



# Some Plants of the Bio Swale

- **New England Aster**
- Turtlehead



- **Black-eye Susan**
- **Red Chokecherry**







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# Special Earth Day Edition **Bioretention Swale Piques Curiosity**

Over the Summer of 2009 Providence College underwent purpose of the bioretention a great deal of construction. Besides the major renovations filter storm water before runto the Slavin Center, PC made further efforts to make our campus "greener". At the south end of Slavin Lawn (behind Harkins Hall), a Bioretention Swale was built.



When large storms produce a lot of rain, it runs off of buildings' roofs, paved surfaces and lawns, picking up water pollutants from sidewalk salt, lawn fertilizers and oils from paved surfaces, that wash down drains and eventually

into the Narragansett Bay. The swale is to naturally drain and ning into the Narragansett Bay. This process markedly improves water quality in the bay.

Rain water from the Slavin roof runs through underground pipes into the bioswale. Rain water from the Slavin lawn and sidewalks run naturally into the bio-swale due to the natural slant of the ground. That water will collect and fill the ditch while it slowly filters into the soil removing pollutants. From there, underground pipes will take the water to a city storm drain and eventually to Narragansett Bay. A bio-swale in effect replaces man made water retention systems. A bio-swale is not only eco-friendly, but also much more cost efficient than





man made water retention systems.

So far the bio-swale has worked very well. There have been no overflows which is due largely to the preconstruction design of the system. Before digging even started the soil had to be tested to make sure that water would drain properly. If the soil contained too many rocks or clay then water would just sit and not soak up. In addition, the Slavin lawn was gently graded so that water would flow naturally toward the south end of the lawn.

Come Spring, plants (like the ones listed on the left) will begin to grow, and many animals such as squirrels, birds, and frogs will benefit from it. The past few large rain storms that have hit PC have really proven how well the bio-swale works. It has filled and drained at a slow pace, helping to improve the water quality to the Narragansett Bay, and it will hopefully be one of many bioswale's on the PC campus.

# Earth Day Tips!

- Buy compact fluorescent light bulbs.
- •Start a compost in your back yard.
- •Turn off lights and electronics when you leave the room.
- •Unplug your cell phone charger from the wall when not using it.
- Recycle your newspapers.
- Car pool.
- Go to your local library instead of buying new books.
- •Buy products that use recyclable materials whenever possible.
- Buy a reusable water bottle

## 1st Earth Day in Pictures



pproximately 7,000 people gather on Independence Mall in Philadelphia on the first Earth Day--April 22, 1970



On the first Earth Day, April 22, 1970, students and activists gather along the Milwaukee River to hear a rock band at the Performing Arts Center in Milwaukee, Wisconsin.



This year, over 500 million people from over 185 nations will celebrate Earth Day.







## "... on April 22, 1970, Earth Day was held, one of the most remarkable happenings in the history of democracy. . . " -American Heritage Magazine, October 1993

Earth Day was originally founded on April 22, 1970 by U.S. Senator Gaylord Nelson. Prior to Earth Day, Americans were slurping leaded gas through massive V8 sedans, industry belched out smoke and sludge with little fear of legal consequences or bad press, and air pollution was commonly accepted as the smell of prosperity. The time had come to raise awareness about the planet whose inhabitants were destroying it. Senator Nelson did just that.

On April 22, 20 million Americans took to the streets, parks, and auditoriums to demonstrate for a healthy, sustainable environment. Denis Hayes, the national coordinator, and his youthful staff organized massive coastto-coast rallies. Thousands of colleges and universities organized protests against the deterioration of the environment. Groups that had been fighting against oil spills, polluting factories and power

plants, toxic dumps, pesticides, freeways, the loss of wilderness, and the extinction of wildlife suddenly realized they shared common values.



Earth Day 1970 achieved a rare political alignment, enlisting support from Republicans and Democrats, rich and poor, city slickers and farmers, tycoons and labor leaders. The first Earth Day led to the creation of the Environmental Protection Agency, and the passage of the Clean Air, Clean Water, and Endangered Species Acts.

Senator Nelson later reflected on the very first Earth Day, saying, "Earth Day worked because of the spontaneous response at the grassroots level. We had neither the time nor resources to organize 20 million demonstrators and the thousands of schools and local communities that participated. That was the remarkable thing about Earth Day. It organized itself."

Since the first Earth Day 40 years ago, the celebrations and number of participants has only grown. By 1990, the 20th anniversary Earth Day celebrations went global, with participants in over 140 countries. In 2000, hundreds of millions of people in 184 countries came together to celebrate the 30<sup>th</sup> anniversary of Earth Day with a focus on "clean energy".

Let's make this Earth Day the biggest one yet! Find a nearby event you can get involved in, and help to make this a cleaner, greener Earth! Also, check out the events detailed below!



April 22nd Join us for an Earth Day Celebration on Slavin Lawn from 3-6pm April 24th

### Spring into Service: volunteers will help with programs from street clean up to weeding gardens. A Dunkin Donuts breakfast starts at 9am -2pm. Volunteers can sign up in Ray.

# April 30th

Arbor Day: Volunteers will help plant trees along Smith Street to promote environmental awareness.

Recent News: The Student Environmental Action Committee (SEAC) recently held a "Water Week at PC", which was dedicated to raising awareness about clean water issues, both on and off campus. One event featured students who were invited to take a blind taste test of both bottled and tap water, to encourage them to fill a reusable bottle with Providence tap water, which has been ranked second best in the country for water quality. A panel discussion featuring speakers from Save the Bay, Clean Water Action, the Department of Drinking Water Quality, PC's Sociology Department, and PC's Office of Environmental Health and Safety, also took place. The lecture included a discussion on efforts at Providence College to improve water conservation and efficiency.