



Case Study

Blackmoss Reservoirs

Client	Askam Construction - Civil Engineering Division on behalf of United Utilities
Contractor	GHA Livigunn
Gripple Terra-Lock™ System	TL-100 TL-A3
Application	Securing HPTRM for Slope Reinforcement
No. of Systems	420 Systems (TL-100, TL-A3) Area equal to 2100 m ²
Start to Completion	February 2013

Two dwellings situated below the Blackmoss Reservoirs in Barley, Lancashire were identified as at risk from flooding should either or both reservoirs burst their banks after heavy rainfall. The Terra-Lock™ System was installed in conjunction with an erosion control mat to reinforce the slope that was situated in the new flood water path.

The objective of the project was to create a new emergency spillway below the reservoirs. Any flood waters would be directed away from the dwellings and in to an existing waterway, so they could drain safely.

The site included an area significantly steeper than the surrounding land and formed part of the route for diverted flood water. Due to the severe incline, passing flood water could reach speeds of approximately 6 m³ per second. The area could not be reinforced by planting trees, as this method would impede water flow and take an unacceptable amount of time to become effective. The specification required the mat to be mechanically anchored and the Terra-Lock™ System was selected to prevent uplift, protect the subsoil and withstand the high flows in the event of a breach.

The ease and speed of installing the Terra-Lock™ System provided a quick and secure solution. The open face of the TL-100 would allow vegetation to grow through over the course of the product's 50 year design life, so that when the root systems began to establish themselves, the Terra-Lock™ System would support rather than compete with natural securing methods.

