



the River Restoration Centre

Working to restore and enhance our rivers

Technical Advice

River Machno, North Wales

*Identification of opportunities on the River Machno at
Cwm Penmachno*

KEY INFO

Date: August 2017

Client: National Trust

Type: Habitat and options
assessment

Themes: Hydromorphology, NFM,
land management



The River Machno is a high energy tributary of the River Conwy. It has been heavily modified in the past with realignments, embankments, rip rap, floodplain drainage as well as catchment pressures like mining and forestry. The National Trust purchased Carrog Farm with the aim of improving natural river processes and demonstrating a flood risk benefit to other landowners.

RRC started by collecting data to establish a baseline from which the success of the project could be measured against. A River Habitat Survey and pebble count were the chosen methods. From this it was determined that the Machno had poor quality habitats and did not exhibit the natural processes which were expected.

The River Machno at Carrog has a lot of energy and a large sediment supply. This means that it has the potential to recover on its own if the constraints are removed. RRC has suggested the option of assisted natural recovery as the risks and costs associated with a more engineered approach are not necessary in this case.

As well as this, RRC has provided further advice on creating floodplain habitats and protecting critical infrastructure.

