United States Environmental Protection Agency
Region 2
Emergency Remedial Response Division
Response and Prevention Branch – Preparedness Team
Edison, NJ

AFTER-ACTION REPORT
for the
Lawrence Aviation Industries

LANDSCAPE RESTORATION PLAN
Village of Port Jefferson, NY

Date Generated : June 7, 2010

Background

Lawrence Aviation Industries (LAI) is located in the Village of Port Jefferson, Town of Brookhaven, Suffolk County, New York. Previously a turkey farm, LAI was a manufacturer of titanium sheeting for the aeronautics industry. Throughout the years, LAI practices for disposal of containers and chemicals were found to have caused negative environmental impacts. Drums containing trichloroethylene (TCE), tetrachloroethylene (PCE), and other wastes were allowed to leak onto the ground, making way to the underlying groundwater. The United States Environmental Protection Agency (EPA) continues to conduct work at the LAI Superfund Site, and more information can be found at http://epaosc.org/lawrenceaviation

In September 2006, the Record of Decision (ROD) selected groundwater extraction and treatment to address groundwater contamination with the installation of groundwater treatment system. Two have been proposed, with one system located at the facility and one within the plume area near Old Mill Pond.

Beginning in the Fall of 2007 and continuing through the summer of 2008, EPA and it's contractors conducted a groundwater investigation around the LAI Site. Based on June 2008 sampling results, it was determined that a groundwater TCE plume was traveling from the LAI Site to the north towards Port Jefferson Harbor.

In the fall of 2009, EPA authorized the allocation of funding to build a groundwater pump and treat system near Old Mill Pond. The system will assist in drawing contaminated water from the up-gradient LAI Site, as well as prevent contaminated water from leaching into the Old Mill Pond, Old Mill Creek, and Port Jefferson Harbor.


View of the restored area with jute mat used as erosion control.

In preparation for the construction of the groundwater pump and treatment system, the Village of Port Jefferson (Village) asked EPA to assist in the cleaning of Old Mill Creek. Conceptual designs show treated groundwater discharging into the Old Mill Creek after it has been stripped of contaminates. EPA agreed to remove excessive sediments, debris, and trash thirty (30) feet east of Barnum Avenue Bridge and 30' to the West. In addition, EPA agreed to remove minor debris from the Creek up-stream of Barnum Avenue Bridge to the Old Mill Pond.

During the course of activities some vegetation was removed or damaged. This was anticipated and planned for. One (1) honey locust tree was removed, along with poison ivy and phragmites. Approximately 1500 ft^2 of grass was damaged due to the use of equipment, as well as approximately forty (40) feet of sidewalk.

Landscape restoration activities were also conducted on a privately held property located adjacent to the Village owned land. This report does not discuss activities conducted on private property.

Operations

Restoration of Village owned land was conducted by following the Landscape Restoration Plan dated May 2010. EPA developed the Plan with support and input from members of the Old Mill Creek Restoration Committee, Cashin Associates, CAS Architects, an arborist, Village officials, and others. The Plan was presented to the Village of Port Jefferson on May 13, 2010.

Landscape restoration activities took place from June 1 to June 7, 2010. Some prior grading of the Old Mill Creek bank was conducted the week of May 24, 2010.

EPA collected a sample of fill soil and had it analyzed for a variety of parameters. This was done to ensure the purchase and use of clean fill material. The analytical data was compared to the New York State Department of Environmental Conservation regulations 375-6.8 listing the parameters that must be met for the unrestricted, residential use of soil. Approximately twenty (20) yards of top soil meeting criteria was utilized on the property for grading and leveling. This material was acquired through a local wholesaler.

Outfall pipes, found in the center of Old Mill Creek, were reattached during the Landscape Restoration activities.

Three (3) flowering and fruit producing trees were selected for planting and replacement of the honey locust. Amelanchier trees were chosen for being a native species and having wildlife significance. Each tree was planted with supports to aid its protection and facilitate growth.

Twelve (12) ilex glabra, also known as inkberry shrubs, were placed in a row behind the amelanchier trees. These shrubs were chosen by the Old Mill Creek Restoration Committee due to its flowering capabilities, being native to the area, and because they are evergreen plants.

A mulch bed was built around the trees and shrubs to give a sense of delineation and provide a more park-like setting. Approximately five (5) yards of mulch was used in this area.

During the sediment removal process, a small, grassy area was damaged due to the use of heavy machinery. EPA replaced approximately fifteen hundred (1500) ft^2 of sod. The sod used is typical of what is sold in local nurseries throughout Long Island.

The use of heavy machinery also damaged several sections of sidewalk along the east side of Barnum Avenue at the Bridge. The damaged portion was removed and approximately forty (40) feet of concrete sidewalk was replaced.

Herbicides, pesticides, and fertilizers were not used during these activities.

Deviations


View of newly restored area.

Although EPA worked closely with Village representatives and others during the planning phase, deviations from the Landscape Restoration Plan were necessary for better project efficiency. Originally thought that erosion along the Creek bank would be an issue, grasses were going to be planted to provide structural integrity of the land. It was found that phragmites, known as common reeds, started reclaiming the bank less than 2 weeks following sediment removal activities. These plants are capable of providing erosion control along the Creek bank, as well as providing the natural vegetative theme the Village suggested. A seed blend of rye grasses was spread along the Creek bank as an interim measure until the phragmites completely return.

During the sediment removal activities, two outfall pipes were found in the center of Old Mill Creek. It was decided that EPA should reinstall the pipes since work was being conducted along the Creek bank. Personnel added additional support under the pipes prior to reinstallation. This activity was not outlined in the Landscape Restoration Plan.

Conclusion

With the exception of items listed under the Deviations section of this document, landscaping of Village owned property was conducted as outlined in the Landscape Restoration Plan. The area has been transformed into a more usable and visually appealing site. Plants and trees selected are flowering and berry producing vegetation that provide a significance to wildlife, while assisting in erosion control and adding visual beauty. Although some maintenance will be required, the landscape design was created with minimum attention necessary for upkeep. It should be noted that unless the phragmites are controlled or properly removed from Old Mill Creek, they will continue to grow, spread, and reclaim much of the Creek.

In conclusion, the landscaping of Village owned property was a successful operation. It restored the areas impacted and affected by sediment removal activities, and returned the property to the people of the Village Port Jefferson in a timely manner. Native, flowering vegetation will provide an aesthetically pleasing environment, while benefiting wildlife. The landscaping should assist in providing a better quality of life to the residents of Port Jefferson.