



# Lands and Waters 2015

Often students ask me why I started Lands and Waters, sometimes adding, “I want to do what you do when I grow up.” Well, I answer, it began when a forest near my community was destroyed to build townhouses. Many of my neighbors felt the same sadness and loss I felt. So, we began rescuing native plants from the construction site to create a wildlife habitat to help replace the forest we had lost. That experience changed my life and with the help of many friends, I formed Lands and Waters. That was ten busy years ago. This year has been just as busy. We would love to share a bit of our tenth year anniversary with you.



Water quality testing  
Daniels Run Stream



Stream Restoration  
During Construction

## *Follow the Water captures an opportunity*

This year Fairfax City restored the section of Daniels Run Stream on the Daniels Run campus. This highly engineered project provided us with an opportunity to expand our *Follow the Water Program* to study stream restoration design. With generous funding from Fairfax Water Authority, we developed a new unit that focuses on monitoring, documenting, and analyzing changes in water quality and riparian buffer before, during, and after the restoration project.



Stream Restoration  
Upon Completion



Daniels Run students begin water quality testing by surveying macroinvertebrates in the stream.



Here high school students identify and count the macroinvertebrates they find.



Fairfax High School students performing the chemical testing portion of the water quality analysis.

Both Fairfax High and Daniels Run Elementary students are participating in the program. They are performing water quality testing at three different sites four times a year, conducting diversity studies, and recording data to compare changes over time. Since *Follow the Water Program* is a permanent part of both schools’ science program, the data will provide valuable information on the restoration project over an extended period of time.



These determined volunteers hand dug two 4’ holes to set our 7’ tall sign in.

## *Fort Belvoir Science/Math Garden*

This is a first for us. Our gardens usually feature native plants with a few educational signs. This year after we completed the wild garden part of Fort Belvoir’s living classroom, we began crafting a garden with activities that promote math and science concepts. We designed this growth chart so students could measure their height in inches, feet, centimeters, and meters. We have many interactive signs planned but our growth chart will certainly be the new garden’s focal point, surrounded by native plants, of course.



The final step was to make a pad for the students to stand on.



Students examining different native seeds.



Students examine the differences in spore and seed producing plants.

## Environmental Clubs

Our work with after school environmental clubs continues to expand. These clubs give us more time and flexibility with students than the regular classroom. So, we have greater opportunities to create and present new hands-on programs. With our nature club at Carlin Springs Elementary, we introduced three successful new units, seeds, migration, and decomposition. All three are now being presented in regular classrooms.



What will happen to my Halloween pumpkin if it's left outside? We're going to find out - great lesson in decomposition.



Students made monarch wings and flew to Mexico. This migration game was so fun!



Literacy garden, Daniels Run Elementary



Native garden, Lanier Middle School



Circulating stream, Frost Middle School



Vegetable garden, Daniels Run Elementary

Enclosed Courtyards also give us greater flexibility with projects.

## Lands and Waters, South

For many years, Jeanette O'Connor was one of our most valuable partners. She brought great ideas, endless energy, and skills both in and out of the classroom. When she left to pursue a degree in sustainable landscaping, we felt we had lost not only a partner but a close friend. Our loss did not last forever. Jeanette O'Connor now directs Lands and Waters, South, an extension of our VA. Lands and Waters. This year she finished her first big project, a 200 sq. ft. rain garden with an educational component, of course.



*Yikes, we're out of room, again!*

Your support made 2015 a very productive year. We have great projects planned for 2016. Please help us continue our work by making a contribution to:

Donate: <http://donate.landsandwaters.org>

Blog: <http://landsandwaters.org/blog>

Website: [www.landsandwaters.org](http://www.landsandwaters.org) Facebook: <https://www.facebook.com/LandsandWaters>

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