

Iport Phase 2 Wetland Habitat Creation

Carbon Neutral Wetland Habitat to Prevent
Erosion in Iport Doncaster



Wetlands were excavated as part of a large, new retail development near Doncaster. Once excavated, the embankments suffered from significant erosion due to sandy soils and wave action. The structural integrity of the embankment was at risk, which would lead to failure of a bund and continued erosion.

The wetlands were to be adopted by the Yorkshire Wildlife Trust, so an environmentally sensitive solution was required to prevent the erosion whilst protecting the embankments.

Salix were asked to provide an environmentally sensitive solution to protect the embankments around each lake. Working with the client, a range of bioengineering solutions were provided depending on the erosion risk and likelihood of vegetation establishment, providing multiple benefits between habitat creation and erosion control.



Design
Build
Products
Nursery

While designing out risk, we used our own in-house products and materials, using pre-established coir rolls and pallets in low-risk areas, brushwood, coir rolls and coir pallets in medium risk areas, and rock mattresses in high-risk areas.

Pre-established coir rolls come with mature vegetation, they are able to establish quickly into the surrounding area and consolidate soils with the continued establishment of the vegetation. Vegetation helps to act as a buffer, dissipating the wave action whilst the continued root growth helps to consolidate the soils.

Rock mattresses use a small stone grading which helps to provide significant erosion protection whilst using a small single surface layer of rock. Further helping to promote sediment accretion and vegetation can establish.

Temporary stock fencing was installed to help deter waterfowl from grazing on the plants during the establishment period.



Two years since completion, the wetlands have experienced a range of site conditions, the plants have successfully established to provide robust habitat and will provide the necessary erosion protection for years to come.