MACCAFERRI

Client:	CAMPAGNA REGION
Designer / Consultant:	ASTRA ENGINEERING SRL
Contractor:	SMEDA SRL
Products used (Qty.):	MACLINE GCL 15,040 M2 - MACDRAIN W 17,325 M2 - PARALINK™ 900 M2 - TERRAMESH SYSTEM™ 58 M2 - MULTICOMPOSITE GEOSYNTHETICS 10,400 M2

CAVA DE TIRRENI, ITALY

An abandoned dump turned into a small green lung in the heart of Metelliana Valley (Italy)

Engineering challenge

The former municipal landfill of Cava de' Tirreni in Italy posed a significant engineering challenge due to its hazardous state and potential harm to the environment and local community. Abandoned for over two decades, the landfill lacked an impermeable cover, leading to the formation of toxic leachate, including harmful substances like beryllium and thallium. The contaminated water even polluted nearby Bonea stream, triggering concerns among various municipal administrations. In October 2018, the Campania Region secured a grant to initiate a large-scale cleanup and restoration project, aimed at transforming the site into a safe and ecologically beneficial area.

Our solution

Maccaferri's solution to the environmental challenges posed by the abandoned landfill in Cava de' Tirreni involved the application of advanced geosynthetics. Their multi-layered approach included MacDrain Drainage for efficient rainwater drainage, MacLine GCL to act as a barrier against contamination, and the Geosynthetic Multicomposite, a single-solution geocomposite combining separation, drainage, erosion control, and soil reinforcement. This innovative geosynthetic package not only reduced installation time and cost but also minimized worker exposure to risks and contributed to CO_2 emission savings. The completed project garnered local authorities' approval, transforming the hazardous territory into a green area, benefitting the entire community. Maccaferri's geosynthetics played a pivotal role in the successful conversion of the landfill into a safe and ecologically restored site.