



the River Restoration Centre

Working to restore and enhance our rivers

Technical Advice

River Don, Newcastle

Identifying Opportunities for River Restoration and Habitat Creation

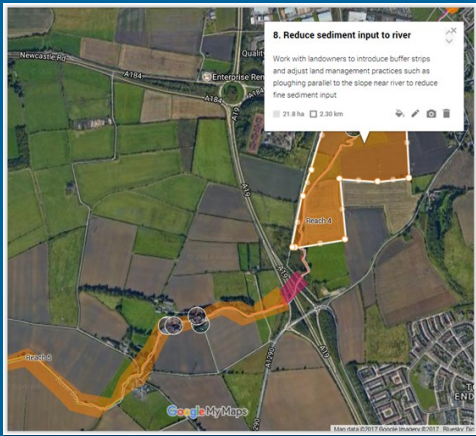
KEY INFO

Date: April 2017

Client: Environment Agency

Type: Assess morphological quality and identify pressures

Themes: Habitat enhancement



The River Don has a history of varied land uses including heavy industry, agriculture and residential development, and is designated a Heavily Modified Water Body under the Water Framework Directive (WFD), with an overall 'Poor' classification in the 2015 WFD assessment. The Don catchment is quite flashy and floods are known to regularly occur.

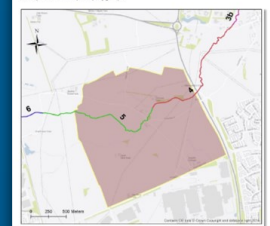
The Environment Agency (EA) initiated projects to address various elements of the River Don, to reach Good Ecological Potential. As part of this initiative, this project aimed to assess morphological condition on the River Don, identify pressures impacting the river, and suggest potential opportunities for river restoration and habitat enhancement.

The assessment of the River Don was carried out using a desktop study followed by a field assessment. The Don was split into hydromorphologically homogeneous river reach sections that were then used to:

- Collate and summarise existing and historical data on modifications, land use impacts, hydromorphology, water quality, pressures as well as biology and WFD
- Direct and target the field assessment
- Identify issues and opportunities

An **interactive online map** was produced to display information on river reaches, photos, pressures, structures and management options ([link](#)). The map was designed to facilitate communication of outputs with stakeholders and was provided with a technical report detailing issues and management options for each reach. Based on feasibility, cost and constraints, a series of management interventions were recommended.

International Advanced Manufacturing Park development area
The IAMP covers parts of reaches 4 and 5 of the River Don. Given the potential opportunities associated with the development, the whole area has been looked at together here (shown as a pink polygon).



- Condition**
- On the eastern side of the area, the river is extremely over deep (almost 4 m), resectioned and slightly realigned with a reinforced bank toe (gabions, riprap)
 - Sandy bed, not much channel diversity
 - Riparian vegetation (trees)
 - Possibly some recovery from being over-widened – two staged channel appears to be developing with a natural beam narrowing the low flow channel