

# Excavated Ponds



## It is Your Responsibility

Your pond site may fall under the Natural Resources Protection Act administered by the Maine Department of Environmental Protection, or Section 404 of the Clean Water Act administered by the U.S. Army Corps of Engineers. **It is your responsibility to contact these two agencies to determine if permits are necessary prior to construction.** Their address and phone numbers are:

Maine Department of Environmental  
Protection  
Bureau of Land Quality Control  
State House Station # 17  
Augusta, ME 04333  
(207) 289-2111

U.S. Army Corps of Engineers  
(207) 623-8367

## Planning Excavated Ponds

1. **Soils:** If your pond is to be fed by surface runoff enough impervious soil at the site is essential to avoid excess seepage losses. Sites where fine textured clays extend well below the proposed depth are more desirable. Minimum watershed size should be 3 acres for a one acre pond.
2. **Test Holes:** Dig test holes at intervals over the site to determine depth to bedrock, water bearing material, and potential pond depth. The water level in the test holes indicates the normal water level in the completed pond. This condition would only occur in a high water table site or groundwater springs.
3. **Dimensions:** The dimensions selected for your pond depends on the required capacity and or your budget. Of the three dimensions of a pond, the most important is depth.
4. **Depth of Pond:** All excavated ponds should have a minimum depth of 7-8 feet to offset probable seepage and evaporation losses. Pond depth also has a direct relationship to water quality.
5. **Earth Spillway:** An earth spillway should be constructed to insure periods of peak flow would not create a sedimentation problem. All earth spillways should be constructed on natural ground, not on fill material. To properly seed the spillway and spoil material:
  - Fertilize and seed all bare soil areas.
  - Lime banks and spoil material with 138 pounds of ground limestone per 1,000 square feet.

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### Penobscot County Soil & Water Conservation District Natural Resources Conservation Service

28 Gilman Plaza, Suite #2  
Bangor, ME 04401  
(207) 990-3676  
[www.penobscotswcd.org](http://www.penobscotswcd.org)





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- Fertilize with 19 pounds of 10-10-10 per 1,000 square feet or with half that amount when using 500 pounds of manure.
- Seed with the following mixture at a rate of 1 pound per 1,000 feet: Creeping Red Fescue, Redtop and Tall Fescue. Mulch with two 70-90 pound bales of hay or straw per 1,000 square feet.

## Specifications for Embankment Ponds

1. Side slopes of a pond should not be steeper than two feet horizontal to every one-foot vertical.
2. If water is impounded above original ground, a dam must have a top width of six feet. The dam must have an inside slope of at least three feet horizontal to one-foot vertical and an outside slope of at least two feet horizontal to one-foot vertical. The height of the dam above the water must be at least one and one-half feet (free board), plus ten percent allowance for settlement.
3. The outlet must be cut from original ground, not from fill. The outlet must have a bottom width of twenty feet, and must have a level section twenty feet long. This is called a control section to slow water velocities. The side slopes of the outlet must be two feet horizontal to one foot vertical.
4. Pile spoil material no deeper than three feet above the original ground unless it is piled behind a berm at least twelve feet from the pond (or the same number of feet away as the pond is deep and where the pond is no more than twelve feet deep). Avoid piling soil material where it can wash back into the pond.

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