

OPERATION AND MAINTENANCE**Stream Crossing (578)****Tennessee**

Landowner/Operator: _____

Practice Location: _____

County: _____ Farm/Tract Number: _____

Prepared By: _____ Date: _____

The life of this installation can be assured and usually increased by developing and carrying out a good operation and maintenance program. Operation and Maintenance (O&M) is necessary for all conservation practices and is required for all practices installed with NRCS assistance, and is required to achieve the intended function, benefits, and life of the practice. The landowner/operator is responsible to establish and implement an inspection and maintenance program. Items to inspect and maintain during the 10-year design life of the practice include, but are not limited to, the following:

1. Inspect the crossing regularly, especially after heavy rains, and at least once annually to identify repair and maintenance needs. Stream crossings will need periodic maintenance throughout the lifespan.
2. Maintain the crossing surface in good condition, which includes periodic grading and the addition of stone or other surface material when necessary. Prevent surface ponding by localized grading or addition of stone to remove depressions. Fill low areas in travel treads, re-grade, and compact as needed to maintain road cross section. Road base rock may be required to stabilize the foundation where deep settlement occurs.
3. Remove debris or blockages. Repair and/or restore flow capacity as needed.
4. The top surface of the stone may be eroded away during flooding. This stone must be replaced to ensure a safe and stable travel surface.
5. Maintain all concrete work, rock riprap, grouted rock riprap, flagstone, or precast stone. Replace to original grades with similar materials as necessary.
6. Culvert-type crossings create a restriction to stream flow, and can receive excessive damage from floods, requiring regular maintenance to preserve the integrity of the structure. Check the surface for ruts, replacing the displaced surface material with gravel. Check for erosion of fill slopes, upstream and downstream, especially if the crossing has been over topped. If damages occur, rock riprap can be added to help hold the fill slopes, and may be grouted with high slump concrete to anchor the rock riprap. Check for abnormal settlement around pipes, water passing through the crossing but outside the culverts can erode fill material. Replace missing fill with large rock riprap prior to replacing the surface material. Remove debris blocking pipe inlets and check for scour at the pipe outlets. Fill eroded channel scour areas with large rock riprap.
7. The fencing component should be checked after every high flow event, as well as on a regular basis. Any fencing that has been damaged due to high flows should be repaired immediately.

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8. If the crossing is also used as a watering location, the landowner should check the site during periods of low flow to ensure livestock have an adequate source of water.
9. Maintain road ditch and drainage facility capacities. Maintain vegetated areas in adequate cover. Reseed and mow as needed.
10. Immediately repair any vandalism, vehicular, or livestock damage to earth fills, side slopes, spillways, outlets, or other appurtenances.
11. If flooding has caused excessive damage to the crossing, contact your local Natural Resources Conservation Service (NRCS) or Soil Conservation District (SCD) office for assistance.

SIGNATURES

Landowner/Operator: _____ Date: _____

Reviewer: _____ Date: _____