

Pembroke Commons River Enhancement Works, Pembroke, Wales, UK

Nearly 1km of new and existing channel was enhanced using bioengineering techniques as part of a flood protection project in the centre of historic Pembroke, South Wales. The upper reach of this small stream previously ran in a confined concrete U channel and provided little ecological or landscape value. A new sinuous channel was created, stabilised and enhanced using bioengineering techniques. Pre-established coir rolls, grown with a site specific species mix was installed at the toe of the stream bank to establish marginal vegetation and prevent bank scour. The stream banks were seeded with a local wildflower mix and protected with a biodegradable erosion control blankets (NAG C125BN). The new channel is an effective flood reduction measure, whilst providing a valuable ecological habitat and a landscape focus in the town.



Above: The old concrete channel (left) and newly cut sinuous channel (right)



Above: Coir roll and NAG C125BN are installed

Below: Completed Bioengineering Works in the new cut channel



Below: The new cut channel after 8 months of plant establishment



Above : The diverse wildflowers now established on the stream bank