Minimizing Escapement of Grass Carp from Impoundments

Grass carp are attracted to flowing water and can escape from your pond if the pond spillway routinely charges with flowing water and there are no barriers at the outflow/control structure. To help protect your investment in grass carp and prevent your fish from invading/affecting other bodies of water it is recommended that your overflow structure be equipped with a barrier. Pond owners are responsible for the installation and maintenance of such barriers as well as dam safety. Below (Figure 2) are some options for constructing barriers on your outflow/control structures.
FIGURE 2  FISH BARRIER SUGGESTIONS

Triploid grass carp have behavioral habits that attract them to flowing water. They will escape from your water body via flowing water (i.e. ditch, creek, canal) unless restrained. A permanently anchored structure can be constructed of one of the following materials:

1) 3/4" - 1" mesh screening (NO CHICKEN WIRE)

2) Series of 3/8" - 1" diameter horizontal metal bars with a 1" - 1-1/2" spacing between bars. Outer framework usually consists of 1/8" - 1/4" flat metal. For easier maintenance and greater longevity, aluminum is recommended.

3) Series of 3/8" - 1" diameter horizontal PVC tubing with a 1" - 1-1/2" spacing between bars. Outer framework can be constructed of 2" - 4" diameter PVC tubing.

In order for the barriers to be effective, they should extend a minimum 36" above normal high water level and should be constructed to restrain fish during a 20-year flood. Materials used to construct barriers should be durable enough to withstand environmental elements and be expected to have a life expectancy of 10 years. Barriers should be braced flush against the outfall structure to ensure that there are no gaps present.

TYPES OF BARRIERS

1) Spillover Type Culvert

2) New Style Box Cut Weir

3) Recessed or Protruding Pipe Culvert

-OR-

Old Style Box Cut Weir

Barrier must reach bottom or have cross-bars on under side