

Terraqua ES Case Study - Winding Holes

Canal Dredging and Restoration using “Nicospan” vertical bank protection

As the sole British Waterways UK framework contractor for dredging Land & Water were contracted by British Waterway's to ensure all winding holes on the Grand Union Leicester Line and Oxford canals were maintained to current safety standards.



These winding holes had silted up over time and so a dredging operation was carried out using Land & Water's specialist narrow beam dredging equipment. British Waterway's instruction was to repair the badly eroding banks and use as much retained silts as possible.

“Nicospan” from Terraqua ES was the chosen as the product to install at the water's edge, it provides a high-quality and economical erosion control system and is designed specifically for protecting vertical banks. Easily installed without special equipment, Nicospan is especially useful where access to the bank is limited and is an ideal low cost bank protection system that allows the use of dredged silts as fill.

Nicospan was placed along the original bank line to reclaim the lost land to erosion. 2.4M long x 100mmØ* FSC timber posts, at 500mm centres, were used along the front of the Nicospan, PP15 woven geotextile is then used at the rear of the Nicospan as a separator to retain silts and soils, the geotextile is fastened to the top of the posts using galv steel staples. 1.8M long x 100mmØ* FSC timber posts were then installed at the rear of the Nicospan and at a distance of 1.5m from the front posts, at 1m centres. 2.5mm galv mild steel wire is then used to tie two front posts to one rear post; this provides strength and stability to the system.

The dredged sediments from the canal were then used as fill behind the Nicospan, and placed on top of the geotextile; the bank was fully reconstructed to reclaim the lost land to erosion. The silts were then planted with

aquatic plants and grasses, the canal banks were then left to fully vegetate, stabilising the soils over time to give a long lasting, aesthetic and environmental result.



Nicospan is a prefabricated; double weave revetment fabric manufactured from strong UV stabilised monofilament yarns with pockets. Each pocket is 220 mm wide to allow 100 mm (max) diameter posts to be used as fixings.

Nicospan is available in 100 metre long rolls with standard width of 1.0 m.

*FSC - Forest Stewardship Council

