

EMBANKMENT LANDSCAPING

RAINWATER RETENTION BASIN

SYKE, GERMANY



PROJECT REPORT





TITLE: Rainwater retention basin, Syke, Germany

EMPLOYER: Local authorities, Syke

ARCHITECTS: Stiehler & Partner, Bremen

PROJECT: The existing industrial estate was being extended and to combat the increasing amount of surface water a rainwater retention basin had to be built.

The basin was inserted into the slightly sloping ground to a depth of 5 to 7 metres. Around the basin slopes were created with an incline of 1:2 with lengths of up to 20 metres.

THE PROBLEM: All slopes as well as the bed area were to be covered with a 20 cm thick layer of top soil and seeded but the question was how to protect the newly seeded surface from erosion caused by strong rainfalls before the vegetation was established.

THE SOLUTION: The slopes were greened down and secured by using **GREENFIELDS** erosion control blankets type S-100-P/S with integrated seed mix RSM.

This method ensures that the seeds are retained and protected from environmental threats and allows for fast germination. At the same time the deposited top soil is protected from erosion damage by sudden filling of the basin.

SCHEDULE: The earth works for the rainwater retention basin were carried out from March until May 1998. In detail the following work was done:

- approx. 45 m Inlet pipe DN 1000 cast steel
- approx. 45 m Discharge channel DN 1000 concrete
- 1 Baffle
- 1 Oil barrier
- approx. 20,000 m³ excavation
- approx. 3,000 m² erosion control blankets
- approx. 350 m steel fencing

After application and levelling of the top soil the seeded erosion control blankets, each 3 m wide by 35 m length to allow ease of handling, were installed and fixed with 2 - 3 steel pins per m² in June 1998.

The use of the **GREENFIELDS** pre-seeded erosion control blankets was an immediate success and the planting of individual shrubs and high stem plants to incorporate the project into the existing landscape was carried out in the autumn of 1998.



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