



Operation & Maintenance Plan Grade Stabilization Structure (Code 410)

Landowner/Operator:

Date:

NRCS Service Center:

Conservation District:

Practice Location:

Tract/Field ID:

(Lat/Long or UTM Coord, or Sec/TS/R)

Expected Lifespan

The minimum expected lifespan of this practice is at least 15 years.

A properly operated and maintained **Grade Stabilization Structure** is an asset to your property. The purpose of this practice is to provide a stable, non-eroding conveyance of water down steep grades. The estimated life span of this practice is 15 years. The life of the practice can be assured and usually extended by developing and carrying out a good operation and maintenance program.

This practice will require you to perform periodic operation and maintenance to maintain satisfactory performance. The following are some requirements to help you develop a good operation and maintenance program.

Safety

- Do not allow livestock access to grade stabilization structure. Livestock could slip on lining injure feet on the lining material. Install and maintain fences to control livestock access when adjacent fields are used for pasture. Repair or replace damaged fences and gates as soon as possible. Keep gates closed at all times.
- Keep machinery away from steep-sloped ridges. Keep equipment operators informed of all potential hazards.

Operation

- Avoid excessive travel on any portion of the grade stabilization structure that will damage or destroy the vegetative cover or the lining. Do not use as a roadway.
- Avoid using the grade stabilization structure as turn-rows during tillage and cultivation operations.
- Avoid crossing the grade stabilization structure with heavy equipment that will damage or destroy the vegetative cover and the lining. Keep tillage equipment away from the structure.
- Inspect the grade stabilization structure regularly, especially following heavy rain events. Repair lining and reseed damaged areas immediately. Remove deposition of sediment.
- Avoid use of herbicides that would be harmful to the vegetation or pollinating insects in and adjacent to the grade stabilization structure.
- Control noxious weeds

Inspection

- Periodically inspect the grade stabilization structure, especially after major storm events.
- Inspect the grade stabilization structure for settlement and damage to the lining.
 - Repair spalls, cracks and weathered areas in concrete surfaces.
 - Replace weathered or displaced rock riprap to its original grade.
 - Make other repairs as necessary.

Maintenance

- Maintain vigorous growth of desirable vegetation along the sides of the grade stabilization structure and around the perimeter. Reseed barren and eroded areas as soon as they are recognized. Mow vegetation at least once per year.
- Remove accumulated deposition of sediment from the grade stabilization structure.
- Remove all foreign debris that may reduce capacity or hinder system operation.
- Remove any obstructions or blockages of spillways, trash racks or pipe inlets.
- Replace weathered or displaced rock riprap used for the lining.
- Eradicate or otherwise remove all burrowing animals. Immediately repair any damage caused by their activity.
- Immediately repair any damage caused by vandalism, vehicular traffic, or livestock access to any part of the lining.
- Remove woody vegetation from the perimeter of the structure.

Operation, Maintenance and Inspection Costs

- It is estimated that the annual time to routinely inspect and make minor repairs to your Lined Waterway or Outlet will be:
 - Inspection = 2 hours/year
 - Minor Repairs = 2 hours/year
 - Mowing Perimeter = 2 hours/year
 - Major repairs to damage caused by major storm event will require extra time and materials.
- Most maintenance, such as mowing, replacing riprap, removing wood vegetation, etc. can be accomplished using common farm machinery and tools. Occasional damage, caused by major storm events, may require heavy construction equipment to repair.

Specific Site Requirements