



# DANVERS POND DAM REMOVAL AND STREAM RESTORATION October 2010 – AUGUST 2012

EPA GLNPO Grant:	\$499,254
Required Match:	\$0
<b>Total Project Cost:</b>	<b>\$499,254</b>

## The proposed project will:

- Remove the existing dam and create a naturalized water course.
- Stabilize erosion using bioengineering and naturalizing techniques.
- Restore the former impoundment bottom lands as an open area connected to the stream to dissipate and store flood flows.
- Create and improve habitat and increase water quality in the Creek.

Engineered design plans for restoration were developed under a RPO grant to Farmington Hills and contain the following general elements:

## Dam Demolition

The proposed dam demolition consists of the removal of the arch dam structure, wing walls and entire box culvert to the existing 84" x 120" corrugated metal pipe (CMP) culvert. The earth fill outside the box culvert will be re-graded to a 1:3 (v:h) slope and stabilized with rip rap. The existing CMP culvert will be extended to a minimum of 12 feet in order to maintain the proposed 1:3 (v:h) slope from Danvers Drive. The flow of Pebble Creek will then be restored through the existing CMP culvert. The existing culvert under Danvers Road will serve as downstream grade control for the restored stream channel.



## Stream Restoration

An artificial riffle will be constructed to control the streambed elevation upstream of the impoundment. It will be constructed with natural boulders and cobbles that are sized such that they are stable and never transported downstream. The riffle sill will be trenched into the streambed and banks to the expected depth of scour. Constructed riffles will be used to dissipate energy and control the stream bed elevation in the restored channel. The design will include restoration of Pebble Creek through the pond after drawdown and dam removal, including active restoration of pattern, profile, and dimension, stream habitat, and an active vegetated floodplain with expected terrestrial wildlife value.



## Floodplain Restoration

The bottom lands exposed after draw down of the pond will be restored as natural floodplain, creating a natural buffer and habitat along the restored stream corridor.

Successful implementation of the Danvers Dam Removal and Stream Restoration Project will make substantial progress toward eliminating the Benthos and Fish and Wildlife Habitat BUIs for the AOC. The proposed project also fulfills local and subwatershed goals by improving the quality of the ecosystem and restoring approximately 2 acres of habitat for fish and terrestrial wildlife. The reduction in sedimentation within the creek and the revegetation of 300 linear feet of naturalized stream channel will create improved habitat conditions for fish and wildlife using the Pebble Creek stream corridor. The removal of the dam and the enhancements to Pebble Creek will allow unencumbered fish passage for the entire Pebble Creek, approximately 6.5 miles, and create a natural buffer of native vegetation and wildflowers between private property and the stream corridor.

## For More Information Contact:

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