



June 2013 Kenston Lake Update

The Kenston Lake dam was removed in late 2010 by drilling a new culvert at the bottom of the dam to convert the lake back into a stream. The stream restoration included restoring a total of 1,635 linear feet of stream and 0.524 acres of wetland in the former lake bed. A total of 620 trees and shrubs and 950 wetland plant plugs were planted in the former lake. Tree and shrub planting was concentrated in the direct riparian corridor. In addition the entire disturbed area was seeded with a temporary seed to stabilize exposed soils and a native seed mix for long term vegetation growth.

As several residents have noted recently some of the native seed that was planted did not germinate and grow, so there are several areas where the initial temporary seed is now dead the areas are brown and barren. It should be noted that the temporary seed does appear to have done its job of stabilizing the soil and the dead plant material is now acting as a mulch layer similar to straw. The Chagrin River Watershed Partners and EnviroScience investigated these concerns during a site visit on June 4th. EnviroScience staff visited Kenston Lake again on June 5th to work on these areas. EnviroScience planted additional seed – both annual rye for quick germination and establishment and also additional native seed mix in the areas without sufficient vegetation cover. The reseeded areas and all of the previously planted trees were also fertilized. In addition to seeding and fertilizing, EnviroScience staff also treated invasive species, primarily reed canary grass, with herbicide. Reed canary grass will take over an area, outcompeting native grasses and flowers. The recent spraying event will cause the plant to wither and die so unfortunately the treated areas will likely look more brown before they become green again. There will also likely be a follow up effort in several weeks.

While visiting the site on 6/4/2013, we also investigated the success rate of the trees and shrubs planted immediately after the restoration. Most of these trees and shrubs were planted near the stream to provide roots for stream stability and more rapid shading for the stream. Through the restoration project 620 trees and shrubs were planted including:

- Sandbar willow
- Pussy willow
- Elderberry
- Nannyberry
- Buttonbush
- Red maple
- Pin oak
- Sycamore
- Swamp White Oak

As expected there was some tree mortality, but most of these trees are alive and have new leaf growth on them. It was obvious that many of the trees had been browsed by deer, but the new growth is a positive sign that the root systems of these trees are healthy and that they will continue to grow and mature.

In addition numerous willows and cottonwoods have sprouted up on their own as volunteers, particularly in the upper third of the former lake bed. These may not be obvious yet as they are very small, but will also mature and add to the future forest cover in the valley.

As you may have noticed the valley is drying out however there are still spots that are extremely wet and the springs that residents informed us about are evident and numerous. CRWP strongly recommends taking care when walking in the former lake bed as some of the wet spots and loose soils are not obvious.



Thank you for your patience and feedback throughout this restoration process. Below are some recommendations for residents to ensure that the stream restoration continues to be a success.

- Maintain a natural stream corridor by not mowing in the stream valley, allowing the trees and shrubs to mature.
- Many of the home sewage treatment systems on Kingswood and Kenston Lake Drives have outlets to either the road side ditch or the former lake. It is important to ensure that your septic system is well maintained and in good working order. Regardless of whether your sewage treatment system has a pipe to the road or lake, the septic tank should be pumped every two years. This will help maintain your entire system to ensure it works for years to come.
- Additional tree and shrub planting will further improve the stream. Trees that will flourish in this area include the species that have already been planted plus the following trees and shrubs. As some areas near the springs will stay wet year round, the list ranges from wet to dry tolerance.

Wet or Floodplain Areas

Silky Dogwood	Cornus amomum
Sycamore	Plantanus occidentalis
Box Elder	Acer negundo
Redosier Dogwood	Comus stolonifera
Swamp White Oak	Quercus bicolor
Bur Oak	Quercus macrocarpa
Pin Oak	Quercus palustris
Red Maple	Acer rubrum

Upland Locations

Silver Maple	Acer saccharinum
Black Tupelo	Nyssa sylvatica
Sweet Gum	Liquidambar styraciflua
Scarlet Oak	Quercus coccinea
Black Locust	Robinia pseudo-acacia
Sweet Pepperbush	Clethra alnifolia
Witch Hazel	Hamamelis virginiana

If anyone has additional questions or would like to schedule a site visit to discuss concerns on your individual properties, please contact Amy Brennan at CRWP at abrennan@crwp.org or (440) 975-3870.