
Operating and maintaining the pond

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 operation and 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 operation and maintenance, and you should **carry** out all 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 generally 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 rills on the side slopes of the dam and any washes in the auxiliary spillway immediately with suitable material and compact it thoroughly. Fertilize as needed and reseed or resod these areas. If the upstream face of the earthfill shows signs of serious washing or sloughing because of wave action, install protective devices, such as booms or riprap. If seepage through or under the dam is evident, consult an engineer at once so that you can take proper corrective measures before serious damage occurs.

To maintain the protective plant cover on the dam and on the auxiliary 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. If the plant cover is protected by fencing, keep the fences in good **repair**.

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

In some localities burrowing animals such as badgers, gophers, beaver, and prairie dogs cause severe damage to dams or spillways. If this damage is not repaired, it may lead to failure of the dam. Using a submerged inlet or locating the inlet in deeper water discourages beavers from the pipe inlets. 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, particularly hogs. If fencing is not practical, pave the approaches to the pond with small rocks or gravel. Divert drainage from barn lots, feeding yards, bedding grounds, or any other source of contamination away from the pond. Clean water is especially important in ponds used for wildlife, recreation, and water supply.

In areas where surface water encourages mosquito breeding, stock the pond with topfeeding fish. Gambusia minnows are particularly effective in controlling mosquitoes. In malaria areas, do not keep any aquatic growth or shoreline vegetation and take special precautions in planning, building, and operating and maintaining the pond. Most states in malaria areas have health regulations covering these precautions. These regulations should be followed.

In some areas, algae and other forms of plant life may become objectionable. They can cause disagreeable tastes or odors, encourage bacterial development, and produce an unsightly appearance.