

**NATURAL RESOURCES CONSERVATION SERVICE  
OPERATION AND MAINTENANCE PLAN FOR  
WASTE TREATMENT LAGOON**

**CODE 359**

Name \_\_\_\_\_  
Legal Desc. \_\_\_\_\_

Ident. No. \_\_\_\_\_  
County \_\_\_\_\_

A properly operated and maintained waste treatment lagoon is an asset to your farm. This structure was designed and installed to biologically treat waste such as manure and wastewater and thereby reduce pollution potential by serving as a treatment component of a waste management system. The estimated life span of this installation is at least 15 years. The life of this installation can be ensured and usually increased by developing and carrying out a good operation and maintenance program.

This practice will require you to perform periodic operation and maintenance for satisfactory performance. Here are some recommendations to help you develop a good operation and maintenance program.

**General Recommendations**

- Maintain all pumps, agitators, piping, valves, and other electrical and mechanical equipment in good operating condition by following the manufacturer's recommendations.
- Inspect grounding rods and wiring of all electrical equipment and repair or replace them as necessary.
- Maintain fences and/or warning signs to prevent unauthorized human access or uncontrolled livestock grazing.
- Maintain the staff gage to indicate the current level of the manure and wastewater stored in the lagoon.
- Maintain a log of the effluent level utilizing the staff gage.

- Maintain the minimum volume needed to treat the waste.
- Inspect the lagoon at least annually and after each significant storm event to identify repair and maintenance needs.
- Agitate and pump out effluent before the level gets to the maximum storage elevation noted on the staff gage to allow room to store runoff from precipitation events.
- Apply effluent in accordance with the nutrient management plan.
- Immediately repair any damage due to vandalism, vehicles, or livestock that has been done to any earthfills, spillways, outlets, or other appurtenances.
- Maintain vigorous growth of desirable vegetative coverings. This includes reseeding, fertilizing, and applying herbicides when necessary. Periodically mow to control the height.
- Immediately remove any foreign debris in or adjacent to the waste treatment lagoon.
- Maintain embankments to the designed shape and height. All settlement or cracks in the embankment or adjacent to a pipe should be investigated to determine their cause. Repair these immediately. Also repair any rills found on the side slopes.
- Inspect the downstream face and toe of the embankment annually to check for wet spots which may indicate a problem.

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- Repair spalls, cracks, and weathered areas in concrete surfaces.
- Repair or replace rusted or damaged metal and paint it.
- Replace weathered or displaced rock riprap to constructed grade.
- Make sure that all structure drains are functional and that soil is not being transported through the drainage system. Keep screens and/or rodent guards in place.
- Inspect for damage by rodents or burrowing animals. Immediately repair any damage and take appropriate corrective actions to avoid further damage.
- Immediately remove any obstructions or blockage of spillways, trash racks, or pipe inlets or outlets. Repair erosion at the outlet pipe as needed.
- Apply insecticides as needed for insect control by following the manufacturer's recommendations and precautions and in accordance with the pest management plan.
- Operate the system in a manner that minimizes odors and air drift.
- Remove the manure and/or wastewater before the start of winter to allow enough storage when the ground is frozen and wastes cannot be applied.
- Develop an emergency action plan for the waste storage facilities to cover the significant impact from breach or accidental release. The plan shall include site-specific provisions for emergency actions that will minimize these impacts.

### **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).**