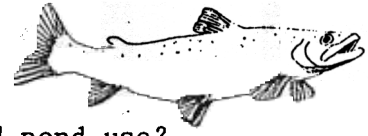


## POND PLANNING PATH

### A. Identify goals (Why do you want the pond? This affects the pond design.)

Fishing      Swimming      Fire Protection      Wildlife Habitat  
Livestock Water Supply      Aesthetics      Irrigation      Ice Skating

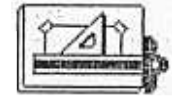


### B. Identify resources and conditions that will affect the pond design.

1. Water Supply - Is there enough water available for the intended pond use?
2. Watershed - How many acres drain through the pond site?
3. Pond Type - Dugout or Embankment? What is the shape of the valley? What are the grades?
4. Water Temperature - Bass & Bluegill, or Trout?
5. Soils - How will the soil perform as a building material? See York County Soil Survey Report.
6. Wetlands - What type is present? Is a permit needed?
7. Land Use
  - a. In the watershed - What kinds of things (debris, contaminants) can be washed into the pond? Is the watershed urban, farm or forested?
  - b. At the site - Is the site open (pasture, marsh, field)? Will it have to be cleared? Will wildlife have access to the pond?
  - c. Downstream - How will the pond affect downstream neighbors?

### C. Design Considerations and Pond Components

Depth      Surface Area      Dam Height  
Spillways - Principal and Emergency      Dry Hydrant  
Sideslopes and Shoreline      Disposal of Excavated Material      Stabilizing Disturbed Areas  
Livestock Watering Devices      Trash Rack      Foundation Under Dam  
Habitat Enhancements      Maintenance



### D. Construction Sequence

1. Site Investigation - Gather as much information as needed to plan the pond.
2. Soil test pits - for embankment ponds to determine extent of core trench needed and to predict how soil will act as a building material.
3. Design pond and apply for appropriate permits.
4. Install downstream erosion control measures.
5. Clear and grub pond site, strip topsoil, stabilize stockpiled topsoil.
6. Excavate and compact core trench (if needed).
7. Install principal spillway and any other pipelines or hydrants.
8. Erect fill/excavate pool area.
9. Install fish hiding/nesting aids on pond bottom.
10. Cut emergency spillway.
11. Spread topsoil on completed structure; lime, fertilize, seed, and mulch disturbed areas; place stone where needed for erosion protection.
12. Install trash rack.



### E. Add habitat enhancements

### F. Maintenance (What things need to be taken care of to ensure the integrity of the pond for many years?)

1. Water Quality - Monitor nutrient inputs, plant growth, fish health, sedimentation
2. Embankment
  - Maintain dense sod on banks with periodic lime and fertilizer applications
  - Maintain structural integrity of dike - protect against wave action, tree growth, muskrats
3. Principal spillway - keep free of debris, watch for corrosion, storm damage