

(office use only)  
Date of NB entry:

**Name of project:** Water Quality of a Constructed Wastewater Wetland

**Organization(s) in charge of project:** The Oregon Garden/ the City of Silverton

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**Dates of project:** June, 2002 – on-going

**Location of project:** the Wastewater Treatment Plant in Silverton, the Oregon Garden site, and Brush Creek

**Brief description of project:**

Our constructed wetland accepts roughly 300,000 gal/day of treated wastewater from the City of Silverton. This water flows by gravity thru a series of terraced ponds, irrigates the ornamental collections of the Garden, and finally re-enters the watershed at Brush Creek near Cascade Hwy. In the upper wetlands complex, the wastewater does not mix with groundwater. In the lower complex, the wastewater is pulled down through the soil in the ponds and mixes with groundwater in a sub-drain system before it enters Brush Creek. Much of our irrigation water may ultimately end up in this lower complex of wetlands as well. We have been monitoring 14 different locations through-out this system for the following parameters: temperature, pH, dissolved oxygen, conductivity, turbidity, nitrate, and total phosphorous, on a monthly interval. We hope this information will serve as both an indication of how well the system may be working to clean the water, and also as baseline data for future research manipulation of the system.

**Type of research (baseline data; hypothesis testing; replicated trials/ field trials; case study; demonstration; etc.):**

baseline data; case study; monitoring

**Funding source(s):**

The Oregon Garden; Natural Resource Conservation Service