



SALMON RIVER WATERSHED PARTNERSHIP

ANNUAL NEWSLETTER
SALMON RIVER WATERSHED

2015

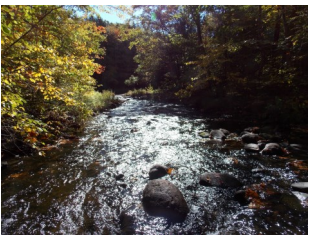
This Classroom Doesn't Have Walls



But it does have water, mud, stones and lots of BUGS. In fact it is the bugs, also referred to as benthic macroinvertebrates, that students at RHAM High School and Middle School along with members of the Colchester Girl Scout Troop, are helping the Salmon River Watershed Partnership (SRWP) collect, identify and catalogue as part of a state stream health program. Larval forms of the stonefly, caddisfly and mayfly families can be found in the cool clean waters of our streams and brooks. Certain species in these three families are particularly sensitive to pollution and are therefore good indicators of clean water. These species are referred to as “most wanted”.



Bug sorting with the scouts



If 4 or more of these “most wanted” species are found in a stream it supports a “healthy waters” designation by the Department of Energy and Environmental Protection. New initiatives by the State, including possible project funding for local communities, are directed towards ensuring these healthy waters stay that way.

continued on page 8



RHAM High School Aquatics Classes—No Walls



Canada Geese at Raymond Brook Marsh—Courtesy of Stan Malcolm Photo

Borrowing Land from Our Children: *Support Land Conservation. Our decisions today impact our children, their children and their children's children. Local land conservation efforts in the watershed mean your grandchildren will have clean water to drink and a chance to explore nature. Your vote and dollars show you care. Email us at salmonriverct@att.net and we will connect you to a local preservation group.*



Haddam Neck: Continuing the Open Space Legacy

Haddam Neck is the peninsula at the confluence of the Salmon and the Connecticut Rivers. It represents about 5% of the town of Haddam, but lies on the east side of the Connecticut River and is often mistaken for East Haddam. Because of its isolated, rural character it has attracted the interest of a diverse group of organizations such as The Nature Conservancy, the Gateway Commission, the Middlesex Land Trust, Connecticut DEEP and the US Fish and Wildlife Service. Local facilitation comes from a very informal group known as the Had-

River. Working with local conservation organizations, particularly the Middlesex Land Trust and the Haddam Neck Spirit, they have purchased several additional local properties, most of them contiguous, at fair market value. Further, they have expressed clear interest in purchasing the 525 acre Connecticut Yankee property, in an arrangement subordinate to the requirements of the safe and secure storage of the spent nuclear fuel which remains stored on the property for the indefinite future. Unfortunately the fuel remains stored here in spite of the original promise by the US government to remove it upon retirement of the plant.

Most recently The Gateway Commission arranged the purchase of 50 acres on the North boundary of CY property, fronting on Injun Hollow Road. This property is now owned by the Middlesex Land Trust and will protect the view of the a large portion of the steep hillside facing the Connecticut River. Because it contains historic granite quarries it has been designated, The Brainerd Quarry Preserve after the multi-generational family that once owned it.

The Brainerd Quarry Preserve purchase is significant in that except for Connecticut Light and Power (now Ever-source) and one other small private owner, Connecticut Yankee property is now entirely surrounded by water or preserved land.



dam Neck Spirit and a sub-committee dedicated to facilitating conservation of 525 acres owned by the Connecticut Yankee Atomic Power Company.

The current effort began with the purchase of the 282 acre Elm Camp-Johnson property in a joint purchase by the Town of Haddam and The Nature Conservancy. This in turn attracted the interest of USFWS who was willing to buy it and combine it with several other properties to form the Salmon River Division of the Silvio O. Conte National Wildlife Refuge. The Conte Refuge operates within the entire 410 mile length of the Connecticut

The Salmon River Watershed is a beautiful part of Connecticut's natural landscape. Efforts to preserve land on its shores both in Haddam Neck and East Haddam are succeeding. We are particularly lucky to have the interest and participation from national level organizations who recognize the value of our watershed.

J. McHutchison

Hebron Open Space Preservation in Raymond Brook Watershed, Continued!

In February 2015, the Hebron Open Space Land Acquisition Committee voted unanimously to recommend the open space purchase of the 19.4-acre Leary parcel located on Millstream Road and abutting the 95-acre Town-owned Church Street Park for the negotiated price of \$170,000. The Town has submitted an Open Space and Watershed Land Acquisition grant application to the State Department of Energy and Environmental Protection to defray a portion of the purchase. The Salmon River Watershed Partnership has provided the Town a support letter for this application.

The Leary property is located within the Town's Future Open Space Greenway Plan as presented in the 2014 Plan of Conservation and Development and has a num-



Roadside Vista

ber of unique attributes that the Committee considered in making this recommendation. The parcel consists of a spacious open roadside field, currently farmed, a diversified deciduous forest, wetlands and a portion of Raymond Brook that traverses south westerly into the Raymond Brook Marsh, a recognized "state-wide Wetland of Special Concern".



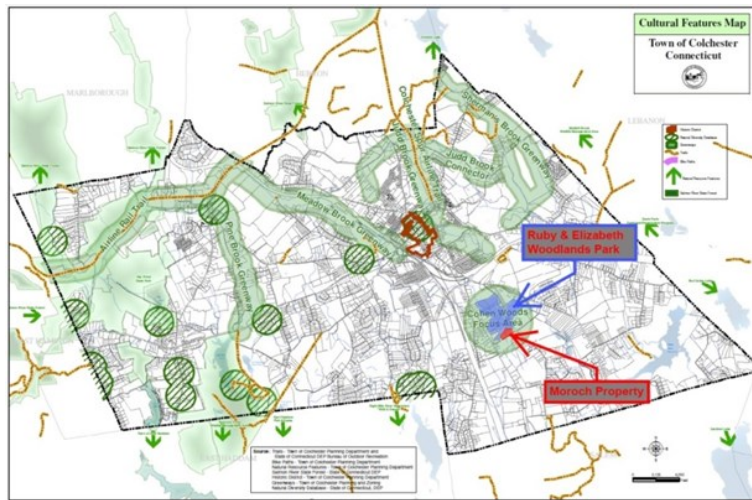
Raymond Brook

Acquisition of the parcel would provide an alternative access to an expanded Church Street Park from the east, offer an opportunity to connect the nearby State Air Line Trail to the Park while enhancing passive recreational possibilities. Purchase of the property would further continue the Town's efforts in protecting the high water quality of Raymond Brook and Raymond Brook Marsh, provide for an extended area of woodland habitat, preserve farmland for future farm use and retain the scenic streetscape of Millstream Road.

F. Zitkus

Town of Colchester Open Space: Moroch Property

In October 2014, the Connecticut Department of Energy & Environmental Protection notified the Town of Colchester that it had been awarded a grant towards purchase of a 10 acre parcel. The amount awarded totaled \$31,183. In addition to the support received from the Town Administration and the Land-Use Boards, Colchester also received a letter of support from the Salmon River Watershed Partnership.



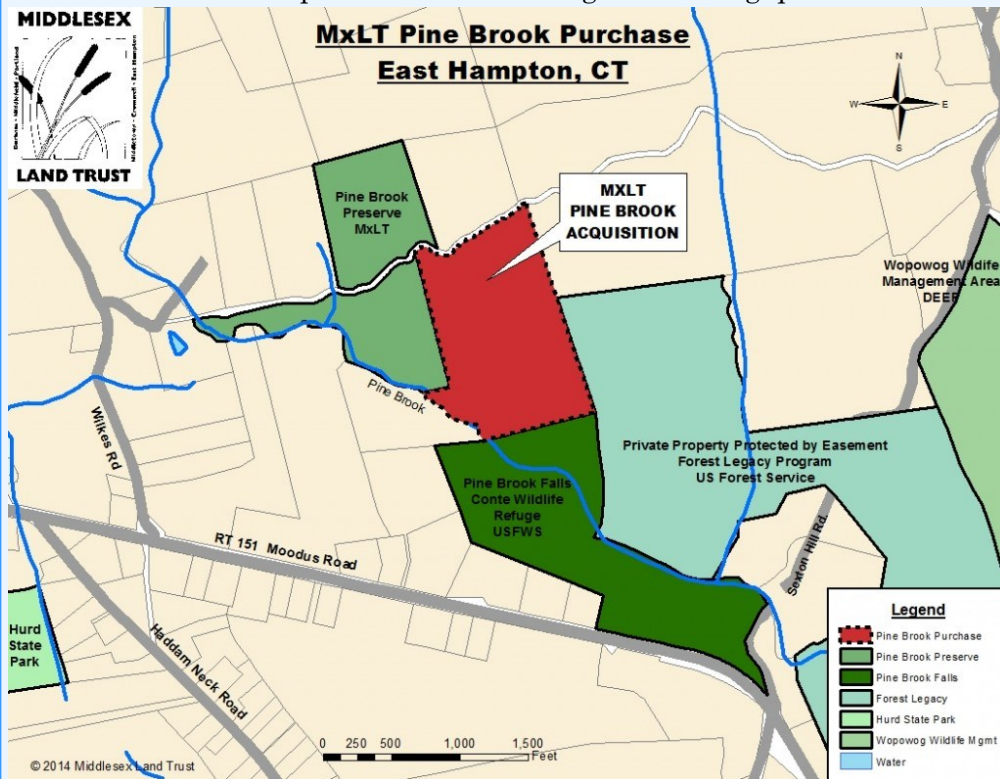
The funds awarded shall be used in conjunction with town funds to purchase land known as the "Moroch Property". The subject property is located on the north side of Dutton Road and abuts the town-owned "Ruby &

Elizabeth Cohen Woodlands" to the immediate south. It is being purchased from the Estate of Stanley Frank Moroch, a Colchester resident that was extremely active in the community. In addition to the maintenance activities Mr. Moroch conducted in the cemetery located behind the old Bacon Academy on South Main Street, he was the "go-to" person for information regarding Colchester's history. The property totals 10.21 acres of natural habitat, containing forests, streams and wetlands.

continued on page 7

East Hampton's Newest Preserve

Picture a hidden woodland valley framed by ledge outcrops with a cold water brook dancing over moss covered stones. Now picture a "for sale" sign. Knowing quick action was necessary, the Middlesex Land



Trust voted to purchase this 34.8 acre parcel first, and then raise the funds to repay their land acquisition loan. Linking several key conservation parcels, over 700 acres of contiguous land is now protected in the Pine Brook and Salmon River Watersheds.

And it is not just Pine Brook that is protected. Vernal pools, like the large one on this preserve, are especially sensitive to development impacts. The frogs and salamanders that breed in these springtime "wicked big puddles" come back year after year to lay their eggs, which hatch into tadpoles then morph into baby frogs and salamanders. Development

can alter these magical pools, sometimes wiping them out overnight. But not this one. Come spring, the chorusing wood frogs and peepers will still be there, year after year after year.

Protected lands are the single most effective tool for preserving wildlife habitat and clean water.

How Can You Help? The Middlesex Land Trust needs to raise \$115,000 to cover the land purchase and future stewardship costs. Every dollar will help. Please visit their website for a mail address or to make a secure on-line donation.

www.middlesexlandtrust.org



About Us.....Keeping Our Streams Clean



The Salmon River Watershed Partnership was formed in 2008 for the purpose of focusing on one resource, the Salmon River Watershed. The land that makes up the watershed is spread over 10 towns. Our local streams are very clean and provide some of the most important fish habitat in the state. We conduct volunteer stream monitoring programs to make sure our water stays that way.

To learn more, please visit our website at www.salmonriverct.org

Checking the Water of Our Local Streams

For the past two summers, volunteers have been taking measurements for water temperature, dissolved oxygen, pH, conductivity, total dissolved solids and salinity.

Graphs to the left show stream temperatures for the last two summers in Celsius (°C).

Stream temperatures just under 25 °C can be harmful for native trout survival.

Stream temperatures in the summer of 2013 were warmer than 2014 temperatures.

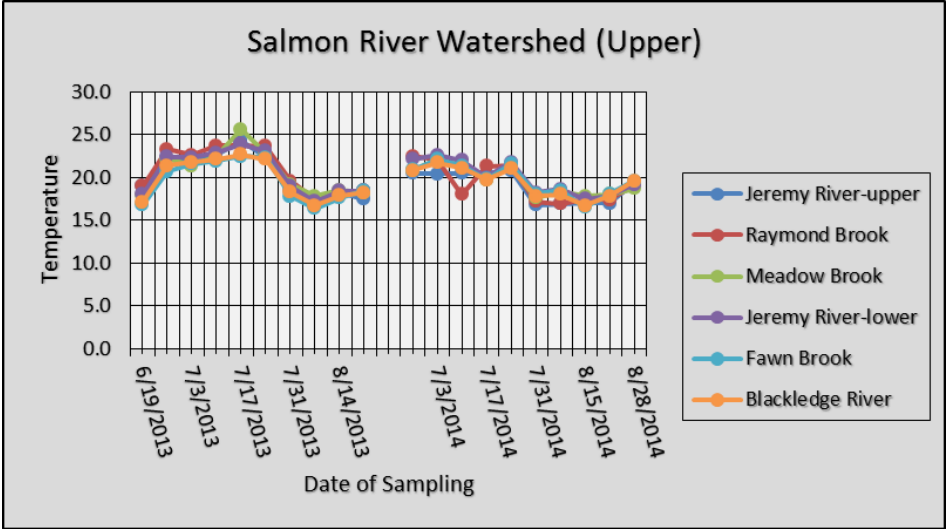
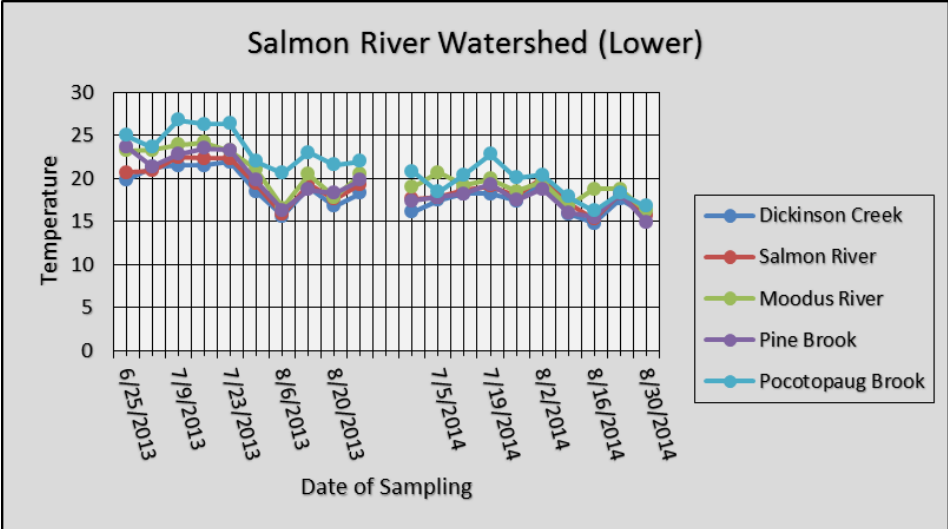
For the full report visit our website.

www.salmonriverct.org



Want to Volunteer?

Email us at
salmonriverct@att.net



Thank You, Thank You, Thank You.....

To Our Volunteers: Our volunteers assist as board members, stream monitors, with stream assessments, field projects and with outreach. This year, over **140 community members** contributed over **1000 hours** of volunteer time for their watershed.

To Our Partners: The Salmon River Watershed Partnership is supported by the **Watershed Towns** and organizations including **CT DEEP, The Nature Conservancy, CT River Coastal Conservation District, Goodwin College, Trout Unlimited** and **Moodus Sportsmen Club**

To a Local Business: A BIG thank you to **GZA GeoEnvironmental Inc.** (local office in Glastonbury, CT) for a \$500.00 donation in 2014 to be used for monitoring equipment.

Colchester: Balancing Economic Growth with Natural Resource Protection

Balancing economic viability with natural resource protection is a laudable goal. In fact, it is a common goal found in most towns' Plan of Conservation and Development. And while the goal may seem quite clear,



Parking Lot Stormwater Swale in Bolton.....courtesy of UCONN CLEAR

translating it into zoning districts and code requirements can be very challenging. There isn't a one-solution fit. The Town of Colchester recently took on this challenge, adopting some innovative regulations that provide for economic growth while including safeguards for environmental protection.

As part of a grant opportunity spear-headed by The Nature Conservancy and funded by the Long Island Sound Future's Fund, the Town of Colchester worked with an outside consulting firm, the Horsley Witten Group, which specializes in sustainable environmental solutions for land use. Combining the local knowledge of the Town Planning Department and Land-Use Commissions with the services of the consulting firm, Colchester recently adopted state-of-the-art policies to protect its natural resources while allowing for growth in strategic areas.

For example, the rural residential districts formally provided little or no consideration of the environmental features on the site. Rather, the regulations proscribed a series of setbacks that resulted in a specific buildable square area which sometimes had no relation to location of the natural features on a site. The new regulation is focused on preserving environmental character in the rural districts and forces even large lot residential development to consider the preservation and conservation of natural features in siting new buildings.

The downtown areas are also focused on improving environmental quality. Older zoning trends in much of

Connecticut were often land consumptive. Take for example, parking lots. It was common in the past to require parking that could meet the highest possible demand, even if that demand occurred only once a year. More was better. More also translated in to more impervious surfaces, which meant more sanding and salting in the winter and higher rates of run-off and pollution and thermal shocks to local streams.

Recognizing the need for appropriate levels of parking, but also the need to minimize impact on local streams, Colchester created regulations that check both boxes. The new regulations include;

- Setting limits on the amount of parking required based on the most current standards and when justified, allowing the flexibility to reduce requirements further.
- Allowing shared parking and setting percent reductions in the requirements based on the types of users that will be sharing the parking and reasonable walking distances.
- Taking into consideration public transit and biking and pedestrian pathways to reduce overall spaces needed when possible.
- Setting limits on the amount of impervious surfaces and encouraging pervious parking and snow storage areas to promote infiltration.
- Limiting disturbance and conserving natural areas
- Adding below-grade vegetative islands that do double duty by also being bio-filters to intercept and treat run-off.
- Establishing undisturbed setbacks to important rivers, such as the Salmon and Jeremy River, to maintain streambank integrity and shading.



Pervious Parking in Colchester.... courtesy of UCONN CLEAR

These are just a couple of examples from the new regulations that demonstrates that with a clear understanding of the needs of the town and its natural resources, it is possible to balance goals, both environmental protection and economic viability.

Fish Friendly Culverts in Marlborough

Our local rivers, streams and brooks are nature’s highways for fish, amphibians, reptiles and other terrestrial wildlife. We are well aware that dams can be major obstacles for critter movement, but road and driveway

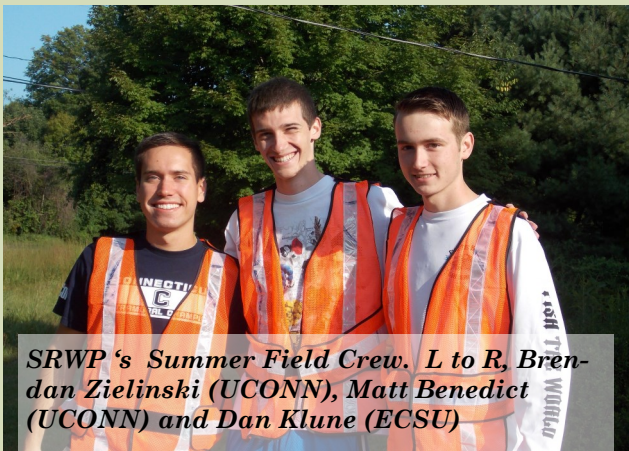


Perched Pipe Outlet—courtesy of CT DEEP

crossings can also be hurdles for passage. Pipes that are too long, too steep or where the water runs too fast or is too shallow, all present challenges for movement, particularly

fish. Fish need to move to spawn, for food and to head to areas of cooler water when temperatures are high and streamflow is low.

Many road culverts or pipes were originally installed to simply pass water as efficiently as possible resulting in conditions that are just not fish-friendly. The good news is that as these road culverts are being replaced we can often fix those problems to restore passage. Several culverts in the Town of Marlborough have recently been or are in the process of being upgraded for fish-friendly passage. The first step is to identify which culverts need replacement and then determine if it is likely that any fish are present. State fisheries biologists from DEEP’s Eastern District Headquarters (also in Marlborough) assist area towns with identifying whether fish are present and design options.



SRWP’s Summer Field Crew. L to R, Brendan Zielinski (UCONN), Matt Benedict (UCONN) and Dan Klune (ECSU)

The best fish-friendly designs are the ones that mimic the undisturbed channels above and below the pipe being replaced. Ideally, open bottom crossings are best. Where closed pipes are needed however, using a wider pipe that allows some exposed streambank and burying the pipe to create a natural bottom with a design that maintains the natural stream depth is also a good solu-

tion. Since fish-friendly designs are closer to natural conditions they also function better in larger storm events, keeping roads safer and reducing costly repairs.



Collecting Field Data on Pipes

The Salmon River Watershed Partnership has been working the last two summers with several college student volunteers to help CT-DEEP collect field data on road crossings in the watershed. This data is being uploaded to a regional database map that will allow local town departments to identify which culverts are particularly vulnerable to large storms and which ones could also be better fish highways.

Colchester-Moroch.....continued from page 3

Once the property has been purchased, all 10.21 acres shall be immediately combined with the abutting Ruby and Elizabeth Cohen Woodlands Public Park. Colchester residents and the public in general will be able to hike, bike, fish, bird watch and picnic at the 170 acre park.

The Ruby and Elizabeth Cohen Woodlands is located within the “Cohen Woods Focus Area”, a state-designated greenway. The acquisition of the Moroch property brings the Town one step closer towards its goal of establishing connections between existing and designated greenways. This acquisition, specifically works towards a connection of the “Cohen Woods Focus Area” and the “Judd Brook Greenway”.

The connection of greenways creates natural corridors of protected land and is identified as a high priority goal of Colchester’s Open Space Plan. With the Moroch property purchase, Colchester meets both the stated goals in both the Town and State’s Plan of Conservation and Development.

Jay Gigliotti

This Classroom Doesn't Have Walls.....continued from page 1



Partnering with local groups such as RHAM and the Girl Scouts also provides meaningful learning opportunities. Students are working together under field conditions to collect real data for their communities. In the words of RHAM HS science teacher Kathy Greene, *"This program is invaluable to RHAM Aquatics students. It allows them to see the value of long-term data collection in stream monitoring and environmental science. This perspective motivates students to collect accurate data and to continue volunteering with the program. We greatly appreciate the opportunity to work with the professionals involved in this important work."*



(Photos....top left-RHAM Middle School at Raymond Brook, left-RHAM High School at Fawn Brook)

Steering Committee

Watershed Towns

Bolton: Rod Parlee (temp)

Colchester: Jay Gigliotti, Adam Turner (alternate)

Columbia: Rob Hellstrom

East Haddam: Emmett Lyman, Jim Ventres (alternate)

East Hampton: Emily and Josh Wilson (alternates)

Glastonbury: Tom Mocko Dennis McInerney (alternate)

Haddam: Gail Reynolds, Jim McHutchison (alternate)

Hebron: Brian O'Connell, John Mullaney (alternate)

Marlborough: Peter Hughes

Organizations

The Nature Conservancy: Shelley Green

Connecticut DEEP: Eric Thomas

Colchester Land Trust: Lisa Hageman, Leslie Curtis (alternate)

Trout Unlimited:-Thames River Valley : John Preston

Member at Large

Silvio O. Conte Refuge-Haddam Neck: Jim McHutchison

Watershed Coordinator: Patricia Young

List of Creeks, Brooks & Rivers Checked

- Dickinson Creek in Colchester (upper)
- Dickinson Creek in Colchester (lower)
- East Branch of Fawn Brook at Hebron-Marlborough Line
- Fawn Brook at Hebron-Marlborough Line
- Fawn Brook (lower) in Marlborough
- Flat Brook in East Hampton
- French Brook in Bolton
- Jeremy Brook in Hebron
- Judd Brook in Colchester
- Meadow Brook in Colchester

- Moodus River in East Haddam
- Raymond Brook in Hebron
- Safstrom Brook in East Hampton
- West Branch of Fawn Brook at Hebron-Marlborough Line

Assisting Groups

- Colchester Girl Scouts & LT
- RHAM HS Aquatics Class
- RHAM HS Aquatics Class
- Colchester LT & Hebron CC
- Bolton CC
- Hebron CC
- CRC Conservation District & Hebron CC
- RHAM MS 8th Science(H)
- RHAM HS Aquatics Class

To Learn More.....

www.salmonriverct.org



Courtesy of Stan Malcolm Photo