

Stormwater Runoff

Slow It 🙌 Sink It 🙌 Spread It 🙌

ShoreRivers featuring
Chesapeake Bay Foundation Student Leader,
Deanna Jacobs



Introductions



Suzanne Sullivan, Director of Education & Outreach
Studied Biology at UMass Amherst
Internships + Internships + Chesapeake Conservation Corps
Boston → Maryland
My current job

Science based



Advocacy



Education



Restoration





Introductions

Deanna Jacobs - Kent Island High School Student, Chesapeake Bay Foundation Student Leader/ Student Bay Advisory Council, and Shore Rivers Creeks Watcher

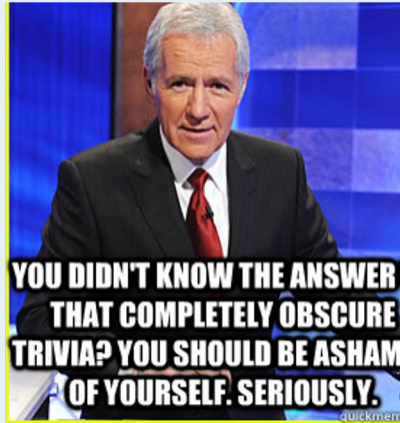
The Student Bay Advisory Council is about Advocacy, Action, and Awareness.

I am currently working on my Student Action Project in building a Bioswale in a ditch leading into a maintenance pond at my high school.



Stormwater Trivia

What do we call the kind of surface that water runs off of, instead of sinking into?



IMPERVIOUS



Stormwater Trivia

What are the two nutrients (also on the periodic table) that when they run off into our rivers cause algae blooms?

(Hint: the two nutrients are the main ingredients in fertilizer)



NITROGEN & PHOSPHORUS



Stormwater Trivia

What is one thing YOU can do to prevent or limit stormwater runoff?



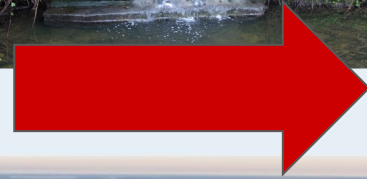
Plant native trees, shrubs, flowers
Install rain barrels and rain gardens
Educate and advocate for stormwater management at: your house, your school, your town, your state

LET'S TALK ABOUT IT





Stormwater - you can't unsee it



How did Stormwater runoff affect these pictures?

Evidence A



Evidence B



Evidence C



When planning action project always consider ...

What is my budget?

How much time do
I have to plan and do it?

When is the best time
of the school year to do this?

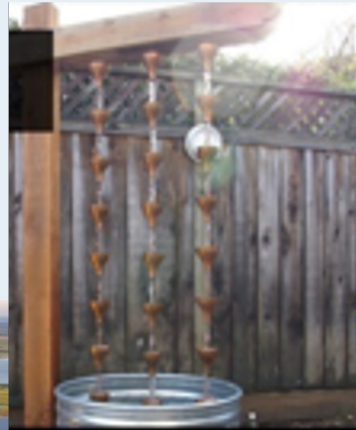


Slow it! For \$30-75 and 2 to 3 class periods



Rain chains

Can be used instead of downspouts and they help reduce runoff and erosion through evaporation and dissipating energy from water droplets.



Seed balls

Spread native flowers seeds easily with 3 ingredients.



Spread it! For \$75-200 and 3 to 6 class periods

Rain Barrel

Collects and holds rainwater that can be released over time.



Conservation Planting

Native trees, shrubs, ground cover soak up 14x more water than turf grass. (MDNR)



Sink It! For \$300-\$1,000 and 6 to 12 class periods

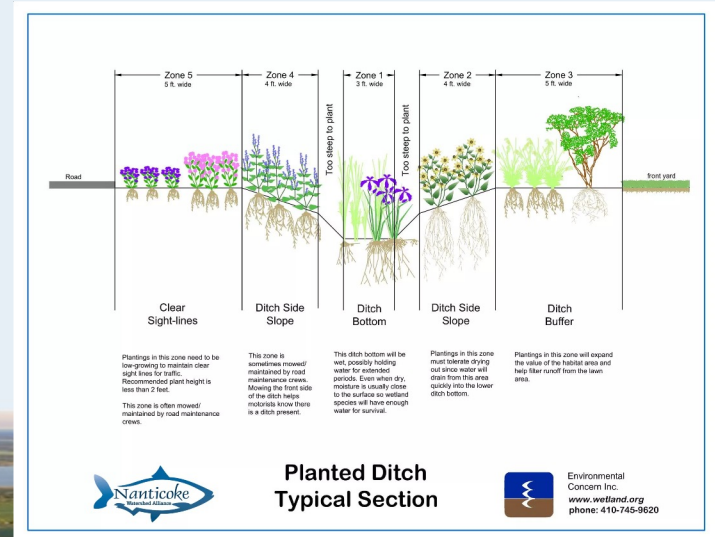
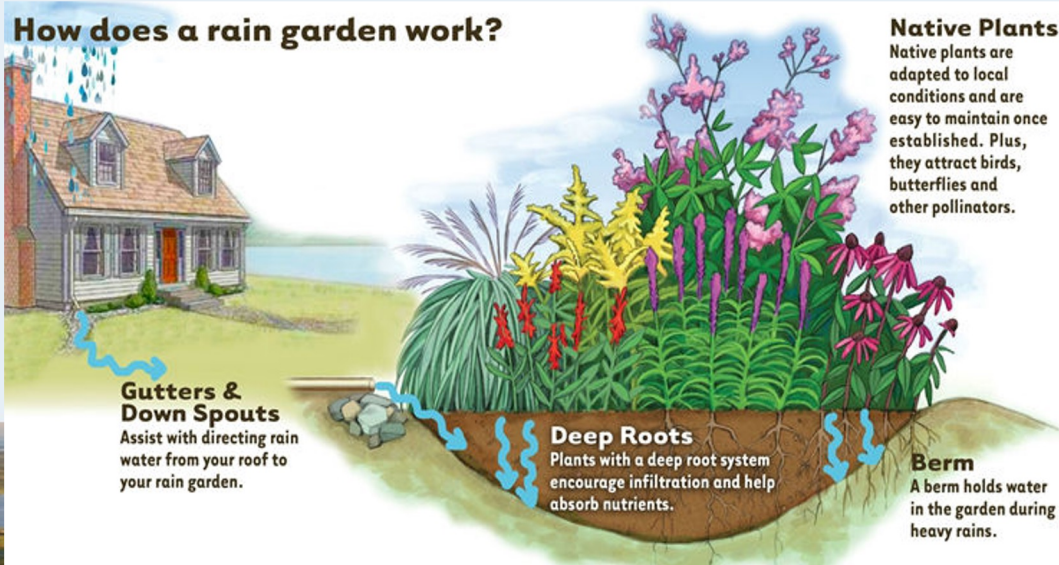


Rain Gardens

Stormwater is directed into a depressed garden bed where it sinks into the ground within 48 hrs.
Need the right placement, sun, soil, plants.

Designer Ditch - Bioswale

Generally hold more runoff than rain gardens, but same concept



Work with what you got...

What's missing here?



PLANT POWER



MAINTENANCE

No Funds? \$FREE for 3 to 5 class periods



There are stormwater regulations in MD... but could your community do better?

Create a stormwater plan and presentation that shows what practices your residents, school, or town should implement.

Hand drawn, PowerPoint, Adobe - whatever kids these days use- and present to the decision makers in your community. Your voice matters.





Deanna's Project

- At my site it has the parking lot stormwater runoff going straight into to the ditch. This ditch leads into a storm maintenance pond. The ditch has shown signs of erosion.
- One of my biggest challenges was getting my idea across
- My biggest success was so far has been being one of the top 10 finalists for the Caring for Our Watershed, which I received \$250 from
- I will be presenting about my project at their Student Environment Action showcase on April 23rd
- Next step is for the Bioswale...
 - to obtain the rest of the funding needed for the plants and tools for the project
 - then once we get the materials needed we will start building



Resources that help



Need idea inspiration - http://baybackpack.com/schoolyard_projects/

Developing your action plan - <https://dnr.maryland.gov/education/Documents/StudentActionProjectWorksheet.pdf>

DIY recycled rain chain - <https://youtu.be/Bwc9wrKRAJQ>

Rain garden site assessment planning tool -

https://www.austintexas.gov/sites/default/files/files/Watershed/lesson_plans/aisd_rain_gardens/rain_garden_site_assessment.pdf

Need help with plant selections or soil tests? Email questions to Wicomico County Master Gardener Volunteers: **Ginny Rosenkranz**, Extension Educator, rosnkranz@umd.edu They will visit your site!

Need money ????

<http://dnr.maryland.gov/ccs/Pages/aregrants.aspx>

<https://dnr.maryland.gov/met/Pages/Grant-EE-CI-CU.aspx#bill>

<https://captainplanetfoundation.org/grants/ecosolution/>



Student Led Action Projects???



JUST DO IT.

