PRIMARY USE: Improve water quality in streams.

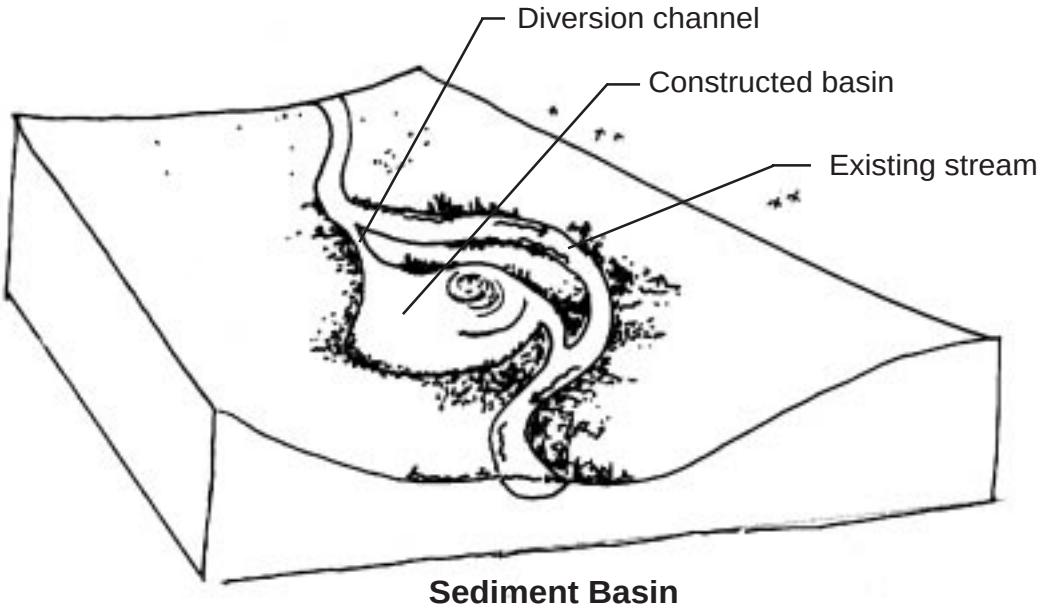
ADDITIONAL USES: Improve habitat for aquatic species, and contribute to food-web dynamics.

SEDIMENT BASIN
(IN-STREAM FLOW RESTORATION)

What is it? A sediment basin is a barrier or dam across a drainage way or other appropriate location which is used to trap and store waterborne sediment and debris. Once filled, it can be reforested, put to some other use, or emptied and used again as a sediment basin.

Purpose

These basin are temporarily used to reduce the sediment load in a stream until conditions causing excessive erosion higher in the watershed can be repaired. Sediment basins can also be used to sort sediment sizes. In urban areas, sediment basins may be integrated with more permanent stormwater management ponds.



Sediment Basin
Aerial Perspective View

Limitations

Silt and clay are not filtered from the water. Sediment basins require periodic emptying to remove the sand and gravel collected in them if they are to continue functioning in the same way.

Materials

Natural materials on site.

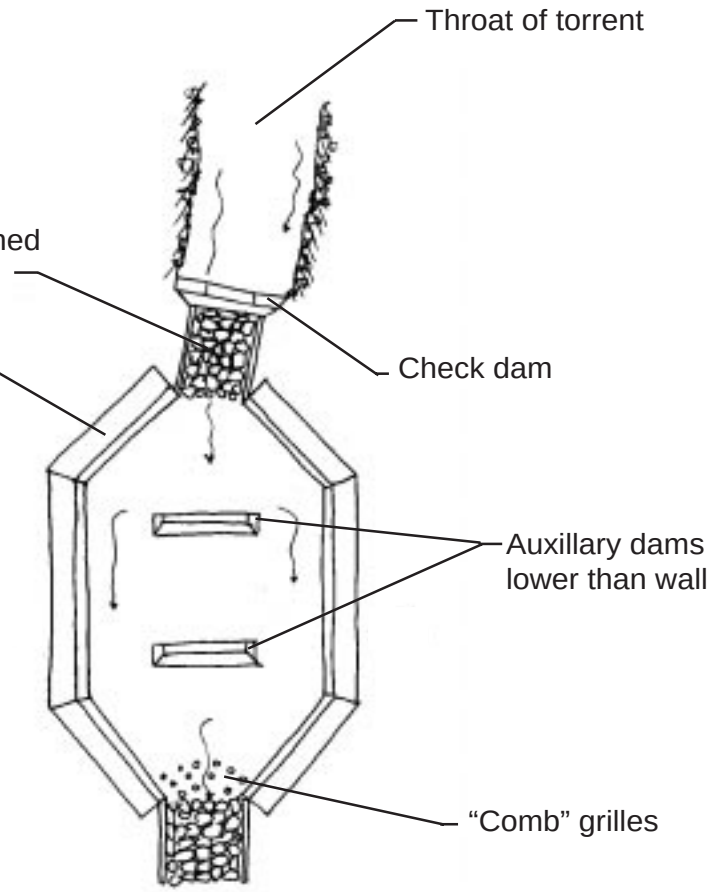
Installation

Minimize disturbance to the stream and adjoining areas by scheduling the work when it will interrupt aquatic plants and animals the least. Integrate the sediment basin with upstream restoration plans as a means of protecting downstream areas until the watershed is restored. Most states require minimum design standards for sediment basins and regulate those exceeding a certain size. Locate the sediment basin to obtain maximum storage benefit from the terrain in connection with considerations for minimizing the environmental impact and ease of cleanout. In urban areas locate, if possible, where storm drains may outfall or be diverted into the basin. Develop an operation and maintenance plan which includes identification of sediment disposal sites. Fencing and signs should be used to warn of hazards involving soft sediment and floodwater.

Source: Stream Corridor Restoration Handbook, USDA.

SEDIMENT BASIN
(In-Stream Flow Restoration)

Additional Drawings:



Urban Settling Basin
Plan View

Urban Settling Basin
Section View