

Designer Ditches



- Protect the Bay
- Keep Our Water Clean
- Support Bees, Birds & Butterflies
- Reduce Flooding
- Beautify Your Yard



Why are ditches important?

Historically, ditches have served the purpose of quickly moving floodwaters away from our properties and roadways. These ditches basically serve as wet weather streams. Ever notice when it rains how local waterways sometimes look like chocolate milk? When a ditch has been sprayed with an herbicide or scalped with a weed wacker there are no plants to keep the soil in place. The banks erode and the loose soil is carried into local waterways, like the Nanticoke River, and then into the Chesapeake Bay. For fish, soil in the water is similar to smoke in the air for humans. The dirty water also smothers important Bay grasses and oyster beds. In addition to reducing erosion, the plants in the ditch will absorb excess nitrogen and phosphorus, key pollutants, before they get carried in the Bay. With just some small changes to how we care for our ditches, we can:

- Reduce pollution entering the Nanticoke River & Chesapeake Bay.
- Help water soak into the ground, replenishing ground water.
- Provide habitat for birds, butterflies and especially pollinators.
- Promote biodiversity by planting native species.
- Beautify our yards!

Site Preparations

Spray with an aquatic-approved herbicide a few weeks before planting. Leave the dead turf grass. The new plants will be installed within the dead turf grass to prevent erosion until the new plants have grown and spread.

Visit www.NanticokeRiver.org to see a variety of ditch designs.



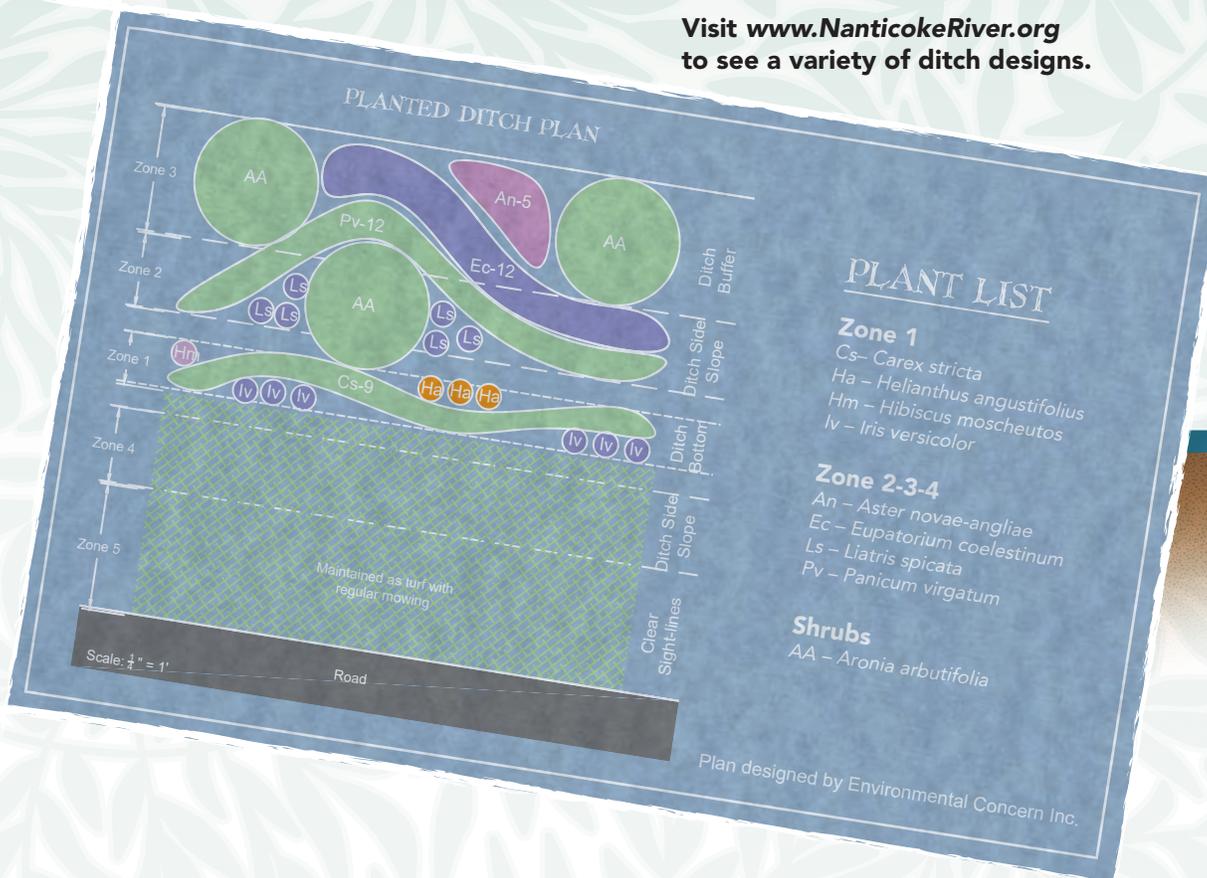
A ditch with eroding banks and loose soil



Asclepias Butterfly



A designer ditch that has been beautifully planted



Sign

Plant Selection

A beautifully landscaped ditch can be a great addition to your yard and even improve the property value. Plants should be selected depending on their preferred environment:

- Is there more sun or shade?
- Does the ditch frequently have standing water?
- Does the roadway receive a lot of salt during the winter? If so, salt tolerant plants should be used.

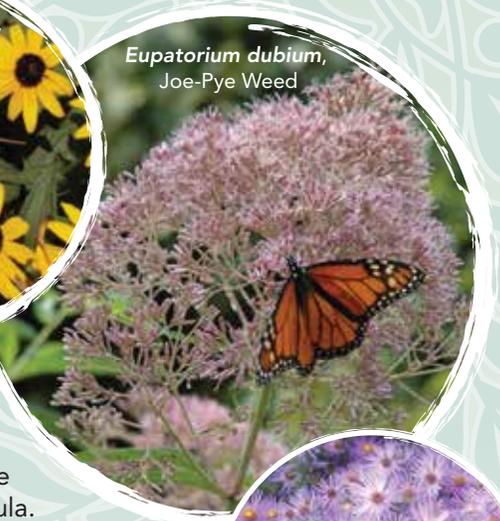
To improve your success native plants are suggested for use. Native plants have evolved for thousands of years to survive on the peninsula. They require less maintenance once established and provide excellent habitat for native critters like the monarch butterfly and other local wildlife. Some native plants also provide critical early-spring food for pollinators, which are vital to this region's family farms. Native plants, in the first two years, invest a lot of their energy into strong deep roots. These roots penetrate into the ground and create crevices that help flood waters soak in better. The plants themselves also absorb, hold and slowly release significant amounts of water, which helps reduce flooding downstream.

These ditch designs have been broken into five planting zones. If the road side (zones 4 & 5) is mowed by someone besides you, make sure to notify them and even place no mow signage at the beginning and end of the planted area.

Depending on ownership and maintenance roles you may want to leave that as mowed lawn. For the bottom of the ditch (zone 1) plants that like wet soil should be used. The portions of the ditch on the side of your house (zones 2 & 3) can be more flexible. While you want to keep the ditch free of woody materials, trees and shrubs can be planted in zone 3 to really give your ditch a professional look.



Rudbeckia fulgida,
Black-Eyed Susan



Eupatorium dubium,
Joe-Pye Weed



Aster novae-angliae,
New England Aster



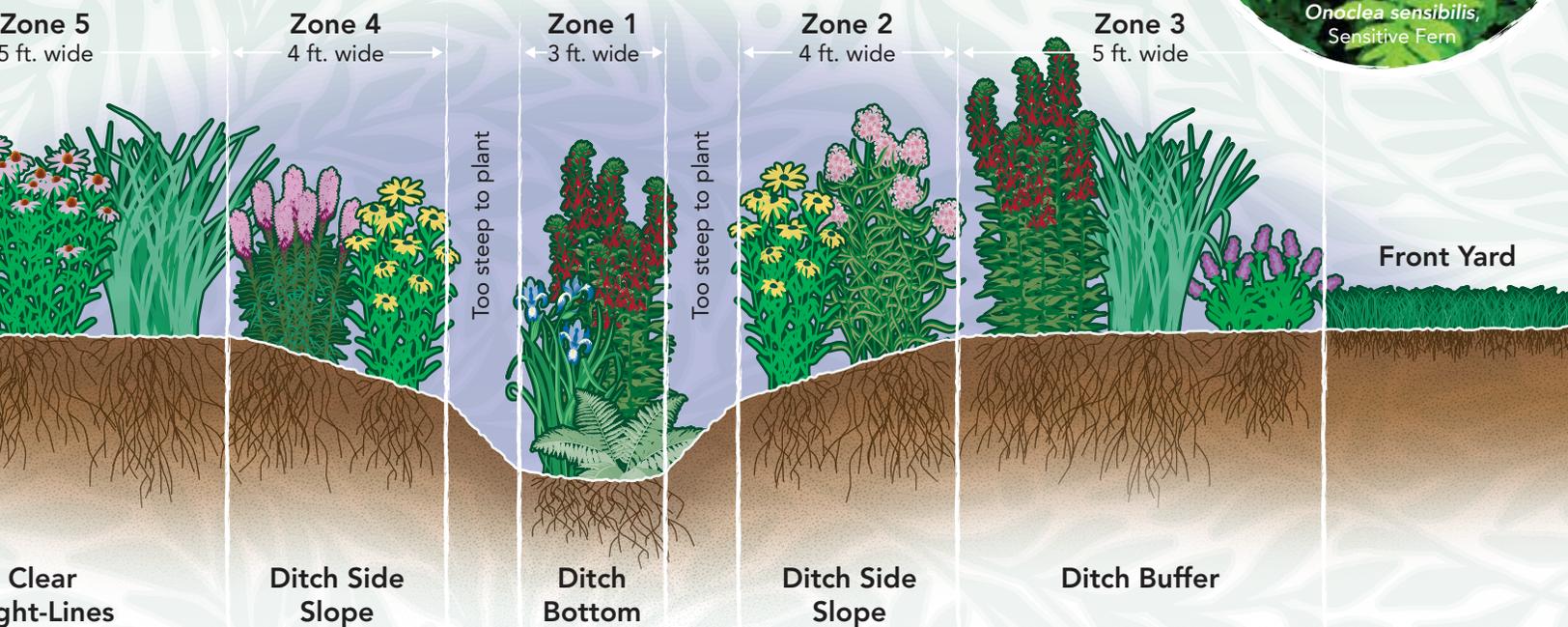
Onoclea sensibilis,
Sensitive Fern



Asclepias tuberosa,
Orange Milkweed



Juncus effusus,
Soft Rush



Things to consider when designing your ditch:

- Who owns and/or maintains the ditch or is there an easement? Is this part of a tax ditch or a transportation right-of-way? Do you need homeowner association or any other approvals before planting?
- Are there utilities to avoid?
- When was the last time the ditch was dug out? Will that be happening soon?
- Does the location have mostly sun or shade?
- What size area do you want to plant and maintain? How far above the top of the ditch would you like to create a buffer?
- Do the plants need to be below a certain height to allow cars in the driveway to see traffic when backing out?
- Is there sitting water during the spring and summer?
- Is there a lot of stormwater flowing through the ditch? What is the volume and speed? Are there currently erosion problems? Is there anything blocking the flow of water?
- Is there a lot of road salt in the winter?
- Are you able to provide bi-weekly maintenance, especially in the first two years?

Maintenance

After you have planted, the ditch will need to be weeded approximately every two weeks. Plants will also need to be watered frequently during the first two years' growing seasons. Once the plants have grown and filled in, much less maintenance will be required.

Since the ditches play an important role in flood control, it is important to trim and remove any woody material from the ditch in the fall. This will help water pass through unimpeded and ensure downstream pipes don't get clogged.

Keep an eye out for any areas that appear to be eroding. These areas can be planted denser with plants or, if needed, stones can be placed in the area to prevent erosion.

Mulching is not suggested since mulch can get washed away and clog pipes downstream.

Ideally water should soak into the ground or flow downstream within 3 days to avoid mosquito breeding. If water is sitting, mosquito management options need to be considered.

For more information visit
www.NanticokeRiver.org

Additional support provided by:



Cardinal flower photo by Partnership for the Delaware Estuary

