

**NATURAL RESOURCES CONSERVATION SERVICE
OPERATION AND MAINTENANCE PLAN FOR
DIKE**

CODE 356

Name _____
Legal Desc. _____

Ident. No. _____
County _____

A properly operated and maintained dike is an asset to your property. This dike was designed and installed for purposes and benefits specific to your property. The estimated life span of this installation is at least 20 years. The life of the structure can be ensured and usually increased by developing and carrying out a good operation and maintenance program.

Operation refers to the operation of the practice in compliance with all federal, state, or local laws, regulations, ordinances, and easements and in such a manner that will result in the least adverse impact on the environment and will permit the practice to serve the purposes for which it was installed. Maintenance includes work to prevent deterioration of the practice, to repair damage, or to replace components that fail.

This practice will require you to perform periodic maintenance and may also require operational items to maintain satisfactory performance. Here are some recommendations to help you develop a good operation and maintenance program.

General Recommendations

- Inspect the system at least annually and after each significant storm event to identify repair and maintenance needs.
- Inspect the downstream toe of the embankment annually when water levels are normally highest on the upstream side. Wet areas (indicated by seeps, wetland plants, or unusually vigorous vegetation on the downstream face of an embankment) could indicate a serious problem.

- Avoid excessive travel on any portion of the dike or auxiliary spillway that will harm or destroy the vegetative cover or create ruts in the structure.
- Maintain embankments to the designed shape and height. All settlement or cracks in the soil should be investigated to determine the cause. Repair these immediately.
- Fill rills and gullies that occur on the embankment or in the auxiliary spillway and reseed the filled areas.
- Eradicate or otherwise remove all rodents or burrowing animals and repair any damage caused by their activity.
- Check all rock riprap sections for accelerated weathering and displacement and replace to original shapes and grades if necessary.
- Maintain vigorous growth of desirable vegetative coverings. This includes reseeding, fertilizing, and applying herbicides when necessary.
- Remove woody vegetation (brush and trees) on the embankment or the auxiliary spillway promptly before it can become well-established. Control growth by hand-cutting, mowing, or applying chemicals. Avoid damaging desirable vegetation with herbicides.
- Control vegetation height on embankments with 3 vertical to 1 horizontal (3:1) slopes or flatter by using periodic mowing or controlled grazing. Grazing must be limited to short periods of time when damage (such as trampling, rutting, or compacting of the

vegetation and topsoil) will not result. Do not graze the dike or the auxiliary spillway during establishment of vegetation or when soil conditions are wet.

- Use prescribed burning as appropriate for maintenance or to enhance wildlife values, but avoid periods of peak nesting seasons and when winter cover is reduced. Ensure that plastic risers, pipes, and control structures are protected when burning.
- Maintain fences to prevent unauthorized human access or uncontrolled grazing of the dike and the auxiliary spillway.
- Immediately repair any damage due to vandalism, vehicles, or livestock that has been done to the embankment, the spillway, or other appurtenances.
- At least twice annually, inspect the flap gates, valves, control structures, and other appurtenances for proper functioning and for their ability to maintain the water level to design elevations. Immediately remove any blockage or debris that could cause them to malfunction.
- Check pipe inlets and outlets periodically. Make sure that they are free-flowing. Ensure that trash racks and animal guards are in place. Remove obstructions or blockages promptly. Repair erosion at the outlet of the discharge pipes as needed
- Repair leaks and broken or crushed pipes to ensure proper functioning.
- Investigate all settlement, sinkholes, cave-ins, or cracks in the soil adjacent to the pipeline or its appurtenances to determine the cause. Make immediate repairs.
- Maintain the minimum design cover depth over all pipes and structures. Limit traffic over pipes to those areas that were designed for traffic loads.
- Inspect all internal or subsurface structure drain outlets to ensure they are functioning and that soil is not being transported through the drainage system. Maintain screens and/or rodent guards and keep them in place.

- Lock control equipment and structures when not operating to prevent tampering or vandalism.
- Maintain marking posts near pipe inlets, outlets, control valves, and other structures and appurtenances to prevent damage by vehicles or maintenance equipment.
- For dikes installed to manage water levels, operate water level control structures or valves in accordance with the operation schedule.

Specific Recommendations

If you need additional technical assistance to implement the operation and maintenance plan for this structure, contact the Natural Resources Conservation Service (NRCS) at your local USDA Service Center (listed in the telephone book under United States Government).