MACCAFERRI

Designers: ENGECORPS
Owner: GERDAU
Main contractor: MACSERVICE
Products: 3,200 m² of RenoMac Plus
Date of construction: 2015

SANTA CRUZ,
BRASIL

Preventing the contamination of water resources in Guandu River

The Guandu River (Rio Guandu) is located in southeastern Brazil and supplies water to 9 million people in Greater Rio de Janeiro. Several companies in Santa Cruz were experiencing difficulties in capturing fresh water from the watercourse, due to a constant intrusion of seawater into the river. Saltwater intrusion can be driven by both human activities and natural processes and it becomes a major concern because of the contamination of water resources and for the quality of ecosystems. The best solution to protect the water intake structures was the construction of a metal weir, in order to prevent the mixing of fresh and salt water.

The weir had to be protected from the river flow and the best solution was RenoMac Plus. Mattresses with double twisted hexagonal wire mesh have proved to be effective and durable solutions for underwater applications and RenoMac Plus was developed especially for these types of structures. As a prefilled solution, RenoMac Plus guarantees a much more quick and accurate installation process. The lifting system of steel bars allows the elements to be lifted mechanically and positioned with great precision, with the guidance of experienced divers. The geotextile is already integrated with the mattress, therefore the overlaps ensure a continuous protection around the structure, minimizing the preliminary works and avoiding the need of assembling several techniques.

RIVER BED PROTECTION

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