

Environmental Board's Purple Loosestrife Program



2011 Annual Report

Activities & Progress in 2011

- Beetles were released on July 1. A total of 11 beetle pots were released at four sites: Consolidated Drain (behind D&W on Romence), Lakeview Park, Mandigo Marsh and Millennium Park.
- Beetles were purchased through Kalamazoo Nature Center since Vicksburg High Schools' greenhouse is once again operational.
- Previously treated sites, prior to 2008, have shown resurgence of PLS as shown in the attached photographs of Lakeview Park and the Millennium Park/Consolidated Drain area. Notice the highest density is beyond the immediate treatment-signed areas.
- Cost of beetles has increased 80% since 2006. This year, 11 beetle pots were released instead of 20 (in 2006).
- Attached density map reflects spread of PLS in the City of Portage as of 2011.

Planned Activities

- The resurgence of PLS has changed the character of our program. Previously reported as a mature program is now requiring a more aggressive approach. It's apparent that the current resources, number of beetle pots, are inadequate to control PLS in Portage. Prior to next year's beetle release, July 2012, EB plans to update its understanding of controlling PLS. Tapping such sources as Kalamazoo Nature Center and Michigan State University. EB will also address the need for more beetles. Last year's grant application for additional funding was not awarded. This year other options such as pursuing an increase in City funding and fund raising have been suggested. In August, 2012 EB plans to update the PLS density map.
- Maintain contact with Michigan State University for updates concerning the rearing of the Galerucella beetle.
- Maintain contact with Kalamazoo Nature Center for information on other area PLS control programs.
- Annually report to Council on the program's activities and progress.

Program's History

- Purple Loosestrife is an invasive species native to Europe and Asia. It will grow in any moist environment. In the City of Portage, Purple Loosestrife is observed along the shorelines of Austin, Gourdneck and Long lakes, in the channels between the lakes, wetland areas (Mandigo Marsh) and along some of the banks of Portage Creek. There are no domestic enemies for the plant and it will overtake native vegetation. A concern is that removal of native vegetation will impact the wildlife species that depend on them.
- In April 2001, members of the Environmental Board initiated a small project using a USDA-approved biocontrol method to reduce Purple Loosestrife within the City. The biocontrol method uses a European species of Galerucella beetle that feeds specifically on Purple Loosestrife.
- On October 18, 2005, the Council approved the Environmental Board's plan for the measurable reduction (environmental control) of Purple Loosestrife within the City of Portage by 2012.
- In 2006, a Working Group was formed, as required by PLS plan, to manage the program and report to the Environmental Board. Members represent associations from Austin, Gourdneck, Long lakes along with Kalamazoo Nature Center, Park Department and Environmental Board.
- Annually, starting in 2006, beetles have been purchased from an out-of-state source and shipped to Vicksburg High School. This is the site of a student program to greenhouse the beetles until mid-June when beetles are sold to members of a consortium headed by Kalamazoo Nature Center. City of Portage, as a member of the consortium, purchases \$500 worth of beetles as approved in the PLS plan. A PLS density map provides possible beetle release locations, including Austin/Long Lake channel, Lakeview Park and Consolidated Drain project.
- In 2010 the Vicksburg High School greenhouse was not operational. The EB decided to purchase beetles from same out-of-state source as the KNC consortium, but rear beetles on its own rather than put the program on hold.
- Typically, release sites are photographed every August to reflect visual changes in PLS density. Photographs are compared and evaluated to determine relative density and represented on a PLS density map of the City. The map is updated depending on whether there have been significant changes. The program's progress is reported via an annual report to the City Council, the EB web page and an EB sign displayed at Lakeview Park.
- Five treated sites were marked, in 2010, with signs to help identify treatment areas.



Lakeview Park north of fishing dock –August 2007



Lakeview Park at fishing dock-beetle release site August 2011



Consolidated Dain at Millennium Park August 2006



Consolidated Drain at Millennium Park August 2011

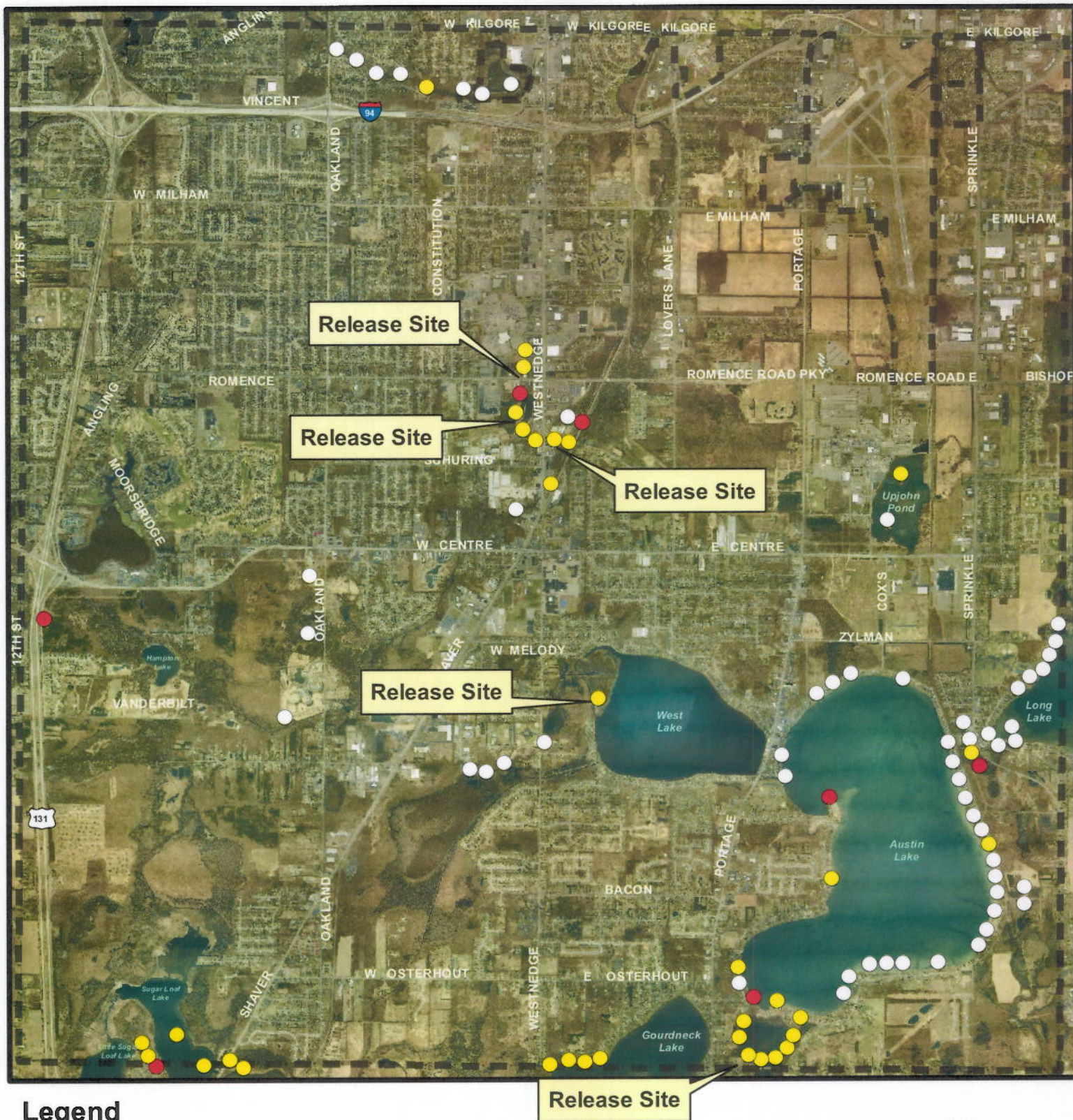


Mandigo Marsh East of Portage Road August 2011



Mandigo Marsh facing west original Beetle release site August 2011

Purple Loosestrife Concentration Areas



Legend

- Mild (Less than 1 plant/sq yard but plants are present)
- Moderate (1-3 plants/sq yard)
- Dense (Greater than 3 plants/sq yard)

 City Boundary



1 inch = 4,120 feet

Date: 1/9/2012

Date of Imagery: March, 2009

Path: R:\GADMIN\karl\projects\DEPTS\TU\Loosestrife Map.mxd