

Dearne Reach, Clayton West Integrated Constructed Wetlands



Under the Water Industry National Environment Programme (WINEP), Yorkshire Water collaborated with JN Bentley and Salix River & Wetland to deliver the Clayton West ICW, a landmark project in tertiary wastewater treatment.

The ICW treats effluent before it enters 4.1km of the River Dearne, improving water quality, supporting biodiversity, and providing long-term environmental benefits.

Salix supplied over 300,000 native wetland plants, all of which were grown in our Croxton Nursery. Initially, these were intended to be planted using a combination of small and large scale planting machinery, with 4.3ha of planted area to cover. However, due to challenging ground conditions, every single plant had to be placed by hand.



The result was a 13 cell, 4.3 hectare wetland system that not only reduced ammonia levels in wastewater, a vital process for protecting aquatic ecosystems and meeting water quality standards, but also boosts biodiversity and contributes to carbon capture.

The completed wetland represents a major advancement in sustainable water management, integrating engineered design with natural processes to create a resilient, multifunctional treatment system.