

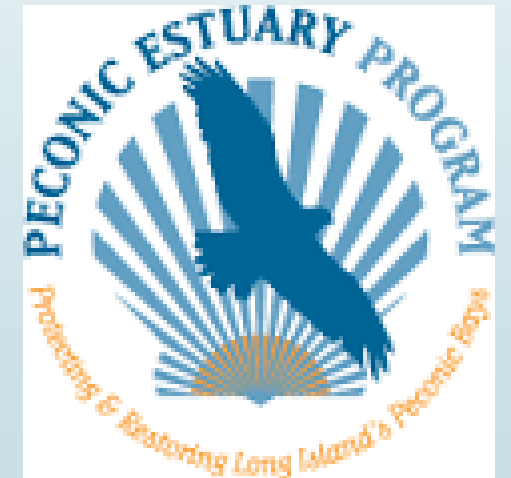
# Peconic Estuary Homeowner Rewards Program

Dr. Alison Branco- Peconic Estuary Program Director

Julie Nace- Peconic Estuary Program Coordinator

Sherryll Jones- PEP Education and Outreach Coordinator

Christie Pfoertner- PEP Education and Outreach Assistant

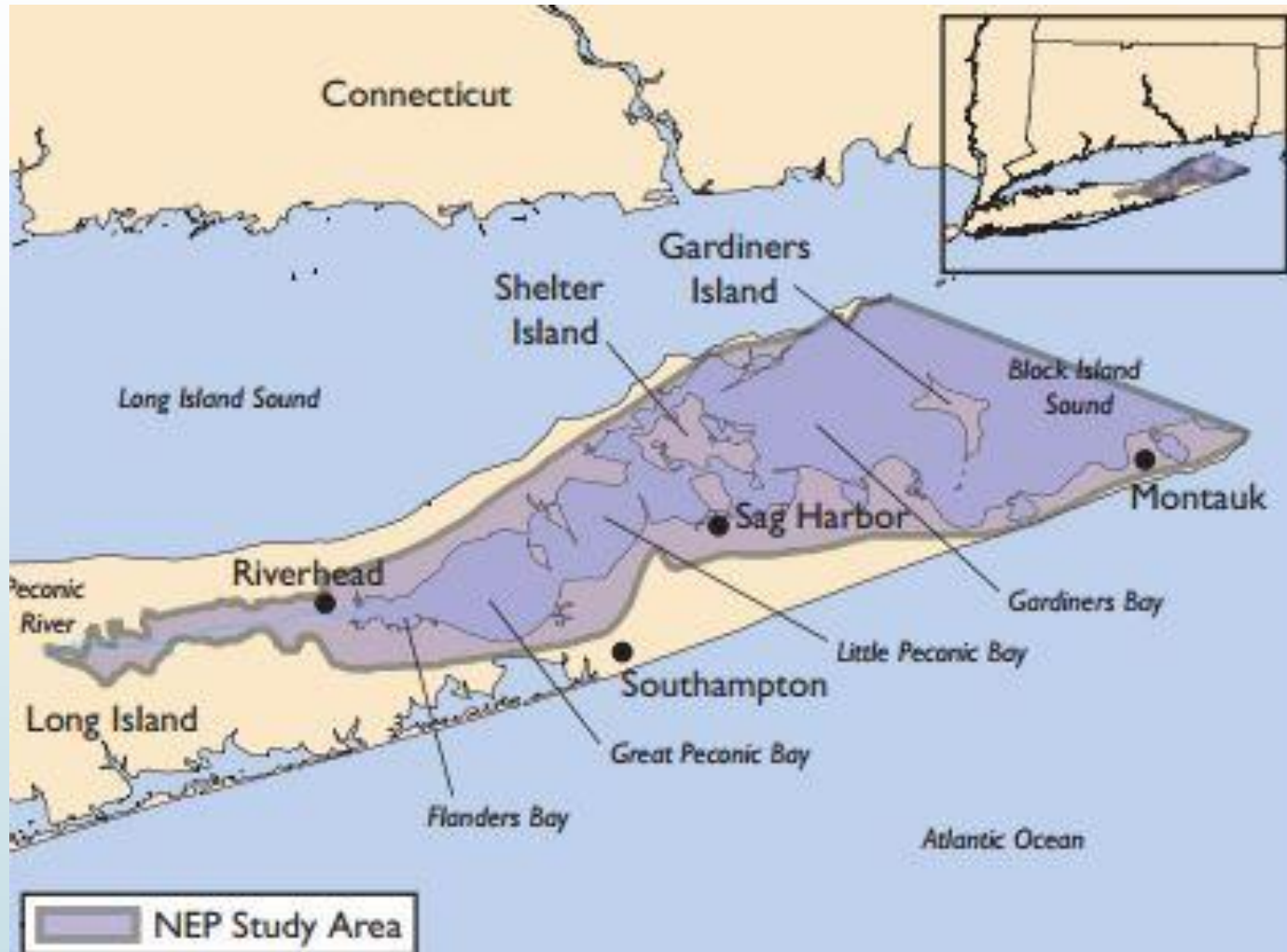


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# Topics

- ▶ Peconic Estuary Program
- ▶ Pollutants
- ▶ Rain Gardens
- ▶ Native Plants
- ▶ Rain Barrels
- ▶ Homeowner Rewards Program
- ▶ Who is qualified
- ▶ Questions

# Peconic Estuary



- The estuary includes several smaller bays such as Flanders Bay, Great Peconic Bay, Little Peconic Bay, Shelter Island Sound, and Gardiners Bay

# Peconic Estuary: Watershed

247 square miles surface water area

197 square miles watershed area

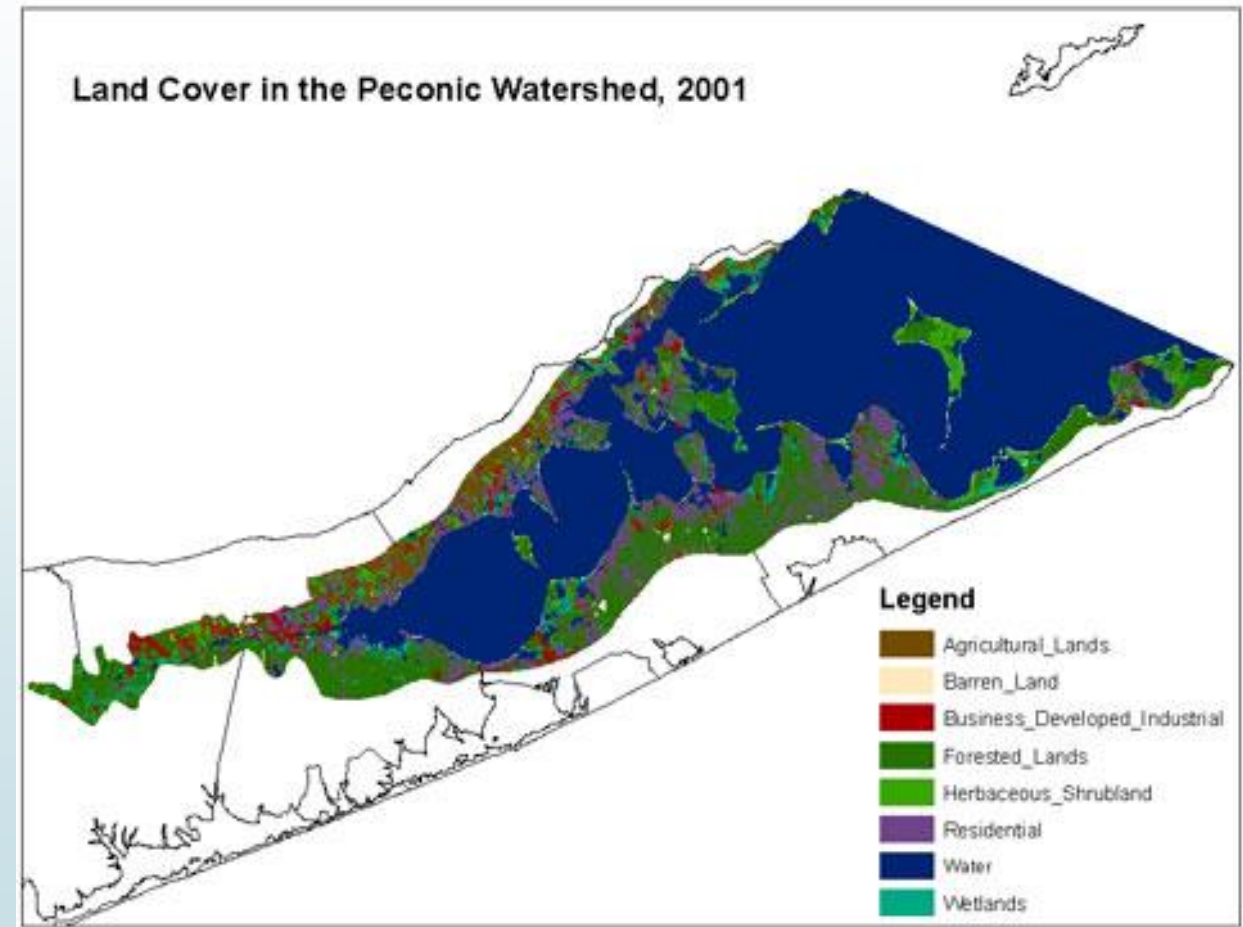
46 miles long x 18 miles wide

453 miles of shoreline

Population Pressure 100-280 thousand (seasonal)

Variety of Land uses

140 globally and locally rare species



# Peconic Estuary: Habitats

- ▶ Tidal Marsh- Flood protection, reduce pollution and excess nutrients, erosion control, recreation and education.
- ▶ Eelgrass Meadows- provide food and shelter for many marine organisms, erosion control, water clarity and quality. Over 80% decline since 1930s
  - ▶ Notable Species- shellfish, such as bay scallops and hard clams, and finfish, such as bay anchovy, Atlantic silverside, scup, summer flounder (also called fluke), winter flounder, windowpane flounder, weakfish, and blackfish.





# Peconic Estuary: Impaired Water Bodies

The Peconic Estuary has twelve water bodies (subwatersheds) that have been identified as impaired. Conservation Management Programs have been adopted for:

- Hashamomuck Pond
- Meetinghouse Creek
- Reeves Bay
- West Neck Bay
- Accabonac Harbor
- Dering Harbor
- Goose Creek
- Richmond Creek
- Sebonac Creek
- Town and Jockey Creek
- Tanbark Creek
- North Sea Harbor



# Peconic Estuary Program

## National Estuary Program

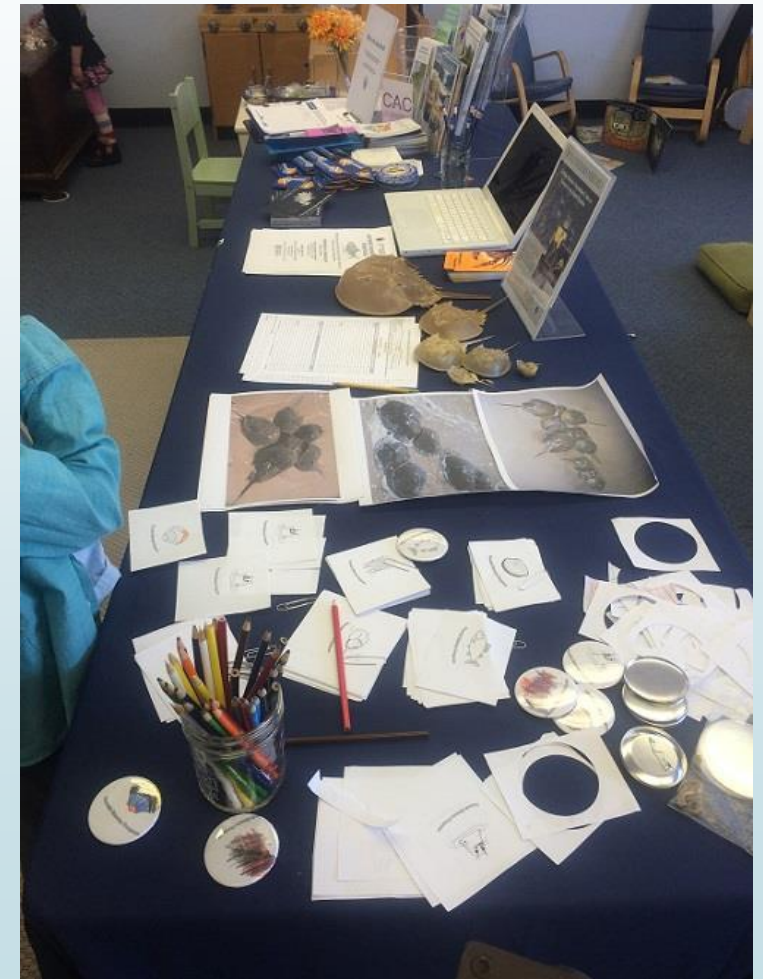
- ▶ U.S. Environmental Protection Agency Clean Water Act 1972
- ▶ Peconic Estuary designated as an “Estuary of National Significance” in 1993 by the EPA
- ▶ Alliance of stake holders charged with developing a comprehensive management plan



# Peconic Estuary Program: CCMP

Comprehensive Conservation Management Plan

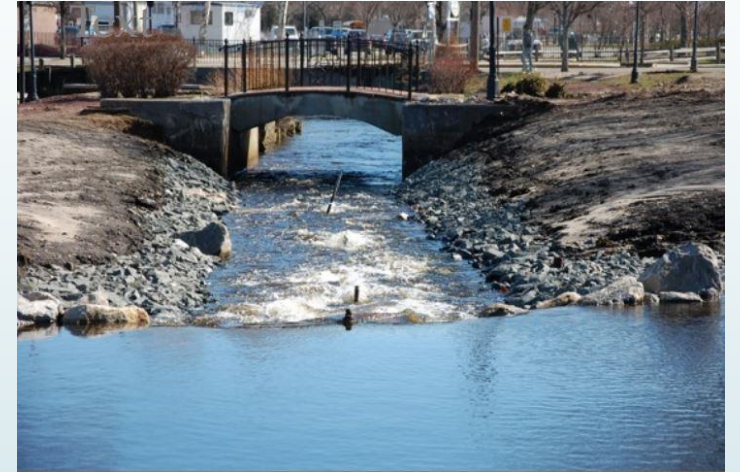
- Nutrients and Brown tides
- Habitat and Living Resources
- Critical Lands Protection
- Pathogens
- Public education and outreach





# Peconic Estuary Program: Accomplishments

- Completion of the CCMP
- Peconic River Rock ramp passage in Grangebel Park Riverhead- Coastal America Award
- Support bay scallop restoration efforts
- Development of Critical Lands Protection Strategy and implementation of Community Preservation Fund to protect land from development
- Implementation of Peconic Estuary nitrogen and pathogen pollution reduction plans and upgrades of Sewage Treatment Plants





# Peconic Estuary Program: Accomplishments

- Designation of the Peconic Estuary as a Vessel Waste No Discharge Zone
- Enactment of the Suffolk County Fertilizer Reduction Law (Local law 41-2007)
- Continuous long-term monitoring of water quality and sea grass distribution
- Development and implementation of sub-watershed specific management plans
- Riverhead STP effluent to irrigate Indian island Golf Course
- Creation of Peconic Estuary Protection Committee (Intermunicipal agreement IMA)
- Homeowner Reward Program

# Peconic Estuary Program

## Programming

- ▶ Citizens Science species monitoring, invasive species removal and water quality testing
- ▶ Citizens Advisory Committee, advise PEP on restoration projects, education, and influence government on environmental laws and policies.
- ▶ Understand land use





# Stormwater Pollution

Is caused by the daily activities of people. Rainwater and snowmelt runs off from streets, lawns, farms and construction and industrial sites and picks up pollutants on the way to rivers, lakes and coastal waters





# Major Pollutants

- ▶ Heavy metals
- ▶ Oil and grease soil and sediment
- ▶ Floatable debris
- ▶ Phosphorus and nitrogen
- ▶ Road salt
- ▶ Bio-degradable materials
- ▶ Bacteria



# Major Pollutants

- Heavy metals
- Oil and grease soil and sediment
- Floatable debris
- Phosphorus and **nitrogen**
- Road salt
- Bio-degradable materials
- **Bacteria**





# Nitrogen

- ▶ A naturally occurring element that is vital for growth in plants and animals.
- ▶ Excess causes eutrophication- enrichment of an ecosystem that causes rapid growth. (Phytoplankton and marsh grasses)
  - ▶ Most common Harmful Algal Bloom (HAB) brown tide, rust tide and red tides
  - ▶ Environmental consequences- Submerged aquatic vegetation (SAV), shellfish and finfish, can cause economic loss.
  - ▶ When phytoplankton die, can create oxygen depleted waters.



suffolktimes



suffolktimes



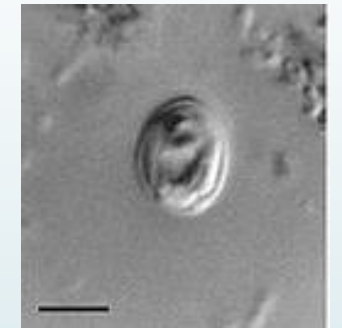
Seagrant

# Bacteria

- ▶ Waters are tested for E.coli (freshwater), enterococcus and fecal coliform (marine water) an indicator bacteria
- ▶ Main sources of bacteria are wildlife, humans, and pets
  - ▶ Wildlife- Deer, raccoons, fox, migratory and resident birds
  - ▶ Humans- leaking or poorly maintained septic systems, discharging waste from boats
  - ▶ Pets- Estimated number of waste per year in Suffolk county is 37,577tons



Giardia



Cryptosporidium

What percentage of pet waste makes it into the waterways?

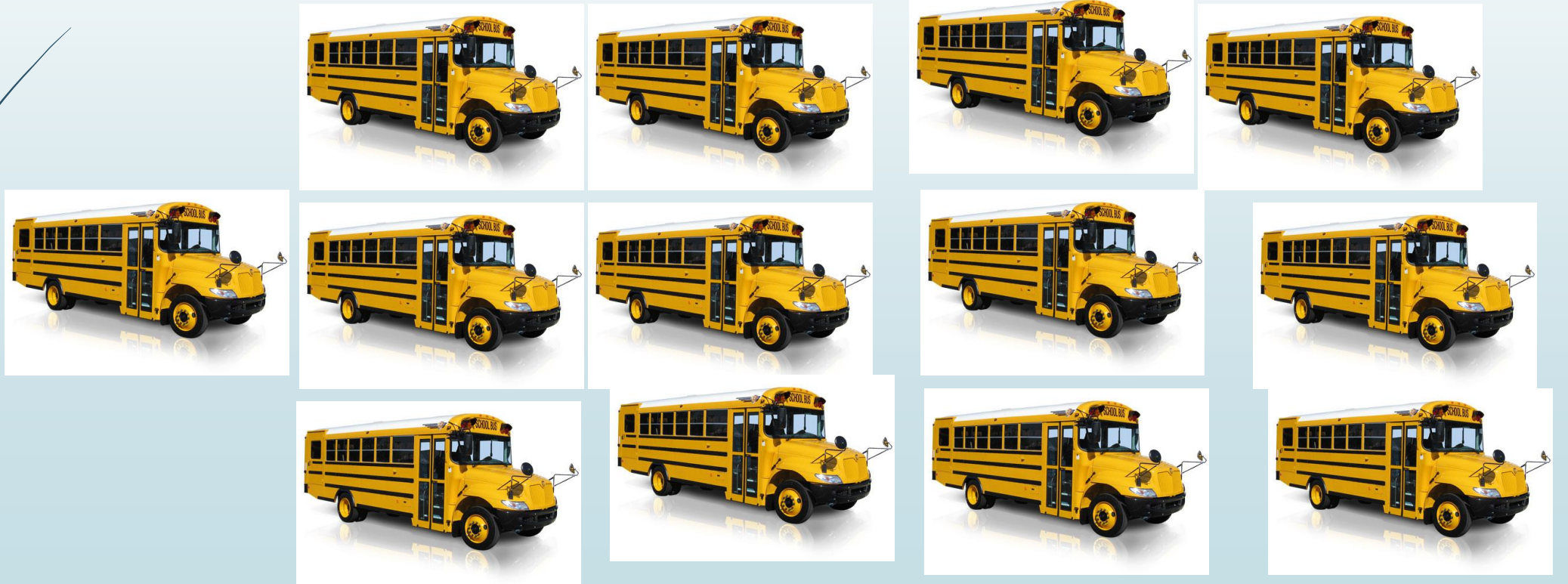




# Pet Waste

► What weighs 65 tons?

13 school buses



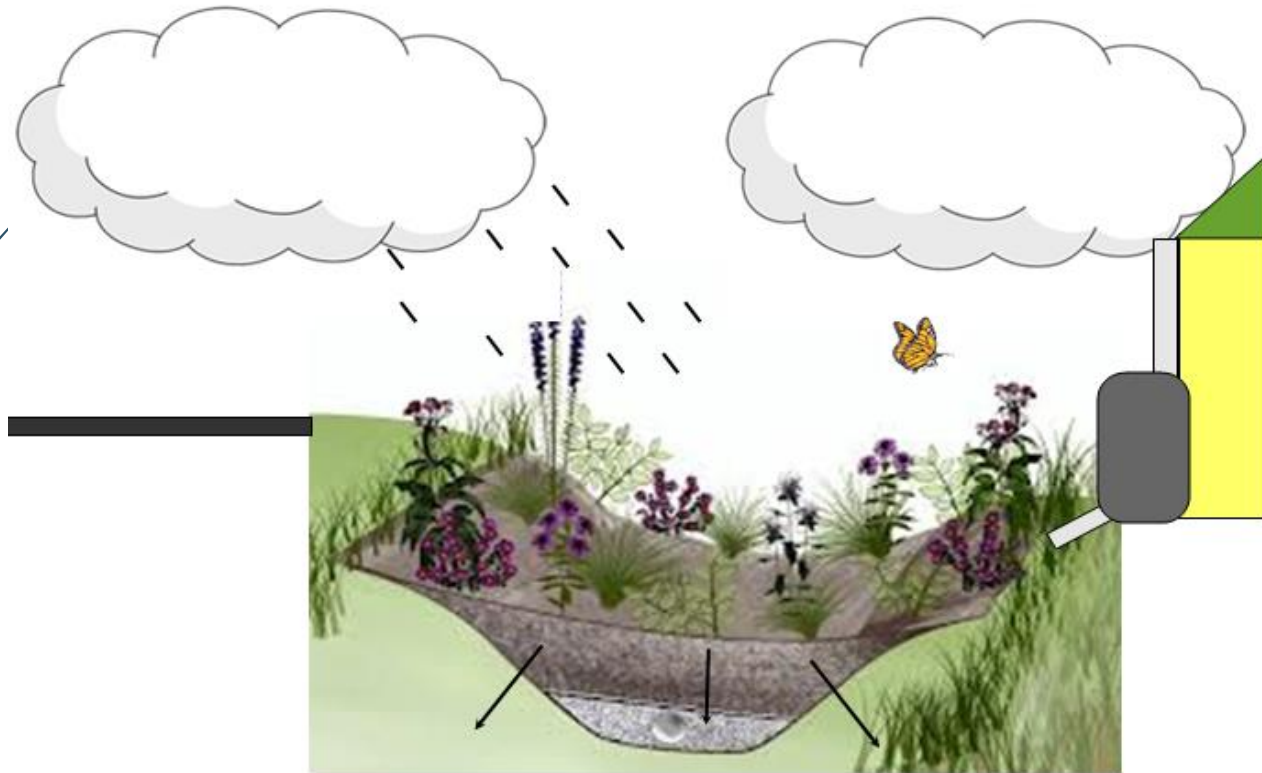
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# Consequences of Stormwater Pollution

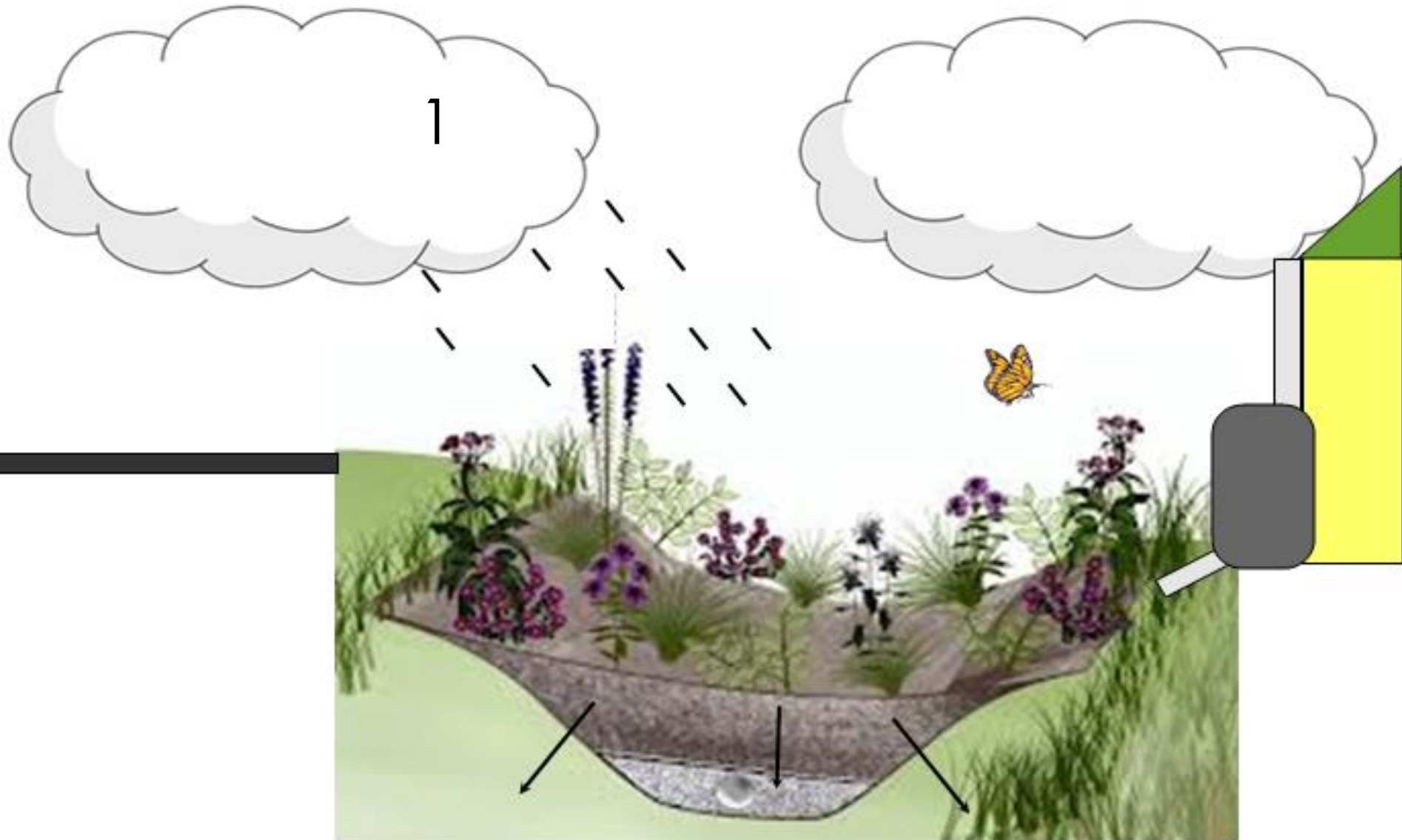
Pollution from Nitrogen and Bacteria results in:

- ▶ Shellfish reduction and potential toxicity
- ▶ Beach and shellfish bed closures
- ▶ Habitat loss
- ▶ Decreased water quality
- ▶ Reduced ecosystem biodiversity

# PEP Homeowner Rewards Program: Rain Gardens, Rain Barrels and Native Plants



# What is a Rain Garden?

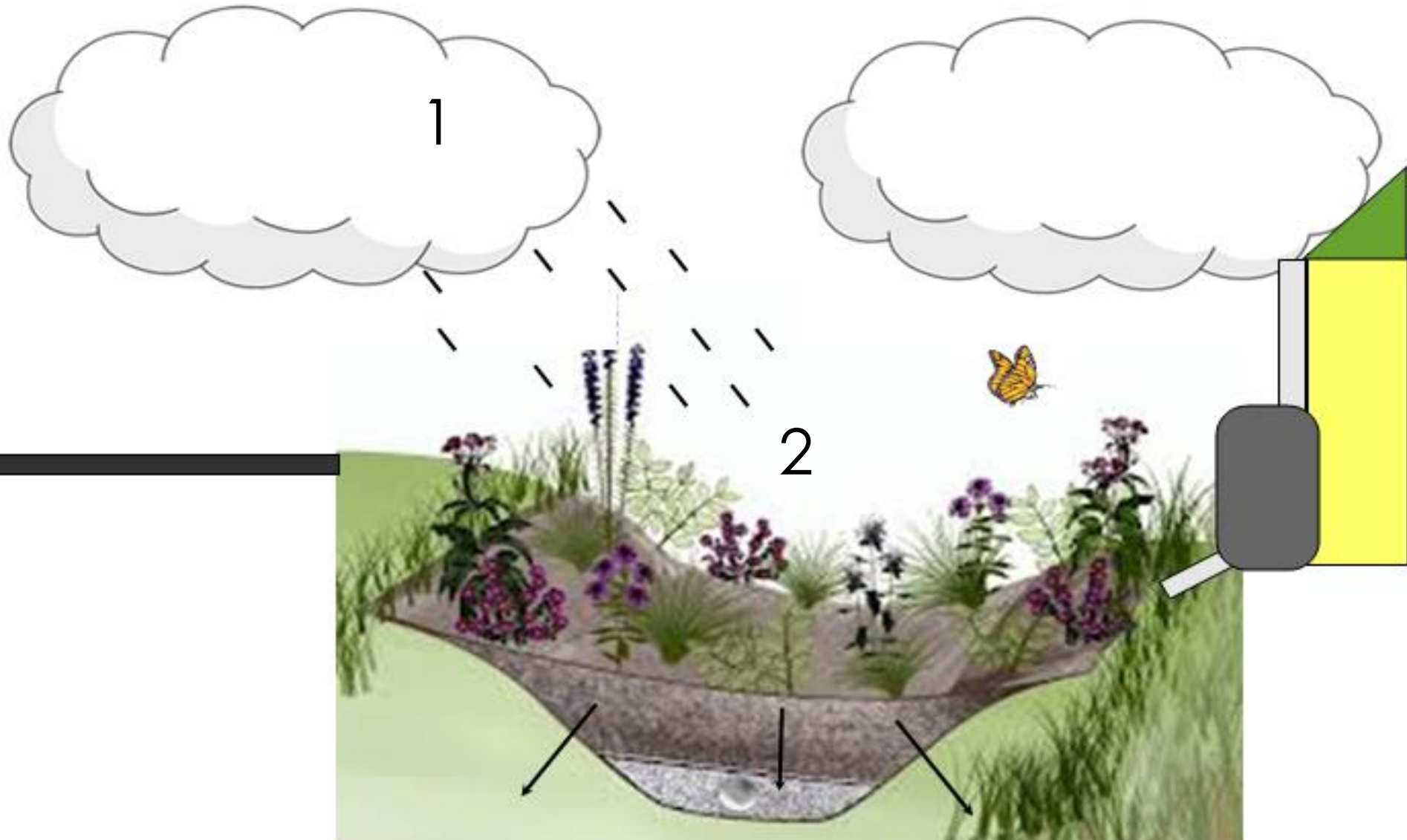


## How it works

1. Rain and Stormwater collect in the garden



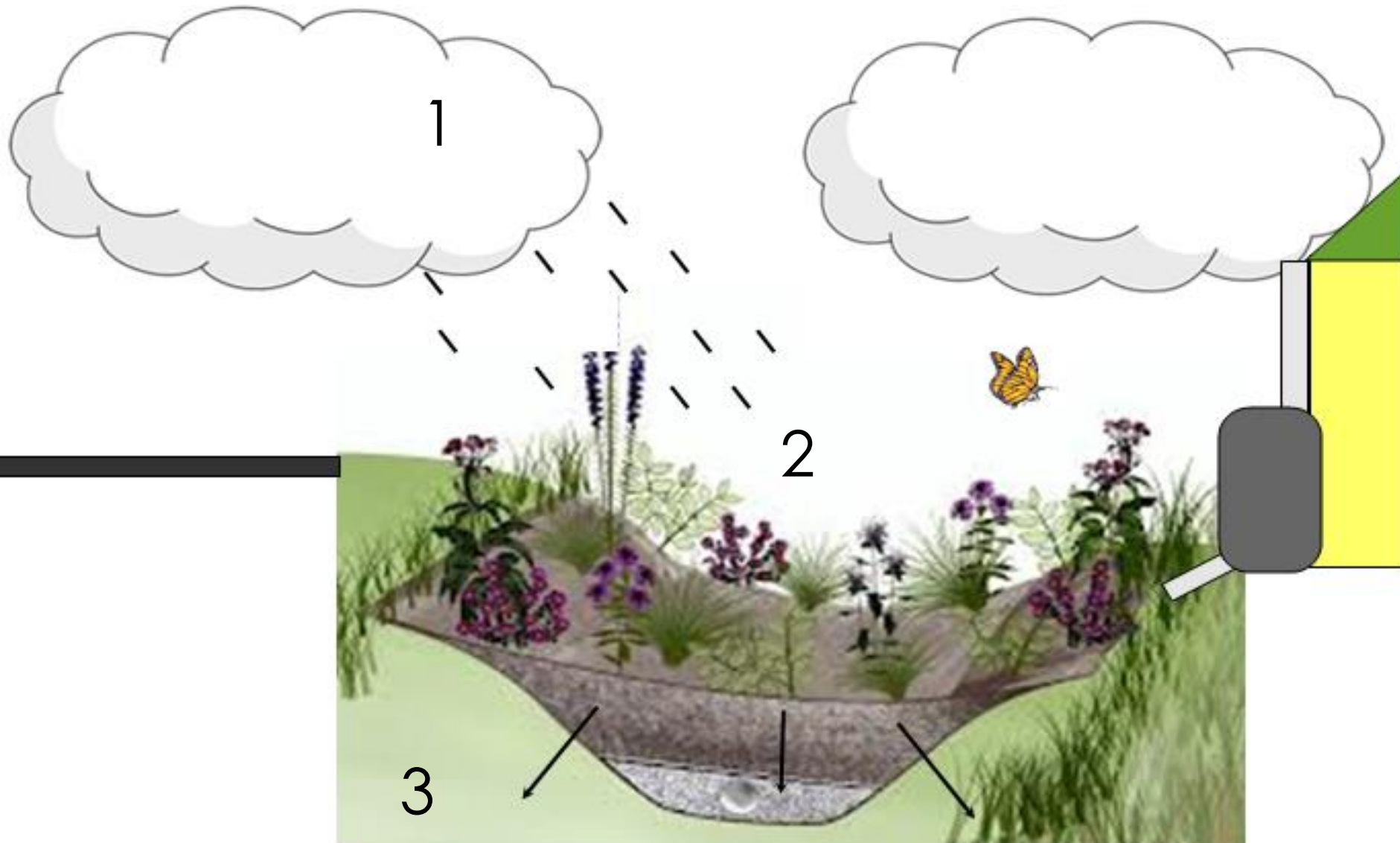
# What is a Rain Garden?



## How it works

1. Rain and Stormwater collect in the garden
2. Plants absorb water, use nutrients and trap sediment

# What is a Rain Garden?



## How it works

1. Rain and Stormwater collect in the garden
2. Plants absorb water, use nutrients and trap sediment
3. Water filters through the soil entering the groundwater



# Rain Garden Benefits

- Naturally reduces pollution entering our local waterways
- Provides important habitat for native birds and butterflies
- Reduces flooding potential
- Recharges groundwater



imghelper.com



Getty Images Andrew Theodrankis



timesunion.com



# Rain Garden How To...

## Choosing a Location



[Kitsacpd.org](http://Kitsacpd.org)



[Aboutraingardens.blogspot.com](http://Aboutraingardens.blogspot.com)



[Bloomingtonmn.gov](http://Bloomingtonmn.gov)

- Locate your underground wires and gas lines as well as your septic or sewer system
- A rain garden must be located so that water runoff moves to it.
  - Downspouts and Gutters
  - Water pond areas
- Appropriate distance from your house 10-30 feet
- Best if located in a sunny spot





# Rain Garden How To...

## Soil Investigation, Size and Depth

- ▶ Consider and appropriate shape and size. Typically between 100-300 square feet, will depend on runoff volume
- ▶ Soil composition
  - Sandy- fastest infiltration
  - Silt
  - Clay- slowest infiltration, rain garden will have to be larger.
- ▶ Rain Garden depth- typically between 4-8 inches. Keep the rain garden level!
- ▶ When digging, pile up soil around the downward edge to create a berm
- ▶ Use native plants whenever possible for your garden

# Using Native Plants for your garden

- ▶ Native plants are naturally found in a particular geographic region and have been growing in that area for thousands of years.
- ▶ They are naturally adapted to the type of climate, soil, rainfall and availability of pollinators, like bees and butterflies
- ▶ What to consider when choosing your plants



Tulip Poplar  
Tree  
Partial Shade



Beachplum  
Drought Tolerant



Silky Dogwood  
Full Sun

# Rain Barrels

- ▶ Rain barrels collect and water from roof tops
- ▶ Use to water plants, top off a swimming pool or wash the car
- ▶ Reduces water use, which saves money



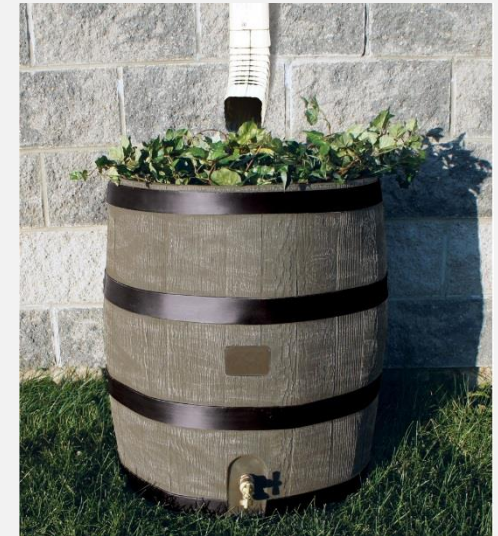
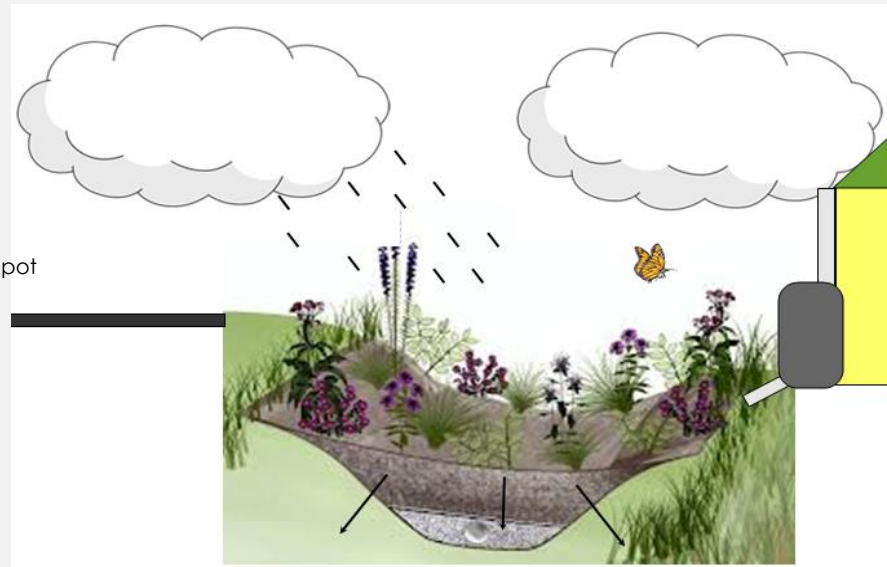
Countrytimegazette.com



Photo by Home Depot



Photo by Lowe's



Uwfurniture.com



# Homeowner Rewards Program

## Guidelines: Natural Vegetation Projects

### Conservation Landscaping

- ▶ Replace pavement, turf grass, or lawn.
- ▶ Minimum size of conservation landscaping project: 50 square feet
- ▶ Maximum reward per conservation landscaping project: \$500

### Rain Garden Installation

- ▶ Follow basic rain garden guidelines (<http://www.raingardennet.com/build.htm>)
- ▶ Minimum size of rain garden: 50 square feet
- ▶ Maximum reward per rain garden installation: \$500



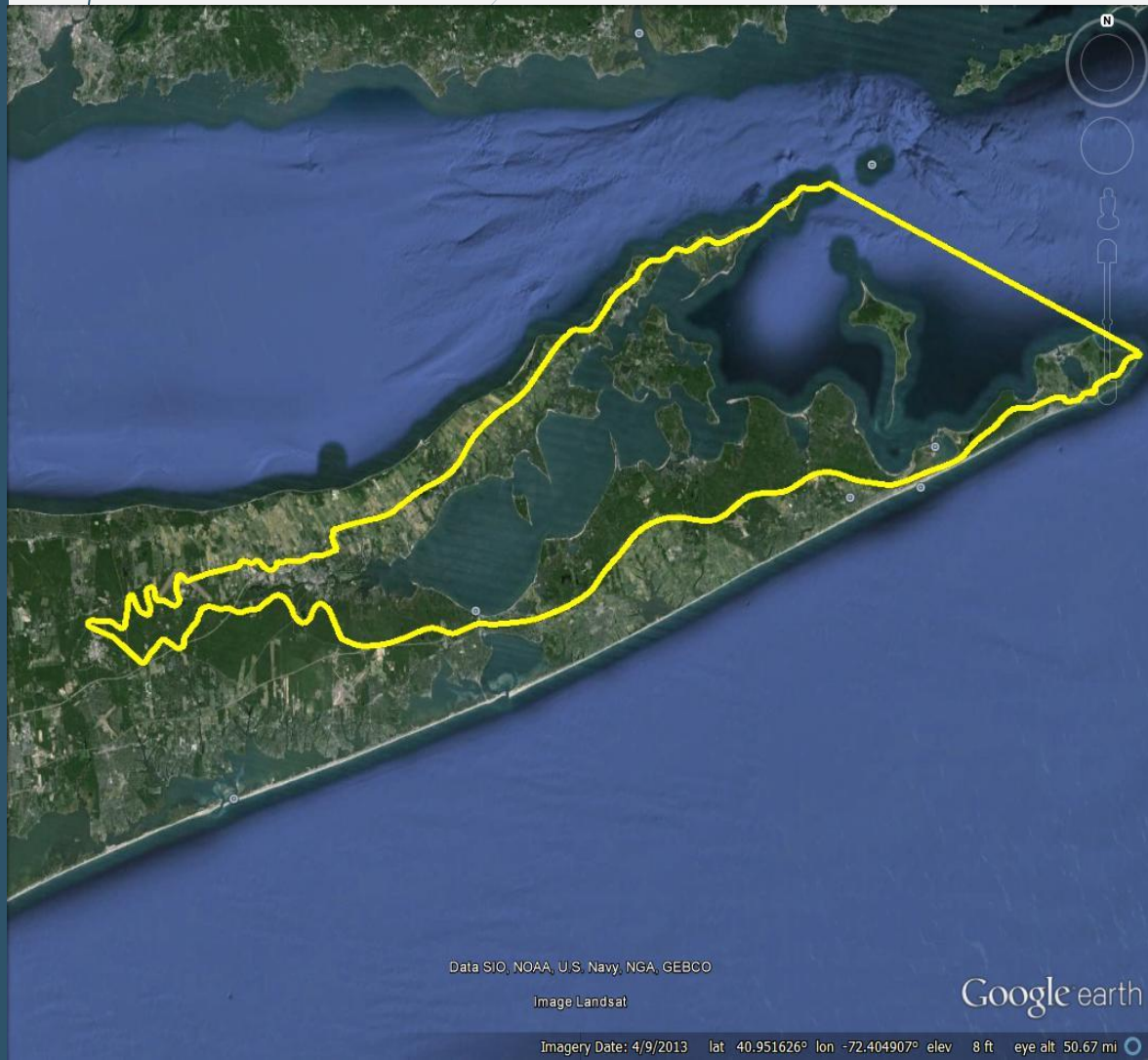


# Rebate Program Guidelines

## Rain Barrel Installations

- ▶ Please use an appropriate form of mosquito protection attached to top of rain barrel (i.e. very fine netting to prevent mosquitoes from laying eggs inside rain barrel).
- ▶ Install based on manufacturers guidelines, or follow DIY instructions
- ▶ Minimum size: 50 gallons
- ▶ Maximum reward per rain barrel installation: \$100

# Are you within the Peconic Estuary Watershed?







## Research



### PECONICS IN THE NEWS

- ▶ [Rain garden rebate progra...](#)
- ▶ [PEP Partners Grant Progra...](#)
- ▶ [Suffolk County Water Qual...](#)
- ▶ [Position Announcement...](#)
- ▶ [Volunteers come out for S...](#)

### UPCOMING EVENTS

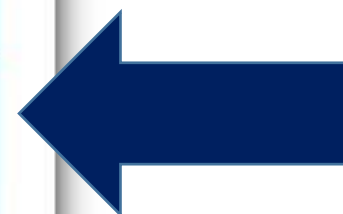
- ▶ [Click to view our calendar](#)

### FEATURED PROJECT



Peconic Estuary  
Rewards Program

[▶ Click to View](#)





### PROJECT DETAILS

[◀ Back to Project Library](#)

#### Peconic Estuary Rewards Program

Learn more about your local estuary and all its amazing bays, while improving your property and reducing pollution from entering local waters. The Peconic Estuary Program (PEP) is providing a unique opportunity for your neighborhood (Hashamomuck Pond and Reeve's Bay watersheds). The PEP will provide financial rewards for homeowners that add raingardens, native plantings, and/or rain barrels to their properties. Funds are limited and will be granted on a first come first served basis, so don't miss out!

Why Use Native Plants

Rain Garden Construction

Bayscaping

Pesticides Near the Bay

#### ASSOCIATED REPORTS

- ▶ [PEP Homeowner Rewards Program Application](#)
- ▶ [Wildlife Garden List](#)

#### Number

701

#### Town

Southold, Riverhead, Southampton, East Hampton, Brookhaven Townships

#### Start Date

November 2013

#### End Date

September 2016

#### Status

Active

#### Type

#### Target

### PROJECT IMAGES

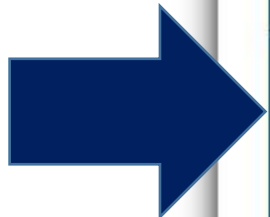


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### MAPS

▶ [Peconic Estuary Watershed](#)

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# Next CAC Meeting

## PEP Citizens Advisory Committee

- ▶ Monday June 15, 2015
- ▶ 6:00-8:00pm
- ▶ Easthampton Town Offices 159 Pantigo Rd. Easthampton, NY
- ▶ Topics and Agenda Items (subject to changes):
  - East End Development
  - Peconic Baykeeper
  - Peconic Green Growth
  - Peconic Estuary Protection Committee

Remaining 2015 CAC meeting dates:  
November 18<sup>th</sup>  
Cornell Cooperative Extension  
423 Griffing Ave Riverhead, NY 11901

# Contact Information

[rewards@peconicestuary.org](mailto:rewards@peconicestuary.org) PEP Reward Program

[cac@peconicestuary.org](mailto:cac@peconicestuary.org) Citizen's Advisory Committee

PeconicEstuary.org

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