

# Landfill Capping & Drainage

Pozidrain All-In-One Capping System, Pozega Landfill Site, Serbia



CASE STUDY



## Project Description

The Pozega Council Landfill Site is located on land bordering the River Djetinje, 3.6 km from Pozega, Serbia, and for more than four decades it was the main landfill site for the area.

The local authority approached BMD BAU to design and construct a final capping system for this environmentally critical location. The site is next to the river that is connected with ground water and the old tip was seen as an environmental hazard. The work to return the landfill site to grassland was a legal requirement by the Environment Protection Agency.

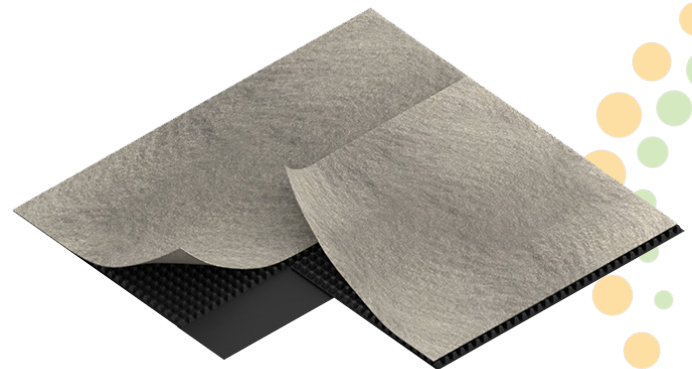
## The Challenge

An estimated 250,000 m<sup>3</sup> of landfill needed to be capped with a permanent geosynthetic capping system and 0.5m of soil cover. This environmentally sensitive location required a safe and effective design solution to ensure the local river is protected.

The site needed to be permanently capped and closed in 2024 and the requirement was to replace expensive drainage gravel with a cost effective geosynthetic capping solution, comprising a geocomposite drainage and capping membrane. A large proportion of the landfill cap was to be constructed on steep slopes where it was necessary to ensure slope stability during construction.

## Project Information

<b>Client</b>	Pozega Council, Serbia
<b>Contractor</b>	BMD BAU
<b>Product</b>	Pozidrain All-in-one 4SK500D
<b>Quantity</b>	37,000 m <sup>2</sup>
<b>Benefits</b>	<ul style="list-style-type: none"><li>• All-In-One capping HDPE membrane and drainage layer</li><li>• High flow capacity in both directions</li><li>• Large rolls for rapid installation</li><li>• Enhanced frictional performance for slope stability</li></ul>



ABG Pozidrain All-In-One Geocomposite Capping System

ABG LTD

E7 Meltham Mills Road, Meltham, Holmfirth, HD9 4DS • +44 (0)1484 852096 • [www.abgltd.com](http://www.abgltd.com)

a Bontexgeo Group company

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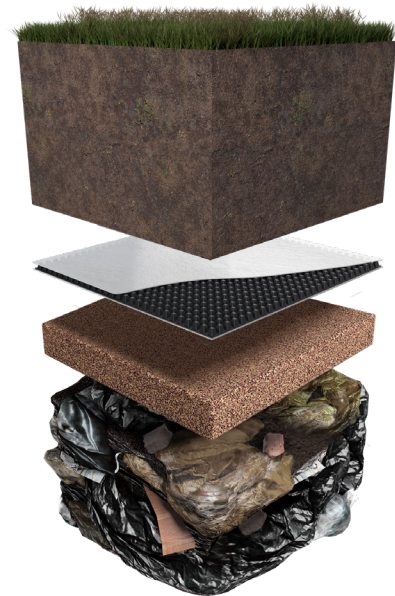


## The Solution

The designers worked with ABG to develop a geosynthetic capping solution that would provide efficient drainage, act as a capping barrier and provide the required frictional performance for a safe installation.

The all-in-one Pozidrain 4SK500D/NW8 capping membrane and drainage geocomposite was specified and installed over a 5 week period. The preformed flat selvedge for overlapping enabled this rapid installation time to be achieved.

The Pozidrain geocomposite provided the required flow capacity and interface shear strength to achieve stability on 1 in 2.5 slopes. The thickness of the cover soil was 0.5m. Finally, the Erosamat Type 1A erosion protection system has been used to landscape and restore the Pozega landfill site into an area of grassland.



## The ABG Service

ABG provided technical advice and design assistance for this landfill capping project. This included slope stability and flow capacity calculations.

**All-in-one safe and effective landfill capping & drainage system**



Large Pozidrain rolls enabled rapid installation



Pre-formed flat selvedge overlap

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