

Monitoring River Irwell Restoration



➔ This talk sets out our monitoring strategy for the Environment Agency/Irwell Rivers Trust project '*Good ecological potential in the Irwell Basin*'.

➔ PRAGMO

➔ Principle monitoring aims

➔ Methods used to deliver them.

➔ These principles are then applied to individual sites.

Our Plan

- ➔ Identification of monitoring requirements
- ➔ Identification of monitoring methods
- ➔ Assignment of monitoring methods to requirements
- ➔ Production of monitoring schedules (Who, what, where, when)
- ➔ Data management and reporting

Four Monitoring Requirements

Monitoring Requirement	Reason
Management of Risk	Unwanted changes, Unexpected erosion, Timely response.
Demonstration of environmental improvement	Show the delivery of HMWB mitigation measures and River Basin Management Plan objectives. e.g.
Proof of concept	Show success of low cost easements where barrier cant be removed (e.g. rock ramp).
Promotion	High profile sites should be monitored to ensure we can present our work in ways that promote future partnership developments and fund raising.

Six monitoring methods have been identified.

- ⇒ Fixed point photography survey
- ⇒ Expert observation
- ⇒ Habitat mapping survey
- ⇒ Invertebrate survey
- ⇒ Fish survey
- ⇒ Fish tagging and relocation study

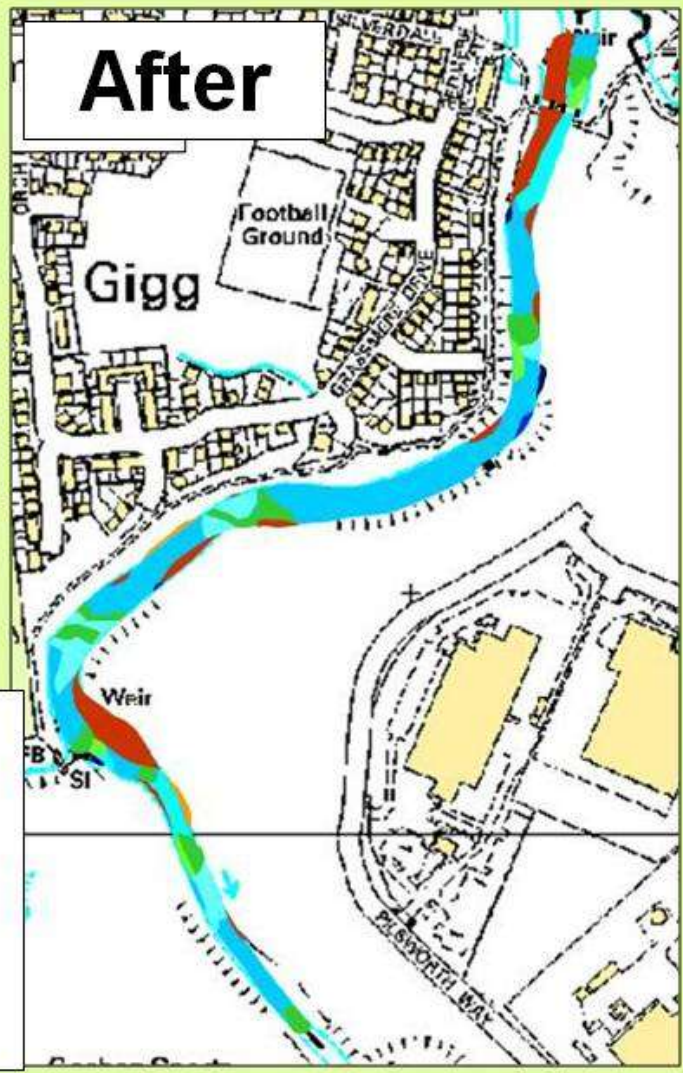
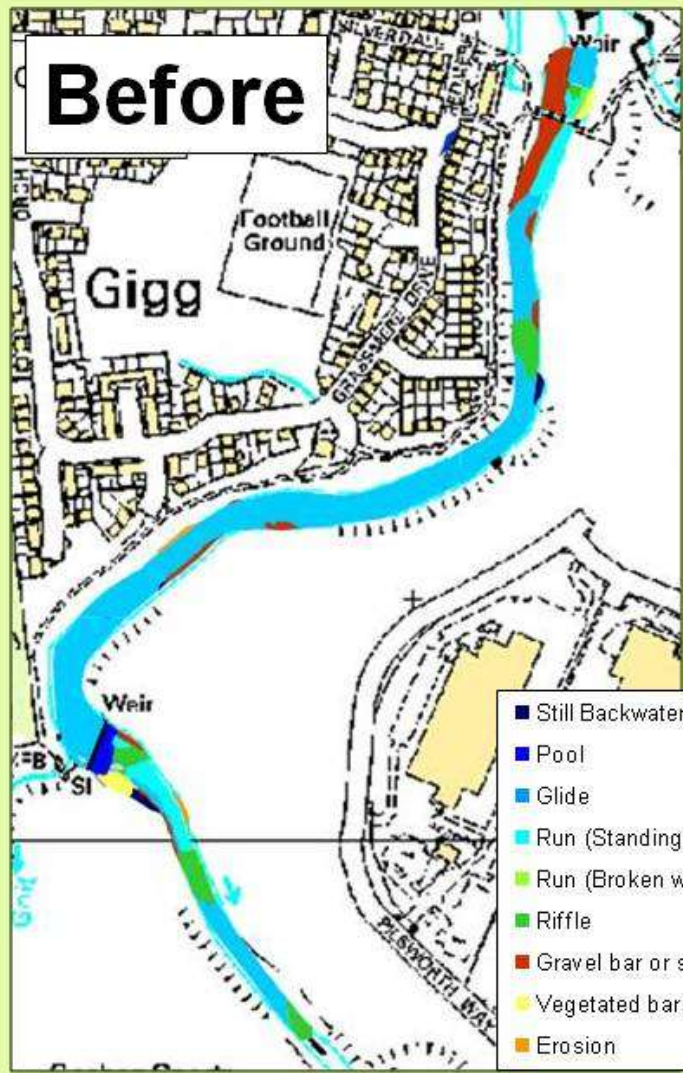
Matching Methods to Reasons

Method	Monitoring Requirement			
	Risk	WFD delivery	Promotion	Proof of concept
Fixed point photography	✓	✓	✓	✓
Expert Opinion	✓	✓	✓	✓
Habitat mapping		✓	✓	
Invertebrate survey			✓	
Fish survey			✓	✓
Fish tagging				✓

Goshan Weir



Changes in flow types associated with the removal of Goshan Weir on the River Roch, North Manchester



- Still Backwater
- Pool
- Glide
- Run (Standing wave)
- Run (Broken wave)
- Riffle
- Gravel bar or shoal
- Vegetated bar or shoal
- Erosion



Conclusion

⇒ Clear monitoring aims delivered by simple, transferable methods