

The William Penn Foundation also invites you to connect to the Alliance for Watershed Education of the Delaware River. The 23 education centers in the Alliance share a mission to provide education and recreational opportunities that inspire personal conservation action, improve water quality, strengthen community ties, and increase access to trails and waterways throughout the watershed.

Alliance for Watershed Education of the Delaware River  
[www.watershedalliance.org](http://www.watershedalliance.org)

Pennsylvania Horticultural Society  
[www.phsonline.org](http://www.phsonline.org)

The Mussel Hatchery at the Fairmount Water Works  
[www.mightymussel.com](http://www.mightymussel.com)

Philadelphia Water Department  
[www.pwdraincheck.org](http://www.pwdraincheck.org)

Aqua  
[www.aquaamerica.com](http://www.aquaamerica.com)



# WINDOWS ON THE WATERSHED

You're standing in the  
Delaware River Watershed...  
the source of clean water for more than 17 million people.

The Delaware River Watershed is much more than the great river that runs 330 miles from the Catskill Mountains to the Atlantic Ocean. It's a web of waterways that flow through 14,000 square miles from forests and rocky slopes, across rolling hills and fields and farmland, past cities and towns and out to the flat, salty estuaries and the ocean. Along the way, the water is filtered by plants, animals and the ground itself.

**Windows on the Watershed** reveals the quiet jewels of the ecosystem that often go unnoticed, drawing our attention to the many ways that nature is designed to protect itself. Visitors trace a path through plantings that highlight the ecological heroes in each type of habitat—the powerhouse plants and trees that play significant roles in helping to keep our rivers and streams healthy while supporting the biological needs of countless different species as the web of life unfolds. Diversity of life in the Delaware River Watershed makes its water cycle work. Our plantings explore the major protector zones found in the Delaware River Watershed including the Wilderness Forest, Wet Meadow, Riparian Buffer and Tidal Salt Marsh.

The William Penn Foundation provided the Pennsylvania Horticultural Society (PHS) with a grant to create **Windows on the Watershed**, to share the wonders of this natural system and to provide a glimpse into elements threatening the quality of its clean water. This exhibition asks guests to consider our greatest natural allies in the clean water movement (our plant and tree heroes) as well as the regional nature of clean water protection and revitalization strategies—where each land use area has inherent jewels and unique threats that need to be balanced for the benefit of all living things.





# What can you do to be a sustainable gardener?

## Best Overall Green Gardening Practices

- **Organic** gardening
- Cultivating a **diverse** community of **native** plants, and researching companion plants
- **Double digging** (helps soil hold more water, improves aeration)
- **Vermicomposting** (worms!) and **composting** food waste
- **Drip Irrigation** (much less wasteful of water than sprinklers)
- **Mulching** (helps retain moisture in soil, and can be a way to recycle organic waste material)
- **Integrated Pest Management**
- **Testing** soil for **acidity** and **NPK** ratio before fertilizing
- **Rainwater** harvesting and removing impermeable surfaces

## Rainwater Management

- The best way to alleviate stormwater pollution is to soak up rain water before it has a chance to pick up pollutants from the roads and enter the sewers. **Rain barrels, downspout gardens, permeable pavers & raingardens** can all make a difference!
- Visit [pwdraincheck.org](http://pwdraincheck.org) to take a quick online assessment and find out what stormwater tools might work for your property. PWD also offers **subsudies** and installation help through their **RainCheck** program!



## Plants

- **Native plants**, being naturally suited to the surroundings, require less water, fertilizer and pesticide.
- Choose blends of **lawn grasses that thrive in drier areas**—these require less watering and mowing, and less fertilizer. Some examples include **buffalograss** and **seashore paspalum**. Kentucky bluegrass, is a popular lawn grass, but it requires immense amounts of water.
- **Diversify** native plant choices! This will support the health of the garden **ecosystem** overall.

## Pesticides / Herbicides

- Try organic and homemade herbicides, which often contain **acetic acid** or **citric acid**.
- Soaps, neem oil, garlic spray, horticultural oil and diatomaceous earth can prevent household and garden pests as alternatives to chemical pesticides.
- Pulling weeds by hand as they emerge is effective for preventing unwanted overgrowth.



for more tips, visit  
[habitheque.com/gardening](http://habitheque.com/gardening)

## Mulch

- **Avoid cypress mulch** and rubber mulch. Cypress forests are overharvested and take decades to regenerate; rubber leeches zinc and other contaminants.
- Instead, use compost, pine needles, or old leaves as mulch.
- Look for a certification from the **Mulch and Soil Council**. These mulches will often be made from pine, as a byproduct of lumber milling and processing.

## Fertilizer

- Before fertilizing, **always test soil** for the **nitrogen (N)**, **phosphorus (P)** and **potassium (K) ratio**. Nitrogen and especially phosphorus overages are responsible for most polluted waters, so only add N and P when really necessary!
- Visit the **Brand Name Product List** (BNPL) of the Organic Materials Review Institute (OMRI) to learn which products qualify as organic by the USDA.
- Try liquid **kelp fertilizer**, which contains natural growth hormones and micro nutrients, but can be produced from sustainably harvested kelp, without chemical byproducts.