

# Damned if you do, Damned if you don't

# Stream

The Industrial Doctorate Centre for the  
Water Sector

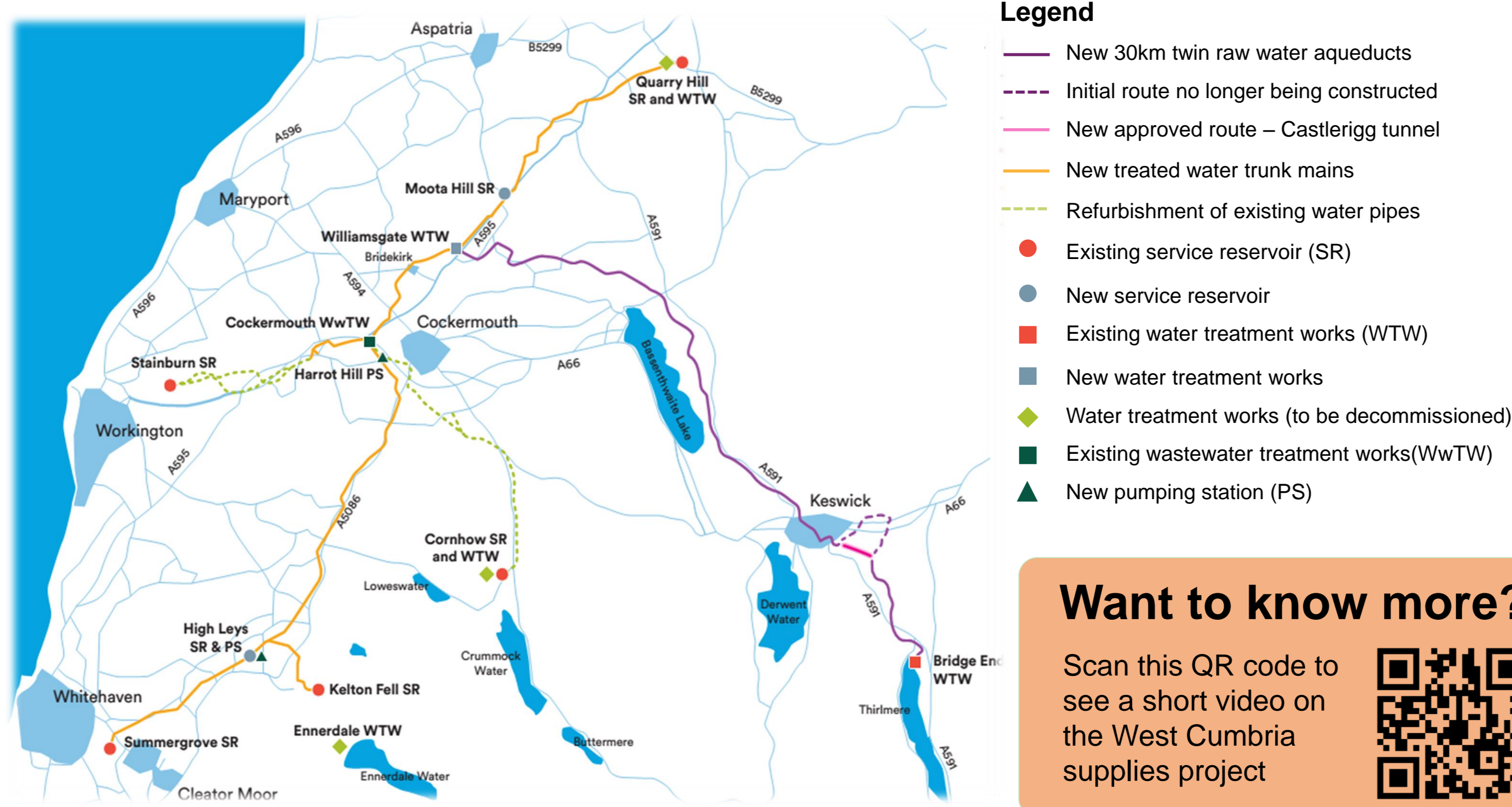
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## Background

- There are >16,000 weirs & >2,000 dams in the UK.
- Environmental concerns and legislation are driving **abstraction reforms** creating opportunities for the removal of obsolete structures.
- However, weir removal is often a contentious issue with strong economic, environmental and social arguments both in favour and against the removal of these historic structures.

PR19 - Ofwat “expects companies to have **bespoke performance commitments** on the environment and a commitment to reduce water abstraction at environmentally sensitive sites” (Ofwat, 2017).

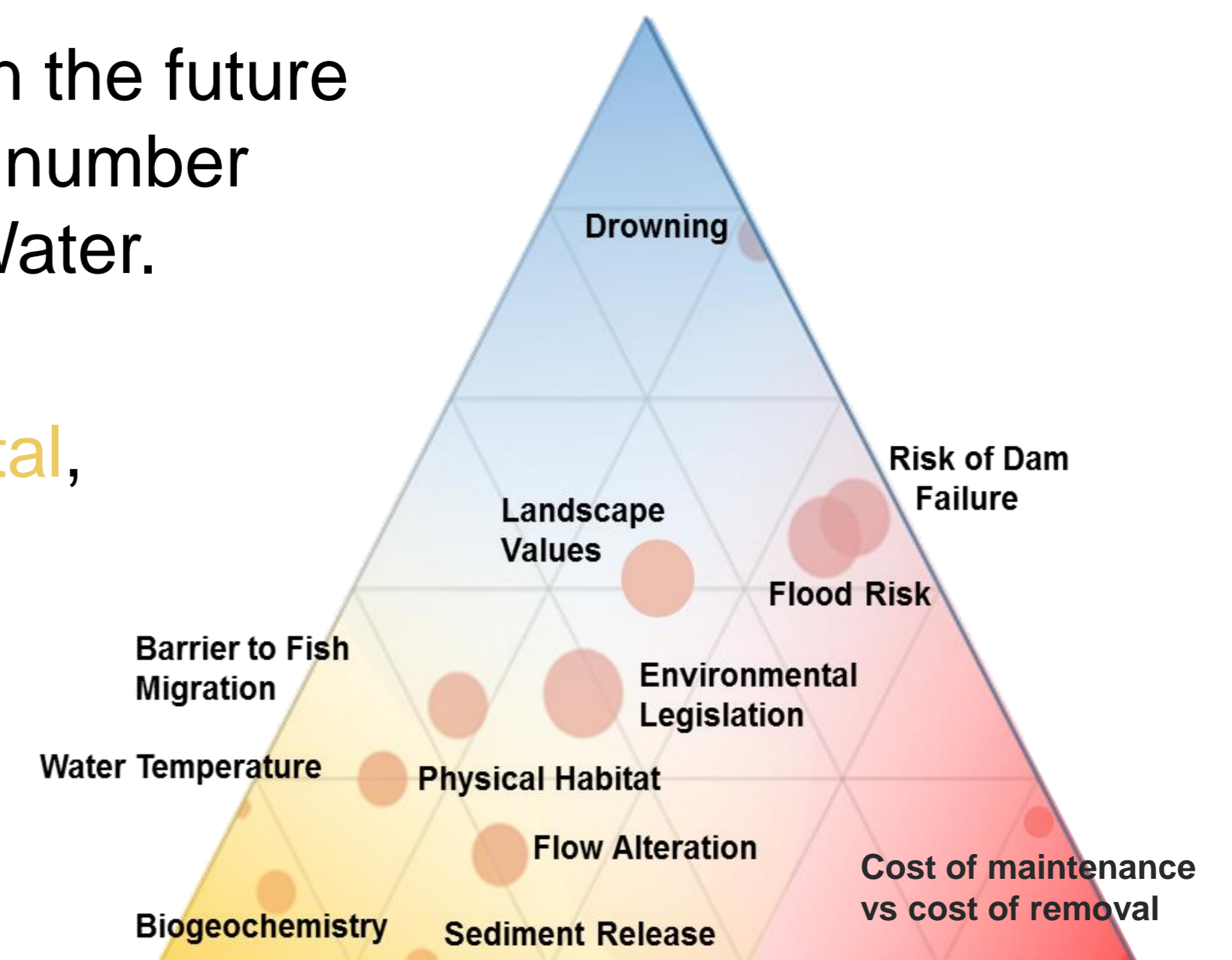
## A water company perspective



The West Cumbria water supplies project is underway to reduce abstraction pressures on the environment & increase **network resilience**.

Decisions need to be made on the future of obsolete infrastructure at a number of sites including Ennerdale Water.

However several **environmental**, **economic** & **social** concerns have been identified & are being investigated.

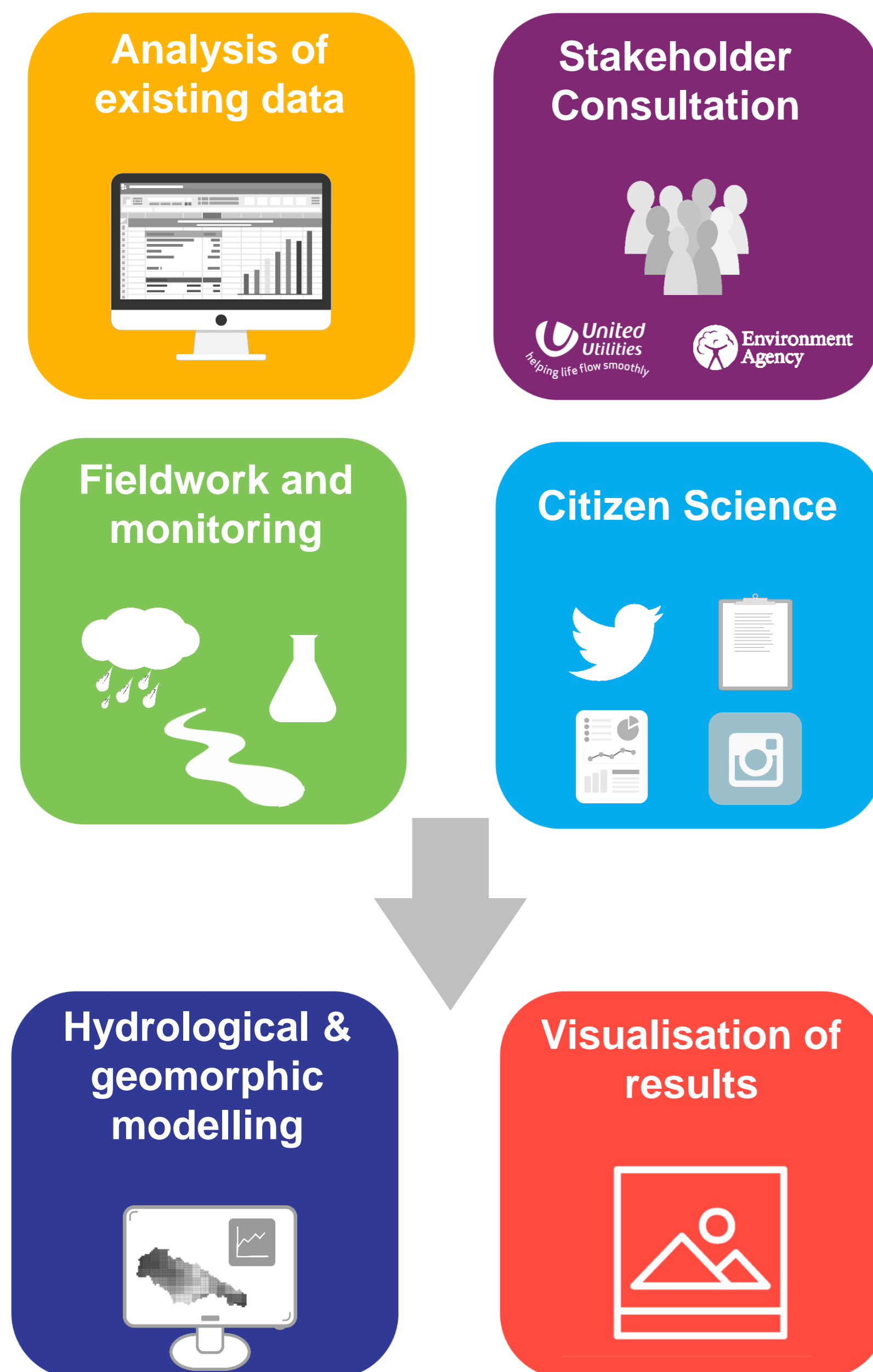


### Want to know more?

Scan this QR code to see a short video on the West Cumbria supplies project



## Research Strategy



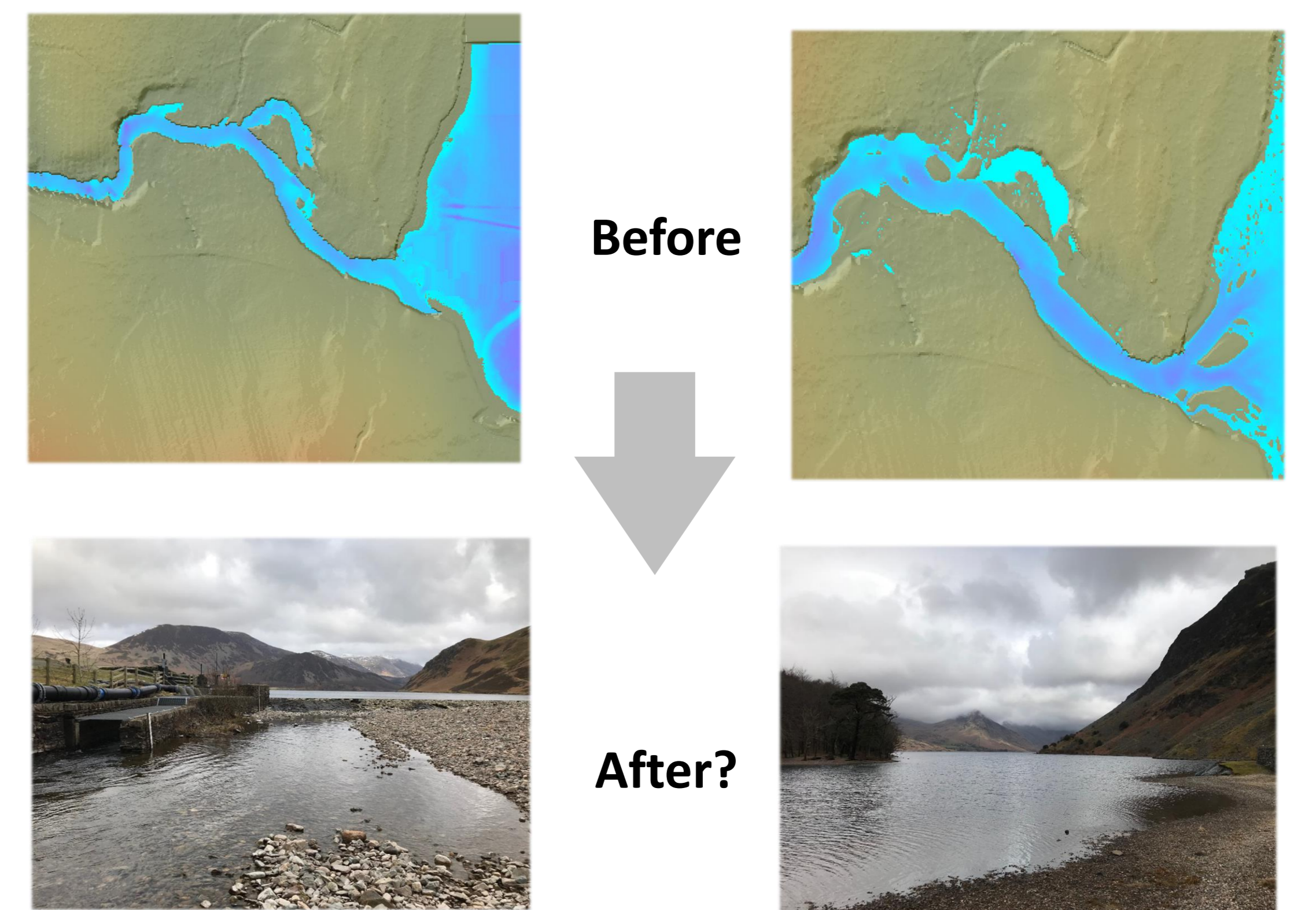
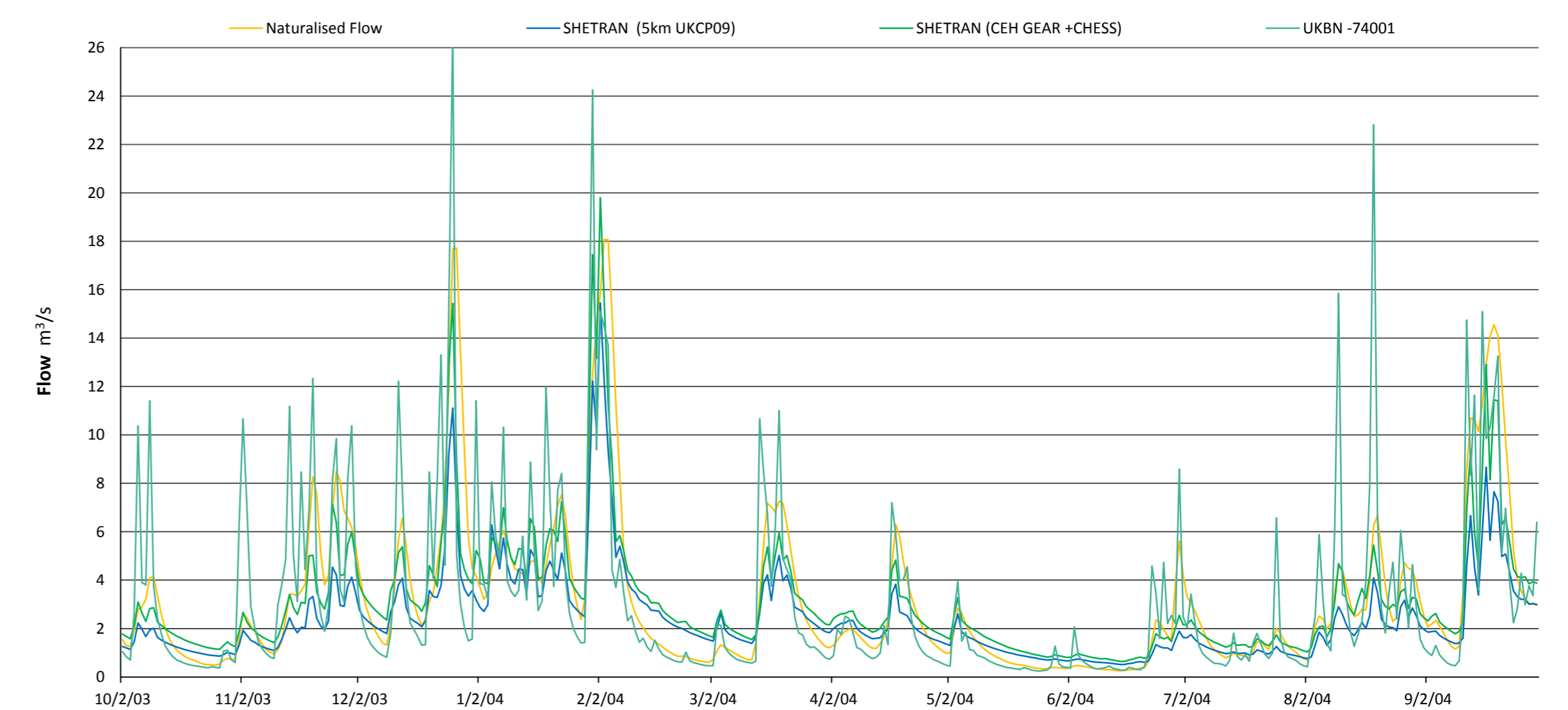
- Existing and gathered data is being used to model hydrological & geomorphological changes caused by dam removal
- Additional information from similar lakes with natural outflows is providing evidence for future changes caused by infrastructure removal.
- Visualisation techniques will be an important tool for informing the public and aiding decision makers.

### Want to see more?

Access photos from the fieldwork and twitter account for citizen science here.



Natural Flow Estimations for Ennerdale Water - 2004



## Conclusions

1. Dam and weir removal can be a complex and contentious issue yet removals are likely to become more common in the future.
2. Carefully managed dam removal can represent a win-win scenario for water companies, regulators & a wide range of stakeholders.
3. Further research supported by modelling & monitoring is a necessary step in facilitating future dam removal projects.

[www.stream-idc.net](http://www.stream-idc.net)



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