

## BANK PROTECTION WORK ON NEERU RIVER GATHA BHADERVAH, JAMMU & KASHMIR, INDIA

### Mass Gravity Retaining Walls

#### Problem

The valley of Bhaderwah in Himalayas is endowed by nature and surrounded by beautiful mountains, snow capped peaks which makes Bhaderwah pleasant. The Neeru river which is tributary of Chenab river, flows through the central part of the village. The left bank of Neeru river presents to visitors very beautiful views. So, Bhaderwah development authority decided to develop the tourism in the area. A recreation park is constructed to attract tourist. The soil in the district is generally loose and sandy with very low moisture. So, the incidence of soil erosion is very high during rainy season due to flash floods.

#### Solution

Gabions were proposed to construct the retaining wall because of its free draining nature and speed in construction. Another advantage was the effective use of stones available in vicinity which were utilized for the filling of Gabion Walls.

The random rubble wall and concrete wall are ruled out as they are rigid, exert too much pressure at the base and necessitate the requirement of separate drainage arrangements.

Gabion wall of approximately 3m height was constructed. Geotextile is also provided as a filter behind the retaining wall.

**Client:** J&K govt.(Bhaderwah Development Authority)

**Contractor:** HSL Enterprises

**Products used (Qty.)**

- Gabion 1100 Cum

**Date of construction:** 06/2010 - 11/2010



Photo 1. During construction



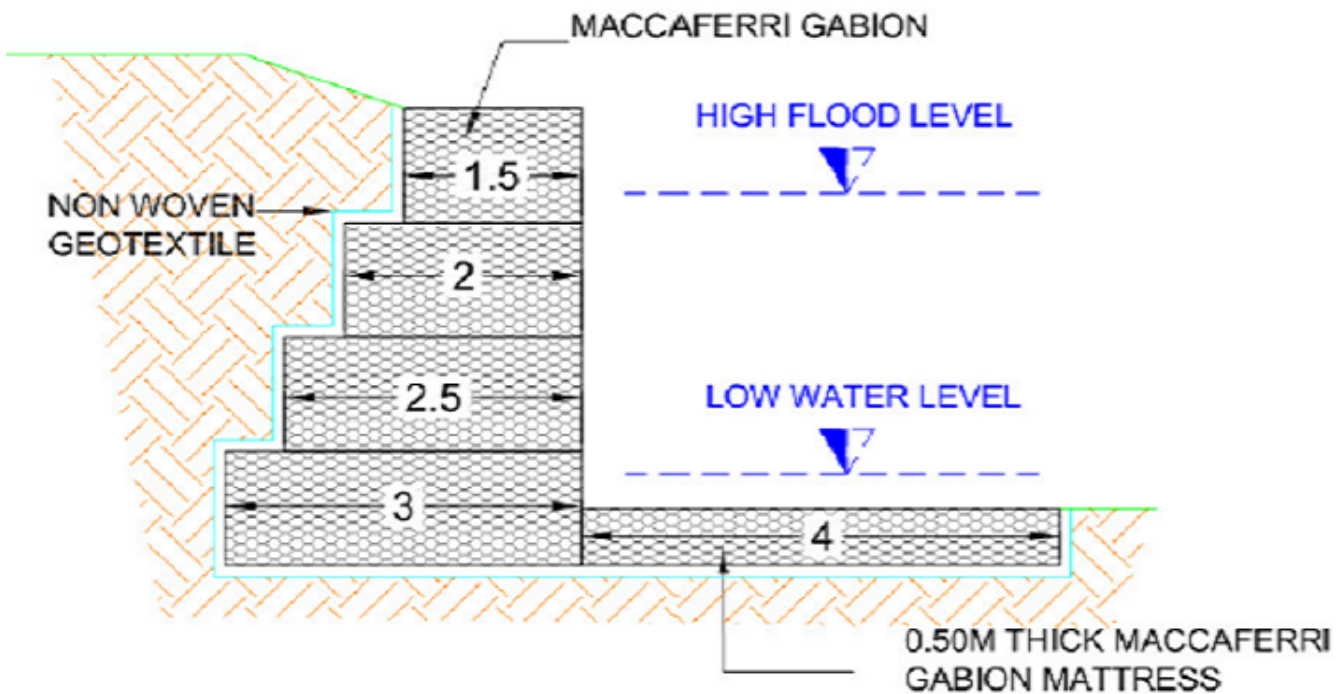
Photo 2. During construction



Photo 3. After construction



Photo 4. After construction



Typical Cross-section Drawing