project profile

Project

Flood Alleviation

Wigan

And

Wakefield

UK

System

Grasscrete GC2

Quantity

7500 m²

Application

Spillways

With ever increasing flood incidence rates the need to attenuate storm water is vitally important to many conurbations around the World. Approaches to this need vary from the dynamics of large scale canalisation to the use of stillage areas for peak demand.

In the UK storm water is managed by a combination of piped sewers from urban run-off and natural water shedding to streams in more rural areas. With increasing governmental pressure to reduce run-off the use of permeable paving and storage ponding is becoming a regular feature in developments. With all of this a balance needs to be maintained within the natural network of streams, becks and rivers, for without this the eco-system becomes swamped by peak demand.

To cater for this growing demand the UK's Environment Agency has an on-going programme of flood alleviation schemes designed to offset the sort of peak demand on water courses, that in turn creates a downstream domino effect on towns and cities, often positioned in the lea of water shedding. As well as enhancing the capability of flood defences the Agency is introducing a network of flood storage areas, where at short notice grassland areas can be turned over to water storage until demand is reduced, after this water is returned to the streams from where it came.

Two such projects have been constructed on the outskirts of Wigan and Wakefield, two different projects in two different counties but with the same Engineer designer, the same Contractor and the same spillway armouring layer ..Grasscrete GC2. The 150mm thick cast on site reinforced system was selected for the spillway construction due to its ability to accept 8 metres per second flow as well as being able to blend naturally into its surroundings as the early photograph shows it starting to do.