

Practice “Green Landscaping and Gardening” for Water Quality

No matter where you live in the Christina River Watershed, you can impact water quality.

Almost every activity we do produces pollution that sooner or later is carried downhill by rainfall and creeks and streams into the Christina River. Practicing green landscaping and gardening can make a significant reduction in pollution. Green landscaping and gardening means caring less about “manicured” lawns and “heavily medicated” gardens that use synthetic chemicals for fertilizers and pest control. It means caring more about natural lawns and gardens.

According to the United States Environmental Protection Agency, “Formal landscapes and lawns are heavily dependent upon mechanical equipment, labor, pesticides, fertilizers, and supplemental watering. Collectively we spend millions of dollars on lawn care each year. The average 1-acre lawn costs \$1000 and requires 40 hours of labor each year to maintain -- much more than a natural landscape...

Natural landscapes reduce the quantity and improve the quality of [stormwater runoff](#). This reduces erosion and runoff from excess application and improper use and disposal of pesticides and fertilizers as well as spills during refueling of power equipment.” <http://www.epa.gov/reg3esd1/garden/benefits.htm>

What to do:

- **Have your soil tested!** The UD Soil Testing Program provides a variety of soil testing services and educational support to farmers, homeowners and others engaged in soil management and land use. The program is offered as a public service of the College of Agriculture and Natural Resources and the Department of Plant and Soil Sciences.
 - <http://ag.udel.edu/dstp/>
- **If you must use chemicals, carefully follow instructions for fertilizer use and pesticide use.** Always read the labels on fertilizers and pesticides and do not over-apply.
- **Get rid of invasive plants** in your yards and wetlands (tidal and/or non-tidal) because non-native plants will replace native plants and deprive wildlife of food and habitat. Visit Delaware Invasive Species Council website for more info at:
 - <http://delawareinvasives.net/>
- **Use native plants.** Native plants are adapted to the Christina River Watershed environment, including the water supply and temperature. They will provide natural food and habitat for birds, insects, and other wildlife native to the watershed. Using native plants will help to alleviate losses due to development. For more info visit:
 - <http://www.delawarenativeplants.org/>
 - <http://www.delawarenaturesociety.org/>
- **Plant buffers.** Even if you don't live right at waters' edge, vegetation buffers will help absorb storm water runoff and its pollutants before they reach the streams, creeks, and river and also protect wildlife. For more information visit:
 - <http://blog.epa.gov/healthywaters/2011/01/plant-a-tree-save-a-river/>
- **Plant a rain garden.** Well designed rain gardens help reduce the adverse effects of storm water runoff by soaking up excess rainwater. They absorb water that runs off of rooftops, sidewalks, driveways, and other impervious surfaces. Rain gardens help keep untreated water carrying pollutants from running into storm drains that empty into the river. Pollutants of concern are: excess fertilizer, pesticides, salt, oil, sediment, pet wastes, etc.

Native plants should be utilized in the gardens. For more information, visit:

- <http://www.dnrec.delaware.gov/swc/wa/Documents/Voluntary%20efforts%20to%20protect%20waterways/Rain%20Gardens.pdf>
- http://www.raingardensforthebays.org/index.php?option=com_content&view=article&id=3&Itemid=26
- <http://extension.udel.edu/factsheet/rain-gardens/>

- **Use a rain barrel.** Rain barrels conserve water and reduce run-off into streams and rivers by collecting water running off of roofs. Rain barrels may be purchased at many home supply outlets. You may also make your own. For more information:
 - University of Delaware Cooperative , Extension, <http://extension.udel.edu/factsheet/what-are-rain-barrels-and-why-should-i-use-one/>
 - <http://www.gardeningchannel.com/build-diy-rain-barrels/>

- **Compost and mulch to conserve water and improve water quality.** Composting and mulching will help you manage yard waste (grass clippings, leaves, etc.) and organic kitchen waste sustainably while helping prevent water evaporation, water run-off that carries pollutants into streams and rivers. For more information:
 - <http://extension.udel.edu/blog/managing-your-landscape-sustainably/>
 - <http://extension.udel.edu/factsheet/tag/composting/>
 - <http://farmersalmanac.com/home-garden/2014/05/26/bokashi-composting/>