

## **CASE STUDY**

## Wilderness Lake



## **KEY DETAILS**

**PROJECT NAME:** Wilderness Lake

**CLIENT:** Environment Agency Wales

**LOCATION:** Porthcawl, South Wales

**PROJECT CATEGORY:** Lakes, ponds and shorelines

The Wilderness Lake is an important coarse fishery and recreational resource on the edge of Porthcawl in South Wales. It also functions as a flood storage area for the surrounding urban areas.

Over time the lake had become heavily silted, reducing the ecological and fishery value of the lake. Additionally, 350m of bank was severely eroded, lacking any marginal vegetation and a hazard to all those people using the lake. Salix were asked to review possible strategies for restoration.

Two key objectives were identified in order to enhance the visual landscape and quality of the fishery. Over 2000m3 of silt was dredged using specialist excavators to deepen the water and create "swims" and pool areas.

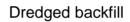
Removal and disposal of dredged material is very expensive so all material excavated was used as backfill to create marginal ledges and islands. The silt was retained behind two revetment types. The first was a woven geotextile fence which was used to create islands 1m deep. Along

the eroding banks, brushwood faggots, coir rolls and marginal plug plants were installed to create an organic revetment behind which the dredged material could be placed.

Extensive marginal planting into the dredged backfill aimed to create a diverse 2 metre wide ledge of native wetland and wildflower species. The restoration works were carried out in March 2005 with completion and planting in April of the same year. By the end of the first growing season, the results have been dramatic with over 15 varieties of wildflower.



**Erosion issues** 





One year later



Fencing protects planting between fishing platforms

## **CONTACT DETAILS**

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