Trout Habitat Improvement
The Fish & Boat Commission has been doing fish habitat improvement since at least the 1950’s.
Managing the whole stream ecosystem is the key........

.....a healthy ecosystem will support all of these organisms........

.....including trout!!
Having a well vegetated buffer zone along a stream channel will provide fish and wildlife habitat as well as bank stabilization.
Buffer vegetation should be native species, unlike above!!
Woody debris in the stream channel is not always easily fished, but provides some of best habitat value there is. If it is causing problems, remove only what is necessary.
Fish habitat improvement structures are required to be permitted by DEP and the USACOE. Some typical structures used by the PFBC are shown in the following slides.
Boulder placement can add diversity to uniform areas.
Saw-tooth deflectors are a good alternative to straight rip-rap, providing more edge effect and some backwater resting areas for fish.
Deflectors help narrow and deepen the stream channel and provide stabilization. They can be constructed of just stone or include several variations with logs or log frames.
Logs can be embedded into deflectors to add more fish cover.
Log Framed Deflector
Brush Deflectors trap silt and form new stream bank on lower gradient streams.

2 years later
Root wads provide stabilization and excellent habitat. In this case they are used to reclaim an over-meandering bend in the stream.
Single log vanes help turn flows away from the bank providing plunge-pool habitat as well as stabilization.
Multi-logs serve the same purpose as single logs or can be arranged more randomly for added habitat.
Use structures in combination to add diversity of habitat (boulders, multi-log, & root wad).
Mud sill cribbing will provide a stable undercut bank and can help reclaim outside bends in the channel (during & after).
Log cross vanes help center flows, create plunge-pool habitat and establish grade control.
Large and small rock cross vanes
Wild Brown Trout

Wild Brook Trout

Good habitat makes good fishing!!
Occasionally we get some unexpected results!!