understand and enjoy the lake's special qualities.
- C1.8 Work is also progressing on establishing a sustainable transport Beacon for the Southern Distinctive Area of the National Park, including Windermere and the surrounding area. This will take the principles established in the Transport Framework and apply them in a focussed area, concentrating delivery to maximise effect.

C2 Challenges and opportunities 2011

- C2.1 The A591 corridor is the primary route into the Lake District and Windermere is widely recognised as the southern entrance to the area. There are established car parks close to the lake shore, but apart from at peak times, these provide excess capacity. At peak visitor times, traffic creates significant congestion in Windermere itself and on the A591.
- C2.2 There is significant potential for reducing private car use and increasing walking, cycling, bus, boat and train use. By linking up footpaths, cycle routes and public transport we can create a more sustainable transport system.

- C2.3 The north basin of Windermere is a key hub in the Lake District visitor's transport experience. We aim to develop the lake transport infrastructure so that high quality travel can take place using the lake as the transport axis linking areas of the lake and its surroundings. Windermere Lake Cruises picks passengers up from landing places around the lake and Cumbria County Council operates a regular car and passenger ferry service between Ferry Nab and Ferry House. There are opportunities to increase water-based transport options for residents and visitors travelling around the lake.
- C2.4 We have an ambition to re-frame how and where people leave their cars in order to access other forms of transport. This may include developing ways of using existing car parking capacity in Bowness at off-peak times of the year, and developing Braithwaite Fold car park in Bowness into a 'Transport Gateway Interchange'. The southern tip of Windermere at Lakeside and Newby Bridge is also recognised within the Local Development Framework as an important potential transport hub/interchange where a choice of modes of transport can be offered.
- C2.5 Parking by text and 'smarter' parking are instruments that can be developed along with the 'GoNoWLakes' integrated travel card to encourage people to leave their cars and use the local passenger transport system instead.
- C2.6 There are plans to link the area with the National Cycle Network, including development of the Kendal to Keswick National Cycle Route
 6. Part of this project would link Windermere to Ambleside along the western side of the A591.
- C2.7 There are a number of sites around the lake where people can park their bikes whilst they visit the area (including Brockhole and Waterhead). These should be expanded where possible.

C3 Recent successes⁵

- C3.1 A number of projects currently exist to improve sustainable transport including:
 - The B4 (boat, bike, boot, and bus) Network has improved routes for cyclists, walkers, and horse riders. It has established the Cross-Lakes Shuttle, and connects Bowness with Hawkshead, Tarn Hows, Grizedale, and Coniston Water through an integrated boat-bus-boat service using Mountain Goat buses (G3.2).
 - Windermere Lake Cruises increased water bus service (G3.1).
 - The 'Give the Driver a Break' project promotes car free days out from centres such as Bowness, Windermere and Ambleside.
 - The bus and boat partnership between Windermere Lake Cruises and Stagecoach encourages people to use a combined ticket for boats and buses.
 - The development of the 'GoNoWLakes' integrated travel card for this area that provides seamless travel between buses and boats.
- C3.2 The sustainable transport framework is looking at a variety of projects in the Windermere area. The Windermere Northern Lake Infrastructure Programme aims to develop improved passenger transport provision in Windermere through the development of new jetties, that will link to existing and improved rights of way networks, quiet lanes, and under-



Actions from the 2005 Windermere Management Strategy are referred to in brackets

used attractions such as Bark Barn on the western shores of the lake. This will enable people to visit more areas of the lake by boat (G3.1). By October 2011 a strategy for new and replacement jetties for both the northern and southern basins will be in place. This will be subject to consultation, ensuring we have an agreed approach to how further jetty infrastructure provision can facilitate greater sustainable transport links about the lake.

C4 What we are going to do⁶

	Action	Achieved by	Lead partners Potential partners
C4.1	In accordance with the Lake District Sustainable Transport Framework and the sustainable transport Beacon being developed for the distinctive area we will improve, where practicable passenger transport provision:		
	Projects include:Extension of the existing Windermere waterbus service.	Easter 2011	Windermere Lake Cruises
	 Develop additional landing sites in accordance with Action B4.4 including at Bark Barn. 	2013	LDNP National Trust Windermere Lake Cruises SLDC
	 Launch then develop the GoNoWLakes integrated ticketing system for the Windermere and Central Lake District. 	2011 onwards	Windermere Lake Cruises Stagecoach Cumbria County Council LDNP
	 Develop Windermere/ Bowness and the northern and southern basins as sustainable travel hubs. 	2011 - 2013	LDNP Cumbria County Council Transport operators
C4.2	We will work with partners to maintain and develop the existing B4 Network.	December 2012	LDNP Windermere Reflections Transport operators Cumbria County Council National Trust Forestry Commision Nurture Lakeland

 $^{^{\,6}}$ Existing 2005 actions status are summarised in Annex 6

	Action	Achieved by	Lead partners Potential partners
C4.3	We will use the Cumbria Tourism website to promote alternative transport around the lake, including walking and cycling.	Ongoing	Cumbria Tourism LDNP Nurture Lakeland Friends of the Lake District
C4.4	We will support Nurture Lakeland's initiative to develop and promote local travel opportunities from accommodation centres.	2013	Nurture Lakeland Cumbria Tourism LDNP
C4.5	We will provide cycle parking facilities at Ferry Nab.	2013	SLDC
	We will promote existing cycle parking facilities surrounding the lake.	2012	LDNP Sustrans National Trust
C4.6	We will encourage local transport operators to carry cycles on board.	Ongoing	LDNP Cumbria County Council Transport operators
C4.7	We will work to develop and promote networks of electric vehicles and recharge points.	Ongoing	LDNP Cumbria Tourism SLDC Local hoteliers and businesses

Historic environment

C5 Current context

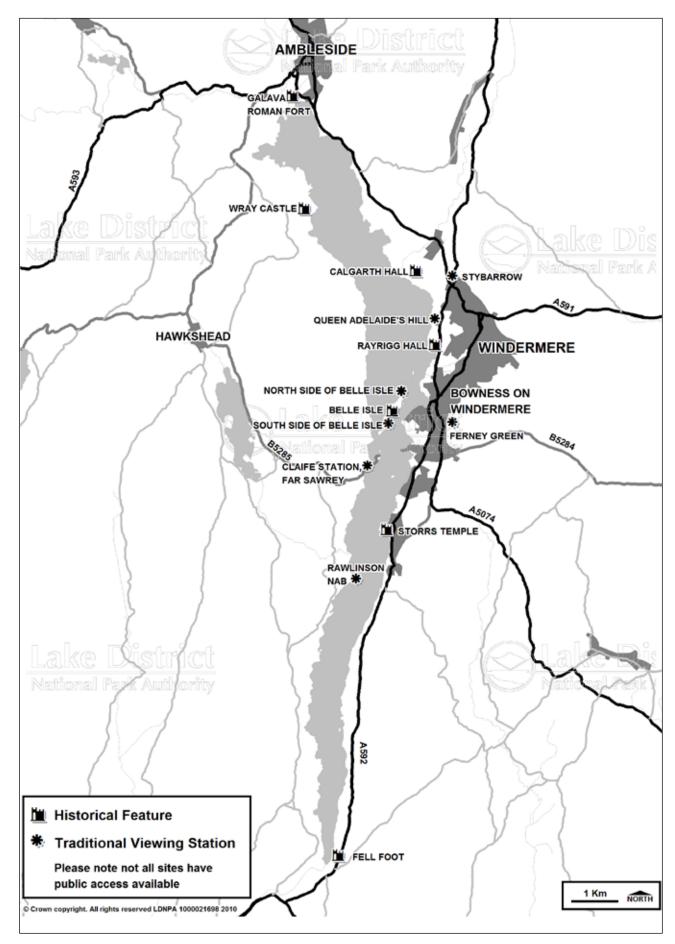
- C5.1 Windermere, the lake, has heavily influenced the buildings, archaeology, and landscape of the local area. The lake and people's use of it has also influenced many of the local community's traditions and activities. The area includes important sites of industrial archaeology, historic parks, conservation areas, and historic buildings (including Stott Park Bobbin Mill, Galava Roman Fort, and the Lakeside to Haverthwaite Railway).
- C5.2 Windermere has been a focus for settlement, providing natural resources for people living in the area, from early prehistoric (Mesolithic) times. From the medieval period onwards, people used woodland around the lake to produce charcoal for the local iron industry, with the remains of numerous charcoal 'pitsteads' (charcoal burning platforms) and 'bloomeries' (unpowered iron smelting sites). Other woodland activities included producing potash for the gunpowder and woollen industries. In the eighteenth century the iron industry developed, with the introduction of the blast furnace. An early example is at Cunsey, on the west side of the lake, a bobbin mill later replacing this. The Stott Park Bobbin Mill at Finsthwaite ceased production in 1969, and is now a small working museum.



- C5.3 Windermere supported fisheries from the earliest times and there is documented evidence that Furness Abbey owned the fisheries in the medieval period. A distinctive local technique of fishing for Arctic charr using rod and line developed in the nineteenth century, still in use today.
- C5.4 People have used the lake throughout history as a transport link. It was a major route during the Roman period with a fort being built at Ambleside. The railway branch lines to Windermere and Lakeside stimulated the expansion of local industries during the industrial revolution. The Lakeside railway is no longer part of the national rail network, but is a popular steam railway attraction.
- C5.5 Some distinctive types of boat have been used for leisure and tourist use since the nineteenth century, including wooden rowing boats, passenger launches and classic racing power boats as well as the larger pleasure steamers such as The Tern, and the Windermere Class of racing yacht. There has also been a ferry linking east and west shores since medieval times. Windermere Steamboat Museum near Bowness is currently being renovated to enable visitors to see a collection of steam and motor boats, and learn about the development of steam launches on Windermere.
- C5.6 In 1911 the first successful flight in Britain of a seaplane from water was also made from Windermere and in World War II, White Cross Bay was the location for the production of Sunderland flying boats.
- C5.7 From the eighteenth century the landscape of the catchment attracted increasing interest and visitors as part of the Picturesque movement. In 1778 Thomas West published the first guide book to the Lake District describing the scenery from specially selected 'stations' or viewpoints, as shown on Map 3. Picturesque principles suggested that people should view the landscape from certain points only, where elements of the scenery were at their most pictorial. Sites such as Claife Station, Ferney Green and Adelaide Hill are historically significance as a result. Claife Station is an important survival from this period, as is the circular plan house on Belle Isle dating from 1774.
- C5.8 Visitor numbers increased during the nineteenth century, particularly after the arrival of the railway to Windermere. The landscape began to change with the construction of large houses such as Wray Castle, Blackwell (designed by architect Baillie Scott), Broad Leys (designed and built by CFA Voysey) and Brockhole. These often included boat houses, such as the splendid Victorian boathouse at Fell Foot Park, and were surrounded by formal parkland and gardens.
- C5.9 The Lake District Visitor Centre at Brockhole is an important visitor and local community resource. The house and gardens were designed and built in the 1890s. The landscape architect was Thomas Mawson, a local designer who later became a well-known figure in landscape and garden design.
- C5.10 Beatrix Potter is closely associated with Near Sawrey to the west of Windermere. Her house at Hill Top, which she bought in 1905 is owned by the National Trust and open for visitors to see.
- C5.11 Today's historic environment at Windermere is a legacy of all these earlier influences, contributing to the area's distinctive character. On the lake itself, the surviving 'steamers' wooden launches and the clinker-built rowing boats remain important features whilst the lake has also



Map 3 **Traditional viewing stations and sites of historical interest**





- been home to many world records including the world water speed record broken by Sir Henry Segrave in 1930 and Norman Buckley in the 1950s.
- C5.12 The lake has also historically been important for water skiing, first starting in 1919 at the Ambleside Carnival and subsequently supporting the development of World Water Skiing Champions including six times world champion and former world record holder Andy Mapple and former European Champion Dr Phillipa Roberts MBE. During the 58 years (1947-2005) of family water skiing on England's largest lake, Windermere created a heritage in water skiing, which far exceeded any other location for the sport in the UK.

C6 Challenges and opportunities 2011

- C6.1 Change is inevitable, but it is important to consider how we can best protect the distinctive character of the Windermere area. When discussing new developments with architects and developers, we want to encourage good design and up-to-date architecture that adds to the distinctiveness and identity of the area, as well as taking into account future climate change and its impacts.
- C6.2 There is potential to further improve how we explain the lake's historic environment and surrounding landscape and industrial heritage to residents and visitors. The Windermere Reflections 'Reflections on History' project will encourage local volunteers to gain an understanding of the history of the area through surveying and research, which will be used to interpret the local area. The 'Romans by the Rivers' project will undertake conservation work and install new onsite interpretation.
- C6.3 Traditional viewing stations are sometimes difficult to identify and some are in disrepair. The National Trust are undertaking a significant project to reinstate Claife Station and complex as an 'entrance gateway' to the western shore of Windermere for the many people who cross by foot, bike and car.
- C6.4 Traditional boat houses are a significant feature on the lake shore, and we want to maintain their unique character.
- C6.5 The Backbarrow iron works and the Low Wood Gunpowder Works are important sites in the Windermere corridor, and there may be opportunities to develop on site interpretation of the iron and gunpowder industry, water power and other woodland industries.

C7 Recent successes⁷

- C7.1 Since 2005 we have increased awareness of the historic environment, through improved information provision on the LDNP website (E3.3). The National Trust have worked to consolidate Claife Station, including clearing woodland to make the site more visible to visitors (E3.6). This is the start of a project to improve access to Claife Station and its surroundings.
- C7.2 The LDNP are currently surveying the condition of all listed buildings and scheduled monuments at risk (E3.1). They also expect to be gifted the archaeological core of the Backbarrow Iron Works site and interpretation can then be provided (E3.9).

 $[\]overline{\ }^7$ Actions from the 2005 Windermere Management Strategy are referred to in brackets

C8 What we are going to do⁸

condition survey of listed buildings and scheduled monuments at risk and identify those sites that require remedial action. C8.2 We will work with Windermere Reflections to increase information and awareness of the areas cultural heritage and historic features, including the promotion of access to historic features, and community involvement in heritage activities. Reflections on History –	December 2011 April 2013	LDNP SLDC English Heritage National Trust Windermere Reflections National Trust LDNP
Windermere Reflections to increase information and awareness of the areas cultural heritage and historic features, including the promotion of access to historic features, and community involvement in heritage activities. Reflections on History –	April 2013	National Trust
•		SLDC University of Cumbria Environment Agency
Windermere Reflections Project.	2011 – 2014	Windermere Reflections LDNP National Trust
Romans by the Rivers – 2 Windermere Reflections Project.	2011 – 2013	Windermere Reflections LDNP National Trust
	December 2015	National Trust LDNP
C8.4 We will encourage retention of traditional boat houses for their original use.	Ongoing	LDNP
C8.5 Through advice, we can provide assistance to particularly good examples of boat houses. Where we become aware of particularly good examples of boat houses we will ask English Heritage to list them.	Ongoing	LDNP English Heritage

 $[\]overline{^{8}}$ Existing 2005 actions status are summarised in Annex 6

	Action	Achieved by	Lead partners Potential partners
C8.6	We will seek opportunities to develop interpretation of the iron industry, gunpowder industry, water power, and other woodland industries at Backbarrow Iron Works and Low Wood Gunpowder Works.	Ongoing	LDNP English Heritage







Section D

Spectacular Landscape

A landscape which provides an irreplaceable source of inspiration, whose benefits to people and wildlife are valued and improved. A landscape whose natural and cultural resources are assets to be managed and used wisely for future generations.



Landscape

D1 Current context

- D1.1 In 2009 a Landscape Character Assessment was completed for the National Park (F3.1). The assessment provides a framework for developing a shared understanding of the current character of the Lake District's landscape and its future management needs.
- D1.2 The diversity of landscape in the Windermere area is part of its beauty. The contrasts between the wide open spaces of the lake, the intricate patterns of woodland, pasture, designed landscapes, settlements and the distant views of the fells creates a landscape unique in England. It is also a cultural landscape, influenced by man's use.
- D1.3 The Assessment identifies a distinct difference in character between the eastern and western shores of the lake and between the northern and southern basin (Upper and Lower Windermere Areas of Distinctive Character).
- D1.4 Upper Windermere has a strong sense of openness at the lakeshore, with a dramatic backdrop of views to the Fairfield Horseshoe fells to the north and the Langdale Pikes to the north west. Waterhead, a honey pot site, overlooks wooden jetties which often have tethered rowing boats and passenger cruisers stationed there, and attracts visitors to hire boats, feed the water birds and walk along the lake shore.

- Ambleside, a popular holiday destination town with a fascinating history and building character, gives a sense of busyness in the landscape.
- D1.5 Along the western shore of Windermere there is a strong sense of tranquillity, due to the perceived naturalness of the landscape and the relative absence of buildings, settlements and artificial noise. Wray Castle is set in a mature parkland landscape and is strikingly and prominent in the landscape.
- D1.6 In the south basin (Lower Windermere) the extensive ancient seminatural woodland down to the shoreline provides a strong sense of enclosure. The superb series of grand houses built for wealthy Lancashire industrialists, form a key component of the eastern shoreline, including Dove Nest, Brockhole, Cragwood and Langdale Chase. Many have their own boathouses and jetties, as well as gardens and grounds laid out by eminent designers, some with exotic planting and parkland.
- D1.7 The town of Bowness bustles with activity a hub for visitors with its shops and cafes and as the starting point for many of the lake cruises. The Belsfield, the largest and finest Italianate building in the Lake District, is the dominant feature overlooking Bowness Bay. Windermere town is set back a mile from the lake. Originally Birthwaite, it became Windermere in Victorian times following the arrival of the railway in 1847.
- D1.8 Away from Bowness and Windermere, the area is predominantly a tranquil landscape. Amongst a number of islands on the lake, Belle Isle is the largest and most distinctive with its late eighteenth century round house.

D2 Challenges and opportunities 2011

D2.1 The landscape values that make Windermere a special place are vulnerable to change and inappropriate development. We need to conserve and enhance local distinctiveness.

Landscape sensitivities include:

- · Water quality.
- · Lake shore edges.
- Sensitivity of semi-natural woodland to changes in management.
- Open views, vulnerable to interruption by large scale developments.
- Distinctive buildings, vulnerable to extensions which do not reflect the built character.
- Use of inappropriate building materials.
- Relatively minor changes may arise through permitted developments.
 Such changes may be individually insignificant, but can combine to dilute and alter the landscape character.
- An increase in invasive species affecting key landscape characteristics.
- D2.2 Reed beds are an important part of the landscape character of the lake. These are sensitive to change and have been degraded in many parts of the lake. However, examples such as Bellman's Landing, where access has been controlled, and the vegetation has recovered, suggest it is possible to restore vulnerable lake shore vegetation.





- D2.3 The distinctive Victorian tree plantings are a similar age and so will decline together. New planting to establish a more diverse age structure is essential to maintain this landscape character type.
- D2.4 Views are important around, across and to Windermere. Views add to the experience of the lake, including watching craft on the lake, or viewing the distant fells. All adds to creating a sense of place. Some views have cultural links through their viewing stations.
- D2.5 Windermere Reflections aims to increase knowledge and understanding of the landscape character of the Windermere area, as well as to protect and enhance it for future generations. The 'Wonderful Woodlands' Reflections project aims to restore native woodland to traditionally wooded areas in the catchment.

D3 Recent successes⁹

D3.1 The Landscape Character Assessment provides an inspirational source of ideas and guidance to help encourage locally appropriate management and use of land in ways that conserve valued features of the landscape. In this way, the Assessment will give an evidence base against which proposals for change can be judged in an objective and transparent manner.

D4 What we are going to do¹⁰

	Action	Achieved by	Lead partners Potential partners
D4.1	We will use the Landscape Character Assessment to ensure new developments, such as the Windermere Waterfront Programme, are sensitive to the defining characteristics of the landscape, and undertake more detailed survey work where appropriate.	Ongoing	LDNP SLDC Friends of the Lake District
D4.2	We will undertake a study of tranquillity in order to fully understand the role this plays in the overall character of the lake and its appeal to visitors. We will link this with Windermere Reflections to promote tranquillity as a special quality of the catchment.	2013	Friends of the Lake District LDNP National Trust Windermere Lake User Forum

continues

⁹ Actions from the 2005 Windermere Management Strategy are referred to in brackets

¹⁰ Existing 2005 actions status are summarised in Annex 6

	Action	Achieved by	Lead partners Potential partners
D4.3	We will work with Windermere Reflections and other partners to promote the importance of landscape and its role in creating a world class visitor experience through a series of events.	2014	Friends of the Lake District LDNP National Trust SLDC
D4.4	We will work to promote the Landscape Character Assessment for Windermere to partners, local businesses and other organisations as a key document. This will include organising events and developing materials to explain the document.	2015	Friends of the Lake District LDNP
D4.5	We will restore native woodland to traditionally wooded areas in the catchment linking to the Wonderful Woodlands Windermere Reflections project.	Ongoing	Windermere Reflections Forestry Commission LDNP National Trust Cumbria Woodlands

Water

D5 Current context

Water quality

- D5.1 Windermere's water quality influences every aspect of life in the area. Water quality impacts on its appearance, clarity, plant and animal life. These in turn affect public enjoyment of the lake. Water quality is closely associated with the local economy. High water quality is an asset and a focal point for the local community. Poor water quality poses a risk to both.
- D5.2 Long term monitoring of the lake shows that Windermere is classed as mesotrophic neither nutrient rich nor nutrient poor. In addition, it is identified as sensitive under the terms of the European Community Urban Waste Water Treatment Directive¹¹.
- D5.3 During the 1980s there was significant concern about the effects of increasing nutrient levels on the biology of the lake. In the 1990s North West Water (now United Utilities) introduced tertiary treatment with phosphate removal to the Windermere, Ambleside and Hawkshead wastewater treatment works. Monitoring following this showed that nutrient levels reduced and water quality improved (Pickering, 2001).
- D5.4 However, since 2000, there has been a gradual decline in lake conditions with increases in phytoplankton, the microscopic algae at the base of the food chain, increasing summer blue-green algal blooms and depletion in oxygen concentration in the deeper parts of the lake.

¹¹ The Urban Waste Water Treatment Directive aims to protect aquatic environments from the adverse effects of waste water discharges. Windermere qualifies for urgent consideration due to its 'sensitive' classification and having a resident population of over 10,000 in the catchment.

- D5.5 This is threatening fish life in the lake, including the rare Arctic charr. As the deeper, colder parts of the lake are important for survival of charr in the summer, the loss of oxygen in these areas means that the fish are forced to move to shallower, warmer parts of the lake. There has been a dramatic decline in numbers of charr in the last ten years. This has also coincided with a significant increase in the population of a non-indigenous fish, the roach (Winfield, 1998).
- D5.6 This suggests a combination of factors may be influencing water quality including continued nutrient inputs into the lake from a variety of sources such as septic tanks, land run-off, storm discharges, and continued inputs from sewage treatment works, but also the effects of climate change and an increase in roach populations which may be affecting the food chain within the lake. To address the deteriorating water quality within Windermere we need to address the variety of inputs and factors affecting the lake from the wider catchment.

Water Framework Directive

- D5.7 The Environment Agency has a central role in managing the lake's water resource. Responsible for pollution prevention and control, flood defence, water resources, freshwater fisheries management and administering the Windermere (Prevention of Pollution) Byelaws 1977, the Environment Agency is also the statutory body implementing the Water Framework Directive in the UK.
- D5.8 The Water Framework Directive (2000/60/EC) was introduced in 2000 and requires objectives to be set for all water bodies to achieve good ecological quality. The Directive is based on whole catchment management plans and the Environment Agency has produced the North West River Basin Management Plan outlining actions to be taken to achieve good ecological status of water bodies in the North West region. This includes the Windermere catchment. Under the directive, the lake is presently classed as of 'moderate' ecological status and so needs improvement over the coming years to reach good ecological potential by 2027.

Bathing Waters

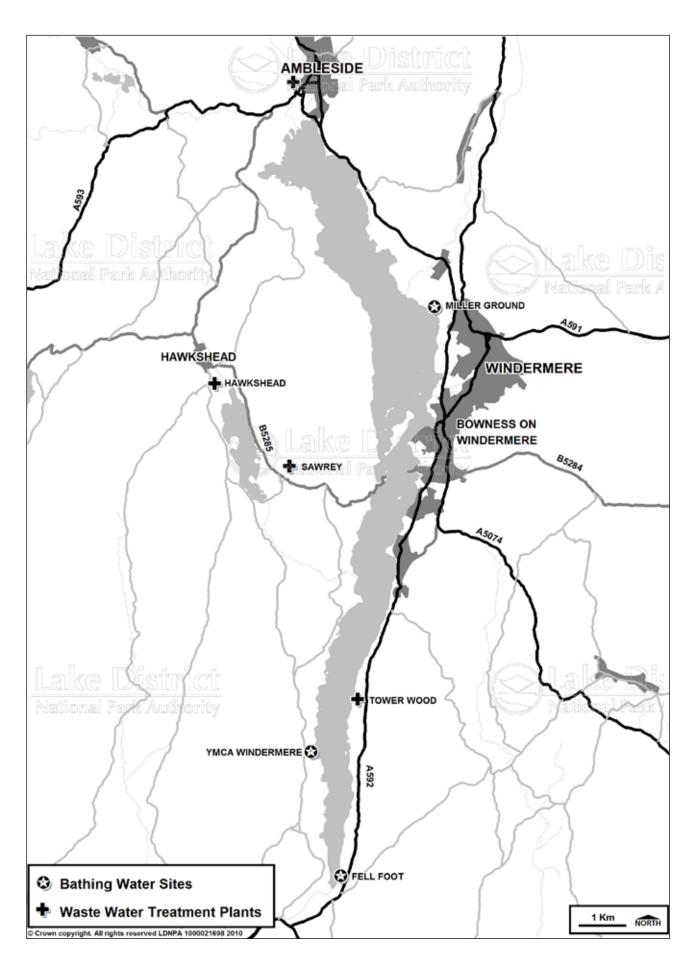
D5.9 There are three sites around Windermere – Fell Foot, Miller Ground and YMCA Lakeside, (see Map 4, page 42) that are officially designated bathing waters under the European Bathing Water Directive (76/160 EEC) although swimming and paddling takes place in many other places around the lake shore. The Environment Agency monitors the designated bathing waters for amenity and public health reasons. In 2012 these standards are being revised.

Water levels

- D5.10 The level of water within the lake also has a significant impact on the area, with low or high lake levels having impacts on both the local economy and the environment.
- D5.11 In October 2008 Windermere experienced high rainfall which caused localised flooding on the shoreline. A further extreme rainfall event in November 2009 caused more significant flooding of many lake shore commercial and residential properties as well as impacting on houses and properties downstream with negative impacts on the economic prosperity of the area.



Map 4 **Bathing water sites and waste water treatment works**



D5.12 During the spring and summer 2010, limited rainfall in the catchment saw the level of the lake drop significantly, impacting in particular on the recreational and commercial users of the lake.

Water Abstraction

- D5.13 United Utilities abstracts water from Windermere, treats it to drinking-water standards, and distributes it throughout Cumbria and north-west England. A licence determines the quantity of water taken from the lake. The Environment Agency sets terms for the licence, and assesses potential impacts to ensure sustainable use of water resources. The Agency includes seasonal flow conditions on the United Utilities licence to ensure sufficient residual flows are available in the River Leven for fish migration. During very low flows, water is released into the River Leven by controlling fisheries sluices at Newby Bridge.
- D5.14 During drought periods such as happened in 2010 United Utilities can apply for a drought permit enabling them to extract additional water from the lake, subject to specific conditions regarding water flows into the River Leven.

D6 Challenges and opportunities 2011

- D6.1 Recent surveying shows declining water quality in the Windermere catchment and this has significant impacts for both the flora and fauna and the local visitor economy and community, highlighted in Section A.
- D6.2 Algae, and in particular blue-green algae affects access and recreation as it prevents people from taking part in active sports in the lake itself, with knock-on effects on the local visitor economy. A significant example was the cancellation of the Great North Swim in 2010.

 Algae, whilst occurring naturally in healthy systems, are increased by deteriorating water quality and an increase in phosphates.

Windermere Catchment Restoration Programme

D6.3 In response to the water quality challenges the Lake District Still Waters Partnership set up the Windermere Catchment Restoration Programme in 2008 as a whole catchment management approach to addressing the environmental issues that affect Windermere (D3.1). The vision for the programme is to have 'A Healthy Windermere Catchment, for now, for ever'.

D6.4 Its three objectives are:

- To improve the water quality and protect the natural ecology of the catchment and its lakes.
- To increase environmental awareness amongst resident and visitor communities by providing opportunities to celebrate and enjoy what is special about Windermere and its catchment.
- To ensure that improvements to lakes and landscapes in the catchment support a healthy local economy.
- D6.5 The programme involves organisations with some responsibility to protect and enhance the lakes including the Environment Agency, LDNP, Natural England, National Trust, United Utilities, Forestry Commission, Cumbria Tourism and SLDC.
- D6.6 Work addressed through the programme includes protecting vulnerable soils against erosion by woodland planting or river

- corridor restoration, and working with farmers, businesses and local communities to improve management of water quality. The objectives within the programme's five year business plan and actions relating to Windermere are outlined in the action plan below and in Annex 7.
- D6.7 Point source discharges from sewage treatment works are not the only contributors to water quality problems. The impacts of point source inputs from private treatment plants, septic tanks, and diffuse inputs from agriculture are less well understood and all have the potential to impact on water quality. Diffuse sources are more difficult to quantify and control than large treatment works discharges.
- D6.8 With predictions of more extreme weather conditions in the future with potentially warmer and wetter winters and drier, hotter summers as a result of climate change, the ability of the lake and wider catchment to accommodate such changes will need to be addressed.
- D6.9 The Windermere Reflections project 'Soap Suds Love your Lakes', will increase awareness of phosphates and encourage businesses, the local community and visitors to reduce phosphate inputs.



- D7.1 The Windermere Catchment Restoration Programme Business and Action Plan outline work that is underway or scheduled to take place to achieve its aims. These are outlined in D8.
- D7.2 The Defra funded England Catchment Sensitive Farming Initiative is working with farmers in the catchment offering advice and funding to help reduce nutrient inputs into water courses.
- D7.3 Since 2005 United Utilities has increased phosphorus removal in the catchment. At both Ambleside and Windermere sewage treatment works removal has improved from a standard of two micrograms per litre to one micrograms per litre. They have also removed phosphorus at Grasmere and Langdale sewage treatment works.
- D7.4 The Windermere Lake User Forum worked closely with United Utilities during 2009 to ensure the best possible solution for reducing storm discharges. UU are now developing a project to address pollution occurring in front of Bowness Bay Information Centre which is important to both water quality and the visitor experience in the Bowness area The proposed scheme will not reduce the frequency and volume of discharges but will address the pollution through additional pumping and improved screening of storm flows.
 - In addition to this a further project will address the environmental issues relating to the wider environmental issues related to the wider Windermere Catchment.
- D7.5 The Windermere Lake User Forum, local businesses and residents affected by the flood events in 2008 and 2009 and the drought in 2010 have worked with local agencies to investigate lake level management and solutions to mitigate extreme events D6.8.
- D7.6 Oil disposal facilities were installed by SLDC at Ferry Nab in 2009 (D6.7).



D8 What we are going to do¹³

	Action	Achieved by	Lead partners Potential partners
D8.1	We will work to fulfil the aims of the Windermere Catchment Restoration Programme.	2015	Windermere Catchment Restoration Programme Partners
	 Technical objectives for the Windermere area include: Reduce phosphorus to achieve a mean annual total phosphorus concentration less than 10 micrograms per litre. Manage sedimentation to a more natural rate within the lake catchment. Ensure future water quality suitablefor public benefit and enjoyment including meeting EU bathing standards on Windermere. Promote sustainable 		
	management of land use and access for the local community and visitors. The business plan objectives and actions specifically relating to Windermere are outlined in Annex 7, and include:		
D8.2	United Utilities programme of works:	2010 - 2015	United Utilities
	 Bowness Bay and Glebe Scheme. 	2011 - 2013	
	 Windermere Catchment Investigations. 	2011 - 2014	
	 Windermere Phosphorus Reduction Investigations. (outlined in Annex 2 – Asset Management Plan 5). 	2012	
D8.3	Implement 'Soap Suds – Love your Lakes' campaign raising awareness of the lake, water resources and use of detergents.	2011 - 2014	Windermere Reflections Nurture Lakeland
	Work to enable tourism businesses to gain a green award in the Windermere catchment.	2011 - 2012	Cumbria Tourism Nurture Lakeland

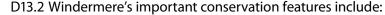
¹³ Existing 2005 actions status are summarised in Annex 6

	Action	Achieved by	Lead partners Potential partners
D8.5	Use the planning system to ensure sustainable drainage systems are sought within new developments so as to help prevent the overloading of the sewerage network during wet weather, and to reduce the probability of flooding.	Ongoing	LDNP SLDC Environment Agency United Utilities
D8.6	Use the planning system to support the provision of additional sea-toilet disposal facilities at jetties and marinas where they will be available for use by the general public.		LDNP SLDC
D8.7	Support the Environment Agency in enforcing the Windermere (Prevention of Pollution) Byelaws 1977.		Environment Agency LDNP SLDC
D8.8	Review water level management of the lake to ensure sustainable management of water resources and potential solutions to extreme high and low water levels.		Environment Agency United Utilities SLDC LDNP Windermere Lake Levels Group
	 To include: assessment of long-term variations in Windermere lake levels. influences of the weir. climate change. impacts of abstraction. potential options for future water level management. 		

Nature conservation

D13 Current context

D13.1 Windermere and its shoreline are home to an important range of wildlife habitats, requiring sympathetic management. Key species and habitats include wintering wildfowl, freshwater fish, underwater plants (aquatic macrophytes) and hydroseres (see Glossary). The main areas of nature conservation interest are shown in Map 5 (page 48).



- Its regional importance for wintering wildfowl, including goldeneye and tufted duck.
- Low Wray Bay, in the north basin, is designated as a Site of Special Scientific Interest, for its undisturbed sediments providing a record of climatic and environmental change over the last 20,000 years.
- A County Wildlife Site, it supports spring and autumn spawning Arctic charr.
- The widest range of large aquatic plants in the National Park.
- Significant soft shore and stony shore hydroseres. In addition, its important lake shore wetlands and reed beds provide shoreline refuges and nesting sites for wildfowl.
- Catchment supporting otters and native white-clawed crayfish.

Birds

- D13.3 Over 1,000 ducks, geese, and swans are resident throughout the year. This rises to 2-3,000 during the winter as birds visit from nesting grounds in Scandinavia and Eastern Europe. Some species occur in nationally significant numbers including wintering goldeneye and coot. In some years it has also supported nationally significant numbers of tufted duck and pochard, and is an important breeding site for redbreasted merganser.
- D13.4 The lake is less important for breeding birds, a reflection of the relatively small area of undisturbed habitat during spring and summer. However, seasonal access restrictions in Pull Wyke between 1 March and 1 August provide an important refuge, as do the other voluntary wildlife refuges.

Lake shore hydroseres

D13.5 Soft shore hydroseres occur on fine silts and peat and is usually dominated at the water's edge by common reed. Good examples are in Pull Wyke and south of Lakeside. Stony shore hydroseres occur on boulder clay and reed canary grass provides the reed fringe. The wet woodland behind the reed canary grass supports a variety of plants including globeflower and saw-wort. Reed beds provide refuges and nesting sites for wildfowl and spawning areas for fish. Reed beds are a Biodiversity Action Plan¹⁴ priority habitat.

Aquatic macrophytes

- D13.6 Windermere has a wide variety of aquatic macrophyte species. Species of interest include the six-stamenedwaterwort, water lobelia, and white water-lily and pondweed species.
- D13.7 Non-native invasive plant species have been part of Windermere's aquatic plant community for a long time. Potentially damaging species in the catchment include Australian swamp stonecrop (also known as New Zealand pigmyweed), Japanese knotweed and Himalayan balsam.

Fish

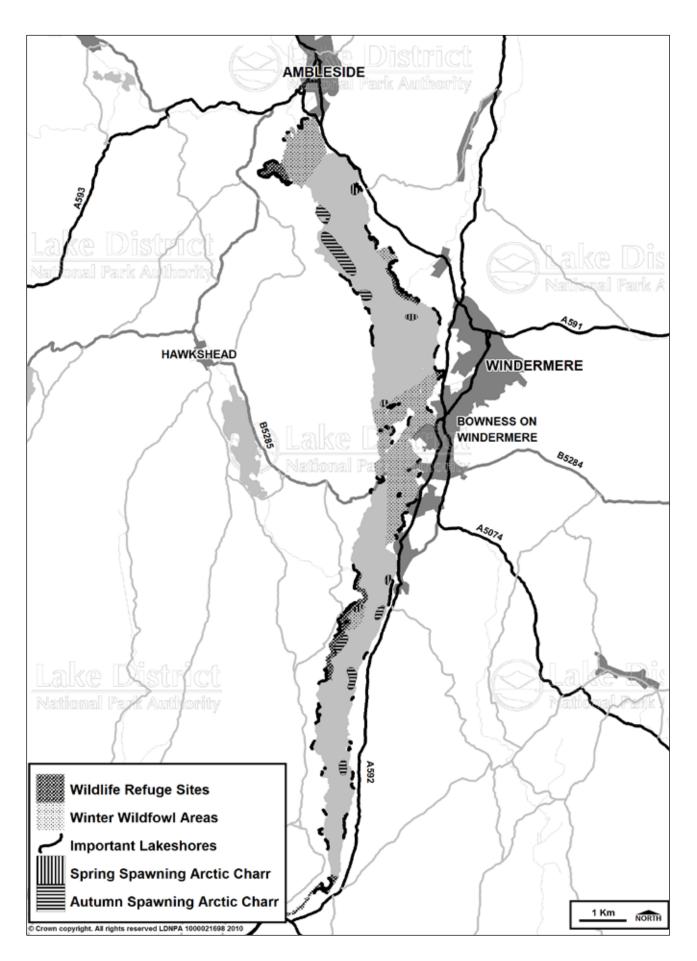
D13.8 Windermere supports populations of Arctic charr, brown trout, pike, perch, roach, and eels. Salmon and sea trout pass through the lake





¹⁴ Biodiversity Action Plans have been developed nationally for the conservation of key habitats and species. They are in response to the Biodiversity Convention, signed in Rio at the 1992 Earth Summit. Locally these are implemented through the Cumbria Biodiversity Action Plan.

Map 5 **Nature conservation interests on Windermere**



to spawn in the tributaries. Smolts (young trout or salmon) migrate downstream through the lake in spring, on their way to sea. There is a catch and release byelaw on the River Leven, enforced by the Environment Agency. The Arctic charr is particularly significant, because we believe there are at least four distinct and separate populations – spring and autumn spawning populations in each of the north and south basins. Autumn spawners lay eggs in relatively shallow water at sites around the lake shore, while spring spawners use much deeper water. The species is a glacial relict, surviving in Windermere because the lake is deep. As a cold water species the Windermere populations are close to the southern limit of their British range, and so are very sensitive to environmental change. In the last 10 years there has been a significant decline in the population of Arctic charr in Windermere (Winfield, 2008).

D13.9 The Environment Agency fisheries team operates a log book scheme for Arctic charr and pike fishermen who use the lake. The data collected is shared with the Centre for Ecology and Hydrology and used to describe population trends and stock status. The Agency also enforces fisheries legislation on the lake. Shore and boat-based patrols target unlicensed fishing and the use of illegal baits that may introduce disease or invasive species.

D14 Challenges and opportunities 2011

- D14.1 Some of the features important for nature conservation are vulnerable to recreational use, primarily disturbance to wildfowl and physical damage to lakeshore hydroseres. Voluntary cooperation is important for Windermere to maintain and enhance its environment.
- D14.2 The quieter winter period is important for wintering wildfowl. New developments and increased visitor pressure could threaten this. Pull Wyke, Ecclerigg Bay, Rayrigg Wyke and White Cross Bay are all important areas for wintering wildfowl and we need to continue to protect them. Pull Wyke, Ecclerigg Bay and Rayrigg Wyke, as wildlife refuges are voluntary no boating zones in the winter.
- D14.3 Shoreline erosion and loss of hydroseres is a significant problem in parts of the lake. Lake users have damaged hydroseres by landing boats on the shore. The dragging of tenders up and down the shoreline degrades the hydrosere and wildlife habitat. Other factors affecting hydroseres include grazing, wave action, boat wash and possible changes in water levels following construction of the weir at Newby Bridge. Some of the remaining hydroseres have been identified as wildlife refuges (shown on Map 5).
- D14.4 The islands are susceptible to damage from recreational activity. We recognise that the islands are popular landing sites for people to visit, but some have important habitats that need protecting.
- D14.5 Reed beds have significantly declined around the lake margins. Some have disappeared, for example around Grassholme. Other areas show reed bed decline which is of concern. Reed fringes are important in helping to dissipate wave energy and erosion, and are important wildlife refuges. A Windermere Reflections project is also enabling restoration of sections of the shoreline, led by South Cumbria Rivers Trust.



- D14.6 Mooring chains scour the lake bed, adversely affecting growth of underwater plants. This in turn impacts on other species, including wintering waterfowl, which depend on those plants for food and shelter.
- D14.7 There has been a worrying decline in the charr population in the lake, as well as brown trout and salmon stocks. The number of roach has significantly increased. We need to monitor and research fish populations to determine reasons for change. Charr spawning grounds are vulnerable to dredging, laying of new moorings, and siltation from construction work for new jetties and boathouses. Information on charr spawning grounds is needed to update our knowledge.
- D14.8 A major concern since 2005 has been the arrival and spread of Australian swamp stonecrop. It is important that all lake users clean all equipment and clothing after using the lake to prevent its spread to elsewhere. Canada and greylag geese have also increased in numbers in recent years. Geese droppings damage agricultural land, contribute phosphorus to the lake, and their grazing may contribute to the damage and loss of reed beds.
- D14.9 The impacts of climate change will also be a challenge. We are likely to experience warmer, wetter winters, and hotter drier summers in the future. This will have an impact on species such as Arctic charr as water temperatures within the lake rise. Increases in extreme weather conditions, including droughts and flood conditions will place stress on Windermere's habitats and species.

D15 Recent successes¹⁵

- D15.1 We have increased information about the nature conservation value of the lake in the new lake user guide, on the LDNP website and on interpretation panels which also show the location of wildlife refuges.
- D15.2 Wildlife refuges have been discussed at the Windermere Lake User Forum. It was agreed before we create any further wildlife refuges we need to raise awareness amongst lake users including visitors and residents about the refuges we already have (C3.2).
- D15.3 The Lake District National Park Authority provides information to visitors to the area about the nature conservation value of the lake, including during the Cruise with a Ranger trips on Windermere Lake Cruises, as well as via the Lake District Visitor Centre at Brockhole.
- D15.4 The Environment Agency has visited many of the boatyards and marinas as part of pollution campaigns as well as their ongoing patrol and enforcement activity under the Windermere Prevention of Pollution Byelaws as well as undertaking work relating to pollution prevention and hazardous waste. This campaign will be widened to promote pollution prevention good practice to other businesses and lake users under the 'Greener Boating' Windermere Reflections project.
- D15.4 In 2009/10 we undertook a Lake District wide campaign to raise awareness of the spread of Australian swamp stonecrop including press releases, leaflets and posters which were delivered to all lake shore venues where boats exit and enter the lakes to encourage people to wash their boats (C3.16). This needs to continue to ensure that awareness is maintained. There has been a recent government



¹⁵ Actions from the 2005 Windermere Management Strategy are referred to in brackets

consultation on proposals to ban the sale of the species, and to make it an offence to deliberately release it into the wild. South Cumbria Rivers Trust have appointed a Freshwater Invasive Non-native species officer to coordinate Cumbria's approach to invasive species, and a project within Windermere Reflections will address invasive species in the catchment - Alien Invaders.



- D15.5 To increase our understanding of the lake a full macrophyte survey of the lake has been completed which will help, for example, when assessing planning applications for new jetties or moorings. Surveys of flora and fauna on the islands have also taken place.
- D15.6 The growing population of geese has a significant impact on the lake, its shoreline and the visitor experience. Controlled management of geese has taken place for the last two years to halt the growth in numbers. This work will continue, working with other organisations around the lake to coordinate management.
- D15.7 A research project to investigate spawning grounds of Arctic charr has started, which will enable scientists to understand the threats to charr.
- D15.8 Windermere Reflections will have an important impact in improving the landscape and nature conservation with a variety of projects aimed at improving the natural habitat.

D16 What we are going to do¹⁶

	Action	Achieved by	Lead partners Potential partners
D16.1	We will work to fulfil the aims of the Windermere Catchment Restoration Programme:	2015	Windermere Catchment Restoration Programme
	Technical objectives for the Windermere area include:		
	 Restore a more natural fish community. Identify opportunities to enhance the seminatural vegetation of the lake shores and aquatic macrophyte communities. Develop measures to prevent the introduction of, or control the spread of invasive species. 		
	Determine future impacts of climate change and take measures to reduce / minimise these impacts as far as possible through sustainable land management practices.		

	Action	Achieved by	Lead partners Potential partners
	Specific actions within the 1 year Action plan include:	2015	Windermere Catchment Restoration Programme
D16.2	Reduce populations of geese within the catchment: Working group to review success of previous control programmes, prepare communications plan and progress arising actions.	2011	LDNP National Trust South Cumbria Rivers Trust Landowners
D16.3	Implement 'Restore the Shore' Windermere Reflections project.	2014	South Cumbria Rivers Trust Environment Agency Landowners
D16.4	Commission and start reed bed restoration PhD project.	2011	Environment Agency
D16.5	Implement 'Greener Boating' Windermere Reflections project.	2011	Windermere Reflections
D16.6	Implement 3 year project monitoring effects of climate change on Windermere, including the charr population.	2011	Environment Agency Centre for Ecology and Hydrology
D16.7	Work with lake users to protect and promote seasonal winter wildlife refuges.	Ongoing	LDNP Windermere Lake User Forum SLDC
D16.8	Work with lake users to protect and promote seasonal winter wildlife refuges.	Ongoing	LDNP Windermere Lake User Forum SLDC
D16.9	Review number and location of moorings and assess any impacts on nature conservation values.	2012	SLDC LDNP Environment Agency Cumbria Wildlife Trust
	We will not allow any increase in moorings in Pull Wyke or Low Wray Bay, and not re-advertise moorings as they become available at these locations.	Ongoing	Carriona Whalife Hast
	We will allow additional moorings only for lakeshore residents, and link these licences to specific lakeshore properties and planning applications.	Ongoing	continues

continues

	Action	Achieved by	Lead partners Potential partners
D16.10	Make more readily available the aquatic macrophyte data, data on island flora and fauna etc for the public and businesses, when developing planning proposals related to the lake.	December 2014	LDNP Cumbria Wildlife Trust Centre for Ecology and Hydrology Freshwater Biological Association
D16.11	Assess the need for management of islands to protect and preserve their flora and fauna.	2012	LDNP
D16.12	Promote good practice at launching points to restrict the introduction and spread of invasive species. This will be coordinated for all lakes, to reduce the risk of transfer from one lake to another. This will be coordinated through the 'Alien Invaders' Windermere Reflections project.	2011 - 2014	South Cumbria Rivers Trust LDNP SLDC Windermere Lake User Forum Commercial users







Annexes

Annex 1 References

Annex 2 Asset Management Plan 5 – United Utilities (UU) Improvement Schemes impacting on Windermere lake

Annex 3 Key Local Development Framework Policies relating to the Windermere Management Strategy

Annex 4 Landscape Character Area Summary (provided by Friends of the Lake District)

Annex 5 Technical terms

Annex 6 Existing actions

Annex 7 Windermere Catchment Restoration Programme 5 year Business Plan

Annex 1: References

Arup Economics and Planning, 2001 Lake Windermere Speed Restriction Impact and Development Opportunities

A Sustainable Transport Framework for the Lake District national Park: Phase 1: Evidence and Analysis, 2008

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Windermere: Restoring the health of England's largest lake

STEAM 2009. Global Tourism Solutions UK Ltd The steam report 2009 (Economic Impact of Tourism)

Winfield, IJ, 2008

The Arctic charr (Salvelinus alpinus) populations of Windermere, UK: population trends associated with eutrophication, climate change and increased abundance of roach (Rutilus rutilus) Environ. Biol. Fishes 83:25-35

Annex 2: Asset Management Plan 5 – United Utilities Improvement Schemes on Windermere (2010 to 2015)

Windermere Unsatisfactory Intermittent Discharge

Scheme One

Bowness Bay and the Glebe Scheme: Autumn 2011 - March 2013. This scheme will provide a new storm water pumping station, new rising main and outfall to the lake, new 6mm screening facility and new overflow chamber to replace the existing manhole located near the Information Centre. The solution will provide resolution of the immediate pollution / flooding problem that occurs from the manhole outside the Information Centre.

Scheme Two

Windermere Catchment Investigations: 2011-2014. To include investigations into surface water separation, catchment splitting, potential new treatment works, phosphorous levels in the lake sediments, to provide the necessary information to enable a holistic solution for the Windermere Catchment to be undertaken during AMP6 2015 - 2020, subject to funding.

These investigations will be conducted between 2011 and 2014, to provide information required for the AMP6 Business Case submission in 2014.

Windermere Phosphorus Reduction Investigations

Project scope completed for an investigation to determine the difference between the levels of phosphorus in the lake given the current location of the treatment works final effluent discharge, compared with relocating the final discharge into the River Leven at Newby Bridge.

Also pilot scale trial of enhanced phosphorus removal technologies, and techniques to optimise current phosphorous removal processes that could be applied to final effluents at Windermere and Ambleside treatment works to achieve long term phosphorus removal targets.

This work is due to be reported by March 2012 and will inform any future investment on phosphorus removal from Windermere lake.

Annex 3: Key Local Development Framework Policies relating to the Windermere Management Strategy

Each policy below should not be treated in isolation from the Local Development Framework as a whole.

Policy CS07 - Central and South East Distinctive Area

Approximately 44 per cent of all development will take place in the Central / South East Distinctive Area.

We have identified Ambleside, Staveley, Windermere / Bowness, and Grasmere as rural service centres. The villages are Chapel Stile / Elterwater, Troutbeck / Troutbeck Bridge, Crosthwaite, Lindale and Witherslack.

In the rural service centres we will:

- protect the vitality of the shopping areas in Windermere, Bowness
 Ambleside and Grasmere. We will identify central shopping areas for each
 of these settlements on the Proposals Map. We will maintain the shops in
 Staveley and consider ways to enable their ongoing viability and to
 provide for local community needs.
- give priority to the provision of local affordable housing to help redress the housing imbalance. We will allocate sites in Grasmere, Ambleside, Windermere/Bowness and Staveley to provide a mix of housing types and tenures appropriate to meeting the identified needs of these communities. We will maximise the development opportunities on small sites to contribute to meeting the identified housing needs.
- seek to allocate new employment land at Windermere / Bowness and Staveley. We will seek to allocate additional sites at Ambleside and Grasmere to satisfy any further demand while recognising the cross boundary links with sites at Kendal, Milnthorpe and Grange-over-Sands.
- develop opportunities for sustainable tourism focussed at Windermere and Bowness, Ambleside and Staveley, and Grasmere where they enable the economic and physical regeneration of the area.
- support the provision of allotments in Ambleside and in Windermere / Bowness, the provision of facilities for young people in Staveley and in Windermere/Bowness.

We will support the University of Cumbria, as we recognise that it brings community benefits for the National Park. We will maintain the university campus at Ambleside and work with partners to support the on-going provision of undergraduate and postgraduate training courses at the Ambleside campus.

We will work with partners to seek solutions to infrastructure issues associated with the combined sewer network in Windermere / Bowness.

In villages we will:

- consider allocating sites for small scale housing development in Chapel Stile / Elterwater, Crosthwaite, Witherslack and Lindale to help alleviate the pressures from either high second home ownership or high levels of affordable housing need. Small scale development in Troutbeck / Troutbeck Bridge will be encouraged to meet the identified housing need.
- seek to continue to allocate the employment site at Troutbeck Bridge and promote its development for employment use.
- support proposals for small scale employment use within or well related to Chapel Stile / Elterwater, Crosthwaite, Witherslack and Lindale.
- give priority to protecting existing retail uses and local shops, and to supporting development proposals for additional local shops.
- support the provision of a children's play area in Troutbeck / Troutbeck Bridge.

We will:

- recognise the southern tip of Windermere (Haverthwaite / Backbarrow / Newby Bridge / Lakeside area) as an important transport hub / interchange where there area choice of transport modes. This role is a significant integral element of the Windermere Waterfront Programme.
- seek to strengthen Lake Windermere's role as a transport corridor.
- aim to reduce nonessential travel, especially by car-based visitors, between the Central / South East area, other Distinctive Areas and areas outside the National Park. We will support initiatives that strengthen the sustainable transport links between settlements in the Central / South East area and Kendal and Grange-over-Sands. In particular, we will support initiatives that increase use of the Lakes Line.
- work with partners to facilitate cycle routes around Windermere and between Bowness and Ambleside, as part of the Keswick to Kendal cycleway. And improve public transport and community transport services across the Central / South East Distinctive Area.
- support the provision of amenity green space provision catering for informal play or ballgames.
- work with partners to deliver public realm enhancement as part of the Windermere Waterfront Programme and elsewhere.

We will use the Lake District Landscape Character Assessment to guide development and land use change. We will strengthen the landscape character of the Central / South East, for example by:

- conserving and enhancing the varied character types of this area, from estuary and marsh, coast and coastal limestone, to upland valley, high and low fell fringes, and the predominant low fell areas in which key landscape elements include semi-natural woodland, heath, parkland and boundary features
- protecting the character of the quieter areas including the Winster valley and Whitbarrow.

Policy CS08 - Windermere Waterfront Programme

We will support proposals for sustainable tourism development to deliver a cohesive world class visitor destination at the key sites comprising the Windermere Waterfront Programme.

Here it would incorporate:

- the highest quality of sustainable, locally distinctive design appropriate to the character of the area.
- measures to celebrate proximity to water and to protect and enhance water quality where appropriate.
- improvements to the public realm, where appropriate.
- improvements to accessibility by sustainable forms of transport.

Where appropriate, we will seek developer contributions and management agreements to meet transport and infrastructure requirements, including investment in the public realm.

We will work with partners to develop and improve sustainable transport connections on and around the lake.

We will retain and enhance the character of the more tranquil areas around the lake while strengthening the opportunities for passive enjoyment, including walking and cycling.

Bowness Bay and the Glebe in Bowness-on-Windermere is a strategic regeneration location for development totransform the visitor experience, in accordance with the above principles we will define the extent of this location, together with more detail of the scale and nature of development in the Allocations of Land Development Plan Document.

Policy CS28 – Lakeshore Development

We want to protect the landscape character and biodiversity of lakes and lakeshores, but we recognise that there is a need for limited lakeshore development to support lake services and facilities that rely on a lakeshore location.

We will only permit lakeshore development where:

- the development provides facilities or services that have a direct lake use function for recreation or water-based transport purposes.
- the applicant demonstrates that other locations are not feasible or viable.
- the scale, siting, design and character of the development enhances or maintains the character of its lakeshore location and thecharacter of the lake, including undeveloped stretches of lakeshore.

This policy will not apply to proposals at Lakeside, Bowness Bay or Waterhead that are part of the Windermere Waterfront Programme.

We define lakeshore as that area surrounding open water where the lake is the dominant feature in the landscape and directly affects landscape character above all other influences. The lakeshore will vary in scale according to other landscape characteristics and also in character including seminatural, rural, designed landscape and developed lake shore.

We will seek public access to lakes and tarns, where appropriate, when assessing development proposals.

Annex 4: Landscape Character Area Summary (provided by Friends of the Lake District)

Full Landscape Character Area document available at www.lakedistrict.gov.uk

Upper Windermere

Distinctive characteristics include:

The lake, with its foreshore and well wooded western side; built environment such as Ambleside and Waterhead and the grand houses and gardens on the eastern shore; openness of the lakeshore with views to Fairfield and the Langdale Pikes; woodland, parkland and pasture trees mixed with exotic ornamentals; slate and flag walls; viewing stations old steamer passenger boats. It is predominantly a tranquil landscape, with local disturbance from Ambleside and the A591.

Landscape sensitivities include:

Water quality; woodland, parkland and mature trees and slate flagstone walls; Victorian slate buildings of Ambleside vulnerable to extensions which do not reflect existing character; strong sense of openness and tranquility at the lake shore and on the lake; Wray Castle and parkland and a strong sense of tranquility along the western shore.

Forces for change include:

Increase in invasive species; increased recreational changes and types of use on Windermere; woodland management moving towards continuous cover; lack of management and non replacement of parkland and individual trees; scale and size of vernacular buildings on eastern side of Windermere and increasing traffic associated with tourism and recreation.

Guidelines for managing landscape change include:

Protect water from pollution; conserve and enhance woodland, parkland and mature individual trees along lake shore; encourage succession planting; conserve and enhance slate flag walls and vernacular slate buildings in Ambleside; conserve Wray Castle; retain strong sense of openness along the lake shore and retain strong sense of tranquility along the western shore.

Lower Windermere

Distinctive characteristics include:

Extensive semi natural woodland to lake shore, scattered houses with a strong sense of enclosure; eastern shore dominated by large houses with boathouses and jetties and gardens; Belle Isle; towns of Bowness and Windermere and viewing stations. Predominantly a tranquil valley (particularly on the western side) away from the bustle of the towns, Ferry Nab and piers and the A590 and A592.

Landscape sensitivities include:

Exotic planting and parkland contributing to a sense of place; extensive areas of semi natural woodland sensitive to changes in management; open views across Windermere vulnerable to interruption by tall vertical or large scale development; strong sense of enclosure provided by woodland, strong sense of tranquility at a distance from 'A' roads; small scale and intimate landscape pattern vulnerable to introduction of large scale elements or loss of existing landscape features; water quality, mires and lake edges and existing character of main settlements.

Forces for change include:

Changing temperature of the lake; redevelopment and enlargement of houses, boathouse, jetties; expansion of leisure at Lakeside, Newby Bridge and Fell Foot; continued pressure for access to the lake for recreation creating pollution and loss of tranquility; potential for phone masts and changes in garden design leading to introduction of new elements such as decking along the eastern shore.

Guidelines for managing landscape change include:

Encourage sustainable management of broadleaved woodland including continuous cover; restore water quality, mires and lake edge habitats; conserve and enhance exotic and parkland planting along the lakeshore; conserve and enhance distinctive features of settlements such as high quality slate detail and white barge boards; ensure lakeside developments such as boathouses, jetties reflect vernacular; maintain open views across Windermere, conserve and enhance strong sense of enclosure provided by broadleaved semi-natural woodland, maintainsense of tranquility at a distance from 'A' roads; mitigate impact of any new communications infrastructure; encourage restoration of designed grounds and parkland and retain small scale and intimate landscape pattern.

Claife Heights and Latterbarrow

Distinctive characteristics include:

Hummocky patchwork of woodland, wet pasture, mires and tarns; dramatic views across Windermere; strong sense of enclosure provided by woodland and winding narrow lanes; coniferous dominated woodland on the south Claife ridge; flag walls; Claife Station and strong sense of tranquility from the western shore which is enhanced by the relative absence of dwellings and minimal sources of artificial noise.

Landscape sensitivities include:

Loss of broadleaved woodland due to lack of management or conversion to conifers; felling and species change in coniferous woodland; dramatic views of Windermere vulnerable to interruption by tall vertical or large scale development and flag walls.

Forces for change include:

Lack of management of stone walls, hedges, barns and pollarded trees; communication developments and increased traffic in small roads.

Guidelines for managing landscape change include:

Conserve and enhance patches of broadleaved woodland which give a sense of enclosure; encourage conversion of conifers to broadleaves; conserve and enhance walls and hedges and field barns; protect dramatic and panoramic views across Windermere and mitigate impact of any new communication infrastructure.

Annex 5: Technical terms

Algal blooms

Algae are microscopic plants found in fresh and salt water. Their type and abundance are influenced by the availability of essential nutrients such as nitrogen and phosphorus, the amount of sunlight and other factors such as mixing and water clarity. An algal bloom is essentially a population explosion, caused by an abundance of nutrients (from the sources described above) and ideal growing conditions.

Ancient, semi-natural woodland

An area of land that has been woodland, with continuous cover, since at least 1600 AD. In the Lake District the earliest information available is late eighteenth century.

Catch and release

The concept of catch and release fishing is that, by releasing fish caught via controlled sport fishing means, they will continue to be available for natural purposes: breeding, predation, and provision of food to other species, as well as available for others to catch again.

Cross Lakes Shuttle

A service that allows up to five bikes to be taken on public transport between Bowness-on-Windermere, Hawkshead, Grizedale Forest and Coniston. The all inclusive ticket includes cycle carriage on Mountain Goat buses, Windermere Lake Cruises and the Coniston Launch. It provides the opportunity to explore Claife Heights, Grizedale Forest, and the continually expanding, mainly off road, cycle network around Coniston without using private cars.

Hydrosere

The transition from submerged plants, through a reedy fringe band to wet woodland and to dry oak woodland.

Macrophytes

Macrophytes are aquatic plants, growing in or near water that are emergent, submergent, or floating. Macrophytes are beneficial to lakes because they provide cover for fish and substrate for aquatic invertebrates. They also produce oxygen, which assists with overall lake functioning, and provide food for some fish and other wildlife.

Moorings

The means by which a boat is anchored to the bed of the lake, usually by means of a concrete block, chain and buoy.

Nutrient enrichment

Lakes, tarns and rivers vary in their natural levels of nutrients, particularly nitrogen, phosphorus and potassium. The level of these nutrients is a major factor affecting the species present. Nutrient enrichment describes the process by which these natural nutrient levels are augmented by artificial sources such as sewage, woodland and forestry, agricultural run-off and upland soil erosion.

Permitted developments

Minor alterations to property and land use that is allowed without the need to apply for planning permission.

Tender

A small boat or dinghy stored on the lake shore and used to reach larger craft moored on the lake.

Tertiary treatment

The purpose of this type of treatment is to reduce the amount of nutrients, such as phosphorus, or kill bacteria present in treated wastewater. Wastewater that has received primary and secondary treatment still contains dissolved materials. Tertiary treatments are designed to remove these materials in order to make the effluent safer to discharge into waterways.

Windermere Reflections

Windermere Reflections is a partnership scheme which is receiving around £1 million from the Heritage Lottery Fund as part of the Windermere Catchment Restoration Programme. The scheme will run 19 projects involving conservation of built and natural heritage, access, community involvement, education and training between 2011 and 2014 that will help conserve, restore and improve landscape and water quality.

Annex 6: Existing actions

The existing actions within the 2005 strategy have either been:

- removed where they have been completed.
- altered or updated where opportunities and challenges have changed.
- inserted into the new strategy.

Please see below for details of specific actions which have been altered within the strategy:

Section B: Recreation and Access

- The following existing actions are complete and have been removed: B3.4; B3.5; B3.6; B3.9; B3.10; B3.11; B3.16; B3.18; B3.19; B3.23.
- B3.1 and B3.2 have now become B4.1 to reflect the wider survey now ongoing.
- B3.3 has been altered to B4.2 and B4.3 to reflect the change in the Lake Patrol Team.
- B3.7 and B3.8 have merged to give one action B4.4 related to jetty provision.
- B3.12 has been updated to B4.17 to reflect potential work with outdoor centres to widen awareness of their role, and opportunities to increase participation.

Section C: Nature Conservation

- C3.2 has been altered to emphasise the need to promote existing refuges and is now D16.8.
- C3.3, C3.4, C3.5 and C3.11 are complete and have been removed.
- C3.7 is altered to D16.9 to include SLDC policy regards moorings.
- C3.11 has been altered to D16.10 to create a new action to make the data. we have more easily available to the public for their use.
- C3.12 has been restated as D16.11.

Section D: Water Quality and Environment

- D3.1; D3.2 have been merged into D8.1 to reflect the aims and objectives
 of the Windermere Catchment Restoration Programme. (Annex 7 outlines
 the full 5 year Business Plan in detail).
- D3.7; D3.10 and D3.11 have been removed as completed.
- D3.4 and D3.5 have been altered to reflect the new LDF policies (D8.5; D8.6)
- D3.8 is now within the 'Prosperous Economy' section.

Section E: Heritage

- Action E3.4 has been removed as included within the Transport section.
- Action E3.10 has been incorporated into the Economic and Community Well-being section.
- Action E3.1 and E3.2 have been altered to develop a new action C8.2 which reflects the new opportunities available as part of Windermere Reflections.
- Action E3.6 has been expanded to C8.3 to reflect National Trust proposals for the site.
- Action E3.8 has been altered to C8.5 to reflect the LDNP/SLDC role as advisory only.

Section F: Landscape

- F3.5 has been removed as this is covered within the Recreation topic.
- F3.1 has been amended to D4.1 to reflect the completion of the Landscape Character Assessment.
- F3.2 and F3.3 have been removed and replaced with D4.4 to raise awareness of the Landscape Character of the area with the local community and businesses.

Section G: Traffic and Transport

- Existing action C3.5 is complete and will be removed.
- G3.1 and G3.3 are now part of the Lake District Sustainable Transport Framework outlined in C4.1.
- G3.2 remains as C4.2; C3.4 remains as C4.3.
- G3.6 and G3.7 remain as cycling actions C4.5 and C4.6.

Section H: Prosperous Economy

- Actions H3.1, H3.2 are replaced with A4.1 and A4.2.
- Action H3.3 remains as A4.3.
- Action H3.4 has been updated to A4.3 to match the action within the Partnership Plan (see Introduction).
- H3.6 and H3.7 have been amended and merged into a new action A4.4 to reflect potential new opportunities as part of the Windermere Steamboat Project which could address these actions.
- H3.8 has been removed due to a lack of local demand.
- H3.9 has been removed as we no longer feel this is a feasible action to undertake within the strategy.

Annex 7: Windermere Catchment Restoration Programme: Background and Five Year Business Plan objectives

April 2010 to March 2015

The Programme was established in 2009 as a whole-catchment management approach to addressing the environmental issues that affect Windermere and its catchment that comprises a total of seven major lakes and tarns. The Programme is managed by a Partnership of eight members that have a role and responsibility to protect and enhance the lakes, and are resolved to restore the lake to its former high quality.

The Windermere Catchment Restoration Programme (WCRP) Management Group consists of organisations that can have a major impact on lake improvement because they are landowners, they have a conservation interest in the catchment, or their activities can impact on the water quality of the lake.

It is presently made up of the following partners:

- · Cumbria Tourism
- Environment Agency
- Forestry Commission
- · Lake District National Park
- National Trust
- · Natural England
- South Lakeland District Council
- United Utilities

The partnership also works through other organisations and plans. Windermere has several plans and strategies which coincide to various degrees with this plan and recognition of them ensures we realise the synergies and avoid duplication. Further by working with and through these groups and associated plans the WCRP programme can deliver against several other partnership and organisation's objectives.

The key ones are:

- · Lake District Partnership Plan
- Windermere Strategy

The Vision

A healthy Windermere catchment, for now, for ever

In 2040 we will see a Windermere catchment in which healthy, clean water runs from the hills and uplands, through our villages and towns into our rivers and lakes. Local agencies, businesses and communities work together to maintain a healthy environment and water resource resilient to the impacts of climate change.

The Windermere Catchment Restoration Programme Partnership has established a shared vision for Windermere and its catchment – including the lakes and upland tarns.

We wish to see a **healthy** Windermere (catchment) in terms of water quality, its natural wildlife and habitats, and the different values we place on it.

We are concerned with the whole **catchment** because everything we put on the land or discharge into streams finds its way to the lake so we must protect the whole drainage catchment.

We are working **for now**, **for ever** because everything we do has an urgency and should be a permanent investment, not just for the short term.

WCRPP Strategic Objectives

The high level strategic objectives are:

- Ecology: to improve the water quality and protect the natural ecology of the catchment and its lakes.
- Awareness: to increase environmental awareness amongst resident and visitor communities by providing opportunities to celebrate and enjoy what is special about Windermere catchment.
- Economy: to ensure that improvements to lakes and landscape in the catchment support a healthy local economy.

WCRP has also identified the main problems that face the Windermere catchment and proposed multiple sets of technical objectives to address them.

WCRP technical objectives

- Reduce concentration of nutrients (phosphate) in the lakes.
- Manage sedimentation to a more natural rate within the lakes.
- Protect biodiversity including the control of alien species.
- Restore more natural fish community.
- Ensure sustainable management of recreational access.
- Ensure water quality is suitable to meet public needs.
- Provide local actions to mitigate the impacts of climate change.

Lake specific objectives: Windermere's south and north basins

- Reduce phosphorus to achieve a mean annual total phosphorus concentration of less than 10 micrograms per litre.
- Restore a more natural fish community.
- Identify opportunities to enhance the semi-natural vegetation of the lakeshores and aquatic macrophyte communities.
- Develop measures to prevent the introduction or the control of the spread of invasive species.
- Manage sedimentation to a more natural rate within the lake catchment.
- Ensure future water quality suitable for public benefit and enjoyment including meeting EU bathing standards at relevant sites.
- Promote sustainable management of land use and access for the local community and visitors.
- Determine future impacts of climate change and take measures to reduce / minimise these impacts as far as possible through sustainable land management practices.