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.

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.

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.

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

For further information: d.p.carver2@ncl.ac.uk, @EnnerdaleRR
Postal Address: Newcastle University, School of Engineering, Cassie Reception, Newcastle upon Tyne, NE1 7RU