

NATURAL RESOURCES CONSERVATION SERVICE
WEST VIRGINIA
OPERATION AND MAINTENANCE REQUIREMENTS
GRADE STABILIZATION STRUCTURE
CODE 410

Landowner/Operator _____

County _____ CD _____ Farm/Tract No. _____

Prepared By _____ Date _____

A properly operated and maintained grade stabilization structure is an asset to the farm. The practice was designed and installed to stabilize an eroding area and to safely convey runoff from the drainage area. The estimated life span of this installation is at least 15 years. The life of the structure can be assured and usually increased by developing and carrying out a systematic operation and maintenance program.

This practice requires periodic O&M to properly manage and keep the system in good repair. Items for consideration are:

- Require periodic inspections of all structures, earthen embankments, spillways, and other significant appurtenances. Inspect at least annually, and especially after heavy rains, to determine whether it is functioning properly or if repairs are needed.
- Appurtenances such as trash racks, outlet structures and gates shall be kept free of trash and replaced when needed. Remove debris accumulation at the structure, and immediately upstream and downstream. Debris can reduce hydraulic capacity and cause structural damage or failure during a runoff event.
- Require prompt repair or replacement of damaged components. Immediately repair any vandalism, vehicular, livestock, or storm damage to earthfills, side slopes, spillways, outlets or other appurtenances.
 - Erosion on the slopes of the structure and in the earth spillway shall be filled with suitable soil, compacted, and fertilized as needed.
 - Periodically replace and relocate any rock riprap either by machine or by hand. Repair or replace riprap rocks to the lines and grades of the original design.
- Require prompt removal of sediment when it reaches pre-determined storage elevations.
- Require periodic inspection of safety components and immediate repair if necessary.
- Require periodic removal of trees, brush, and invasive species.
- Require maintenance of vegetative protection and immediate seeding of bare areas as needed.
- The vegetative cover of the structure and earth spillway shall be maintained by mowing and fertilizing when needed.
 - Trees can cause leaks and safety hazards and should not be permitted on the embankment, in the auxiliary spillway, or within 25' of the embankment groin. Apply supplemental nutrients as needed to maintain the desired species composition and stand density.
 - Control undesired weed species, especially state-listed noxious weeds.

- Damage to the embankment from burrowing animals will be repaired and the animals shall be removed.
- If seepage through or under the structure occurs, proper corrective measures shall be taken immediately. Contact NRCS for assistance.
- Maintain fences needed to exclude livestock, human, and vehicular traffic. Do not install fences across the auxiliary spillway. Grazing will be controlled. Grazing is not to be allowed when soil is wet.

Additional Operation and Maintenance requirements specific to this plan:

Inspection Date	Items to be Repaired and Corrective Action Taken	Repair Date
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Contact your local NRCS office for any additional technical assistance you might need for implementation of this O&M plan.

This O&M Plan was discussed and copy provided to the Landowner/Operator.

Signed _____ Date _____
Responsible NRCS Employee/ Conservation Planner

Signed _____ Date _____
Cooperator