Dialogue Matters

Recommendations for the long-term management plan for water quality in the Windermere catchment

February 2024

LOVE WINDERMERE

NATURAL COURSE
OUR WATER. OUR FUTURE

Life

Co-funded by the European Union

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1 Project background

Lakes are sensitive to multiple human pressures that operate at different spatial and temporal scales and trigger a variety of interlinked, often negative, consequences for freshwater ecology and the wider benefits that lake ecosystems provide. Windermere is no different. Over the past 50 years, concerns have been raised about the health of Windermere, in particular algal blooms and bacterial pollution, which are potentially harmful to wildlife and humans. Nutrients, climate change, extreme weather patterns and the seasonal variations of tourist numbers are all putting the lake and its water quality under increasing pressure.

The Love Windermere partnership, set up in 2022, aims to bring about a healthier future for Lake Windermere and the surrounding area. They are in the process of creating a long-term plan for improved water quality in the lake and its catchment (the streams, rivers, and land around). Water quality is related to nature, climate, recreation, tourism, local business, and land uses and so it is vital that local communities and stakeholders input ideas and suggestions.

A wide range of stakeholders are actively involved in the Love Windermere Board and workstreams at a strategic, tactical, and operational level*. With a range of stakeholders, it is not uncommon to have competing or conflicting views and challenging conversations around Windermere. In addition, the Love Windermere partnership is not an organisation and does not currently have any core funding. However, the partnership is committed to prioritising effective solutions to improve the condition of the lake and surrounding area using their available resources.

2 Approach

The aim of this piece of work is to involve a wide variety of stakeholders and local community voices to form a basis for healthy collaboration around the long-term vision for improved water quality of Windermere, and to ensure that local community knowledge is blended with the science. The outputs from the workshop and survey have been converted into recommendations in this document which Love Windermere will use to inform the creation of a 20-year water quality management plan.

2.1 The workshop

The workshop took place on 29th November 2023 at the Castle Green Hotel, Kendal.

The invited participants came from a cross section of interests and organisations. This includes climate change, environment and nature, recreational water users, community inclusion, tourism, business, land management, infrastructure (both mains and non mains) and data, science, and evidence groups. Dialogue Matters recommended a balance of about 8 people from each area. The participants were identified in this way to ensure that the workshop had a fair and equitable balance across different sectors and interests. Of those invited to the workshop, 53 attended.

The workshop helped people to share understanding of the current context, explore trends, changes and connected systems, to consider water quality in different contexts, to develop

* the Environment Agency, Freshwater Biological Association, Lake District Foundation, Lake District National Park Authority, National Farmers Union, National Trust, South Cumbria Rivers Trust, Westmorland and Furness Council, United Utilities and Cumbria Local Enterprise Partnership.

SMART objectives and start working out what each can commit towards implementation, as well as discussing how to effectively establish collaborative working practices.

2.2 The survey

The survey was set up on SurveyMonkey and distributed by the Environment Agency to the workshop participants, their organisations and networks, and more widely to the local community. The survey was live for 16 days and 42 people responded.

The survey tested support for a water quality vision and key 'focus areas' which emerged from the workshop outputs. Respondents could also provide additional ideas which would increase their support of the focus areas.

2.3 This recommendations report – what is it based on?

Dialogue Matters endeavour to select key points in a fair way, rather than rely on our own impressions as facilitators to do this. During the workshop, the essence of every point said was either noted by facilitators, or participants wrote their own points themselves. DM processed all points noted during the workshop and similar points from within a conversation were clustered together. DM processed all of the responses from the survey in the same way, clustering similar ideas together. The outputs of the workshop are summarised and converted into recommendations in this report. The survey responses further shaped and refined these recommendations.

Given the wealth of comments and ideas shared during the workshop we are unable to summarise it all in a few short pages. Instead, we have focused on the key points relating to water quality from each conversation.

We know that all humans see and notice things that match up with their own interests and way of seeing things (psychologists call this confirmation bias). So it may be that as you look at this summary it does not include things that stood out for you during the workshop.

3 Understanding the current situation

When considering the future, it is important to understand the current situation. It is also useful to explore the wider context relevant to water quality, including what we value now so that it isn't lost in the transition for betterment. The following contextual information is a summary of responses made to 'wider context' questions in the workshop.

3.1 Value of Windermere

What makes it special?

Participants believe that Windemere lake and the surrounding area is special due to its beautiful scenery, the people, rare species, health, and wellbeing benefits, as well as offering something for everyone to enjoy. It is the largest lake in England and widely freely accessible which often makes it peoples' first experience of an environment at this scale. Windermere is important in shaping views of the countryside and continues to inspire great art and cultural heritage. Being at the heart of the national park, it's perceived to be a pristine clean environment with clear lakes, clear streams, and clean air. Windermere is also vital for sustaining the economy of the Lake District.

What would you like future generations to experience?

Future generations deserve to inherit a National Park that is inclusive and diverse. Participants want to gift the ability to enjoy nature connection with thriving wildlife, clean air and water. Water will be considered as the 'lifeblood' flowing through the landscape and there will be less algal blooms and invasive non-native species. They would like future generations to experience a sense of awe when they are in, on, or near the lake as a space away from technology. It will be a space to enjoy the beauty and serenity while being encapsulated by the sense of timelessness that its geology, nature and awesomeness inspires. Participants would also like to maintain safe, free and easy access to the lake, enabling a thriving local economy and recreation on and around the lake.

If the lake could talk

When asked what Windermere would say if it could talk, participants responded with 'Help!', 'Be more responsible' and 'Stop polluting me'. 'We're connected' so 'let's be symbiotic' and 'leave space for nature around my shores' to 'let people see my beauty'. Someone suggested that Windermere has many stories it could tell and others thought that personalising the voice of the lake could be helpful in fostering connection and care for the lake.

3.2 Trends and changes

Participants believe the current political interest in water quality is short term and that there is a lack of political will to change the focus from economic growth. However, there may be a growing demand from the electorate for the government to better protect nature. If schedule 3 of the Flood and Water Act 2010 is implemented, it could help to increase SuDs in new developments.

According to workshop participants, both residents and visitors are struggling financially in the legacy of Covid-19. There is a loss of business, less investment in infrastructure and a lack of

local affordable housing for young people. Participants would like to see a balance between tourism and the environment, finding an 'economic win-win'.

People notice social changes in the area such as population growth, which is increasing pressure on the environment and existing infrastructure. People see lots more holiday accommodation, coupled with visitors who don't always understand how their behaviour impacts the lake and nature. However, there is also more social motivation to care for the environment which could be harnessed to take positive action. One person mentioned that the deep connection to historic farming practices around Windermere can cause some reluctance to change to more environmentally sensitive regimes.

New technology which is relevant to water quality is constantly evolving and emerging. People mention: tech to monitor and address nutrient enrichment; improvements in asset management systems for drainage infrastructure; better remote sensing for private sewage systems; and smart water meters. AI could also provide new tech solutions. Social media is changing what information people absorb and how they can be communicated with.

Participants highlight legal changes such as a lack of funding for enforcing and monitoring of environmental and other regulations. There is also changing legislation for protected species, sites, and landscapes since leaving the EU. However, the Environmental Act and Environmental Improvement Plans are setting new statutory targets and measures for nature recovery.

From an environmental perspective, the climate is changing and extreme weather is becoming more regular. Participants list effects including: average wind speeds are declining globally, seasonal rainfall is more extreme, average water temperatures are rising, underwater seasons are shifting, and deep water oxygen concentrations are declining. This will affect things such as the environment, growing seasons, local flood resilience, access to water, as well as many unknowns. People also mention that it is hard to remove the nutrients and toxins which are building up in the lake sediments.

Landscape, nature and land use change in the next 20 years:

In the next 20 years, participants predict an increase in tourism and recreation footprint, including nature-based tourism. This, combined with extreme weather is likely to result in greater erosion.

With a decline in farming being noted, especially hill sheep and livestock, participants suggest there may be less farmland, more forestry and more agri-environment and regenerative practices to meet demand. This may also include rewilding projects such as woodland and peat restoration and species introduction. Participants also predict an increase in residential and commercial development while villages empty of permanent residents.

Changing water conditions will likely result in more algal blooms. Participants also highlight that increasing water temperatures and decreasing water availability will likely increase environmental impacts of water usage. This, coupled with more people accessing the water for wellbeing and recreation, is likely to affect safety.

Participants highlighted the increasing need for the landscape to hold back water due to more extreme weather events such as flooding and low water levels being more likely. As native species are being outcompeted and experiencing habitat loss, the increasing demand for fish and more interest in nature connection will call for more reedbed creation.

Can Windermere sustain the level and type of use that happens now?

Yes	Possibly	No
The area needs to evolve, people need to take more responsibility for the environment	Should we be sustaining current actions? We could do better!	Less interest in nature among visitors. Reaching the point of unsustainability
Can we agree to a limit of change we can accept?	Need to let areas rest	Unlikely!
With improvements to planning, forecasting and policy (and sewage infrastructure)	Water quality needs planning for in changing context (Climate Change)	Many salmonids in decline due to habitat degradation and poor water quality
If we manage inputs efficiently (better data, management, monitoring and partnerships)	Action needs to be taken on nutrient enrichment	Unlikely with climate change – Need to manage agricultural run-off, public sewage, and private septic tanks
With more collaboration between disciplines		

When participants were asked if Windermere catchment would be able to sustain the level and types of use that occur now in years to come, their responses are summarised in the table above. If action isn't taken now, participants believe increasing tourism will only add pressure on the already stretched infrastructure, especially sewage systems. Additionally, too much uncontrolled access to the lake and surroundings will lead to further degradation of the lake's ecology and ecosystem. This loss of natural resources will be exacerbated by increased pollution and increased temperatures. Windermere will experience further species and habitat loss including the loss of sensitive species (i.e. Arctic Char) alongside increasing presence of invasive non-native species. Participants note that reduced water quality is already degrading the Lake District brand and damaging the local economy. Together this all contributes to the worsening mental health of local people.

3.3 Information

What do we know and what is it based on?

When coming together as a large group it is important to acknowledge that we all have different understanding and knowledge bases. In order to understand each other better, participants were asked 'what do we know' and 'what is this based on'. Responses from this can be found in Annex 2a.

What more do we need to know?

Participants provided recommendations about what further information is needed to help inform the decisions about water quality management. See the list of 'what more we need to know' and who could provide this information in Annex 2b.

Constraints that need to be factored in

Participants were asked to identify constraints that need to be factored into Love Windermere's work. These constraints span financial, partnership, natural, human, informational, heritage, land management, infrastructure, legislative, environmental, and access-related challenges.

Financial Challenges: One prominent constraint is the limitation in funding, with a recurring theme of insufficient resources for long-term monitoring. The absence of ready markets beyond carbon credits further exacerbates the financial constraints, highlighting the need for sustainable funding sources.

Partnership Dynamics: Challenges within the Love Windermere partnership include resource limitations, emphasising the necessity for meeting minutes to maintain transparency and keep stakeholders informed. This underscores the importance of effective collaboration and communication among partners.

Natural and Human Factors: Natural constraints, particularly the geology of the area and the effectiveness of drainage fields, were identified. On the human side, concerns include the need to support environmental campaigners without invalidating their efforts, addressing a perceived lack of impact, fostering a positive attitude, and managing fears of disruption.

Information and Data Management: Challenges related to information staying in silos, misinformation on social media, and the need for countering misinformation with credible evidence highlight the importance of effective communication and information dissemination. The role of education in schools and colleges is also recognised as essential for lasting change.

Heritage Considerations: Heritage-related constraints involve potential blockages to conservation works and concerns about the impacts on land management and river restoration. This underlines the need for a delicate balance between conservation efforts and historical preservation.

Land Management and Infrastructure: Delays in land management support funding options, challenges in engaging landowners, and issues related to infrastructure, including understanding drainage systems and a lack of mains sewage in key locations, are outlined as constraints requiring attention.

Legislative and Environmental Concerns: Constraints associated with environmental legislation's perceived inadequacy and the need for robust decision-making and enforcement mechanisms underscore the importance of legal frameworks in protecting environmental interests.

Nature Conservation: Challenges related to statutory nature designations and the imperative to consider nature in all decisions emphasise the delicate balance required between conservation efforts and ecological preservation.

Economic and Access Challenges: Economic considerations, though briefly mentioned, underscore the broader socio-economic implications of the project. Access constraints to England's largest lake highlight potential issues of overuse and the need for effective management.

3.4 Opportunities and challenges

Participants have wide-ranging ideas around the opportunities of improving water quality. These included harnessing public and government support and combining current efforts to deliver major actions to improve infrastructure, regulation, engagement and catchment scale interventions which restores habitat and water quality. People also identified this as a chance to apply new and innovative approaches to become world leaders in best practice.

Equally, there are lots of pressing challenges around improving water quality. People raise points such as understanding nutrient inputs, increasing pressures from tourists and climate change, as well as the inheritance of existing infrastructure, including poorly maintained and unregulated septic tanks. Sourcing funding and resources for improvements, regulation, and engaging and communicating with public were also identified as challenges alongside a lack of collective responsibility and leadership to move forwards.

3.5 Resources

Funding sources to achieve sustainable future finance

Workshop participants identified a number of potential funding streams.

Public: These included accessing a number of public finances for nature recovery such as land management and stewardship payments, BNG and nutrient neutrality payments, as well as regulations/commitments like S106 for developers. Participants also suggest DEFRA grant-in-aid for Flood and Coastal Risk Management as well as the potential to access health budgets based on savings accrued from social prescribing.

A question was raised about whether Love Windermere needed to become a formal structure to be able to attract funding. Once formalised, participants highlighted possible grant funders (Heritage Fund, Esmee Fairburn Trust) as well as landscape recovery and business improvement bids.

Private: The private funding sources identified by workshop participants have been sorted into three categories, users pay, polluters pay and philanthropic means.

Users: As a much-valued local commodity, participants have recommended that local input could be rallied through crowdfunding appeals for specific projects or council tax. Contributions from lake users could also be obtained through specific activity fees such as funding from EA rod licencing, tourist taxes, or a higher proportion of tourism related VAT going back to support local areas.

Polluters: Some participants suggest that water quality improvement payments should come from those that cause the pollution. Some avenues suggested for this are connective platforms such as EnTrade and water company shareholders providing support for businesses that don't have access to mains sewerage.

Philanthropic: Participants suggest that there could be methods for developing nature markets to enable people to be paid fairly for delivering solutions. This could be done through virtual secondments to Love Windermere partnership or engaging outdoor and recreation brands to support campaigns.

Offers of resources between us to make a difference:

Participants identified that there is a wide range of data from different sources. This includes local people and visitors who hold deep connection to the area and have invaluable local knowledge and skills, as well as decades of science and evidence from ongoing data collection. There is also new technologies and equipment being developed, as well as developments evolving in monitoring and sampling.

There are Local Nature Recovery Plans in place, as well as other regulatory drivers which together with local leadership and existing mechanisms, participants believe could have the opportunity spread the word, engage more parties, and influence practice.

3.6 Connections and links

Workshop participants explored the different interconnecting systems that are at play around Windermere. The resulting causal diagrams and systems can be seen in Annex 3. Themes explored include disconnect from nature, lack of funds, source of algal blooms, why Windermere's water quality has declined, Victorian influence, and the importance of partnerships.

4 Findings from the workshop and survey

4.1 Vision

At the workshop outset, participants were asked to imagine and share their hopes for Windermere in 2030. From these, we created a shared vision for water quality management. This vision was then tested in the survey. Survey respondents could indicate their level of support and comment on what would increase their support. These suggestions have been incorporated where appropriate. The following united vision is a starting point to drive further work.

Our vision for Windermere lake and catchment in 2030 is:

Windermere is thriving, healthy, resilient, and renowned as one of the cleanest lakes in the world. The lake and surrounding catchment support an abundance of nature and native wildlife. The rare and iconic Arctic Char is thriving.

Windermere is still considered one of the top UK tourist attractions and is attractive for water sports and swimming. Both visitors and local communities, and local businesses, understand the benefits of looking after the lake for nature and people and know what they can do to help. Everyone then plays their part in caring for the lake and surrounding land.

Farmers and land managers are working together to achieve holistic land management, improved water quality and nature restoration.

Sewage treatment plant discharges are regulated, minimal and clean and there is effective regulation and maintenance of non-mains drainage systems.

Water quality is improving with algal blooms rare and there is regular wide-scale monitoring to inform management decisions. This improvement is underpinned by people working together collaboratively with an independently governed partnership who are coordinating and leading agreed action which delivers results. There is long-term funding to enable continued joint work.

We have looked at each survey comment and altered the vision to incorporate peoples' ideas and suggestions where appropriate. A few suggestions require further consideration before being included in the vision for 2030. These are that Windermere has received an appropriate nature designation such as Special Area of Conversation, and that solutions used at Lake Annecy to improve water quality are being used for Windermere.

Some suggestions are more relevant to one of the focus areas rather than the vision and so have been addressed under the most relevant section.

This vision is intended to be ambitious and to inspire people about the future for Windermere. There are some comments concerned about the lack of evidence, metrics, and facts and figures in the vision. The vision is aspirational and something people are hoping for – in this context, evidence and data don't fit within a vision. Another concern mentions that by focusing exclusively on Windermere, other lakes may suffer and they all deserve to be clean.

4.2 Long-term focus areas

To consider and identify focus areas for long-term improvement in water quality, workshop participants joined one of eight topic groups. The topics were: **Healthy lake and catchment** (e.g. nutrients, healthy functioning ecosystem); **Local community and culture** (e.g. sense of place, heritage, arts, society); **Climate Change** (e.g. effect, mitigation, adaptation, resilience); **Surrounding environment, landscape and nature**; **Recreation and water users**; **Tourism, business, and economy**; **Land management** (rural land use e.g. farming, forestry, peatlands and other land uses); and **Infrastructure and development** (wastewater systems (mains and non mains), roads, drainage, housing).

Topic participants shared their understanding of the effects of their topic on water quality, and how water quality affects their topic. They then identified key success factors and a vision to aim for in 20 years' time. Further discussion around current work and areas that need more attention led participants to highlight what they considered to be the most impactful ideas.

Finally, groups had the opportunity to propose objectives to support the long-term management of water quality [see Annex 5]. In some cases, these objectives were well defined with suggested timeframes, responsibility, and measurements of success. In other cases, they were less well-defined or lacked clear accountability. People also had a chance to put forward specific offers of action that they (as individuals) could undertake to progress the focus areas [see Annex 4].

Analysis of the workshop outputs identified five overarching focus areas for long-term water quality improvement in the Windermere lake and catchment. Participants' points, captured at the workshop on their own merit, were analysed and sorted into similar ideas and overarching themes. The resulting focus areas therefore emerged directly from the participants' work. The 5 overarching focus areas are:

1. Partnership working and holistic plan
2. Reduce nutrients and other pollutants, from all sources, entering Windermere catchment's rivers and lakes.
3. New development and roads
4. Collective action - everyone playing their part
5. Research and data

These focus areas and their key constituent ideas were then tested through wider engagement via an online survey. Survey respondents reviewed these and had the chance to indicate their level of support and provide additional ideas for how to increase support. The new ideas and nuance captured in the survey built on and developed the focus areas summarised below. Based on respondent comments, we altered the language and content of each focus area as appropriate. Some suggestions will require further consideration and have been included in text boxes below the relevant idea.

1. Partnership working and holistic plan

Long-term Windermere partnership

Fund and maintain a long-term, committed partnership for Windermere with independent governance to:

- Provide holistic leadership and a focal point for completing real, collaborative action and achieving ambitious outcomes
- Co-ordinate implementation of the priorities co-designed and agreed with local communities and stakeholders
- Oversee creation and implementation of a holistic recovery plan, and where possible, working with and through existing initiatives
- Foster joined up delivery, synergies to achieve more than each entity can alone and to avoid duplication of effort with other organisations and partnerships
- Find and signpost funding and other resources
- Place the future sustainability and nature of Windermere lake and its water catchment at the heart of decision making.
- Maintain active and inclusive participation, communication, and accountability with local communities and other stakeholders
- Foster sharing of good practices and innovations
- Operate with transparent, honest and open principles

Aim: Evolve the Love Windermere partnership to meet this description or establish a new entity by end of 2024.

Additional suggestions for the Windermere partnership section include making the timeline for the overall 'Aim' more ambitious. For example, changing it to 'by mid 2024'. In order for the Love Windermere partnership to transform to this description, a suggestion is that a codified partnership agreement is needed. Including more legal and government intervention is also raised as an idea.

There is a concern regarding the Environment Agency and United Utilities being involved as major members in the Windermere partnership, as they also need to be held to account. A second concern is whether another partnership is even needed, as the council could manage its environmental health responsibilities more easily if there was more effective regulation. Regulators needing power is another concern.

Long-Term Plan to be holistic and integrated:

Windermere partnership to fund, develop, invest in and implement a holistic landscape scale recovery plan for water quality, nature, climate adaptation, landscape. The recovery plan to include:

- Clear and inclusive governance of the plan and implementation
- Clear, ambitious, measurable, and timebound targets
- The highest impact actions prioritised (not the quick and easy)
- Clarity on what is already underway, who is taking that action, and the gaps that need addressing and how that will be done.
- A revenue plan (funding and resources) to address gaps
- Monitoring of implementation
- Monitoring of defined outcomes
- Regular review
- Clear communication on progress

Aim: A restored, resilient, clean, healthy water catchment including restored habitats and nature-based solutions that deliver multiple benefits (e.g. health and wellbeing, recreation and access, cultural heritage, tourism).

Additional suggestions for inclusion in the Long-term Plan are: having weekly updates on progress; all actions being agreed in collaboration with communities and stakeholders; using a science-led approach; and emphasising solutions that work for both people and the environment.

There are some suggestions around forming a concrete action plan with clear results, including short- and medium-term action as well as the long-term plans, and having both consequences for late completion and enforcement action taking place. A further concern is that the Long-term Plan is aiming for too much, the suggestion is that aims are reduced in order to start delivery of essential action immediately.

There is a concern that bullet point 4 will not be achievable unless the current partnership transforms, as currently there is a lack of communication between different projects and activities taking place, as well as lack of forward planning/looking to the future.

Another concern raised is that the Long-term Plan will be ineffective unless other issues are given detailed attention, such as major improvements in hard wastewater treatment infrastructure and the impact of visitors/ holiday accommodation on water quality issues.

2. Reduce nutrients and other pollutants, from all sources, entering Windermere catchment's rivers and lakes.

Wastewater (sewage and other wastewater) from treatment plants

- United Utilities achieve ambitious water quality improvements including trialling phosphorous recovery technology
- United Utilities work at pace to invest the promised millions and result in an ambitious reduction in storm overflows, including updating and replacing aged infrastructure
- EA increase frequency and rigour of monitoring of sewage treatment plants and acts firmly on breaches of regulation

The wastewater topic has some additional suggestions from the survey that require further consideration. This includes a commitment to stop all sewage discharge into the lake (not just 'ambitious reduction'); to include mention of bacteria that causes human diseases; and that United Utilities resource all of this work and speed up the timeframe for their targets.

There are specific suggestions to review and tighten environmental permits e.g. Phosphorus discharge; to adopt the plan of building 67km of piping around the lake; and to empower the governing body to agree and sign off any UU improvement plans.

A concern for further thought is whether bullet points 2 and 3 are outside the scope of the partnership. A further concern raised is that United Utilities have already invested the 'promised millions'.

Non-mains drainage:

Create and deliver an action plan to tackle private treatment works/septic tanks/package plants which will**:**

- Raise awareness and provide advice and action that improves management and impact. Include information about the requirements of General Binding Rules for small sewage discharges to the ground or surface water (including the rules for all new discharges after January 2015, and additional rules for new discharges after 2nd October 2023)
- Create a comprehensive register and advice on what can/cannot go into a septic tank for all owners, including owners and users of holiday accommodation septic tanks
- Map the location, condition and age of all non-mains drainage structures
- Risk assess to prioritise and focus action on the highest impact discharges/locations
- Review how best to improve regulation and enforcement of non-mains sewage systems leading to upgrading and maintenance improvements. To include consideration of a compulsory plan for septic tank maintenance

- Pilot nutrient reduction from a number of package plants and advise lessons learned to other private owners
- Programme of works to Investigate misconnections and rectify
- Monitor and regulate boat discharge points

Aim: To get to 100% of tanks undergoing regular checks: FDA (Foul Drainage Assessment) inspections and compliant with relevant rules and permits.

A suggestion for improving the main 'Aim' for Non-mains Drainage is to define what is meant by 'regular' e.g. does it mean every week, every 5 years? Another point for consideration is whether the main 'Aim' is outside the scope of the partnership. An alternative suggestion for the aim is "Reduce nutrient inputs from non-mains drainage systems by x% by year x".

Additional suggestions for actions around Non-mains Drainage include providing financial help/grants for private septic tank owners so they can upgrade and be compliant; considering options for connecting all septic tanks to main sewerage; and integrating nature-based solutions into the work around improving non-mains drainage. Another suggestion is to create a workable action plan with a timeline which details how these ideas will be achieved and who is taking responsibility for each one.

A note made is that regulation and maintenance of mains sewers is a more realistic goal than to do the same for non-mains systems.

Holistic land management, water quality and nature restoration:

Farmers, foresters, wildlife organisations and other land managers work together to co-create co-ordinated action at landscape scale for:

- Water quality recovery (including action on chemicals used, runoff, slurry storage)
- Sustainable quality produce (food, wool, wood)
- River naturalisation to slow the flow of water and reduce flood risk
- Improving ecosystem function
- Restoring peatlands and creating wetland habitats (including reedbeds)
- Enhancing soil health
- Increasing and protecting trees (right trees in the right places),
- Applying net zero management
- Enhancing natural beauty
- Delivering multiple other benefits and win:win solutions for areas such as tourism, health and wellbeing, recreation and access, cultural and built heritage

This action is then co-delivered using private/public/and other long-term finance to fund innovation and best practice management.

Actions include an assessment of farm and forestry land management, lake shore management, and addressing nutrient runoff, soil loss, use of other chemicals (e.g. glyphosate), and other impacts.
Monitoring is done to track progress and evaluation for adaptive management.

Aims:

- By 2025 this land manager collaboration will be established and able to share success stories, best practices and innovation
- In 5 years, 80% of land within the catchment will be under low nutrient management.
- All land holdings to be net zero in 20 years
- Sustainable farm incomes
- Nature recovery is evident
- Celebrate and reward positive action
- Arctic Char recovery

Specific suggestions for this section that require further consideration are to investigate whether the low nutrient management 'Aim' could be more ambitious; to make the last four 'Aims' measurable (e.g. Increase Arctic Char populations by x%); and to directly link any plans to National Park purposes whilst also adhering to the Sandford Principle.

Additional suggestions are to prioritise a single action and deliver that; to create a detailed plan setting out the 'how' and 'who'; to ensure that any actions work for both people and the environment; and to maintain a sense of proportion with other sources of nutrients which are impacting water quality.

A concern raised is that stronger, more accountable leadership is needed for any of this to happen. Another concern is that farmers need a viable, alternative system for getting rid of waste in order for change to occur. A third concern is that there is no evidence of forestry impacting water quality in the Windermere catchment and that there are unhelpful and outdated perceptions of conifers.

3. New development and roads

Use the current and future planning system and related tools and mechanisms to mitigate or avoid water quality impacts from new development and roads. Carry out retrospective improvements when the opportunity arises.

Comments about the 'New development and roads' focus area include suggestions of more detail to add in, as well as some concerns.

Suggestions for more detail are to integrate the above aim into the next LDNP Local plan, to set out how exactly the above aim could be achieved, to consider new development in the context of the Sandford Principle, to seek more funding in order to significantly improve the overall system, and to amend the aim to have more ambition (going beyond statutory requirements).

Further suggestions are to consider more permeable surfaces and to have a legal requirement for neutral nutrients.

There are concerns that the current planning system is not stringent enough and needs major change, as well as the current road drainage system being inadequate. Also that action is needed now and we can't wait for the opportunity to arise.

Concerns for developers are that offsetting water quality does not solve the problem, that developers need to give back to the environment, and that the recent plan approval of 40+ houses at Ambleside makes little sense.

4. Collective action - everyone playing their part

Develop, fund & deliver an education, awareness and engagement strategy about Windermere, water quality and what individuals and organisations can do. Identify and build on the good work already being done. Engage residents, visitors, lake users, second property owners, businesses, farmers and landowners via primary schools, young people, Parish Councils, local business, and local organisations.
Use arts and culture to inspire care and action. Include use of social media to share what's happening so that people can stay updated. Maintain and expand current Citizen Science and ensure it makes a difference and feeds into management decisions. Tell and share success stories to inspire others. Engage politicians. Create champions.

Aim:

- Individuals and organisations know how to act to reduce impact and enable sustainable enjoyment and recreation around and on the lake.
- All are aware of the risks of algal blooms to human and pet health

Specific suggestions for implementing an education, awareness and engagement strategy include to build on the 'Windermere Reflections' engagement programme, to focus on tackling misinformation, to educate around non-mains drainage, for younger and older generations to work together, and to have regular workshops.

Another proposal is that Love Windermere (with resources and support) form a coherent, consistent plan for engagement to prevent confusion with competing activities. Related ideas are to make the first Aim measurable so that you know when it has been achieved, and to clarify who will monitor this work.

A further suggestion is for a commitment to co-produce all plans for improving water resilience with local communities.

A concern raised is that planning and delivering this strategy will be time consuming and that it is too late to act.

Nutrient reduction plans to show the way:

Love Windermere partners, parish councils, and leading businesses to show the way and create and implement nutrient reduction plans. These to include any discharges, run off, and effects of land management. Tell the stories of how they do this to inspire others.

A suggestion to clarify this aim is to add more detail about what exactly we want to achieve e.g. how many nutrient reduction plans and by when.

Suggestions to further this aim are to include tourist accommodation businesses and land managers/owners, to make all of the nutrient reduction plans coordinated so that they don't contradict one other, to keep plans brief to aid implementation, and to make this aim a 'must do'.

There is another suggestion for individual Love Windermere partners to commit to a timeline and dedicate a budget to this aim.

There is concern that parish councils will be unable to develop and deliver nutrient reduction plans. Also that the number of residents and the products they use will add to the challenge. A related proposal is that alongside success stories, there is funding and support available for others to follow suit.

Incentivise tourism and local business to be sustainable and take responsibility in all their operations (like a local Charter Mark)

To increase support for this aim, a suggestion is to add more detail e.g. how will you incentivise, what is 'sustainable', is it direct operations only? Also, to create a plan for carrying this aim out and appoint someone to oversee it.

Other suggestions for this aim include to make it compulsory and add sanctions; to attach properly assessed conditions to this aim ensure outcomes; to get funding for investigating and setting up a Charter Mark scheme; and to have a detailed look at the impact of visitors on water quality and consider the carrying capacity limit of tourism.

There is concern that this aim is a waste of time as most businesses are more interested in turnover and visitor numbers.

Introduce a small nightly tourist tax to help resource solving water quality issues in the catchment

There are various suggestions for initial action on the Tourist Tax aim. One idea is to fund and implement it immediately, another is to pilot the idea first and make tweaks to optimise it, a third idea is to firstly clarify how it will get collected and what the money will go towards.

There are some ideas that offer an alternative such as a tax on holiday lets (paid by owners from their profit), or that all visitors (including day visitors) pay a levy proportionate to their use and impact. Another alternative idea is that the tax could be used to deliver multiple benefits, not just for solving water quality e.g. more comprehensive public transport.

There is concern that a tourism tax for water quality might decrease visitor numbers and affect independent hotels and B&Bs, especially if it's in addition to e.g. a tourist tax for the public realm.

A different concern is that tourists are not the only ones who cause issues in the catchment and so it is a little unfair to charge them but no one else. Another remark is that the water quality issue should be addressed by water companies through appropriate investment.

5. Research and data

Fund freshwater research to collate existing data and to better understand the lake, catchment, and its function. Undertake a diagnostic study into the sources of pollution and nutrient load.

Suggestions for the freshwater research aim include to focus on the main issues and knowledge gaps, collate existing data from the history of work contributed by the FBA, ensure the funding is long-term and sustainable, and create a timeline and clarify who is overseeing this.

There is concern that now is the time for action, not more study.

Monitor and regularly publish accurate information and progress (both successes and failures) related to water quality and the environment e.g.

- Reduction in nutrients
- Recovery of Arctic Char
- Reduction in algal blooms

A suggestion to improve this aim is to clarify who will take responsibility for leading on this and ensuring it happens.

5 Working together effectively in the future

The final session of the November workshop looked at ongoing ways in which people can work together effectively for the benefit of water quality in the Windermere lake and catchment. With a focus on collaborative working, participants were re-grouped to explore how best to work together effectively going forwards and suggest guiding ideas or principles.

Suggested principles centre around clear communication, effective collaboration, transparency, adaptability, and a commitment to achieving goals for the betterment of Windermere and its stakeholders.

People placed a strong emphasis on clarity and definition going forward. This requires a clear understanding of roles, purpose, and goals within the Love Windermere organisation. Many proposed principles advocate a more formalised organisational structure, transparent and accountable processes, and the setting of clear, realistic, and timed goals.

Active involvement and engagement are encouraged through various means, including organising events, matching individuals' skills to tasks, and fostering inclusivity. Collaboration and relationship-building emerge as key themes, with a focus on knowledge sharing, partnerships with stakeholders, and the support and development of community projects. Participants highlighted communication as a crucial element, encompassing the timely sharing of positive messages, the use of accessible communication forms, and the promotion of trustworthy messaging.

Conflict resolution, adaptability, and a commitment to learning and improvement are also seen as integral. The effective use of data, including lakebed composition and phosphate assessment, underscores the importance of evidence-based decision making.

The principles for working together effectively emphasise the need for engagement strategies, support, cooperation, and proactive management. People recommended a step-by-step approach to address challenges and achieve meaningful outcomes. Overall, the principles seek to create a well-structured, communicative, and collaborative environment to improve water quality, with a commitment to transparency, accountability, and continuous improvement.

6 Conclusion

This piece of work set out to develop recommendations for a long-term management plan to improve water quality in Windemere lake and the surrounding catchment. This was done in a participatory way involving a wide variety of stakeholders, community voices, and the wider public through a deliberative workshop and a survey. This ensures that local community knowledge is blended with the science.

Analysis of the workshop discussions identified five overarching focus areas for long-term water quality improvement:

1. Partnership working and holistic plan
2. Reduce nutrients and other pollutants, from all sources, entering Windermere catchment's rivers and lakes.
3. New development and roads
4. Collective action - everyone playing their part
5. Research and data

These focus areas and their key constituent ideas were then tested through wider engagement via an online survey. New ideas and suggestions captured in the survey further developed the focus areas. A clear priority for workshop participants and survey respondents is the creation of a detailed action plan for each of the identified key ideas, including timescales and people responsible. People also believe it is important to maintain momentum. For this, action needs to be taken proactively towards the shared vision.

Action for improved water quality needs to be underpinned by collective ownership which includes and extends beyond the Love Windermere partnership. It may be that the partnership takes on the role of an independently governed partnership who coordinate and lead other stakeholders to collaborate on agreed action to deliver results. Sustaining funding for the partnership to do this will be an ongoing challenge, but the partnership is committed to maximising action with their available resources.

What is clear is the willingness of stakeholders and community members to support Love Windermere in its ongoing work to improve water quality. This piece of work has resulted in 64 specific offers of action and resources, in various different forms, which could be drawn on to help achieve progress for the focus areas.

Annex 1 – Acronyms used in this report

Acronyms used in this report	Meaning
AAFAF	Ambleside Action for a Future
AI	Artificial Intelligence
BNG	Biodiversity Net Gain
BWS	Big Windermere Survey
CEH	UK Centre for Ecology & Hydrology
CSO	Combined Sewage Overflows
DEFRA	Department for Environment Food and Rural Affairs
FBA	Freshwater Biological Association
FDA	Foul Drainage Assessment
LDNPA	Lake District National Park Authority
LPA	Local Planning Authority
LW	Love Windermere
NERC	Natural Environment Research Council
NFU	National Farmers Union
ODI	Outcome delivery incentive
OECD	Organisation for Economic Co-operation and Development
SCRT	South Cumbria Rivers Trust
SMART	Specific, Measurable, Achievable, Relevant & Timebound
SuDs	Sustainable drainage systems
UKCEH	UK Centre for Ecology and Hydrology

Annex 2 – Information

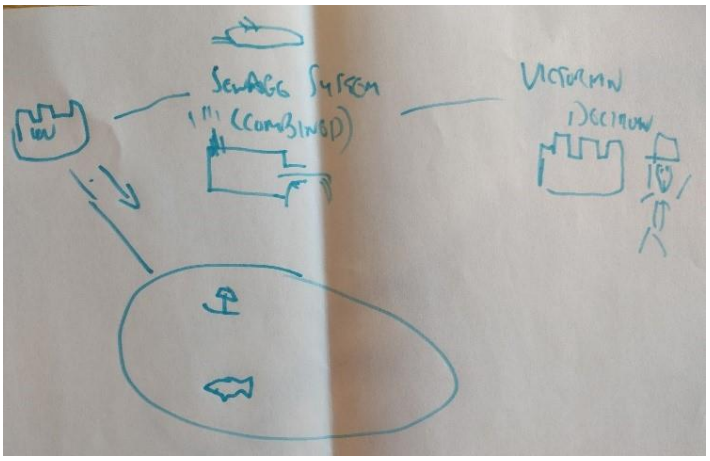
A) What do we know?

What do we know?	Based on?
Importance of nature	
Importance of Nature	
Water is essential (clean and amount)	
Residents care a lot about what is going into the catchment	Local action groups springing up and doing stuff! (BWS)
Water quality	
Water quality is poor	Scientific studies
Water quality – medium to long term trends	EA/BWS/UKCEH/FBA Data
There is acceptance that quality is poor (EA/water companies)	Scientific studies
Windermere bathing water quality is excellent/good!??! But is it???? – based on 4-year trends – weighted towards median	EA statistics
We need definitive information on the sources of pollution and state of the lake to take appropriate action	CEH/Lancaster Uni scoped out study and costed
Science	FBA (Freshwater biological Association), CEH (Centre for Ecology and Hydrology), University,
Nutrient enrichment	
This issue we need to tackle is nutrient enrichment.	
Increase in nutrients entering the lake	FBA data
Drainage systems and sewage treatments	
That there is a significant volume of surface water that is finding its way into the combined/foul drainage system, either through direct connection or infiltration into the network, that could be managed/removed to reduce overall loading on system and reduce spills/unfiltered discharges	
Un-maintained/poorly operating packaged sewage treatment plants discharging direct to surface water are worse that poorly operated septic tanks and drainage fields	Personal experience in industry (#74)
Septic tanks and drainage fields are misunderstood by their owners and their contribution to deteriorating water quality is underestimated	Personal experience in industry (#74) And generally water table duration of use etc (#56)
Climate change	
Climate change has impacted the lake	Data from above
Pressures interact – climate change can affect the impact of nutrients etc	Scientific studies and literature
Fish populations	
Fish populations have changed – many fewer arctic charr and expansion of roach, (bream and ruffe)	Long term data – FBA, UKCEH
Visitor numbers	
Access to quality blue spaces key driver for tourism economy	Cumbria Tourism Data
Visitor demographics changing. Newer visitors know less about rural areas and more urban based	Cumbria Tourism data
Decline in attendance of organised activities on the lake	Decrease in entries to events since covid
Legislation	
Much of the required legislation is already there. It requires enforcement – functions	Personal experience working in conservation – survey data/Water Framework Directive (WFD) etc
Miscellaneous	
We can't do nothing	All of the above

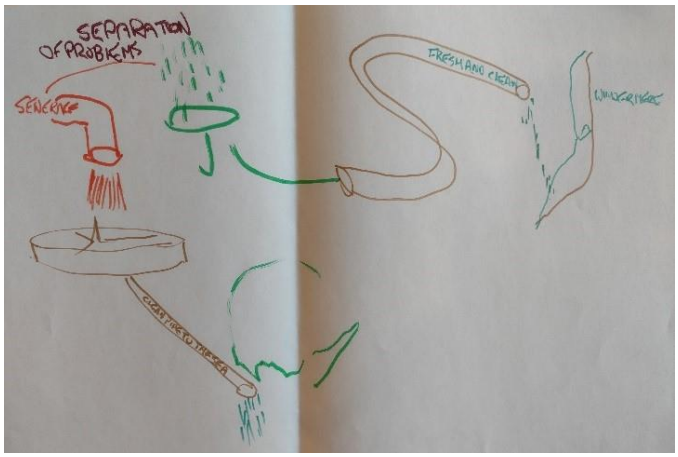
B) What more do we need to know?

What more do we need to know?	Who could provide this info?
Appropriate targets for water quality	
Are current Gov targets high enough?	Ask EA for details
What is a realistic recovery path for the lake (given that climate has shifted the baseline)?	UKCEH
Specific examples of change and how it was achieved	
Specific examples of change and how it was achieved	Love Windermere partnership
Water quality & nutrient data	
Water quality – more real-time data to identify issues	EA/CEH/Big Windermere Survey / United Utilities
Nutrients – inputs over time (not annual averages)	United Utilities/EA
Nutrient profiles in the lake over a year – insights re: sediment loading	
Sediment nutrient remobilisation (we don't know how much is put back into the lake)	Take 'core' samples out of the lake and monitor nutrient release
Impacts from forestry on water quality (nutrients, fine sediment)	
Long term trends and climate change	
Long term trends in ecological condition and function including species population trends including response to changing climate	EA, FBA, CEH, etc
Understand better the impact of climate change	
Dissolved oxygen and carbon emissions	
What is controlling the dissolved oxygen decline in the lake?	New science studies UKCEH, Lancaster University, FBA
How do dissolved oxygen declines impact carbon emissions?	UKCEH
Need to know more about carbon emissions from the lake (and Green House Gases)	CEH, NERC
Information about algal communities	
Where and why are algal scums forming?	New science studies UKCEH, Lancaster Uni, FBA
Can we forecast algal blooms?	UKCEH, Lancaster Uni, FBA
How have algal communities changed? Are we seeing more cyanobacteria species or increases in abundance of species?	UKCEH
How are the grazers of algae (zooplankton) changing and why?	UKCEH, FBA
Impact of Canada Geese	
Keep hearing lots of people asking for information on impact of Canada Geese (e.g. at Bowness Science evening) Could be a red herring but…	FBA/CEH
Impact of other contaminants	
What is the role of other contaminants (metals, pharmaceuticals, agrochemicals…)? Impacts on biota, invertebrates, zooplankton	ES, NERC Freshwater programme (not on lakes)
Quantified impact of nature-based solutions	
Impacts of nature-based solutions on improving water quality (quantified)	
Selling a property with a non-mains system	
Information surrounding selling your property – non-mains system needs to be compliant prior to selling	Estate agents Solicitors Awareness through community engagement Call of Nature Website Lake District Foundation resources (LDF)
Public's priorities for water quality & information needs	
What are public priorities for water quality – improvements for people v ecology	
What are public prepared to sacrifice in order to improve water quality (eg less access to lakeside, fewer sheep grazing)	
What information do public want out of Love Windermere – easy to find 'facts' elsewhere but what are key issues they want clarity on?	

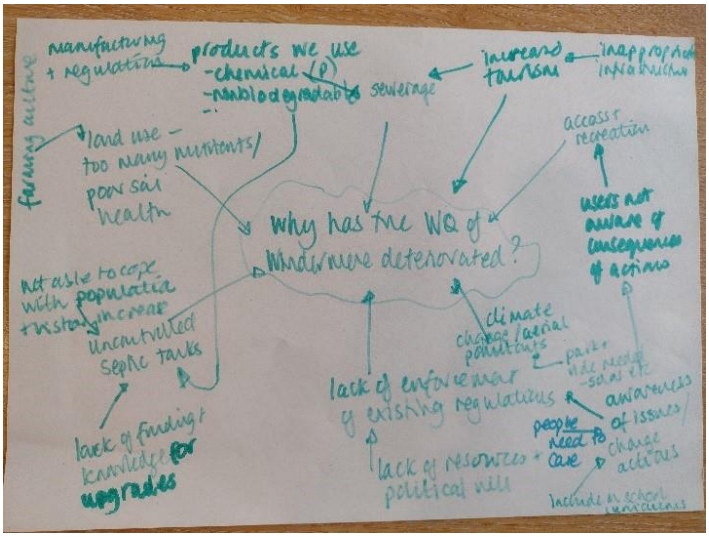
Annex 3 – Connections and links



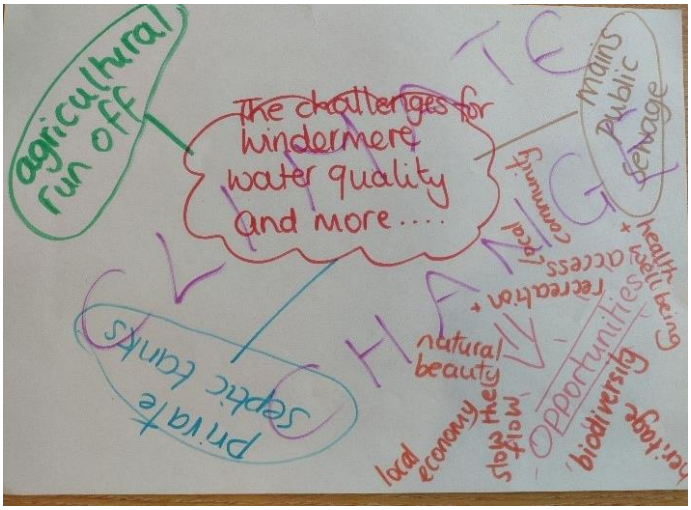
Influence of the Victorian era



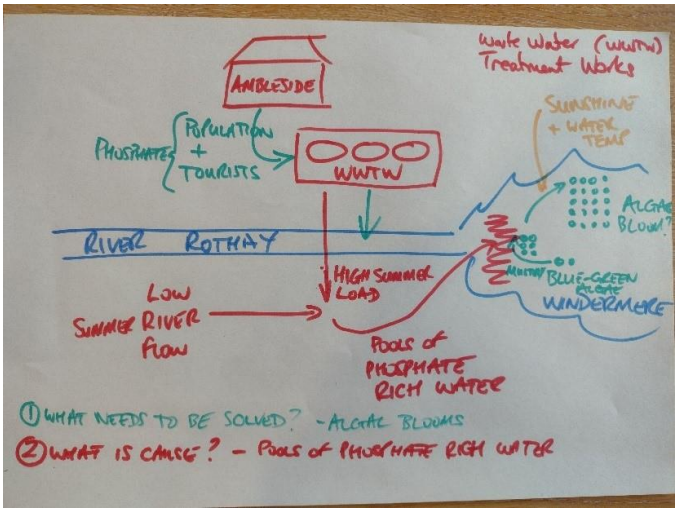
'Separation of problems'



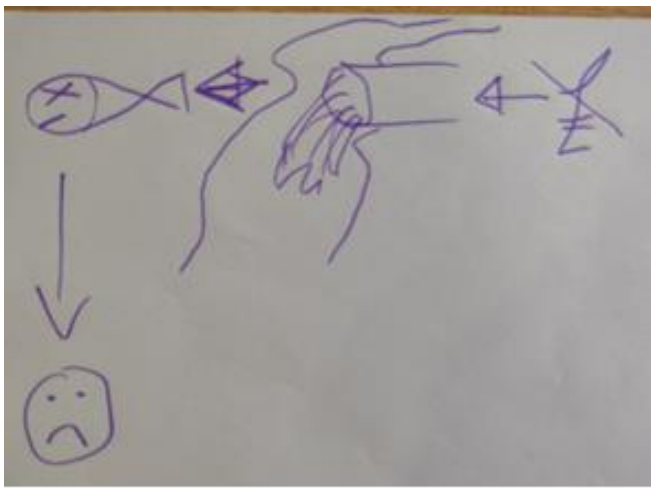
Why has the water quality of Windermere declined?



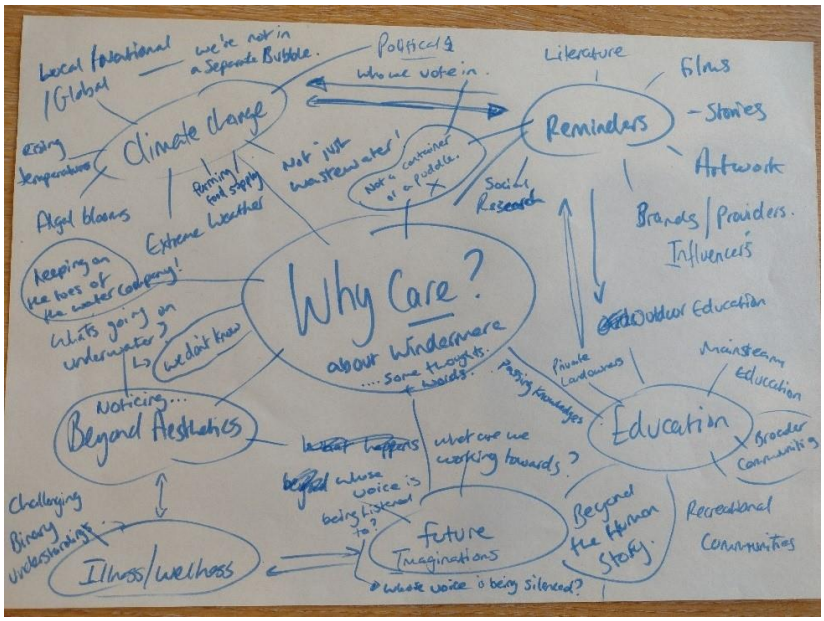
Challenges for Windermere WQ



Sources of algal blooms

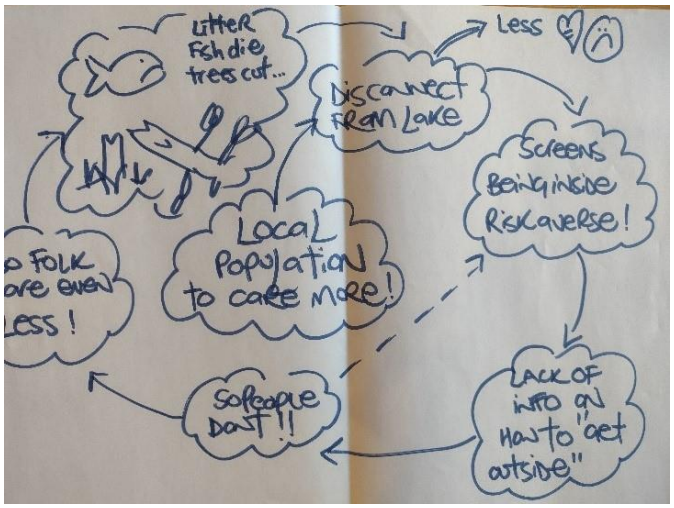


Lack of funding effects

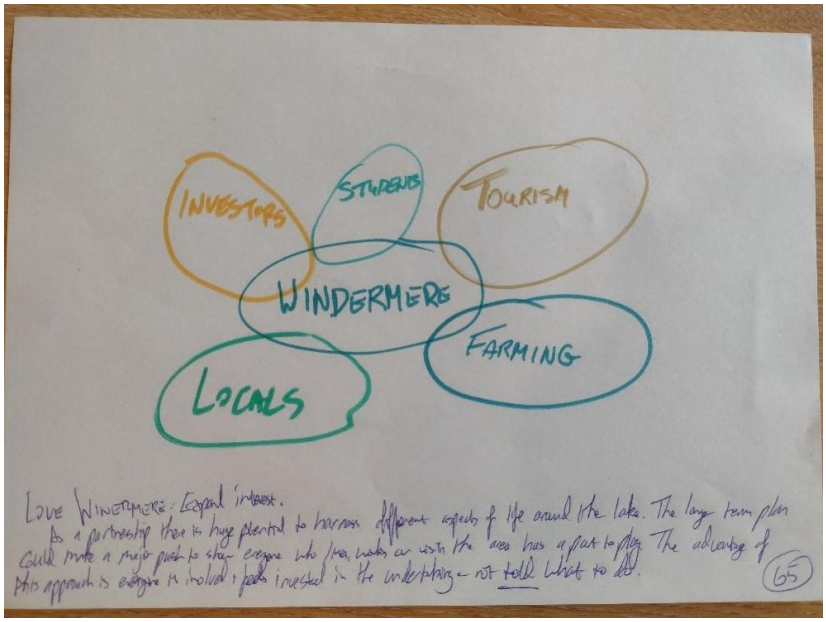


Why care about Windermere?

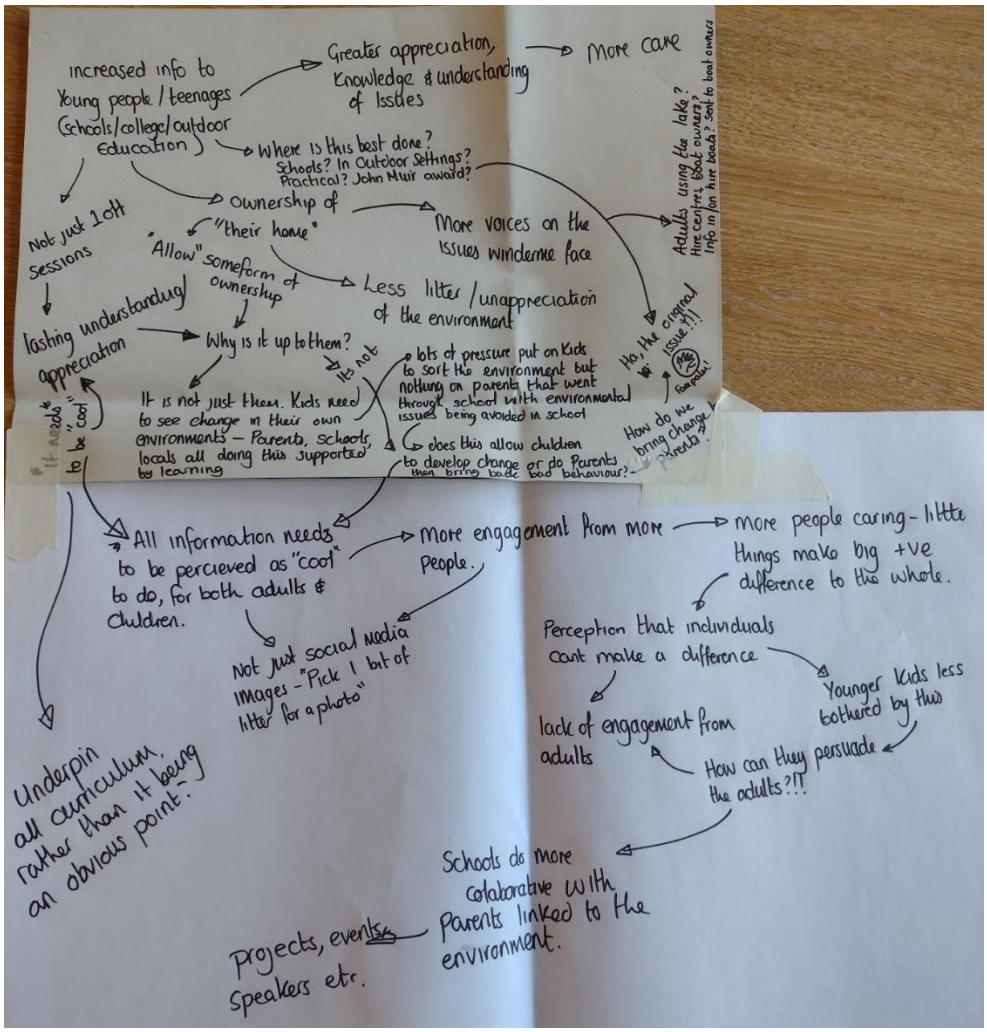
Effects of better information distribution



Peoples' lack of connection with the lake



Importance of partnerships



Engaging with people about Windermere

Annex 4 – Specific offers of action to progress the focus areas

Focus Areas	What?	Who?	Commitment Level
Partnership working and holistic plan			
Long-term Windermere partnership	▪ Support conversations & approaches to potential new Love Windermere members	▪ Badge no. <118> ▪ Badge no. <52>	▪ Definite
	▪ Engage Love Windermere Programme Board about involving politicians	▪ Badge no. <67>	▪ Definite
	▪ Feedback thoughts and ideas from local council into Love Windermere partnership	▪ Badge no. <83>	▪ In principle
	▪ Review of communities involves in Love Windermere working groups	▪ Badge no. <2>	
	▪ Act as an ambassador for Love Windermere and the business community	▪ Badge no. <77>	
Holistic and integrated plan	▪ Support Love Windermere integration into LDNPP plan	▪ Badge no. <67>	▪ Definite
	▪ Support Love Windermere workstreams to investigate existing projects	▪ Badge no. <67>	▪ Definite
Reduce nutrients and other pollutants, from all sources, entering Windermere catchments rivers and lakes.			
Wastewater from treatment plants	▪ Investigations to reduce spills from 4 identified overflows	▪ Badge no. <50>	▪ Now to 2030
	▪ Pilot innovative technology	▪ United Utilities	▪ Definite
	▪ £41m to halve number of CSO discharges	▪ Badge no. <117>	▪ Definite
	▪ Continue United Utilities customer events ▪ Continue to provide opportunity for engagement e.g. information centre	▪ Badge no. <117> ▪ Badge no. <50>	
Non-mains drainage	▪ Work with EA to identify properties with septic tanks and promote EA maintenance packs	▪ Badge no. <70>	
	▪ Continue to improve sewage management and share feeding tips & best practice (with LW Non-mains drainage group)	▪ Badge no. <150>	▪ Ongoing
	▪ Give presentations (free of charge) on off-mains wastewater treatment to local residents and stakeholders so they understand their treatment systems	▪ Badge no. <74>	▪ Anytime. Just need a venue and projector/ screen

Holistic land management, water quality and nature restoration	▪ Enhance collaborative catchment farming groups	▪ Badge no. <149> / LW Land Management group	▪ Definite
	▪ Help land managers (farmers) understand nutrient management planning	▪ Badge no. <78>	▪ Definite
	▪ Work with NFU and EA to put on event/talk about what a regulatory visit entails	▪ Badge no. <78>	▪ By 2025
	▪ Nature markets opportunities – conversations with buyers and suppliers ▪ Investigate blended funding options for nature-based solutions (with LDNPA)	▪ Badge no. <82>	▪ Definite
	▪ Friends of the Lake District to trial practical management on their land (e.g. materials against landslip, hay meadow restoration in the past)	▪ Badge no. <68>	▪ Need details about what's proposed and whether land is suitable
	▪ SCRT will bid for funding for a catchment officer to target water quality and habitat improvements	▪ Badge no. <148>	▪ Definite
	▪ Friends of the Lake District provide Love Landscape Grants – small grants (<£5K) for community groups, parish councils, schools etc.	▪ Badge no. <68>	▪ Ongoing
	▪ Combine volunteering through AAFAF and FBA (tree planting and maintenance, citizen science)	▪ Badge no. <100>	▪ Ongoing
New developments and roads			
	No specific offers of action		
Collective action - everyone playing their part			
Education Awareness Engagement	▪ Review of community engagement for Windermere	▪ Badge no. <2>	▪ In principle
	▪ Community event following the review to build on the plan. With walk abouts	▪ Love Windermere team	▪ In principle
	▪ Explore a community opportunities portal	▪ Badge no. <2> ▪ Badge no. <65>	▪ In principle
	▪ Conversations with academics about the social research needed	▪ Badge no. <3>	▪ In principle
	▪ Cumbria Tourism to help advise about comms messages	▪ Badge no. <105>	▪ In principle

	▪ Work with holiday let agencies to increase awareness of impacts	▪ Badge no. <70> ▪ Cumbria Tourism	▪ Definite
	▪ Focus on making hotels more 'lake water friendly'	▪ Badge no. <66>	▪ Ongoing
	▪ Develop a short, succinct lesson for children's groups about why we need to care for the lake and how (5 min). To add to each session we run if successful.	▪ Badge no. <116>	▪ Definite
	▪ Produce videos to support this activity	▪ Badge no. <20>	▪ Definite
	▪ Provide education to swimmers about the lake	▪ Badge no. <81>	▪ Definite
	▪ 30 minutes presentations to lake users, helping them understand impacts/partnership data/research	▪ Badge no. <20>	▪ Definite
	▪ Support translation of science into comms and engagement activities	▪ Badge no. <118>	▪ As needed
	▪ Share the water quality tool kit for community action	▪ Badge no. <107>	
	▪ Support community reps in the Windermere Community Catchment Partnership with SCRT	▪ Badge no. <107>	
	▪ Combine volunteering through AAFAF and FBA (tree planting and maintenance, citizen science)	▪ Badge no. <100>	▪ Ongoing
	▪ Help engagement with the Ambleside local community via AAFAF water group	▪ Badge no. <75>	▪ When required
	▪ Distribute information to volunteer base ▪ Make volunteers aware of other products/activities they can get involved in ▪ Promotion through social media	▪ Badge no. <63>	▪ As and when needed
Nutrient reduction plans	▪ Help land managers (farmers) understand nutrient management planning	▪ Badge no. <78>	▪ Definite
	▪ Pilot of 3 package plants and nutrient reduction	▪ United Utilities ▪ Plant owners ▪ EA	
Incentivise tourism & business to operate sustainably	▪ Convene a working group to explore Charter Mark project	▪ Badge no. <65>	▪ In principle
	▪ Explore costing and funding options for potential Charter Mark project	▪ Badge no. <28> / LW Sustainable future funding group	▪ In principle
Tourism Tax	*No specific offers of action*		

Research and data

Research & funding	▪ Gather data & evidence about climate change (funding required)	▪ Badge no. <52> ▪ Badge no. <119>	▪ Definite
	▪ Apply for research grant to do more with climate change data	▪ Badge no. <106>	▪ In principle
	▪ FBA will lead on river science, data and evidence, and analysis (happening now but continuation depends on funding)	▪ FBA/ Badge <31>	▪ In principle
	▪ FBA will deliver Windermere Integrated Science Plan (by March 2024) and State of Windermere report (report every 3-5 years)	▪ FBA/ Badge <31>	▪ Definite
	▪ Provision of data (on behalf of UKCEH)	▪ Badge no. <52>	▪ As and when
	▪ Organise volunteer group to sample water quality in Wilfin Beck monthly in collaboration with SCRT and Lancaster Uni ▪ Share this model of working with other groups	▪ Badge no. <70>	▪ Definite
	▪ Development of innovative technology for phosphate removal	▪ Badge no. <110>	▪ Ongoing
	▪ Share phosphorus ground truthing data	▪ Revere/ Badge no. <69>	▪ Summer 2024
	▪ Share details on phosphate stripping experiments	▪ Badge no. <150>	▪ Results in Sept 2024
	▪ Share the Lake Annecy feasibility study more widely	▪ Badge no. <117>	
	▪ Walkover habitat assessments for use in funding bids/environment schemes	▪ Badge no. <71>	▪ In principle (with funding)
	▪ Share data analysis and findings from PhD thesis	▪ Badge no. <73>	▪ By Sept 2025
	▪ Talk to Save Windermere (who are a developing a lot of data) and ask them about sharing data both ways	▪ Badge no. <62>	▪ Definite
	▪ Encourage sharing data. Suggest people for a data sharing team	▪ Badge no. <62> and <64>	▪ In principle
	▪ Funding	▪ Badge no. <82>	▪ Definite
Monitor & publish signs of success	▪ Apply for funding in next EA monitoring commission for Arctic Char	▪ Badge no. <119>	▪ Definite
	▪ Coordinating data, communicating it and using it to take action and monitor	▪ Badge no. <6> LW Science data development group	▪ In principle
	▪ Share information of monitoring targets for protected sites e.g. lakes – which could be applicable to Windermere	▪ Badge no. <147>	

▪ Share news with a professional society (British Ecological Society)	▪ Badge no. <52>	▪ As and when
▪ Share news via the Cumbrian Lake Research Forum	▪ Badge no. <52>	▪ Autumn 2024

Annex 5 – SMART objectives for the focus areas

The following SMART objectives were created during small group discussions at the workshop. For the purposes of this recommendations report and future action, the objectives have been grouped under each focus area/key idea in the following table.

Specific and timebound objective	**Is it achievable?** G = It's in our gift R = Between us we would need to find new resources	**How would we know we are going in the right direction?**	**Metrics of success** How could this be measured?
Long-term Windermere partnership			
An expanding partnership of equals, including existing partnership, community groups, and parish councils	– Lack of clarity of how we could get there – Time to develop relationships – Knowledge of other places where this works – Clarity of what Parishes need – Funding	– Love Windermere – Independent Chair – Independent Governance – Changed governance – Early conversations that allow community to feel more engaged in decision making process – Active participation by communities – Sharing of knowledge, data, time, etc	– Relationships that can disagree but are not disagreeable – Plans that are truly co-designed, transparent, and accountable – Find a way to measure the culture change needed to get complete balance – Equal voice – Transparent information and shared understanding
Establish a long-term partnership by 2024 (end)	R	– The right people included/ committed – Partnership is funded – Tangible output(s) –	– Is this 'Love Windermere'?

Holistic & integrated plan			
Define what we are trying to achieve – know at a macro scale – break it down into micro	R	– This workshop is helpful at capturing all other voices – make sure we are exploring that and hold accountable – But mean that won't get lost – We are already there – we have the high level objective of improving quality – how about breaking it down into the smaller aims for different groups. – Specific targets identified – Organisation to sign up and pledge to those targets – Based on Water Framework Directive	– All the people in the partnership and all stakeholders will be heard and articulated – Targets will mean different things to different groups – needs to be translated – More specific and create trajectory – Don't stick to existing, needs to go further
Clearly defined singular catchment plan			– Currently developing a lake equivalent of river fly monitoring – what the targets are with that – Monitoring and targets around water clarity secchi monitoring. Could be citizen science – Historical records and other lakes to find appropriate targets. OECD in 60's developed classification indicators – Already developed lots of targets in the protected lakes – common standards monitoring, some could be applicable for Windermere
Use a 'local' regulation or policy		– Objectives of LPA have to align – Other government bodies align	
Wastewater from treatment plants			
Encourage United Utilities to bring their ideas around sewage discharge into fruition [2026-2023]	[R] Huge funding [R] lobbying	– Engaging communities and businesses to be involved – Building a pipe	– Measuring infrastructure built – United Utilities board meeting, need to declare projects they're investing

Monitoring sewage overflow, getting info from monitoring being done	[R] United utilities to engage and get equipment [R] Honest dialogue where everyone safe to give their perspective	– More specific info. Detailed stats on overflow and overflow content (e.g. faecal matter) – Publishing data on Love Windermere website – United Utilities reluctant to be up front as it affects their brand	– Comparing datasets on water quality – Central data resource on Love Windermere website – Amount of nitrates, temperature etc. – Traffic light/flag system – simple system to slow what direction we're going in – Swimmers give live data (bathing quality not same as nutrient quality) – Monitor levels of blue-green algae
Consenting dischargers from package plants		– Introduce phosphate limits on discharges	– Has to be a means to comply with that
Combined Sewage Outflow. All 9 CSO		– No more than 10 spills per year out of any CSO (nationally by 2050) – By 2030, reduce by 60% (North West) –	
Improving quality of outflow from every treatment works		– Permitting (EA) – Windermere ODI (innovative funding mechanism). Phosphorus removal schemes, also look at UU own plants – UU investing in non-UU assets to improve Windermere water quality	
Change legislation to include phosphate limit in permit			
Viable commercial secondary treatment options			
Non-mains drainage			
100% of septic tanks in catchment to undergo regular checks	R	– Know how many septic tanks – Understand condition and age – There will be a standard maintained therefore lower nutrients at monitoring points – More to have phosphate monitoring	– Monitoring – Know there is a place info is kept – Standard and regulated

Identify septic tank owners (EA and communities) and raise awareness of issue with parish councils and letting agencies [2-5 years]	G	– Property pacts available as public resource – use this to target owners of tanks/letting companies – EA has tank locations –	– Count/survey/monitoring of action by owners
Survey to identify septic tank owners immediately on the lake [April 2024]	[R] United utilities providing info on owners	– Incentivising people coming forward – Response rate	– Companies emptying tanks having uptake in business
Improve maintenance of septic tanks [20 years]	R	– We monitor and resource compliance	– Count/survey/monitoring of action by owners – How many people have taken up South Cumbria Trust septic tank offer (offer = fixing tanks first)
Septic tanks: mail all people round like about amount of pollution given off. Give free monitoring. Local comms campaign. [Feb 2024]	[R] data on owners [R] No one funded to regulate	– Monitor responses – Monitoring device would show improvement – Call of Nature website – uplift in usage – Challenge: number of second homes, holiday companies – Targeting estate agents/ land agents – Conveyancing	– Updated contact database – Measure and publish on a platform built for this – general Lake Windermere website
Cumbria Tourism host webinar on septic tanks [by March 2024]	G	– Attendance numbers	– Follow up survey asking people evaluating behaviour change after seminar
Septic Tanks perform better and are monitored		– Monitoring – Quantifying Baseline – Quantifying Impact – We don't have to know everything, but we need to make some assumptions and generalisations – Risk Assessing them to focus resource	– Risk Assessment and prioritisation of risk – Priority Audit
Understanding the impact of septic tanks on water quality degradation		– Monitoring – Measuring – Where are they? – Is it making an impact?	– Complaint traced back to a faulty tank – Will pick up some issues but not others [based on visible or non-visible signs leading to complaint]

		– A set standard	– Effect it is having – monitors around drainage field
Clarifying the General Binding Rules in their legislative context		– Application to the EA in first instance. – General change to GBR that apply to water bodies – Manage locally through Las	– Producing updated rules related to the catchment – Produce updated guidance
Holistic land management, water quality and nature restoration			
Approx 80% land within the catchment needs to be under a scheme of low-nutrient management in next 5 years	R	– Funding – More officers in the area – Improvement in water quality monitoring – Increase the frequency and numbers of monitoring – Funding applications	– monitoring
All land holdings are net zero by 2043	R	– Farm carbon audit tool – GHG balance sheet for each farm – Energy in/out	
Reduce agricultural run-off and more farmers involved in catchment sensitive farming [By when: depends on realistic uptake percentage. Ask CSF team at Natural England]	G	– Uptake of grants	– Measure take up of slurry investment grants – Rural payments agency compliance monitoring – use outcome of 10yr review period/monitoring (by Natural England): payments through agri-environment schemes
Increase in wetland/woodland restoration habitats	G	– Plant and maintain reed beds – sampling to test – public and private grants available	– Percentage of historic coverage versus coverage now – Number of hectares restored/ km of rivers restored
Uptake in peat restoration grants	G		– Number of hectares restored – Uptake of nature for climate grants
Half decline of Arctic Charr	R	– Reduce rate of loss	– Reinstate monitoring

Improvement of water quality and species status. Ecological status	Yes - targeted		
Reach good water quality in Windermere (reduce phosphorus) [20 years]	R	– Needs [other] objectives to happen	– Reduce by 480 kilos – phosphorus per year
By 2025, we will enhance the collaborative farmer groups in the catchment	[R] Available but will need resource. £300K for people and resources.	Better collaboration – shared knowledge	– Resilient farm businesses delivering enhanced environmental outcomes
By the end of 2025, SCRT will have a catchment officer	[R] Achievable but will need new resource (£300K). 2 years in post – staff cost and delivery. Longer term periods…+ extra officers	Nature based solutions for water quality	– Area of km^2 improved water quality + ecology, fish, invertebrates
New development and roads			
Using SuDS to prevent road-based/side pollution			–
Education, awareness, engagement			
Code on biosecurity is used (behavioural change)	[G] we already have the info	– Shared a lot of social media/ Ironman-type activities – clamp down on these	– Measure on indicative species e.g. New Zealand pygmy-weed or number – Measure numbers of organisations informed and engaged and advocating for this – better facilities for washing/cleaning/drying for activities
Educate people that the algae might be there in the morning, but not in the afternoon. That it's mainly on shore: - Improved signage around the lake and why we care, what can we do. [6-12 months]		(G) Less fear from water users Signage present at sites – Red Nab – Front at Windermere & Ambleside	– Question users

- Send information out through media - Tie in with people who big media platform. Who: council, EA, other companies, organisations		[R] Results available from EA monitoring every 1 or 2 weeks for blue/green algae at 4 bathing sites: – Millerground – Rayrigg Meadow – YMCA Ambleside – Fellfoot	– Monitored by EA or another option - businesses pulling together for this monitoring instead of EA
Educate schools, groups, organisations [6-12 months] in the swim safe campaign. National incentive Open days through organisations Opportunities for communication and engagement More monitoring (frequency) in more locations Outdoor centres	[R] Could users (businesses) along the shore join forces John Muir award (environmental) D of E (non-environmental)	Know number of children going through swim safe education (schools) summer camps	Could be written in a school curriculum 'why care about lake?'
People know what action they can take [Start Feb 2023, ongoing]	R] Funding [R] sits under strategic management group	Digital media campaign underway	Measure response, engagement, post sharing
Nutrient reduction plans			
Educate/ help land managers understand their nutrient management plans – soil sediment	[R] need additional funding	– Going onto a farm – observing actions/results – More understanding of application of fertiliser etc.	– Picked up as part of regulation plans – How many soil sample?
Incentivise tourism & business to operate sustainably			
Charter Mark project – support and buying into the development of. [Summer 2025]	Marey Cumbria Tourism – we have influence	– Audit commissioned – Initial sign up – Business community interest	– Expression of interest – Actual sign up rates – Preferential booking of chartered businesses – STEAM data of Cumbria Tourism – Search engine analytics (Trend over Time) – Before and after survey

Tourism Tax			
Introduce mandatory tourism nightly tax	[R] (administer and enforce)	– Leading body or partnership approach to do this	– Hospitality businesses take up of tax
Research and funding			
Sufficient funding available to enable change by 2043	R	– Increasing levels of funding (Windermere catchment management fund?)	– 5-year reviews of funding levels
Maximise 'return of investment' of funds by 2043	R	– Cost-benefit analysis – Modelling impacts – Post-project monitoring	– Landscape recovery project may generate tools – useful
Exploring the opportunities for nature markets	[R] Need resource (£150,000)	– Level of interest shown by buyers and suppliers of green credit	– Level of interest shown by buyers and suppliers of green credit
Fund research and roll out of P removal technology (by?)			– No. of non-mains sites upgraded
Monitor and publish signs of success			
Presence of indicator species Arctic Char etc Absence of invasive non-native species Define indicator species Understanding algal blooms better			– Measure presence of Arctic Char – Also important to measure absence of invasive non-natives – Foodweb approach to indicators
Effective regulation and enforcement of land management and water quality	[R] subject to funding by regulators (ask Defra)	– Illegal activity reduced – Positive change	– Number of enforcement actions – Increased monitoring – Checking on compliance