

The Niantic River Watershed – Successful Partnerships for Watershed-Based Plan Implementation

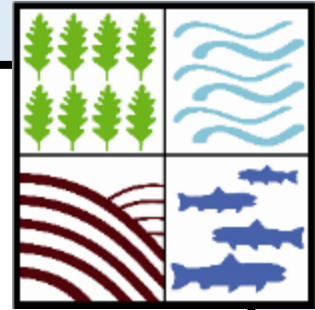


Judy Rondeau

Eastern Connecticut Conservation District

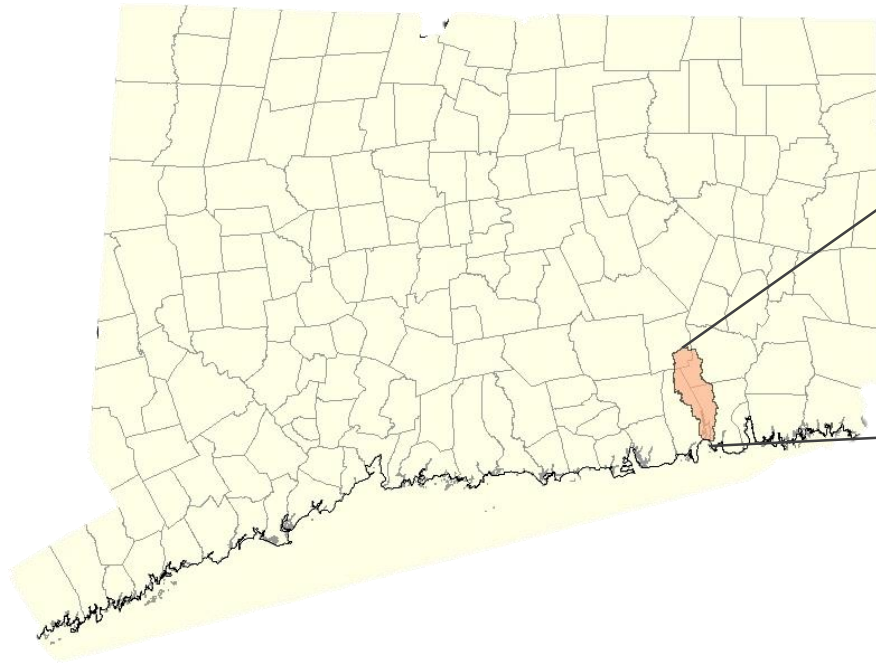
August 16, 2018

Watershed Partners

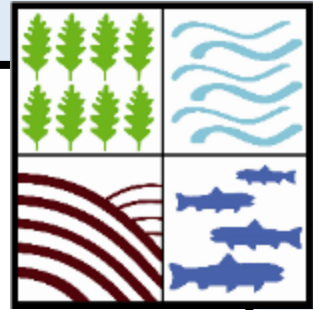


- Watershed towns – East Lyme, Montville, Salem and Waterford
- Residents of the watershed towns
- Pine Grove Association
- Save the River-Save the Hills
- Friends of Oswegatchie Hills Nature Preserve
- East Lyme Land Trust
- East Lyme Public Trust Foundation
- Dominion Energy Millstone Power Plant
- CT Sea Grant
- University of Connecticut Marine Science Department
- University of Connecticut Extension Program
- University of Connecticut
- Connecticut College
- CT Department of Energy & Environmental Protection
- New England Forestry Foundation
- Long Island Sound Study
- The Nature Conservancy
- US Geological Survey
- US EPA

Where is the Niantic River Watershed???



The Niantic River watershed (outlined in grey) is located in the towns of East Lyme, Montville, Salem and Waterford.

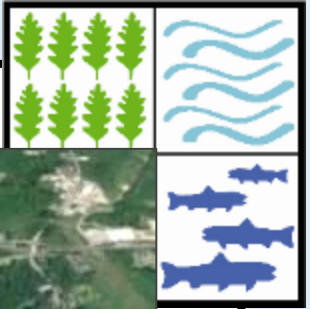


A Few Niantic River Facts

- 1.3 sq mi estuary located between Waterford and East Lyme
- Discharges to Long Island Sound – one of 28 estuaries in the National Estuary Program
- Multiple recreational and commercial uses including: swimming, boating, kayaking, commercial fishing, fishing excursions, shellfish farming, recreational shellfishing, restaurants, shops, marinas, and tourism
- The Niantic River is listed as impaired for:
 - aquatic life support
 - primary recreational contact
 - direct consumption of shellfishdue to pollutants primarily associated with stormwater runoff, including fecal bacteria and nitrogen.

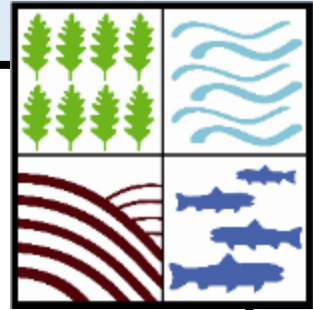
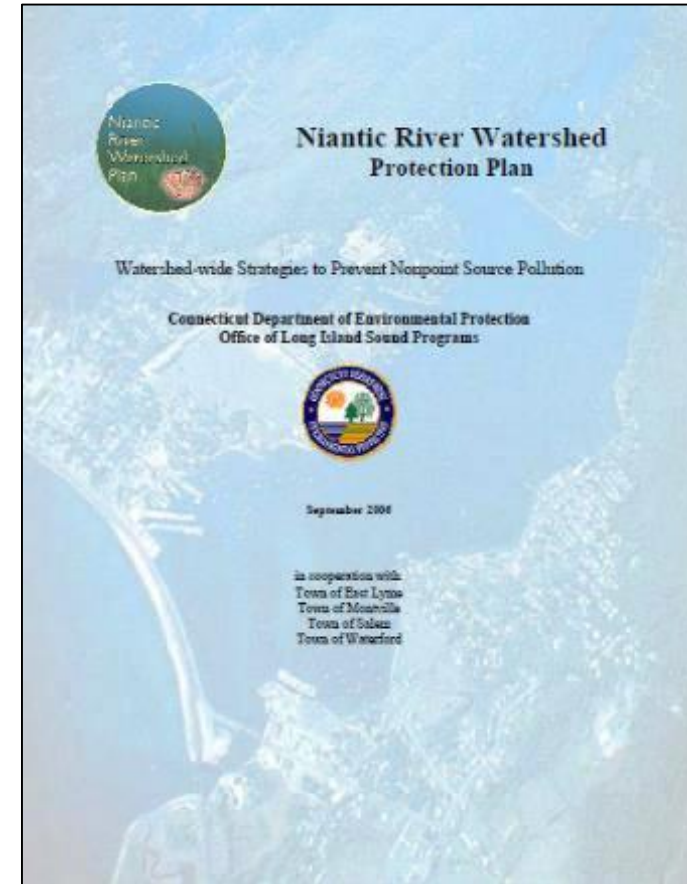


Google Earth Imagery Date 9/28/2017

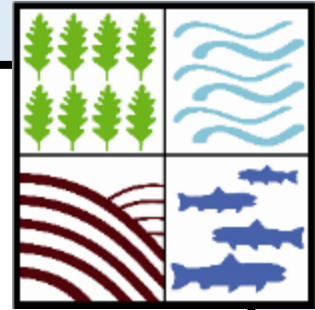


Niantic River Watershed Protection Plan (2006)

- Niantic River Watershed Protection Plan (NRWPP) was prepared through a one-time grant from the National Oceanic and Atmospheric Association's (NOAA) Office of Ocean and Coastal Resource Management (OCRM).
- The NRWPP addresses the impairments and recommends the reduction of bacterial and nutrient loading from stormwater outfalls, runoff, and direct discharges.



Key Watershed Plan Recommendations

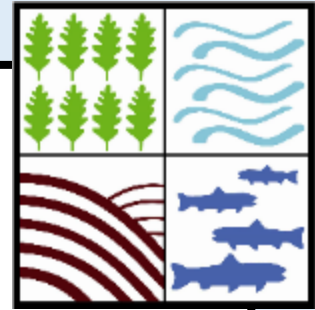


- Create a **coalition of watershed stakeholders** to take a leadership role for the implementation of the watershed plan.
- Hire or appoint a **watershed coordinator** for the watershed.
- Establish a comprehensive, long-term **water quality monitoring program**.
- Raise stakeholder awareness by implementing a watershed management **information and education campaign**.
- **Reduce bacterial and nutrient loads** from stormwater outfalls, runoff and direct discharge.
- Minimize flooding impacts by reducing peak stormwater runoff flows and volume from **impervious surfaces**.



Photo credit: Tim Cook, The Day

Establish a Water Quality Monitoring Program



Niantic River Tributary Water Quality Monitoring - 2012



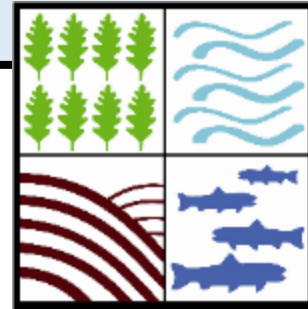
Project Partners:

- US EPA Region 1 Volunteer Water Quality Monitoring Equipment Loan Program
- Niantic River Nitrogen Work Group
- Town of East Lyme DPW
- Town of Waterford Planning Department
- Dominion Power Millstone Plant Environmental Lab
- University of Connecticut Marine Science Department
- Local volunteers



The NRWC water quality monitoring program was made possible in part by funds from the Unilever United States Foundation and support from US EPA Region 1.

Riffle Bioassessment by Volunteers (RBV) - 2012



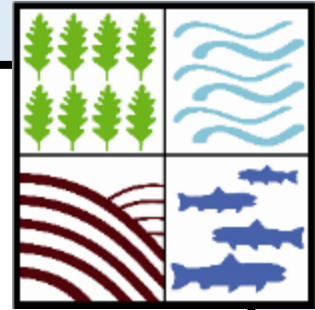
Partners:

- The Last Green Valley Volunteer Water Quality Monitoring Program
- CT Department of Energy & Environmental Protection
- East Lyme Conservation of Natural Resources Commission
- East Lyme Cub Scout Pack 7
- Local volunteers
- Watershed Towns



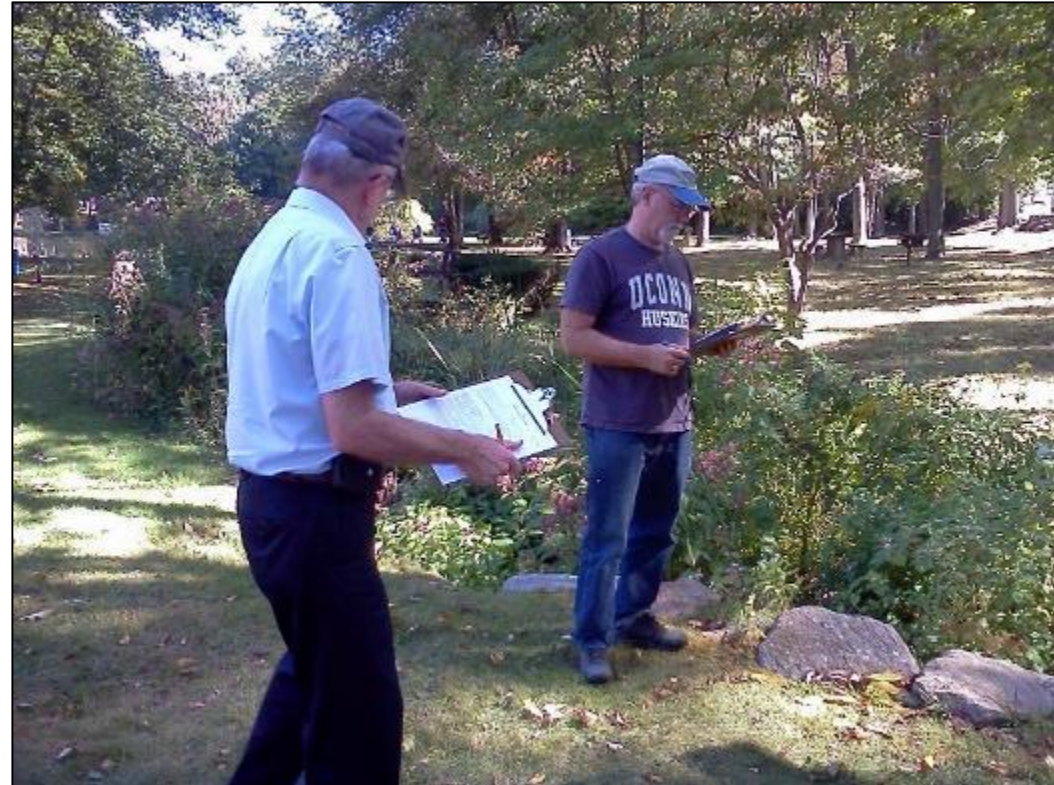
The NRW RBV program was made possible in part by funding from the Unilever United States Foundation.

Latimer Brook Stream Corridor Assessment - 2011 and 2014



Partners:

- The Last Green Valley Volunteer Water Quality Monitoring Program
- CT Natural Resources Conservation Service (NRCS)
- Town of East Lyme
- Local volunteers



The NRW StreamWalk program was made possible in part by funds from the Unilever United States Foundation and a grant from the Environmental Professionals of Connecticut (EPOC).

Stream Temperature Monitoring - 2013

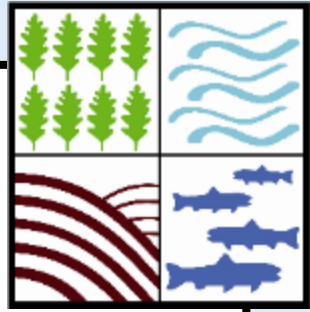


Partners:

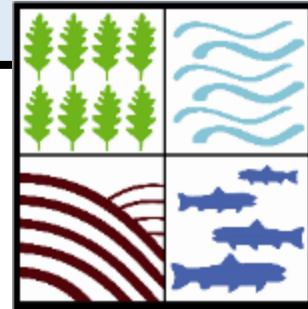
- CT DEEP Water Quality Monitoring and Inland Fisheries Divisions
- Town of East Lyme
- Property owners
- Local volunteers



Implement a Watershed Management Information and Education Campaign



Teacher Water Quality Loan Kits - 2012



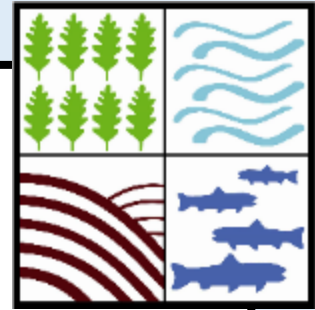
Partners:

- School Departments and middle and high school science teachers from the Towns of East Lyme, Waterford and Montville



The Teacher WQ Loan Kits were funded by a grant from the Environmental Professionals of Connecticut (EPOC).

Hole-in-the-Wall Stormwater Outdoor Classroom, East Lyme - 2014

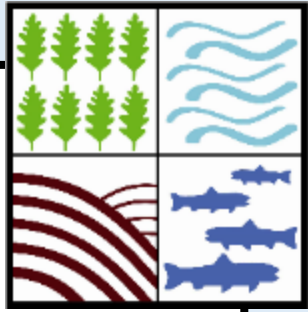


Partners:

- Town of East Lyme DPW
- Towns of East Lyme and Salem School Departments
- CT DEEP Watershed Division
- CT DEEP Fisheries Division
- University of CT Extension Master Gardener Program
- Southeastern Connecticut Regional Resource Recovery Authority



2017-2018 - Niantic River Community-Based Social Marketing Behavior Change Campaign



Project Partners:

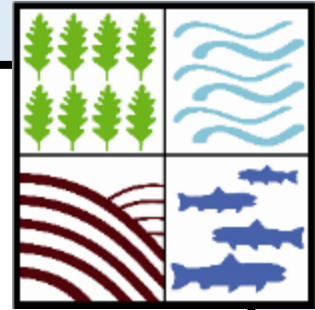
- Long Island Sound Study (Project Lead)
- The Nature Conservancy
- Towns of Waterford and East Lyme DPWs & Planning Departments
- Local volunteers
- CT Sea Grant
- University of CT Extension Master Gardeners Program
- University of CT Marine Science Department
- Turf Scientists University of CT College of Agriculture



Funded by the Long Island Sound Study.

NRWC Coordinator funded by a Dominion Energy Charitable Foundation Environmental Stewardship grant.

2018 - Stormwater BMPs and the MS4 Permit Workshop



Partners:

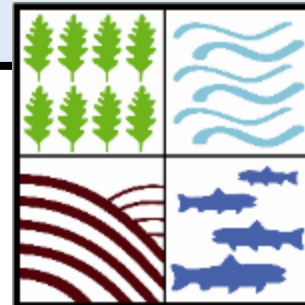
- Town of East Lyme DPW
- CT Non-point Source Education for Municipal Officials (NEMO) program



Funded in part through CT DEEP by a CWA Section 319 NPS Program grant.

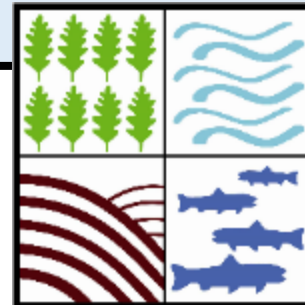
Reduce Nutrient and Bacteria Loads





Project Locations





2012 - Clark Pond Riparian Buffer, East Lyme

Partners:

- Town of East Lyme Recreation Department
- Town of East Lyme DPW
- Friends of Oswegatchie Hills Nature Preserve
- Dominion Power Environmental Stewardship Team
- Local volunteers



2012 - Colony Road, East Lyme



Partners:

- Town of East Lyme Planning Department
- Town of East Lyme Department of Public Works



Funded in part by CT DEEP through a CWA Section 319 NPS grant.

2014 - Mago Point Riparian Buffer, Waterford



Partners:

- Town of Waterford Recreation Department
- Town of Waterford Planning Department
- University of CT Marine Science Department
- Dominion Power - Millstone Environmental Stewardship Team
- Local volunteers



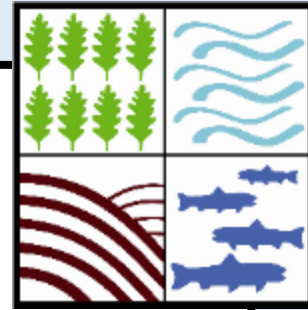
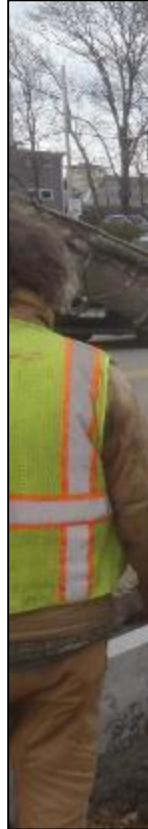
Funded through an America the Beautiful Urban Forestry grant (CT DEEP).

2015 - Tree Filter Two Zone Project: Pennsylvania Avenue, East Lyme

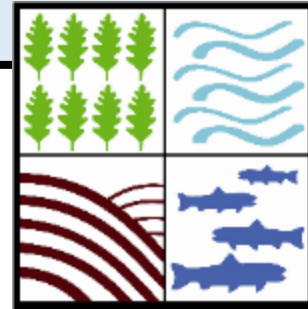
Partners:

- Town of East Lyme
Planning Department
- Town of East Lyme
Department of Public
Works

Funded in part by CT DEEP through a CWA Section 319 NPS grant and a CT Office of Policy and Management Small Town Economic Assistance Program (STEAP) grant.



2016 - Tree Filter Two Zone Project: Mago Point, Waterford



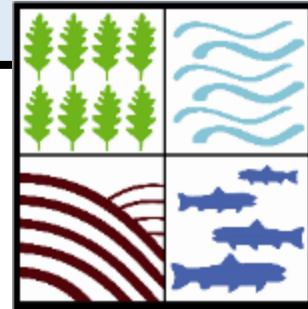
Partners:

- Town of Waterford Planning Department
- CT DEEP Boating Division
- CT DEEP Land Acquisition and Management Division



Funded in part by CT DEEP through a CWA Section 319 NPS grant and a CT Office of Policy and Management Small Town Economic Assistance Program (STEAP) grant.

2017-2018 -Grand Street Stormwater Improvement Project East Lyme



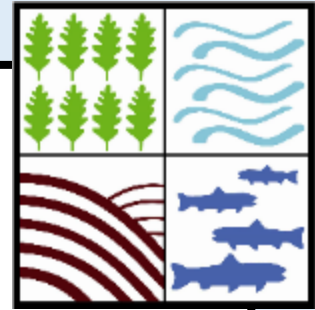
Partner:

- Town of East Lyme
- Department of Public Works

Tree Wells
Dry Wells

Funded in part by CT DEEP through a CWA Section 319 NPS grant.

2018 - East Lyme High School Rain Garden



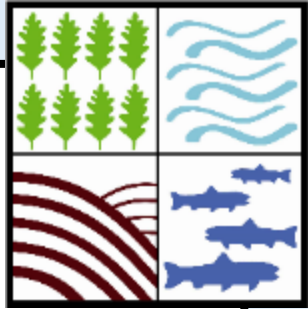
Partners:

- East Lyme School Department
- East Lyme DPW
- Dominion Power Millstone Environmental Stewardship Team



Funded through a grant from Dominion Energy Charitable Foundation Environmental Stewardship grant.

2018 - LISFF 100 Rain Gardens/100 Rain Barrels



Partners:

- Town of East Lyme DPW & Recreation Departments
- Friends of Oswegatchie Hills Nature Preserve
- Boy Scouts of America
- Pine Grove Association
- Watershed residents
- The River Network
- Coca Cola America

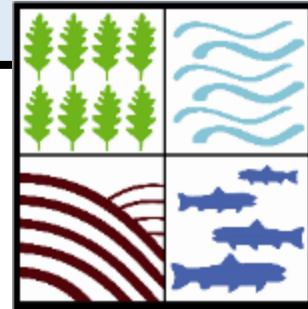


Funded in part through a National Fish & Wildlife Foundation Long Island Sound Futures Fund grant.

In the Works...

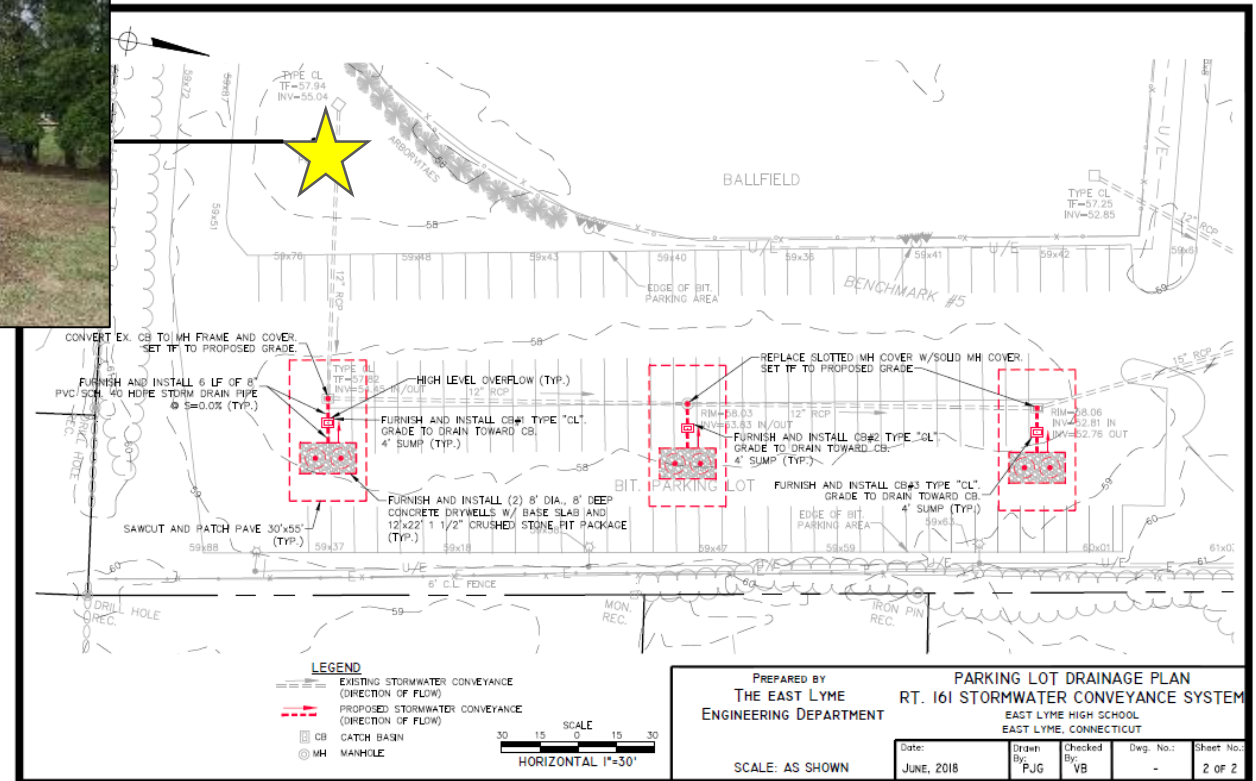


East Lyme High School Stormwater Infiltration Project - 2019



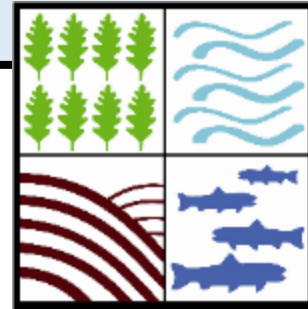
Project Partners:

- East Lyme DPW
- East Lyme School Department



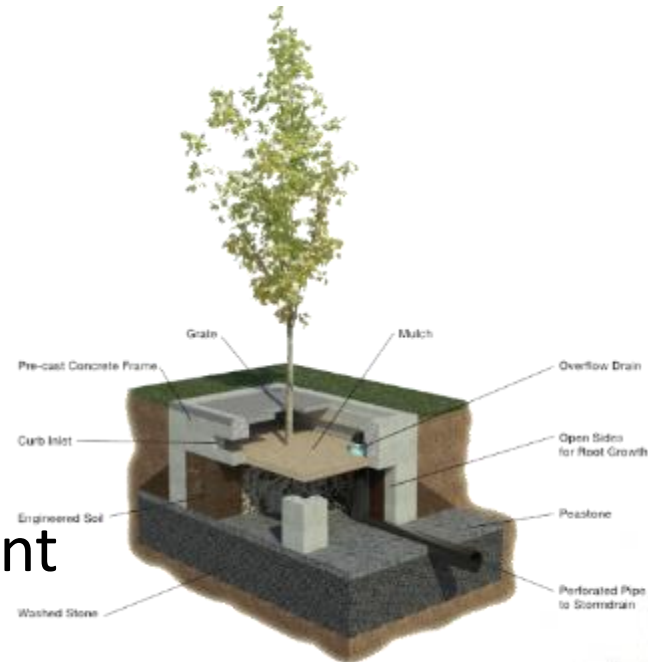
Funded in part through CT DEEP by a CWA Section 319 NPS Program grant.

Niantic 4-Town Bio-infiltration Project - 2019



Project Partners:

- East Lyme Planning Department & DPW
- Waterford Planning Department & DPW
- Montville Planning Department
- Salem Planning Department
- The River Network
- Coca Cola - America

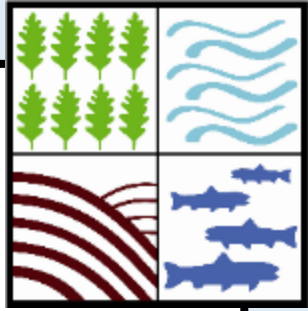


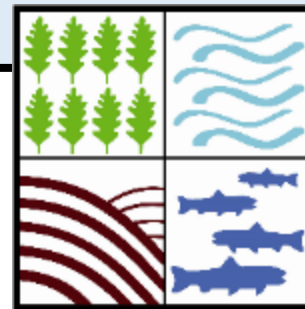
Funded in part through CT DEEP by a CWA Section 319 NPS Program grant.

Niantic River Watershed Plan Update – 2018 - 2019

Partners:

- Watershed towns/commissions
- Watershed residents
- Southeast CT Council of Governments
- Save the River-Save the Hills
- East Lyme Public Trust Foundation
- The Nature Conservancy
- CT DEEP
- USGS





Thank you!

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