

Guidance on delivery of weir modification / removal projects

Dr Gareth Greer Dfl Rivers Environment Section



Introduction



Weir removal / modification can have many benefits to a river system for WFD purposes:

Improved fish passage, sediment continuity, habitat restoration





Despite observed environmental impacts weirs have been constructed over many centuries for societal reasons:

- Water supply
- Navigation
- Power generation
- River flow estimation







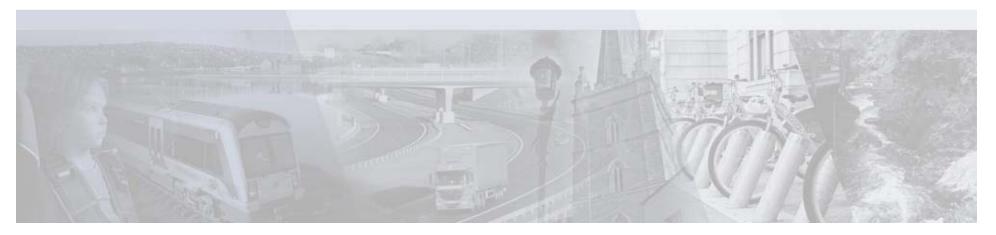
Factors to consider when seeking support / permission for weir removal





Weir Function:

- What was it built for? (water supply / navigation)
- Is it still serving that purpose? (has it a historical value)
- Who owns it? (may not be adjoining landowner)





Weir structure / dimensions:

- What is it made from?
- Is it structural sound, are there cracks appearing?
- What size is it (approx. US v DS water levels)





Protected sites:

- Is the River an ASSI / SAC?
- If so, consent will be required from NIEA
- Will removal have a positive / negative impact on designated site features?

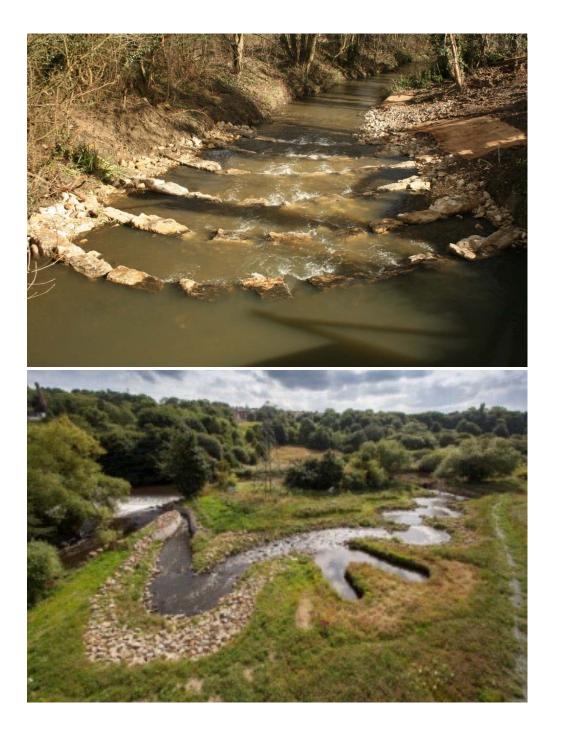




Impact on fish passage:

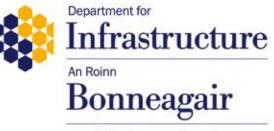
- What species are present in the river?
- Is the weir passable for all species expected?
- Could passage improvement be made without complete removal? (rock ramp or by-pass)



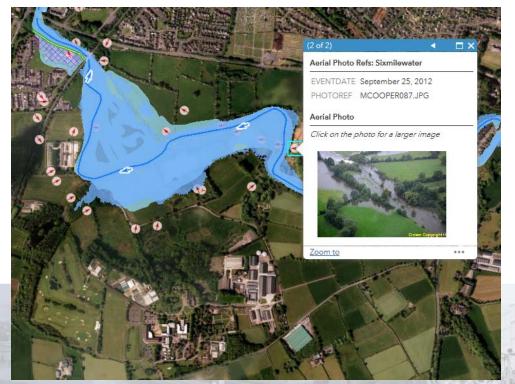


Flood Risk:

 Is there a flood risk in the area / downstream?



www.infrastructure-ni.gov.uk

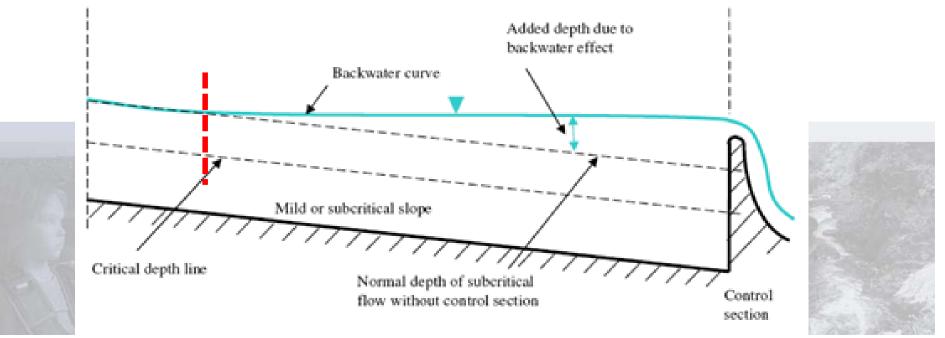


Check online flood maps or local Dfl Rivers office for advice

River Impacts:



- Is there erosion downstream?
- Is sediment trapped behind weir? (if so what type)
- How long is the backwater effect?



Final comments.....



 Consider how the river will react to weir removal (this will vary by river type, gradient etc...)

- Will additional work be required? (e.g. bank protection)
- Summary notes are available to take away

