



**DEQ**  
Michigan's  
Nonpoint Source  
Program

**Federal Clean Water Act  
Section 319 Grant**  
2004-0164



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## Allen's Creek Rain Gardens

September 1, 2004 through December 31, 2007

The goal of this project was to reduce nonpoint source impairments to the Huron River by establishing rain gardens as a green infrastructure supplement to traditional storm water conveyance. Since water impairments are the result of individual actions, it takes the involvement of the community to enable real change. A study by the University of Michigan determined that individuals would be willing to accept an alternative to traditional grass landscaping. Respondents also indicated that there was plenty of information available to develop native landscapes. The primary need identified was help sifting through this information and coming up with an appropriate design. This grant resulted in the implementation of 19 rain gardens in the densely populated Allen's Creek watershed in the City of Ann Arbor, Michigan. This project also resulted in an update of the Huron River Watershed Plan for the Ann Arbor-Ypsilanti Metropolitan area to meet EPA nine planning elements.

**Grant Amount: \$ 62,995**

**Match Funds: \$ 39,960**

**Total Amount: \$102,955**



### Best Management Practices:

- 19 Rain Gardens

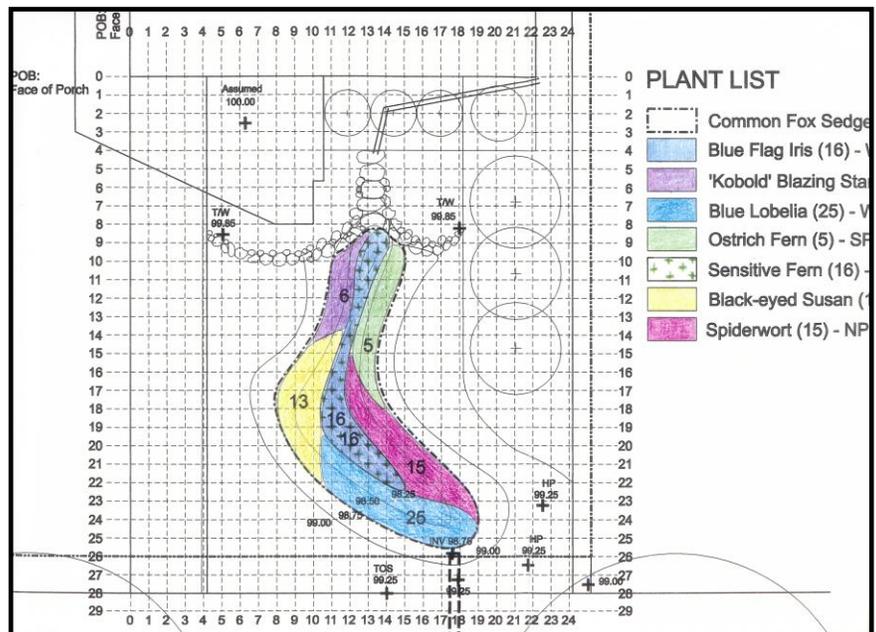
### Annual Load Reductions:

- Sediment: 12,072 tons/year
- Phosphorus: 4,943 pounds/year
- Nitrogen: 19,881 pounds/year
- *E. coli* 72% reduction
- Volume 72% reduction



### Partners involved:

- City of Ann Arbor
- Huron River Watershed Council
- Nineteen volunteer gardeners





These lots are 50% impervious. The side yard receives runoff from 1,500 square feet of drainage area, mostly rooftop. The property owner wanted to maintain and enhance the lilac bush. View west.



The 122 square foot paired garden stores 34 cubic feet--runoff from the 0.5" storm event --and infiltrates in 1-2 hours. Soils were not amended.



Driveway and walkway drain to this front yard, rooftop drains to neighbor. Lot is 60% impervious. The property owner wanted to eliminate lawn and reroute roof water to rain garden. View north.



A 90 square foot garden with 24 cubic feet of storage was constructed. The owner supplied perennials to surround the rain garden. First flush volume is captured and infiltrated (72% of annual volume). Topsoil was added.