

# Lake Improvement Toolbox

The Pennsylvania Fish & Boat Commission also provides habitat help for lake fish. Only a few lakes in Pennsylvania are natural. Others were constructed many years ago to provide

flood control or recreation. Vegetation and woody debris were often removed during construction. Habitat improvement projects work to create a more diverse fish habitat.

## Porcupine Crib

- Built on land and sunk to the bottom
- Uses rough-cut hemlock lumber
- Placed in water 10- to 15-foot deep and parallel to the shoreline
- Placed 20 structures per acre
- Creates a microhabitat for aquatic invertebrates
- Provides a deep-water refuge for young fish



Porcupine crib

## Meet the Fleet

The Commission uses a specialized fleet of boats for lake habitat improvement.



The rollers on crib boats make it easier to install porcupine cribs.



Rocks and gravel are loaded and then discharged from dump boats.

## Post Cluster Structures

- Sunk in the lake bottom to provide vertical post structure
- Establishes 4 clusters per acre (each cluster has 25 posts)
- Placed in water 3- to 4-feet deep and at slight angles to the water surface
- Creates a microhabitat for aquatic invertebrates, and baitfish eat the invertebrates

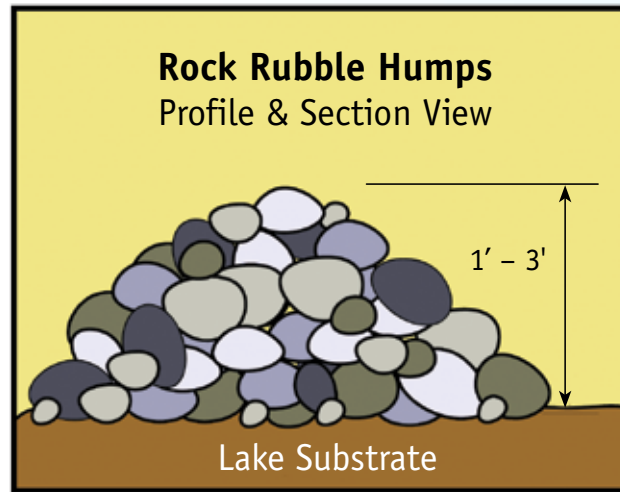
Post cluster structures



Heavy construction equipment is used to build these structures.

## Rock Rubble Humps

- Made with 1 to 2 tons of stone
- Constructed 1- to 3-foot high
- Built on flat or gradual slopes
- Establishes 20 rock rubble humps per acre
- Creates microhabitat for aquatic invertebrates
- Provides refuge for baitfish and young gamefish



## Shoreline Stabilization

- Steep banks are regraded and planted
- Stone deflectors are built

