

# Connecting Schools and Families to Healthy Stormwater Actions City of Vancouver – Water Resources Education Center G1400551

October 31, 2013 through February 28, 2015

Final Total Project Cost: \$129,696

Final Ecology Grant Contribution: \$129,696

## Project Description

Elementary, Middle School and High School students gain awareness of the impacts of stormwater on water quality through the watershed monitoring efforts that they participate in. The project expanded existing water quality learning to include a number of soil, plant and site survey investigations. These activities were aligned with Washington State Learning Standards and are presented in matrix format and made available for other communities to utilize through the posted investigation write-ups.

Participating schools were provided with 4 toolkits for implementing meaningful stewardship efforts; 6 projects (including rain gardens, removal of invasive plants/replanting with native plants, removal of lawn, and installation of pet waste stations) were installed near school sites that will benefit stormwater while supporting ongoing student learning. Three models for offering “watershed family science festivals” were piloted and evaluated. Communication about the project is facilitated through posting information and investigations/evaluations on the [City’s website](#) and through presentations at regional conferences and other opportunities.



Elementary School students learn science by monitoring water quality



Watershed Family Science Festivals increase awareness of stormwater

## Project Accomplishments

As a result of Department of Ecology funding through this grant, the City of Vancouver partnered with Clark County Environmental Services and the City of Battle Ground to accomplish the following scope of work tasks:

1. Project administration/management
2. Development of new stormwater impact investigations
3. Demonstration of how investigations meet Washington State learning standards
4. Implement investigations over 14 months with Congress
5. Develop and Install Hands-On Project Toolkits
6. Organize 3 Watershed Family Science Festivals
7. Disseminate products through conferences and website

All of these tasks were accomplished within the project budget.

## Water Quality and Environmental Outcomes

Greater awareness of the connection between individual actions and water quality is expected to result in long-term improvements. Providing stewardship opportunities and encouraging participation by students helps to strengthen those ties. This project resulted in the development of the following 11 student watershed monitoring investigations which are now available throughout the state: site survey investigations (Initial site assessment and observations, Photo-point monitoring); water quality investigations (Temperature, pH and dissolved oxygen, Nitrate and phosphate, Turbidity and stream measurements); plant investigations (Riparian zone vegetation survey, Riparian zone tree survey); soil investigations (Soil Cores: color, texture and moisture, Soil temperature, moisture and pH, Soil permeability, Erosion sources and soil compaction).

Documentation on how the investigations connect with the Washington State Learning Standards and Next Generation Science Standards will encourage more teachers to incorporate them into their curriculum. During the 2014/15 school year, the Student Watershed Monitoring Network is serving 2,626 students (through the involvement of 53 participating teachers in 21 schools) and an even larger number were involved in the prior year. Six hands-on stewardship projects and three family watershed science festivals reached, respectively, more than 250 and about 320 students and families with meaningful experiences. A presentation on the grant project was made at the July 2014 Northwest Aquatic and Marine Educators Conference (Bandon, OR).

## The Next Step for Continued Success

As opportunities arise, additional presentations on the project and the Water Center's 17 year history of sponsoring the Student Watershed Monitoring Network and Watershed Congress can be made at workshops or conferences where educators or stormwater outreach professionals gather. We are also happy to answer questions from individuals or groups who find the resources posted about the project and are seeking further details; please see contact information below. Funding from Clark County and the City of Vancouver is being provided to continue the network through the remainder of the existing and also the following school year, and we appreciate the efforts of all those teachers and students who are engaged in the program. The 2015 Watershed Congress has been scheduled for Friday, May 29<sup>th</sup> at WSU-Vancouver.

## Lessons Learned

The project demonstrated that Watershed Family Science Festivals, or similar events in a variety of formats, and stewardship efforts utilizing project toolkits, with some local or outside funding support, are beneficial in connecting students and their families to greater awareness and positive action in addressing stormwater and related environmental impacts. Offering easy to use tools, information, and well formatted investigations on new field-based activities that support K-12 science, math, and literacy curricula is viewed as supportive to teachers.

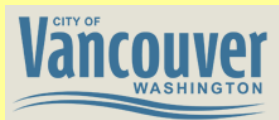
## Recipient Contact Information

For more details about the project, please contact:

Cory Samia, Water Educator,  
[cory.samia@cityofvancouver.us](mailto:cory.samia@cityofvancouver.us) -  
360-487-7112

Water Resources Education Center  
4600 SE Columbia Way/PO Box  
1995, Vancouver, WA 98668-1995

[www.cityofvancouver.us/watercenter](http://www.cityofvancouver.us/watercenter)



The project [website](#) map provides locations of participating schools (blue pins), hands-on project sites (red pins) and the Water Resources Education Center (black pin) - Clark County, Washington

