

Invasive Plant Prevention and Control, Grand River Watershed

**Grantee: The Nature Conservancy
Project Manager: Nathan Randolph
Grant Period: 10/1/2010 to 9/30/2013
Grant Amount: \$843,852**

Project Partners

**Lake Metroparks, Geauga Park District,
Ohio Department of Natural Resources,
Western Reserve Land Conservancy,
& The Cleveland Museum of Natural History**

Three year project goal: Control invasive plants on 506 acres of partner lands and 25 acres of private lands.

Treated over 654 acres of invasive plants in priority areas of the Grand River watershed on partner properties in 2011.

Treated over 8 acres of invasive plants in priority areas of the Grand River watershed on private properties.

Completed a river survey of invasive plants on 67 miles of the Grand River.

The project is transferrable to other parts of Ohio and the Great Lakes through the lessons learned of surveying and mapping invasive plant populations and managing over 8 invasive species in multiple locations on 25 properties belonging to 6 partners, and 2 private properties throughout the entire growing season (April – October)

These lessons involve:

- Choosing the right field staff
- Field staff training needs
- Planning work with partners at multi-month increments
- Communicating with partners on a daily and weekly basis and with changing schedules
- Adapting to weather conditions and unforeseen obstacles (vehicle problems, for instance)
- Data collection and interpretation
- Herbicide use and treatment efficacy

It has been shown that invasive plant removal provides the following benefits:

- Increased biodiversity (Tilman 1999)
- Helps to prevent harmful changes in ecosystem structure, nutrient cycles and soil chemistry. (Ehrenfeld 2003)
- Prevent the loss of rare species (Tilman 1999).

Invasive plant populations on partner lands will be reduced to a manageable level.

Data recorded during this project will be made available to project partners, creating a more comprehensive database for the watershed

Management efforts through the project will help protect the integrity and high water quality of the Grand River watershed, which has been designated a Wild and Scenic river.

- The native plant and animal diversity of many streams and wetlands will be improved or restored for the benefit of future generations.

Invasive plant control in the Grand River watershed will provide the following benefits to people:

- Improved views and waterfronts
- Floodwater retention
- Aesthetic values

One full-time project manager and six seasonal employees for the three years.

Increased patronage of local and regional business to include weekly fuel, auto repair and new equipment including a truck, trailer, Argo amphibious all-terrain vehicle, and herbicide chemicals.

Data collected throughout 2011 is still being analyzed and more data will be collected throughout the duration of the project. As this data set is understood more fully and becomes more complete, we anticipate that additional research needs or questions will arise.

The invasive plant management activities in the project are considered best management practices and are used by many regional land managers. Though some minor factors may be changed (herbicide concentration, timing, etc.), we anticipate that the management activities will remain relatively unchanged.

Networking with the synthesis team and other project managers to share ideas and potentially improve methods in project implementation, data collection, and analysis.

Works Cited

Ehrenfeld, J.G. 2003. The effects of exotic plant invasions on soil nutrient cycling processes. *Ecosystems* 6:503-523.

Tilman, D. 1999. The ecological consequences of changes in biodiversity: a search for general principles. *Ecology* 80:1455-1474.