



Protecting Water Quality in the Niantic River Watershed



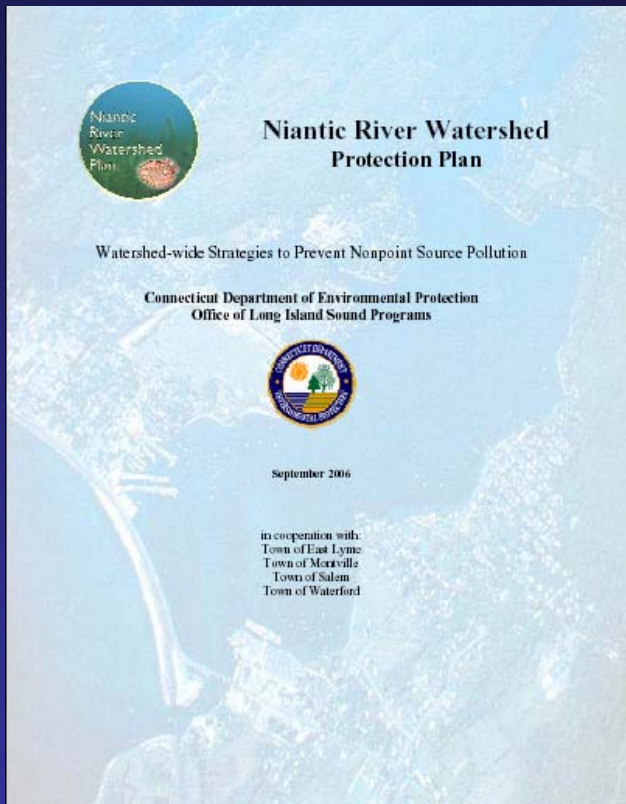
*Presented by Judy Rondeau
Niantic River Watershed Coordinator
30 June 2010*

Niantic River Watershed Advisory Group

Our Mission –

“To restore and preserve the Niantic River Watershed through inter-municipal cooperation and the sound development of land use practices that mitigate pollution of the watershed, and that support all uses including shell fishing, fishing, swimming, habitat, and drinking water supplies.”

The Niantic River Watershed Protection Plan



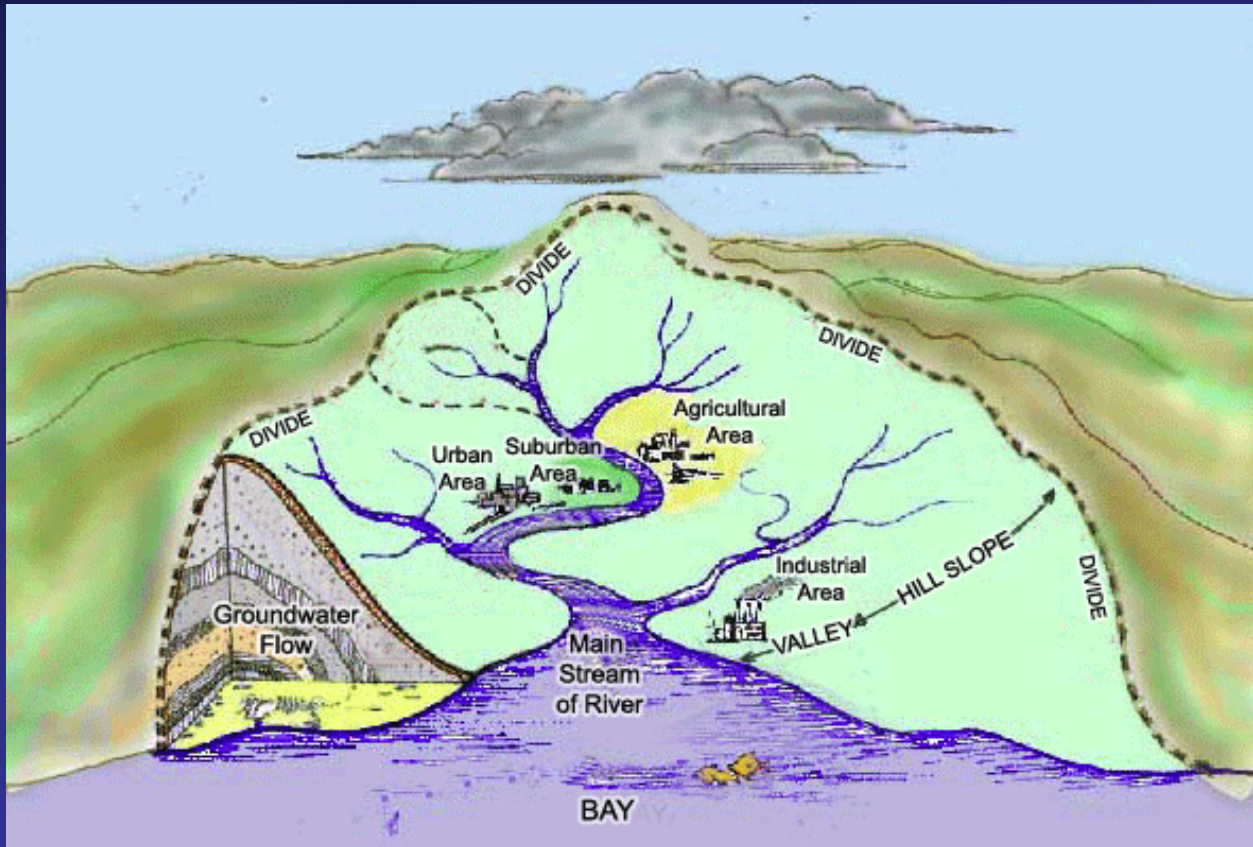
The Plan:

- Identifies the impairments
- Suggests possible causes
- Evaluates land use in the watershed
- Makes recommendations to improve water quality
- Suggests an implementation program

Please visit the Niantic River Watershed website:

www.nianticriverwatershed.org

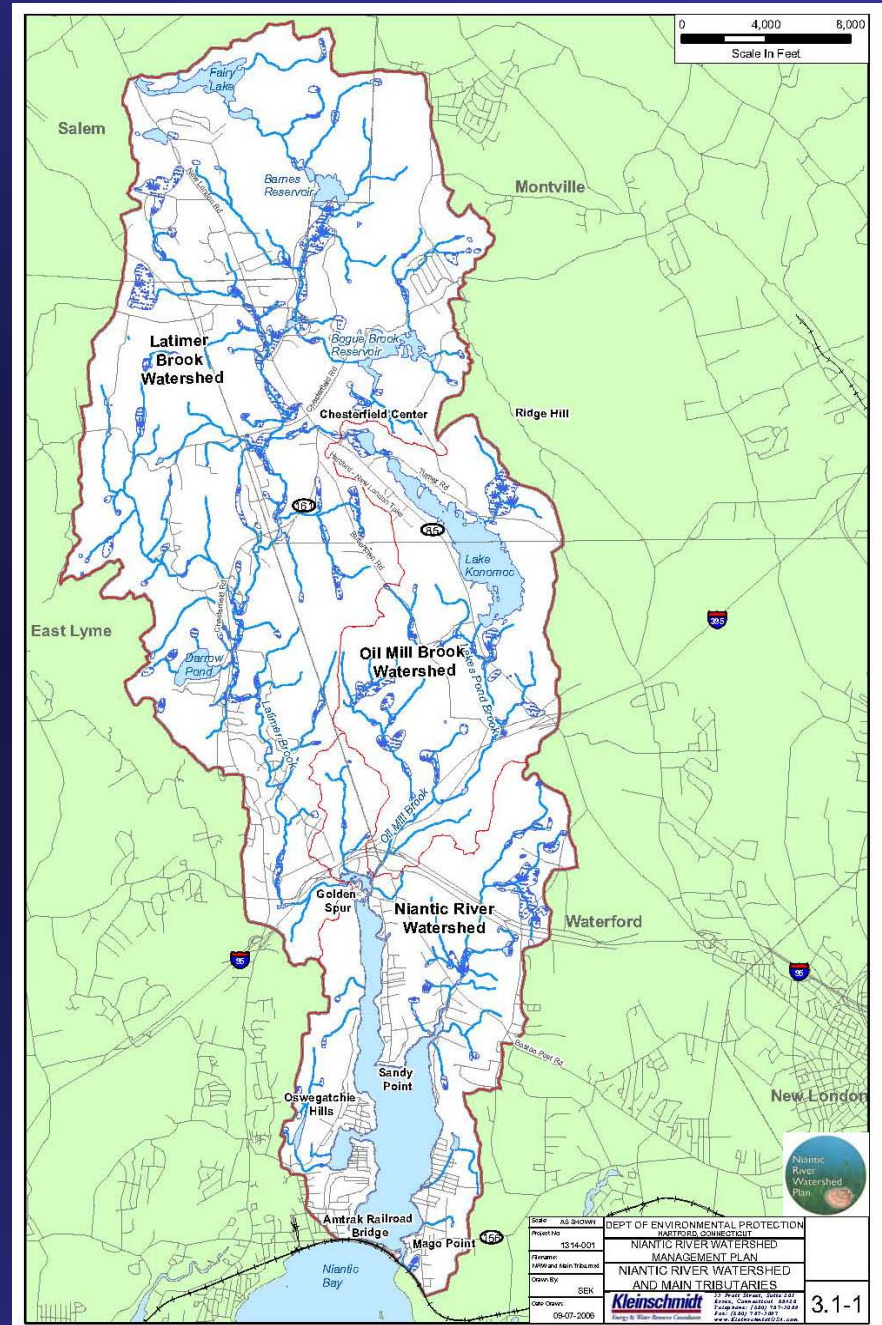
What is a Watershed?



A watershed consists of all the land that drains to a body of water.

The Niantic River Watershed

The Niantic River Watershed encompasses all the land in Salem, Montville, Waterford and East Lyme that drains into the Niantic River.



***Why Are We Concerned About
the Watershed?***

Water Quality!

The Niantic River does not currently meet State water quality standards.

Nutrients and bacteria are the two greatest water quality concerns for the Niantic River.



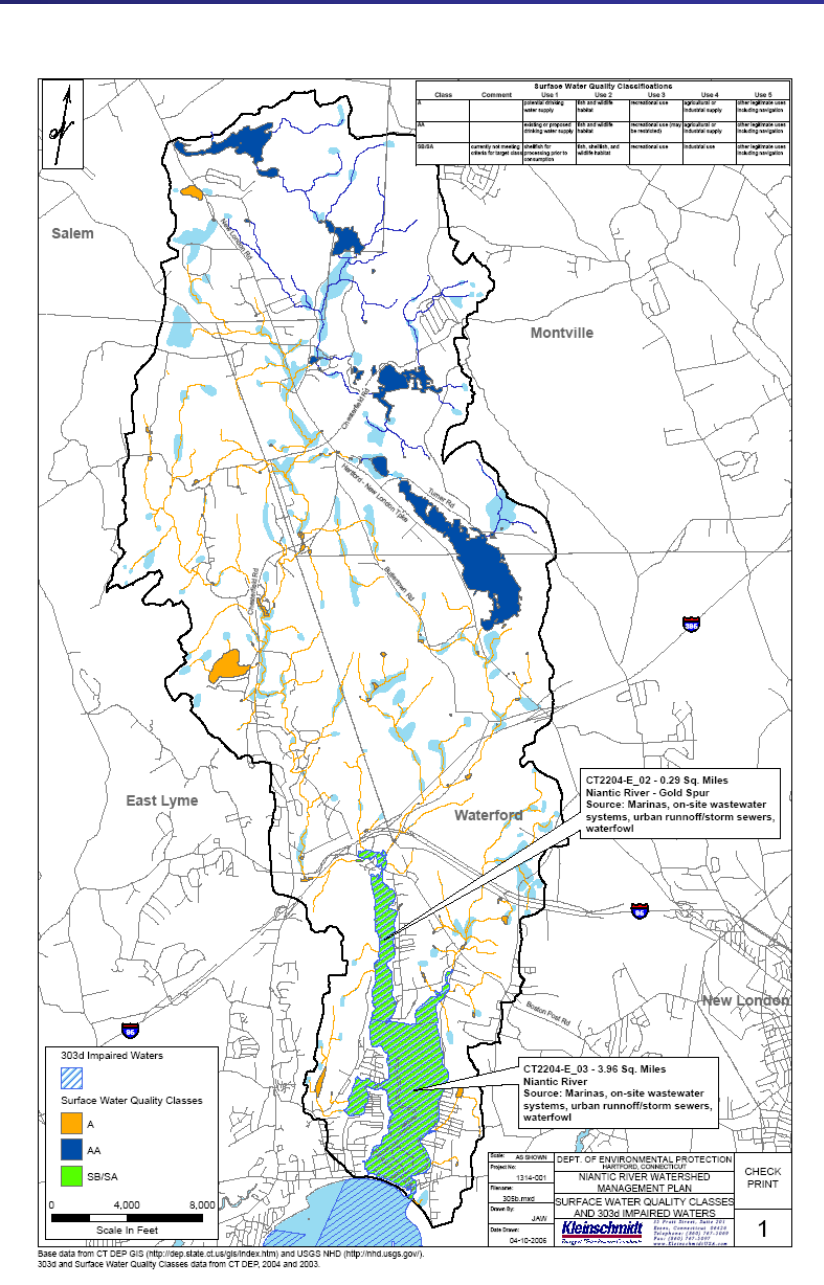
Neponset River Watershed Association

Water Quality Status In the Niantic River Watershed

In the upland areas, water quality is generally good.

In the lower portions of the watershed water quality is poor.

So where does the pollution come from?





Us!!!

*How do We Impact the
Watershed?*

We Create Impervious Surfaces

Impervious surfaces include roof tops, driveways, parking lots and other surfaces that do not allow infiltration of water.



Impervious surfaces increase the amount of storm water run-off and contribute to pollution.

We Install Storm Drain Systems



Storm water channeled into storm drain systems quickly carries untreated storm water into streams and ponds.

Polluted Run-off Can Contain:

- Silt and sand
- Nutrients such as phosphorus and nitrogen from animal waste and fertilizers
- Gasoline, oil and other automotive fluids
- Salt from road de-icing
- Trash
- Heavy metals



Photo courtesy of Sarah Lamagna

We Remove Protective Vegetation

Removal of vegetation increases the amount of run-off and pollution reaching the water...

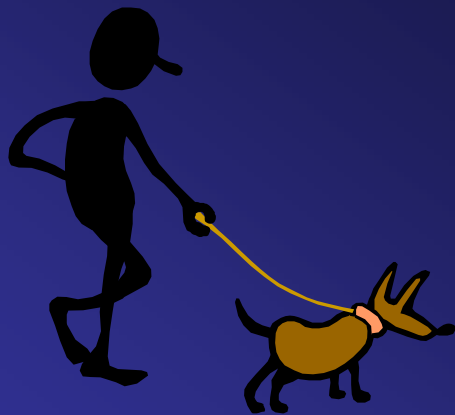


...and promotes hillside and stream channel erosion.

We Chemically Treat Our Lawns



We Walk Our Dogs

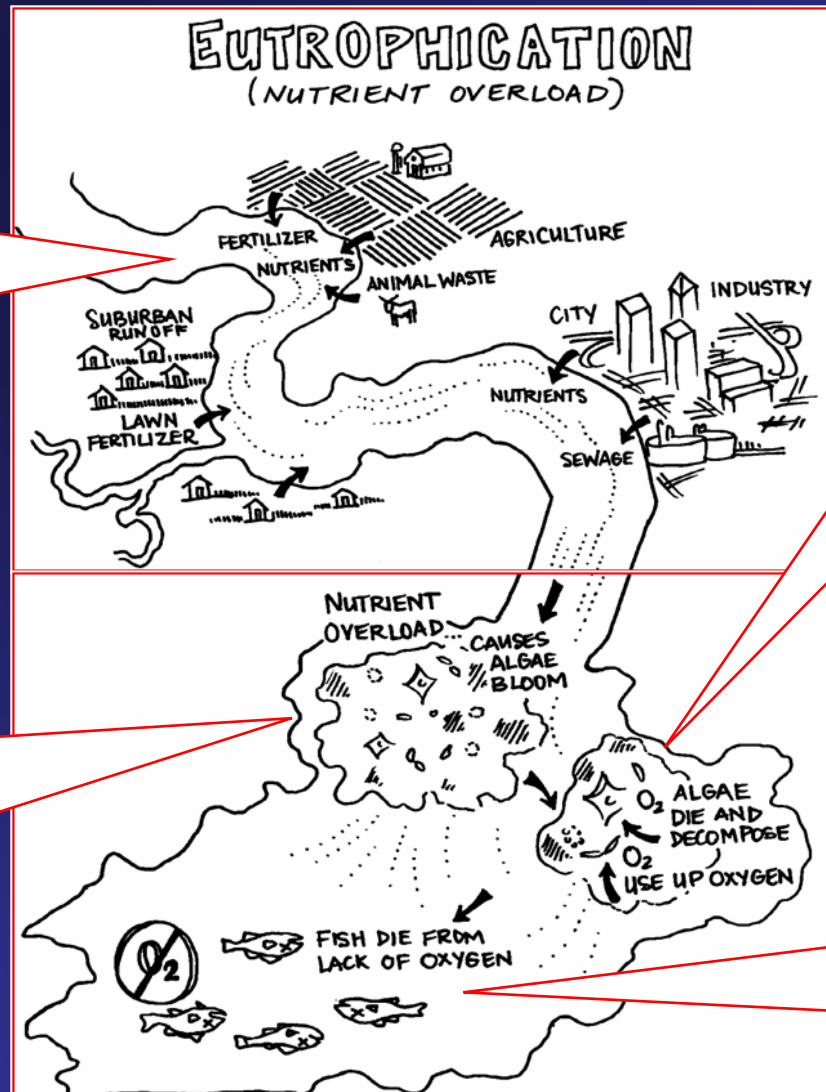


We Feed Geese



The Result – Nutrient Overload!

Eutrophication is the process by which a body of water becomes over-fertilized.



When the plants have absorbed all the nutrients, they die. The bacteria that decompose the dead plant matter deplete available oxygen in the water.

This over-fertilization results in excessive aquatic plant growth, including algae.

This creates a low oxygen condition called hypoxia, which can result in dead zones and fish kills.

*How Can We Help
Protect Our Watershed?*

Prevent Run-off

**Use rain barrels and
rain gardens to
capture roof run-off**



Photo by Pat Young



Photo courtesy of Town of Thompson

Increase Pervious Surfaces

In place of paved surfaces,
use:

- Porous pavers
- Porous asphalt
- Plastic grids
- Gravel
- Grass



Photo courtesy of Sarah Lamagna

Plant and Maintain Vegetative Buffers

Vegetative buffers provide a number of services:

- Intercept run-off
- Absorb nutrients and metals
- Provide root structure that prevents erosion
- Provide shade to water
- Provide food & shelter to wildlife



Prevent Soil Erosion

- Mulch to prevent erosion of bare garden soils
- Compost to return nutrients naturally to the soil



Reduce or Disuse Chemicals

- Test soil to determine if and how much fertilizer is needed



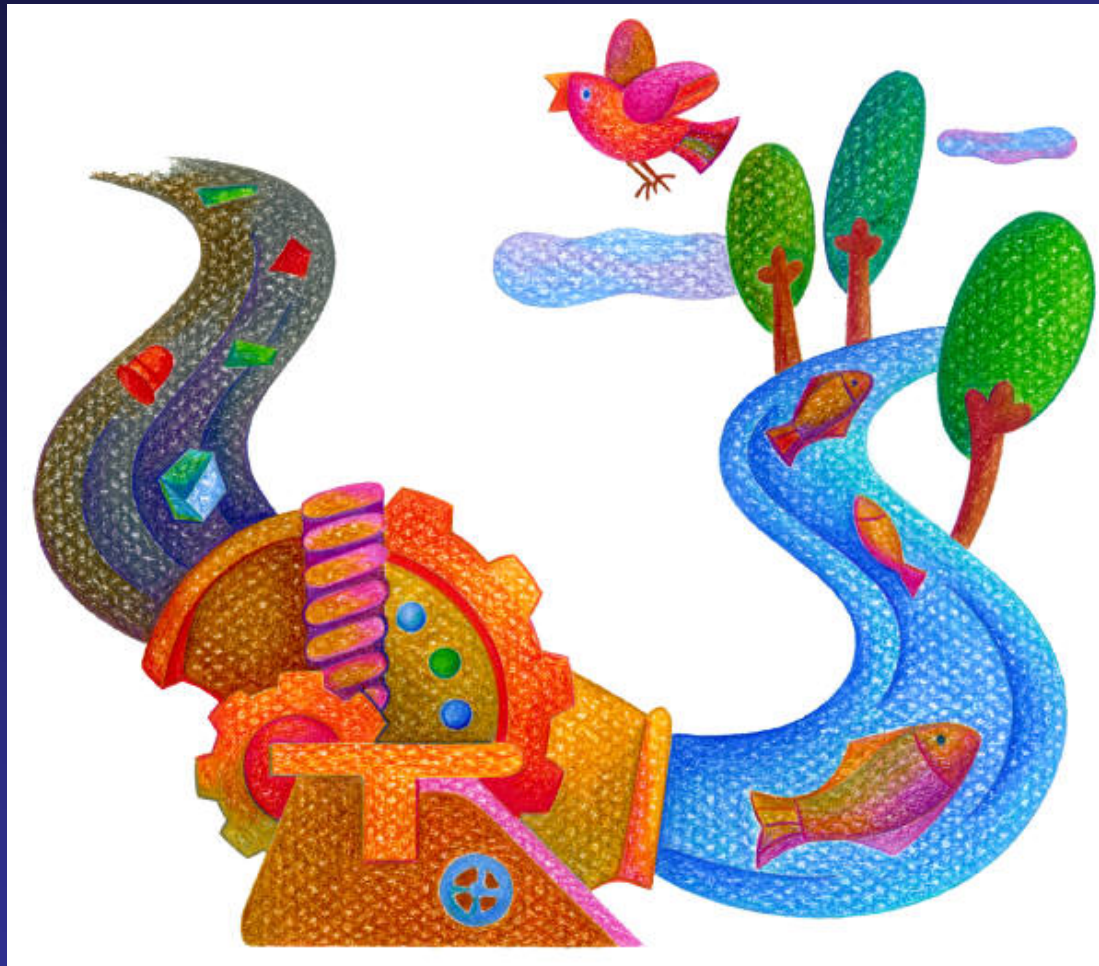
Manage Animal Waste

- Clean up pet waste
- Maintain manure piles

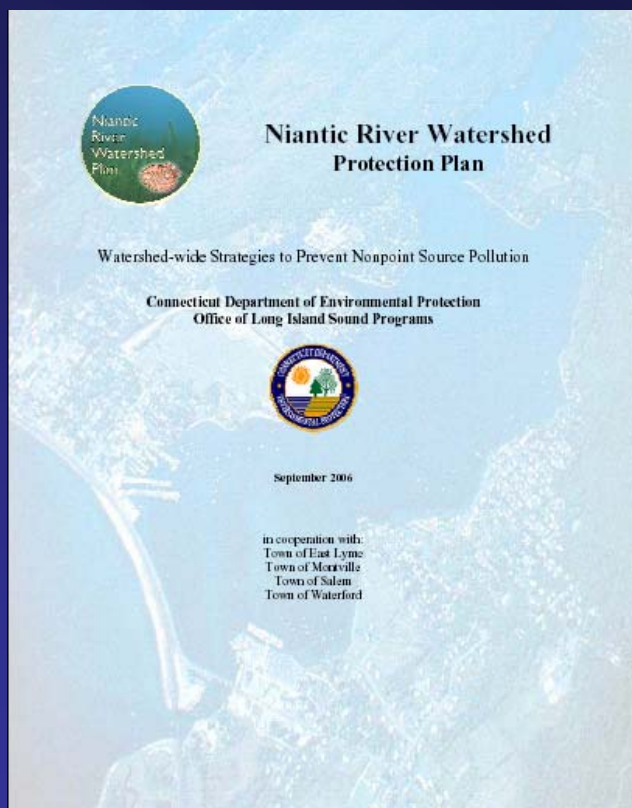


Courtesy of yuckos@yuckos.com

Our Goal – Cleaner Water for Everyone!



For More Information on the Niantic River Watershed Protection Plan



Please visit the Niantic River Watershed website:

www.nianticriverwatershed.org



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The Niantic River Watershed...

A Treasure Worth Protecting

www.nianticriverwatershed.org