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River Washburn Restoration

Salix were approached as river restoration experts and because of the innovative Menzi Muck Spider machine which is capable of climbing in and out of a river causing little disturbance. Salix is working to improve water quality and create and improve habitats at Swinsty Reservoir and the River Washburn.

Swinsty Reservoir has been providing the people of Leeds with drinking water since 1878. Controlling water levels at the reservoir has resulted in an environment which is poor for species diversity.

Water quality below Swinsty Reservoir has suffered over the years as reduced flows have severely impacted fish numbers and caused a loss of biodiversity. Yorkshire Water have committed to improving the health of this river.

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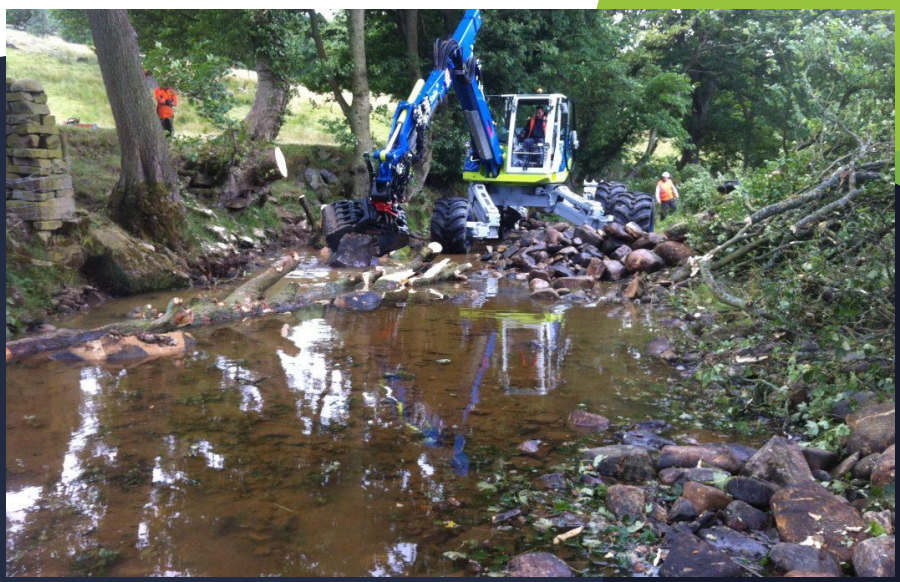
The innovative ‘spider’ machine has been used to fell and move trees into the channel to concentrate the low flows of the river flow downstream of the reservoir. Large boulders were also moved into the water course by this specialist machinery.

The versatile four-legged walking spider machine has been climbing in and out of the river to position tree trunks and large boulders and local gravels at intervals within the channel.

These new features will create a more concentrated water flow and a series of deeper pools and shallower, faster flowing riffles over a 700 metre reach of the River Washburn just downstream of the reservoir.

This will improve biodiversity and provide a habitat for invertebrates and fish who prefer a mix of deeper channels and shallow riffles where they can breed and feed.

Jo Baxter, Yorkshire Water’s environmental advisor said:
“By providing suitable habitat conditions we hope to see an increase in indicators of good water quality, such as macro-invertebrates and plants, which will result in long term improvements and attract more brown trout back to the river and other wildlife like otters and kingfishers.”



Trees and vegetation have been removed to increase the light getting into the river, this and the rearrangement of the river gravels will increase the oxygen in the water improving it for wildlife. The tree trunks were then used in the river as the large woody debris.
Gravels, sediment and silt will build up behind the placed and secured tree trunks which will encourage vegetation to grow.

Deeper ponds and shallow riffles will attract invertebrates and fish species, improving their chances of breeding and increasing biodiversity. This will also improve water quality as sediments are dropped out behind the rocks and wood allowing plant life to develop and create natural silt traps.

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