

# Potomac Headwaters Leaders Of Watersheds Spring 2019 Application



*Educating future generations of environmental stewards through in classroom education and on the ground conservation practices at schools.*



## PHLOW History

Potomac Headwaters Leaders of Watersheds- PHLOW- has continued to grow since being established in 2008. The program began in partnership with the WV Corporation for National and Community Service under the Future Leaders of Watersheds program. Over the years PHLOW has had many funders but, since 2011, it has been largely funded by the USDA Forest Service and the National Fish and Wildlife Foundation (NFWF). PHLOW has spread from its WV base and now includes schools in Western Maryland and the Shenandoah Valley.

**What is a Watershed?**

An area of land where all the water drains into a local stream.

Through PHLOW, CI teaches students that hands-on conservation of local watersheds can provide significant environment benefits for the Chesapeake Bay watershed. PHLOW has developed three main sub-programs: Grow-a-Garden, Growing Native, and Plant-a-Tree. Throughout these programs the distinct PHLOW model of educating students with background knowledge and empowering them to participate in hands-on conservation at their school is intertwined in the topic theme. Grow-a-Garden focuses on stormwater runoff pollution issues polluting our rivers and Bay. Students install a rain garden at their school to collect stormwater runoff. Growing Native and Plant-a-Tree are our tree education programs. Growing Native is an in-depth study of the importance of trees and understanding native trees to the Potomac Basin. Students grow trees in a grow-out station at their school from 2-3 year old seedlings. Plant-a-Trees is a one day education session of the overall structure of trees and the role they play in the environment. Students then participate in planting established trees throughout their school landscape.

All of these programs empower future generations of watershed stewards by being environmentally literate. PHLOW has engaged over five thousand adults and students throughout all of the programs offered at schools.

## About Plant-a-Tree

The Plant-a-Tree program requires one education session based around the overall importance of trees within our ecosystem. Students plant trees at the school for their conservation project. Students will plant only native shade or flowering species on their school grounds that increase the aesthetic value at the school but also provide shade, increase wildlife habitat, and capture stormwater runoff pollution.

Lesson:

- Importance of Trees: Students review the overall structures of a tree. Students in upper elementary and middle school will explore the internal structure of a tree and the essential function of each part of the tree through an interactive lesson. Students will understand why trees are essential to our environment. Students in lower elementary will explore the multiple uses of trees in providing food, shelter, and warmth for both humans and animals.

Program Includes:

- One, fifty minute, lesson lead by Cacapon Institute's Watershed Education Specialist
- Work collaboratively with the school to develop a planting plan and species selection
- Mark the location of the trees with spray paint prior to planting
- Provides the trees, stakes, arbor strap, bark protector tubes, mulch, and tools for planting day
- Leads the planting with each class or group of students

School Responsibilities:

- Work collaboratively with Cacapon Institute to plan the education and planting day, select tree species, and planting plan
- Contact Miss Utility within the proper time frame for the planting and digging of holes
- Arrange volunteers to dig holes prior to planting day
- Transportation of trees from storage facility in Inwood, WV to school
- Keep a record of all volunteer hours for final project report



**PHLOW Goals:**

- Educate future stewards on the importance of reducing pollution on land and within streams
- Assist with design and installation of rain gardens, Grow-Out Stations, and tree plantings at schools
- Increase awareness within the community on the function of conservation practices
- Demonstrate that students can make a difference at their school and within their communities
- Foster the importance of clean rivers for future generations
- Promote long-term care of conservation projects within the school system and community

**Project Partners:**

- National Fish and Wildlife Foundation
- U.S. Forest Service
- Chesapeake Bay Program / West Virginia Department of Environmental Protection
- Cacapon Institute

**Requests welcome from:**

- Public or private schools within the Eastern Panhandle of West Virginia, Shenandoah Valley, or Western Maryland

**Application Requirements:**

- Program takes place within a school system and on school property
- Located within the Eastern Panhandle of WV, Shenandoah Valley, Western Maryland
- Commitment to coordination of class lesson instructed by Cacapon Institute
  - Education begins February 4th
  - Must take place prior to tree planting
- Assistance in the planning and execution of the tree planting
  - Tree planted between April 1st-May 17th
- Ongoing maintenance of trees

**Application Components to be submitted by February 1st:**

- Cover Sheet
- School History
- Description of Need
- Objectives and Goals
- Evaluation
- Site Check List
- Maintenance Agreement
- Volunteer Contribution

**Application Deadlines:**

- Application submitted by COB February 1st
- Notification of program approval— February 4th
- Education window begins— February 4<sup>th</sup>
- Trees planted – April 1<sup>st</sup>-May 17th
- Post program report due— June 28<sup>th</sup>

**To Apply:**

- Email Application – Watershed Education Specialist, Cacapon Institute  
[phlow@cacaponinstitute.org](mailto:phlow@cacaponinstitute.org)
- Mail- PHLOW Cacapon Institute, 10 Rock Ford Rd, Great Cacapon, WV 25422

**Note: Please apply for only one program a season. We encourage whole grade levels to participate.**

# Plant-a-Tree PHLOW Proposal

## Cover Sheet

School Name:

School Address:

County:

Grade Level:

Number of Classes:

Total Number of Students:

Name of Project Leader:

Job Title:

Phone Number:

Email:

Suggested Dates: please provide one education date between February 4<sup>th</sup> and May 16<sup>th</sup> then a planting date between April 1<sup>st</sup>- May 27<sup>th</sup>

Importance of Trees Education Lesson	Planting Day

Class Schedule: Please provide a tentative agenda for the education day

Teacher Name	Class Time

Project Abstract (Briefly describe your project in less than 5 sentences):

If project is accepted, we grant Cacapon Institute permission to contact us annually and use planting and site pictures for future publications. (Check Box)

**1. School's History.** Be sure to address the following:

- School's Mission, Goals and Objectives
- Current or past environmental education programs
- School Structure (grade levels, staff, students groups)
- Has your school installed a conservation project before?

**2. Description of Need.** Please be sure to address the following:

Select Tree Species:

- What do the teachers plan to gain from an external educator leading a classroom session?
- What do teachers hope their students will gain from the education session?
- How will a conservation project be an asset to the school in regards to reducing stormwater runoff pollution and future educational uses?

### **3. Objectives and Goals for this Request**

What are the short-term and long-term objectives, goals, and benefits of this program? In addition to addressing the specific information above, discuss how the program will foster community involvement, future education plans, and proper care of the trees.

### **4. Evaluation**

- How will you measure the success of the project? Describe how you will care for the trees, monitor the growth, and use it with other curriculum content?

### 5. Volunteer Efforts

Your efforts on this project play an essential part in Cacapon Institute receiving funding to support this program. That is why we ask that you keep track of hours spent by teachers, adult volunteers and students. How much do you anticipate? Please use the chart below to estimate the number and amount of time teachers, adults, and students will contribute and what other material you might provide through donation or purchase:

Volunteer	Quantity	Hours	Notes
Teacher	1	8	Planning & coordinating education sessions, recruiting adult volunteers, permission slip form creation & collection, day of planting
Teachers	2	4	Day of help planting, coordinating classes, and adult volunteers
Adults	2	4	Help on planting day
Students	125	.5	Planting time
<b>Materials</b>			
Mulch	1 cubic yards	-	Donated by Southern States
Volunteers	Quantity	Hours	Notes
<b>Materials</b>			
		-	
		-	
		-	

## Site Checklist

*Check All That Apply*

### Sunlight Exposure

Full Sun                      Part Sun                      Shade

### Moisture Level

Pooling Water                      Downspout Flooding                      Runoff Catchment Area

### Topography

Rocky Conditions                      Storm Drain                      Highly Compacted Soil

### Soil Texture

Clay              Loam              Sand              |              None

### Soil Compaction

Moderate              Severe

### Other Soil Features

Active Soil Erosion                      Recent Construction                      Other Soil Disturbance

### Potential Conflicts

Overhead Wires              Structures              Pavement              Heavy Pedestrian Traffic  
 Wetland Present              Mowing Conflict              Storm Drain              Underground Utilities

### External Downspouts

### Planting Site

Explain any potential locations at the school for the trees. You can include a photo or google images to help demonstrate location(s) in your application.



## Maintenance Agreement Form

In consideration of Cacapon Institute’s PHLOW Programs providing technical support, native trees, and materials we agree to:

1. Grant Cacapon Institute volunteers, agents, contractors permission to inspect and/or provide maintenance on conservation practices installed at:

Project Address	City	State	Zip
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2. Provide proper maintenance for trees planted through the program for five (5) years by:
  - a. Checking soil moisture weekly during the months of June- September and providing 5-10 gallons of water each week, as needed, depending on soil conditions and precipitation.
  - b. We agree to maintain a three inch layer of brown hardwood mulch around the trees.
  - c. Avoid the use of fertilizers, herbicides, and other chemicals without performing soil tests or consulting a “Licensed Pesticide Applicator”. Results of such tests are to be reported to Cacapon Institute before application.
3. Hold Cacapon Institute and its volunteers, agents, contractors harmless from any liability arising from the planting or care of any trees planted under this agreement.
4. Maintain Rain Barrel (if installed) by:
  - a. Removing any leaf matter that may accumulate in the fall
  - b. Draining and leaving the valve open during the winter months with temperatures below freezing

Failure to fulfill these maintenance requirements will make your group ineligible to apply for programs in the future.

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Mailing Address:

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Email: \_\_\_\_\_ Phone: \_\_\_\_\_