

**NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE STANDARD**

SEDIMENT BASIN

**(No.)
Code 350**

DEFINITION

A basin constructed to collect and store debris or sediment.

PURPOSE

- Preserve the capacity of reservoirs, wetlands, ditches, canals, diversion, waterways, and streams.
- Prevent undesirable deposition on bottom lands and developed areas.
- Trap sediment originating from construction sites or other disturbed areas.
- Reduce or abate pollution by providing basins for deposition and storage of silt, sand, gravel, stone, agricultural waste solids, and other detritus.

CONDITIONS WHERE PRACTICE APPLIES

This practice applies where physical conditions or land ownership preclude treatment of a sediment source by the installation of erosion-control measures to keep soil and other material in place or where a sediment basin offers the most practical solution to the problem.

CRITERIA

Sediment basin design and construction shall comply with all applicable federal, state and local laws and regulations.

The capacity of the sediment basin shall equal the volume of sediment expected to be trapped at the site during the planned useful life of the basin or the improvements it is designed to protect. If it is determined that periodic

removal of sediment will be practicable, the capacity may be proportionately reduced.

The sediment storage volume may be determined by using the Revised Universal Soil Loss Equation (RUSLE) and gully erosion rates with an appropriate delivery ratio or by using other accepted sediment predictive procedures.

The design of dams, spillways, and drainage facilities shall be according to NRCS Conservation Practice Standard 378 (Pond), Conservation Practice Standard 410 (Grade Stabilization Structure) or according to the requirements in NRCS TR-60 (Earth Dams and Reservoirs), as appropriate for the class and kind of structure being considered.

Temporary basins having drainage areas of 5 acres or less and a total embankment height of 5 feet or less may be designed according to NRCS Conservation Practice Standard 638 (Water and Sediment Control Basin).

All disturbed areas shall be treated as soon as possible after construction ends to control erosion and prevent excess sediment from leaving the site.

Provisions shall be made for dewatering sediment pools if necessary for safety and vector control.

Fencing and other safety measures shall be installed as necessary to protect the public.

Due consideration shall be given to good visual resource management.

Conservation practice standards are reviewed periodically and updated if needed. To obtain the current version of this standard, contact your Natural Resources Conservation Service [State Office](#) or visit the [electronic Field Office Technical Guide](#).

CONSIDERATIONS

Large sediment basins may have an effect on the peak discharge rate from a watershed. Planners should consider this, and take steps to mitigate any potential negative effects this may have on riparian habitat downstream from the structure.

Visual aesthetics may be a concern, especially in urban or suburban areas. To address these concerns, the basin could be designed to blend with the surrounding topography, or plantings could be proposed to screen the view from surrounding homes or buildings.

The nesting success and survival rate of ground-nesting species will increase if mowing is delayed until after the nesting season during operation and maintenance operations.

Using native species for revegetation will increase habitat diversity.

Make traps readily accessible for periodic sediment removal and necessary maintenance. Plan locations for sediment disposal as part of trap site selection. Clearly designate all disposal areas on the plans.

PLANS AND SPECIFICATIONS

Plans and specifications for installing sediment basins shall be in keeping with this standard

and shall describe the requirements for applying the practice to achieve its intended purpose.

Provisions for controlling erosion and reducing sediment loss will be included. Specify rates of seed, mulch, and fertilizer, appropriate planting dates, and method(s) of establishment.

OPERATION AND MAINTENANCE

The sediment basin will be inspected after major storms for damage that may affect its function and performance. Any damage will be promptly repaired.

Mow as need to maintain adequate vegetative cover and to prevent the establishment of undesirable species.

REFERENCES

NRCS Conservation Practice Standards:
Pond, Code 378
Grade Stabilization Structure, Code 410
Water and Sediment Control Basin, Code
638
NRCS TR-60, Earth Dams and Reservoirs
RUSLE