Image: Waterhead, 13 August 2022

Lake Windermere is dying

Excessively high phosphorous levels are leading to dangerous levels of nutrients in the lake.

This creates potentially toxic algal blooms.

Image: Ferry Landing, 16 December 2022

Save Windermere

Algal blooms suffocate our lake and are a danger to us, our pets and our wildlife.

In August 2022, a sample of cynobacteria from Windermere showed levels of Anabaena (and Microcystis) exceeded both EA and WHO guidelines for entering the water.

"On a weight for weight basis the toxins potentially produced were as toxic as cobra venom."

Dr Nick Everall

Image: Lewis Harrison, North Basin of Windermere from Helicopter, 15th August 2022

Source: Dr Nick Everall, Ecologist, Aqua Science Consultancy, sample from August 2022 at Waterhead. Thresholds are set such that if the bloom were toxic there would be enough toxin to pose a risk to humans and other animals (e.g. dogs and cattle).

Windermere, in its natural state, is oligotrophic – meaning nutrient levels should be so low, algal blooms would not occur.

The lake is unique. Unlike our rivers and coasts, it is a slow & enclosed system.

It takes a single drop of water 9 months to go from the top of Windermere in the north to the bottom in the south.

Additional nutrient input adds to the latent layer of sediment already at the lake bed.

This fuels the algal blooms.

The most significant contributor of phosphorus into Windermere is:

United Utilities Wastewater Treatment Works

"The striking feature of your case is essentially a breach of a rule of law, that **your business model is based on breaching statutory duties**.

That is an inevitable part of the way you carry out your business, you tell us. Not only is the court meant to tolerate this, but those who suffer loss as a result of unauthorised behaviour contrary, we are hypothesising, to a statutory duty are meant to grin and bear it."

Lord Reed, Supreme Court Justice, 2023
Court comment aimed at United Utilities' legal counsel

Source: Good Law Project, March 2023

Our wildlife has been telling us something is very wrong with Windermere.

In 1980, **855** sea trout were caught by line on the River Leven, the main outflow of Windermere's water.

In 2021, this number plummeted down to just **12** individuals.

Image: Cunsey Beck, 22 June 2022

Source: Holker Estate, Fishery Reporting

At the lower levelsof the food chain, invertebrates are critical to the operation of a healthy & thriving ecosystem.

We have documented:

61% reduction of invertebrates on Wilfin Beck, from above to below Far Sawrey Wastewater Treatment Works.

44% reduction of invertebrates on the Rothay, from above to below Ambleside Wastewater Treatment Works.

Image: Waterhead, 7 June 2022

Source: WildFish and Dr Nick Everall, Ecologist, Aqua Science Consultancy.
Wilfin Beck samples collected on 1 August 2022 and analysed post collection. Rothay samples collected on 30 August 2022 and analysed post collection.

Image taken above Chapel Stile, Great Langdale Beck, where there are no wastewater treatment work discharges

Image taken roughly 100m downstream of Ambleside wastewater treatment work on the River Rothay

£750M

Windermere's total revenue from visitors (2019)

Source: Cumbria Tourism Report, Windermere Catchment: Tourism Value (March 2021)

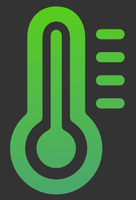
"In the medium to long term, the continued decline in water quality **may impact the economic viability of businesses** that depend on a healthy Lake environment, and damage the overall reputation of the Lake District as a visitor destination."

Cumbria Tourism

Source: Cumbria Tourism Report, Windermere Catchment: Tourism Value (March 2021)

Why we should all be concerned

Excessive Phosphorus



Climate Change

Inadequate Infrastructure

246

full days of sewage discharged from storm overflows into the Windermere catchment in 2022

301 days in 2020, 235 days in 2021

Source: The Rivers Trust, https://theriverstrust.org/sewage-map, United Utilities EDM Data. 5904 hours of discharges in 2022. 6647 hours of discharges in 2021.. 7236 hours of discharges in 2020.
CSO discharge points at Ambleside, Grasmere, Near Sawrey, Hawkshead Pumping Station, Elterwater Pumping Station & Glebe Pumping Station.

Climate change is exacerbating the issues facing Windermere.

Increased rainfall leads to increased discharges.

Warmer summers and winters lead to droughts which enable algal blooms to proliferate and engulf Windermere.

Image: West Shore of Windermere, 16 June 2022

As visitor numbers increase...

United Utilities are not addressing the urgent need to further upgrade their infrastructure and there is evidence of illegal sewage spills[1] in the catchment.

Image: Cunsey Beck, 22 June 2022

Source: 1. WASP

United Utilities market capitalisation (2022)[1]

£7 billion

United Utilities return to investors (2015–2020)[2]

£1.6 billion

United Utilities investment in the Windermere catchment (2015–2020)[3]

£40 million

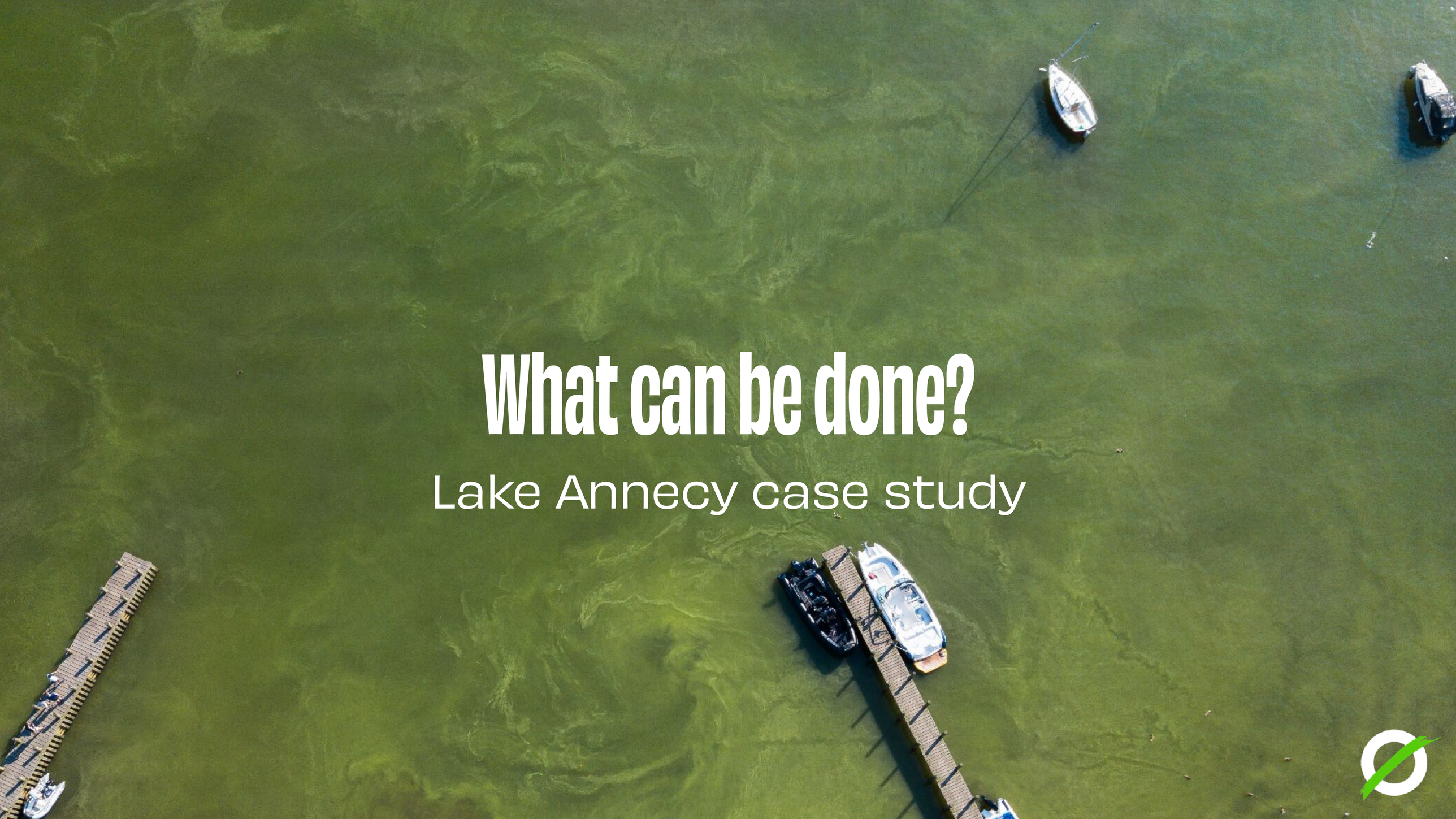
Source: 1. London Stock Exchange (7 Feb 2023), 2. WASP, 3. United Utilities

United Utilities are aware of their impact on the lake:

"By removing all United Utilities discharges there still will be algal blooms, but their severity will be greatly reduced to the point where they may not actually be visible."

United Utilities, 2013

Source: United Utilities, Windermere Catchment Study – Final Report, November 2013



What can be done?

Lake Annecy case study

Comparing the lakes

Windermere

Glacial lake

18km long

Two distinctive basins

Population: 17,500[1]

Annecy

Glacial lake

14km long

Two distinctive basins

Population: 130,000[1]

Cleanest lake in Europe

Source: 1. South Cumbria Rivers Trust, 2. National Institute of Statistics and Economic Studies (France)

In the 1960s, the impact of sewage on Annecy became clear. The lake saw increased algal blooms and declines in fish populations.

Driven by a campaigning community, the mayor and local politicians, Annecy has been transformed.

They have achieved this by channeling their sewage to treatment plants outside of the lake's catchment.

It is now the cleanest lake in Europe.

Source: Lake Annecy Further Reading

Image: Waterhead, 12 August 2022

Windermere

Image: Lake Annecy, SwimQuest Holidays

Annecy

United Utilities has previously modelled complete removal of one of their assets discharging into Windermere at an estimated cost of £25 million, which in the context of their turnover and profits is a minimal investment.

Source: United Utilities, Windermere Catchment Study – Final Report, November 2013

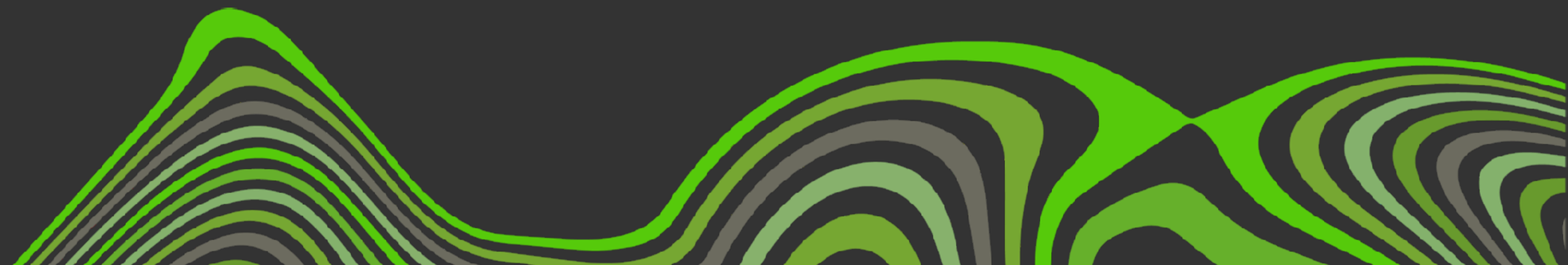
If we can achieve what has been done in Annecy, we and our families can, once again, swim free from fear in our lake.

Image: Great North Swim


Save Windermere

Mission

To return Windermere to its ecologically natural state, through the complete removal of ALL treated & untreated sewage discharges into the Windermere catchment.



Vision

To save Windermere from ecological destruction, ensuring future generations are able to swim free from fear and allowing wildlife to thrive in a healthy ecosystem.

We will set the standard for the national treatment of our waterways, whilst showcasing the benefits of ecotourism by pivoting from an unsustainable model to one which puts the environment first and protects our lake now and forever.

What we will achieve

Ensure Windermere is restored to its ecologically natural state.

Ensure wildlife is able to survive and thrive in Windermere.

Ensure Windermere remains safe for locals and visitors to enjoy.

How we will achieve it

By compelling United Utilities to invest heavily in infrastructure to remove their input entirely.

By demanding openness and transparency and compelling United Utilities to release currently withheld data.

By collecting further evidence of ecological damage and illegality within the catchment and holding organisations to account – be that the Environment Agency, to ensure they are properly regulating, or United Utilities, to ensure they are held legally responsible for their actions.

By further mobilising the press and influence public opinion through events, films and demonstrations.

By lobbying Parliament, politicians, policy makers and United Utilities' institutional investors to effect change.

Why we care

To ensure polluters are held to account.

To ensure the sustainability of business that reply upon the lake and the tourists it brings in.

To affect systemic change at a national level.

To position Windermere as the poster-child for the national crisis resulting from the mismanagement of our water utilities.

And ultimately, to ensure the future of Windermere - ecologically, economically and socially.

Thank you

#SaveWindermere

www.savewindermere.com