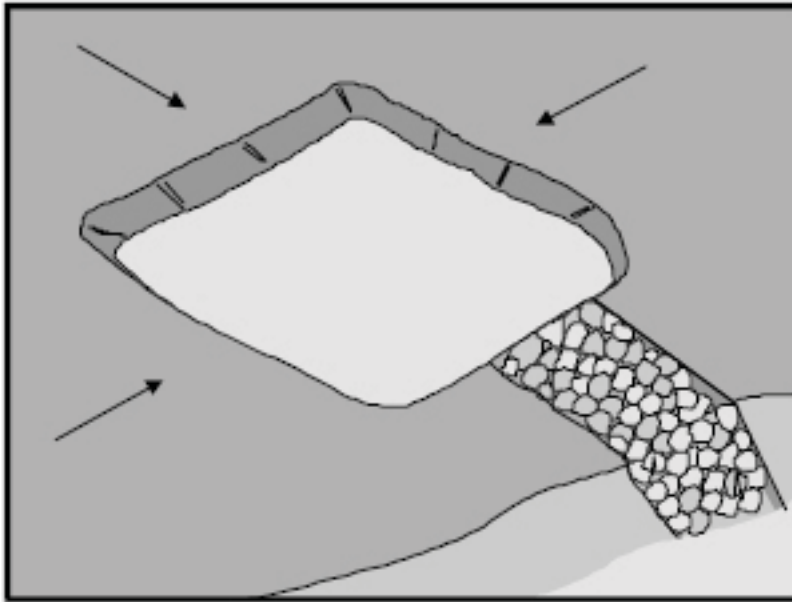


# Sediment Trap



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A sediment trap is a temporary containment area where sediment-laden runoff is intercepted to prevent or reduce off-site sedimentation. Runoff is detained allowing sediment to settle out before being discharged. Sediment traps are formed by excavating or constructing an earthen embankment across a waterway or low drainage area. The outlet is typically a porous rock structure, but a pipe may be used as well.

## Usage

- may be located in a drainageway, near storm drain inlet or other runoff discharge locations
- may be used in most drainage situations to prevent excess siltation of pipe structures
- use in conjunction with other temporary measures including gravel construction entrances, vehicle wash areas, slope drains, diversion dikes and swales, or diversion channels
- is appropriate for sites with short time schedules

## Benefits

- may be used on construction projects where drainage areas are less than 2 ac
- can serve as a supplemental control; it provides additional protection for water bodies
- short-term solution for trapping sediment

## Limitations

- requires large surface areas to permit infiltration and settling of sediment
- is inappropriate for drainage areas greater than 2 to 5 acres
- removes only large and medium sized particles
- need to be installed as early as possible during the construction process
- must be located so they are accessible for clean-out
- location may interfere with construction activities

## Estimated Cost

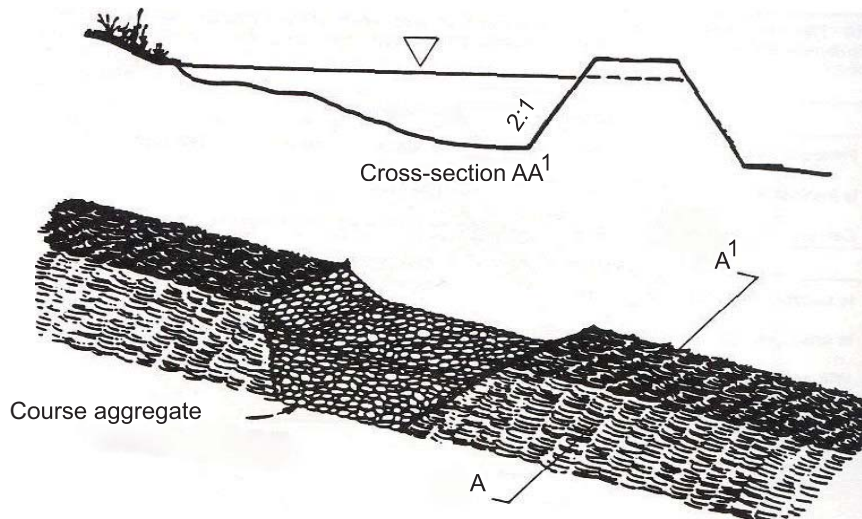
\$0.73/cubic ft, or  
\$0.60/cubic ft of storage,  
average

(including installation and  
maintenance)

## Alternatives

- Sediment basin (larger areas)  
(p. 3-11)

## Notes:



Courtesy of: USEPA, 1993

## Installation Tips

- construct by excavating a depression in the ground or by creating an impoundment with a small embankment
- clear, grub, and strip area of any vegetation and root mat under the embankment
- the pool area must also be cleared
- ensure that the fill material for the embankment is free of roots and other woody vegetation, oversized stones, rocks, organic material, or other objectionable material
- measure all cut-and-fill slopes to 3:1 or flatter
- use of a riser requires all pipe joints to be watertight
- use of a riser dictates that at least the top two-thirds of the riser be perforated with 0.5 in diameter holes spaced 8 in vertically and 10-12 in horizontally
- use of an earth or stone outlet requires that the outlet crest elevation be at least 1 ft below the top of the embankment
- detailed installation tips can be found in the ODNR Rainwater and Land Development manual

## Maintenance

- remove accumulated sediment periodically, especially when the basin reaches approximately 50% of sediment capacity to ensure the continued effectiveness of the sediment trap
- inspect after each rainfall event to ensure that the trap is draining properly
- check the structure for erosion damage; check and maintain spillway depth at a minimum of 1.5 ft below the low point of the trap embankment

## Vendors

See Appendix page F13-F14

## References

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