MACCAFERRI

CASE HISTORY

Rev: 2, Issue Data 04.11.2021

VIERSEN FRITZBRUCH

VIERSEN, NORTH-RHINE WESTFALIA, GERMANY

Slope Protection

Problem

Close to the city of Viersen (North-Rhine Westfalia) a natural retention area of around 50,000m³ was planned. Through this area, the river Niers flows during dry weather conditions. In the event of heavy rainfall, highly diluted mixed water is discharged into this area and temporarily stored there. The retention area is controlled by two weirs and surrounded by an earthdam structure. The river Niers will be given a natural, multi-branched watercourse. A floodplain will be created by lowering the terrain over a wide area, which will also provide additional flood retention space. The area presents a high presence of beavers that are used to dig holes inside the river dams and embankments. The designer needed to protect the dams from possible failure created by rodents.

Solution

The company Secon Systems GmbH, partner of Maccaferri for the German market, provided full assistance, proposing a solution with the so-called "beaver-netting". the product is made of heavy galvanized double twisted netting with an additional polymer coating to assure durability of 120 years in a C5 environment (according to EN10223-3). This product is already largely used for protecting the environment against borrowing animals like beavers and boars. To protect the dams from small rodents, such as mice, moles, and mucrats, an additional netting with smaller opening size was laid underneath the beaver-netting. In total 7.000 sqm of DT Netting, mesh 6x8, steelwire 2,2mm and PoliMac coating, plus 7.000 sqm of "Tertiär-Gitter" were successfully installed.

Client: Secon Systems GmbH

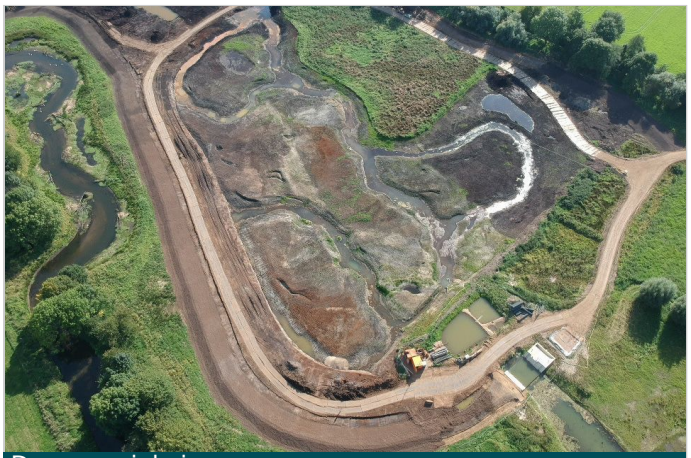
Designer / Consultant: Niersverband Abteilung Gewässer und Labor

Contractor: Willy Dohmen GmbH & Co. KG

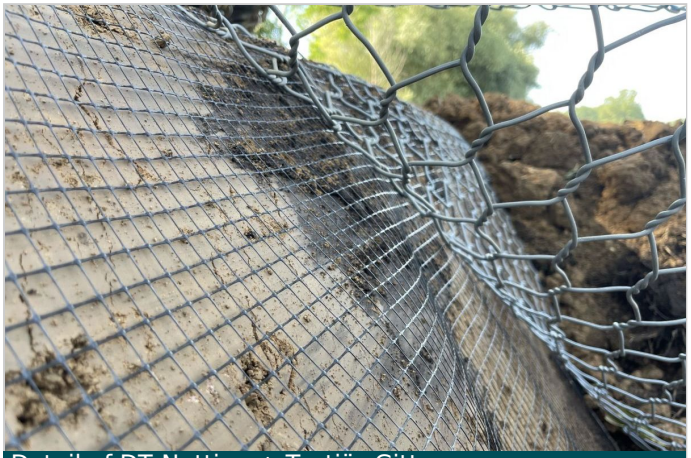
Products used (Qty.)

- DT Mesh 7.000 sqm

Date of construction: 08/2021 - 09/2021



Drone aerial view



Detail of DT-Netting + Tertiär-Gitter

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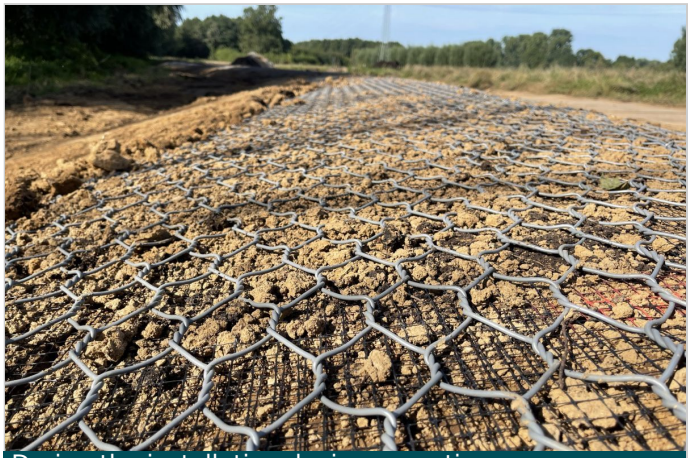

During the installation: laying operations

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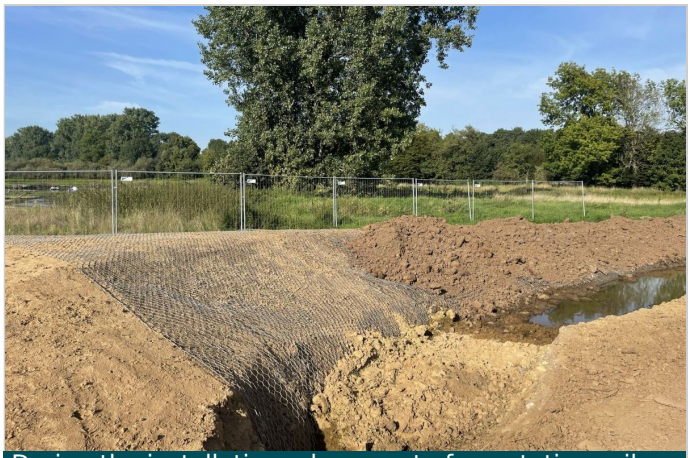
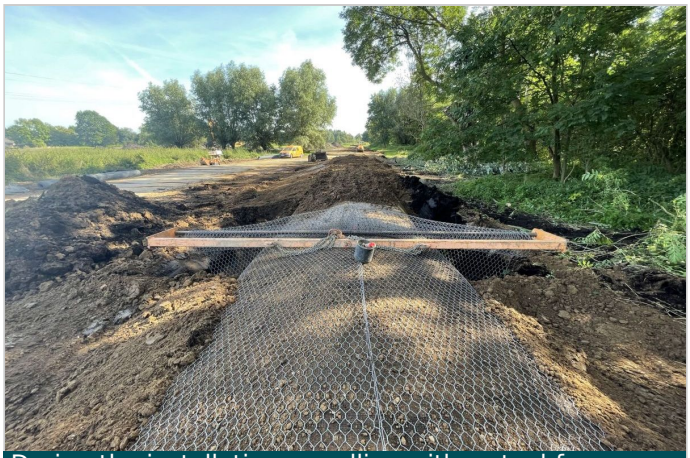
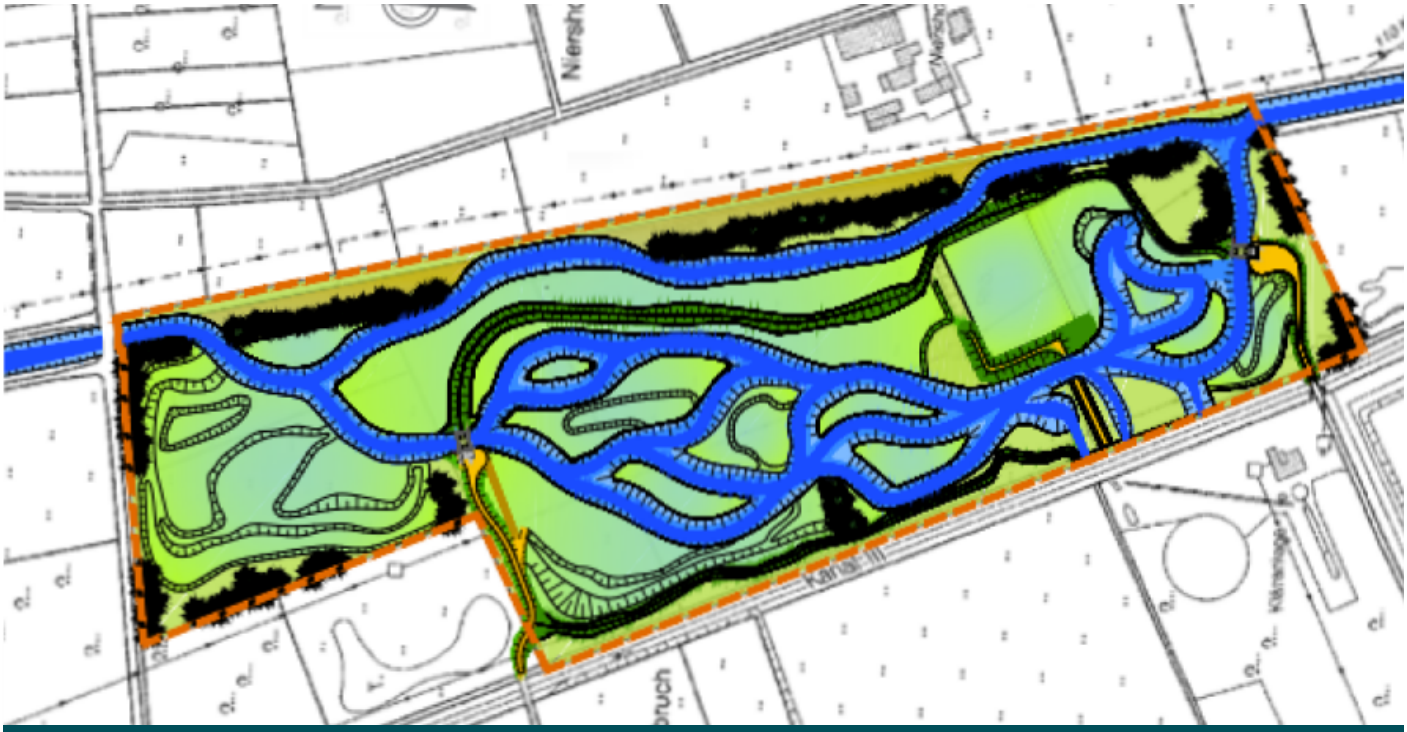


During the installation: placement of vegetative soil



During the installation: unrolling with a steel-frame



Schematic top view

Maccaferri Balkans Sh. P. k.
Autostrada DR-TR; KM 6, SH2, Xhafzotaj, Durrës, Albania

E-mail: info@al.maccaferri.com