

OPERATION AND MAINTENANCE PLAN EMBANKMENT POND (378)

1. If applicable, pond should be fenced from livestock to ensure a good stand of sod to be established and to protect the side slopes from erosion caused by the livestock.
2. Mow a minimum of once a year to control noxious weeds and woody growth.
3. The dam should be checked annually for any irregularities, needed maintenance or problems, such as excessive settlement, cracks, erosion or woody growth.
4. The dam and downstream toe should be checked for any soft spots or signs of leakage.
5. After major storm events, the principal spillway should be checked for seepage and debris blockage to ensure that it maintains its full capacity.
 - A. Corrugated Metal Pipe – check for rusting, corrosion or excessive deterioration of the bituminous coating.
 - B. Aluminum Pipe – check for rusting, corrosion or excessive flaking of the aluminized coating.
 - C. Plastic Pipe – PVC or Corrugated High Density Polyethylene (HDPE) – check for cracking or deterioration from ultraviolet sun rays.
 - D. Reinforced Concrete Pipe – check for cracking, flaking or sign of exposed reinforcement.
6. If applicable, the emergency spillway should be checked for any obstructions, erosion, trees or shrub growth or any seepage. Refer to the dam inspection checklist and make any repairs immediately.
7. The reservoir should be checked for any high water marks, excessive sediment accumulation or any debris that could possible block the principal or emergency spillways.
8. Should any problems occur, contact the Garrett Soil Conservation District at 301-334-6951.

POND MAINTENANCE

A pond, no matter how well planned and built, must be adequately maintained if its intended purposes are to be realized throughout its expected life. Lack of maintenance has caused severe damage to many dams and spillways. Some structures have failed completely. For these reasons you must be fully aware of the need for adequate maintenance and you should carry out any measures required.

Inspect your pond periodically. Be sure to examine it after heavy rains to determine whether it is functioning properly or needs minor repairs. Repairing damage immediately usually eliminates the need for more costly repairs later. Damage may be small, but if neglected, it may increase until repair becomes impractical and the entire structure must be replaced.

Fill any rill on the side slopes of the dam and any washes in the spillway immediately with suitable material and compact it thoroughly. Reseed or resod these areas and fertilize as needed. If the upstream face of the earthfill shows signs of serious washing or sloughing because of wave action, install protective devices such as rock riprap. If there is evidence of seepage through or under the dam, consult an engineer at once so that you can take proper corrective measures before there is any serious damage.

To maintain the protective plant cover on the dam and on the earth spillway, mow it frequently and fertilize when needed. Mowing prevents the growth of woody plants where undesirable and helps develop a cover and root system more resistant to runoff. Plantings should be clipped a minimum of one time per year. If the plant cover is protected by fencing, keep the fences in good repair.

Keep trickle tubes, trash racks, outlet structures, valves and watering troughs free of trash at all times.

In some localities, burrowing animals cause severe damage to dams or spillways. If this damage is not repaired, it may lead to failure of the dam. A heavy layer of sand or gravel on the fill discourages burrowing to some extent. Poultry netting can be used, but in time, it rusts out and needs to be replaced.

Keep the water in your pond as clean and unpolluted as possible. Do not permit unnecessary trampling by livestock. Divert drainage from barn lots, feeding yards, or any other source of contamination away from the pond. Clean water is especially important in ponds used for wildlife and recreation.

After several years, sediment accumulation in the pond may necessitate removing sediment to restore the pond's function. Obtain a *Standard Agreement for Small Pond Cleanout and Maintenance* from the Garrett SCD before starting the cleanout. Obey all exclusion dates when discharging unusually large amounts of water from the pond. Sediment removed from the pond will be spread and stabilized by seed and mulch immediately upon completion of construction.

CONTROLLING AQUATIC PLANTS IN PONDS

Aquatic plants use up the pond's fertility, interfere with fishing, do not provide food for sport fish and may give the fish an unpleasant flavor. As plants die and decompose, they create a low-oxygen condition in the water which may cause a fish die-off.

The control of nuisance plants, not elimination, is the key. It is not necessary or desirable to eliminate all plants in a pond. Algae and other aquatic plants provide food and cover for fish and other aquatic organisms.

Correct identification of the problem plant or plants is important because the methods of treatment will vary with the species involved.

Only **chemicals which have been approved and registered by the U.S. Environmental Protection Agency for fisheries use may be used in fish ponds.** Pond owners should be advised to read the label of chemical before use. All label recommendations, precautions and restrictions must be carefully followed.

Questions concerning chemicals and application of these chemicals can be obtained from the local SCD office at 301-334-6951 or 301-895-3822 or the Maryland State Fisheries Biologist at 301-334-8218.

POND SAFETY

Ponds, like any body of water, attract people so that there is always a chance of injury or drowning. Your pond can become a source of pleasure, as well as profit, but only if it is safe. To prevent injuries or drowning and to protect yourself financially, you can take some of the following steps:

1. Mark safe swimming areas and place warning signs at all danger points.
2. Place lifesaving devices such as ring buoys, ropes, planks or long poles at swimming areas to facilitate rescue operation should the need arise.
3. Place long planks or ladders at ice skating areas for the same reason.