

MGWC 1.1: DEWATERING BASINS

*Temporary measure for filtering
sediment-laden water*

DESCRIPTION

The work should consist of installing dewatering basins jointly with channel diversion measures to filter sediment-laden water from in-stream construction sites before the water re-enters the downstream reach.

EFFECTIVE USES & LIMITATIONS

Undersized dewatering basins will not adequately filter sediment-laden water from the construction site.

MATERIAL SPECIFICATIONS

Materials for dewatering basins should meet the following requirements:

- *Riprap*: Riprap should be washed and have a diameter ranging from 4 to 6 inches (10 to 15 centimeters).
- *Filter Cloth*: Filter cloth should be a woven or non-woven fabric consisting only of continuous chain polymeric filaments or yarns of polyester. The fabric should be inert to commonly encountered chemicals, hydro-carbons, ultraviolet light, and mildew and should be rot resistant.
- *Straw Bales/Silt Fence*: Straw bales should meet the criteria as specified in the *1994 Maryland Standards and Specifications for Soil Erosion and Sediment Control*.

INSTALLATION GUIDELINES

Due to the danger of overtopping by events greater than the design flow, dewatering basins require a vegetative buffer strip to filter sediment-laden overflow. A 50-foot (15-meter) minimum grass-covered buffer width is required for slopes less than 20 degrees (1:2.7) when right-of-way is not limited. For slopes greater than 20 degrees, basins should have a 100-foot (30-meter) minimum buffer width when practical.

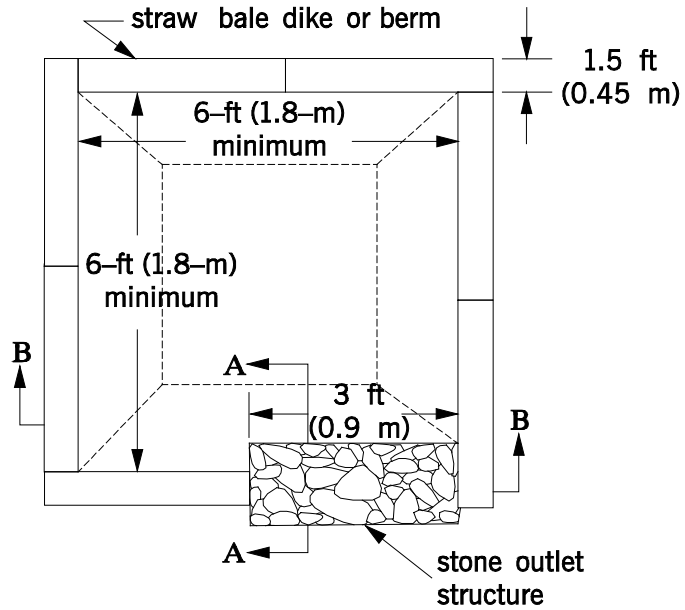
All erosion and sediment control devices should be installed as the first order of business according to a plan approved by the Water Management Administration (WMA) or local authority. Dewatering basins should be constructed as follows (refer to [Detail 1.1](#)):

1. Excavated subsoil and topsoil should be stored separately and replaced in their natural order. Additionally, the excavated sediments should be prevented from entering the waterway by using sediment perimeter controls or other measures.
2. The dewatering basin should have a minimum depth of 3 feet (1 meter) where basin depth is measured from the top of the straw bales to the bottom of the excavation.
3. Once the dewatering basin becomes filled to one-half of the excavated depth, accumulated sediment should be removed and disposed of in an approved area outside the 100-year floodplain unless otherwise authorized by the WMA.
4. Sediment control devices should remain in place until all disturbed areas are stabilized and the inspecting authority approves their removal. All disturbed ground contours should be returned to their original condition unless otherwise approved by the WMA or local authority.

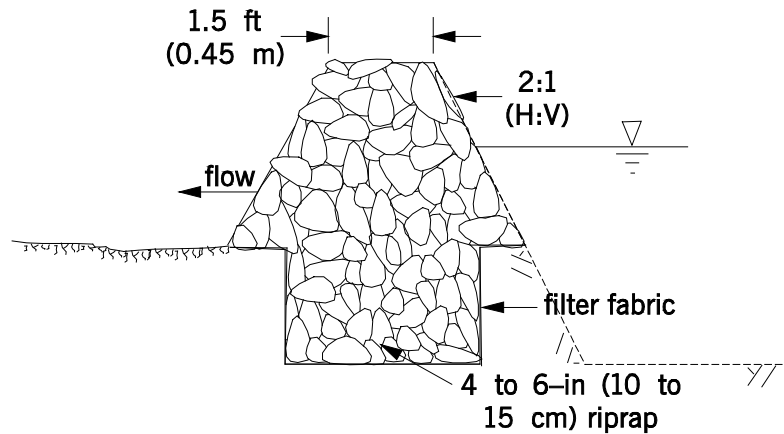
Maryland's Guidelines To Waterway Construction

DETAIL 1.1: DEWATERING BASINS

PLAN VIEW



SECTION A-A



SECTION B-B

