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Welcome to the first digital edition of Watershed, WPWA's timeless newsletter. Making the switch to paperless isn't just good for the environment, it's great for you, our donor. Your donation dollars go so much farther in the digital world and will allow us to produce six installments of Watershed every year for less than the cost of the traditional four printed versions. More timely content makes you the WPWA member better advised on what's new in the watershed! We hope you enjoy the new format and content.

Read more about our "green" upgrades here.



RIDOT Welcome Center May Not Be So Welcome

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Annual Fund Drive

Please give generously to WPWA's Year End Fund Drive by clicking the "Donate" button above. If you have already donated, we thank you for your support. We are only half way to our goal of \$14,000. Your gift today will ensure that our programs and advocacy continue throughout the coming

year. Thank you!

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Charlie Hickox Passes

"Let's go on a Penny Adventure" Charlie Hickox would say, as a prelude to exploring a hidden gem in a corner of the Wood-Pawcatuck Watershed. I went on my first Penny Adventure with Charlie...Read more...



Water Quality Monitoring: Are we getting this right?

Since 1988, WPWA has been monitoring the quality of the water in the watershed's lakes, ponds, rivers, and streams. The goals of our sampling program are to track the status of these water bodies... Read more...

"WATERSHED" is Going Green and Going Digital!

Happy fall from the Wood-Pawcatuck Watershed Association! And, welcome to our first digital newsletter!

If you'll recall from our last printed newsletter this summer, in an effort to be "greener" and make your donation dollars go further, we have begun publishing "WATERSHED" digitally. Every couple of months you will be receiving news updates and interesting articles from WPWA in your inbox. You may also receive an occasional email from us between newsletters with breaking news, an urgent request, or information about upcoming events.

Why, you may ask, are we doing away with our paper newsletter? Our reasons for going digital are many. The most obvious is the benefit to the environment from saving many thousands of sheets of paper and plenty of ink. We will be able to devote more of your generous membership dues and donations to programs, as we will no longer be paying for printing, folding, and postage of hundreds of multi-page paper newsletters. We also hope that our members will spread the word about the work WPWA is doing by forwarding our enewsletter to their family and friends. We will also be posting our news articles on FaceBook, so please "Like" our page and "Share" with your friends.

Please be assured that we will NEVER sell or share your email address! We also promise that we won't bombard you with constant emails--we respect your time and know how annoying frequent emailers can be. You have the option of unsubscribing to our digital newsletter (which unfortunately would unsubscribe you from ALL of our emails) or requesting that a paper copy be mailed to you. If you prefer to receive a paper copy, please send an email letting us know, and make sure you send the mailing address to which you want your newsletter delivered.

As always, we thank you for your continued support! Return to Top



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RIDOT Welcome Center May Not Be So Welcome

The U.S. Department of Transportation has approved a \$9 million grant for the construction of a new state welcome center and RIPTA transit hub at Exit 1 off I- 95 in Hopkinton, but its location has prompted questions from local officials, residents and conservation organizations. The 6,000-square-foot welcome center is expected to cost at least \$12 million to build and is proposed at a 20-acre site on the southeast corner of the intersection of I-95 and Route 3. In addition to offering food, restrooms and tourist information, the State plans to include up to 10 fueling stations, a park-and-ride area with space for up to 200 vehicles, a RIPTA bus terminal, and electric-vehicle charging stations.



So why all the fuss over what appears to be a needed asset for the State of Rhode Island and the surrounding community? In a word, Water. The relatively undeveloped land sits atop what the US EPA designated as a sole source aquifer in 1988. At that time EPA noted that the aquifer is the sole source of drinking water to all the residents, there exists no reasonable alternative drinking water source, and that the good to excellent rated water is highly vulnerable to contamination. In the EPA's report they state "Since all residents are dependent upon the aquifer for their drinking water, a serious contamination incident could pose a significant public health hazard and place a severe financial burden on the service area's residents." Just 1 gallon of gasoline entering the ground has the potential to render up to 1 million gallons of groundwater undrinkable.

WPWA is concerned about this development for three key reasons. First and foremost the potential for the introduction of gasoline to drinking water from underground storage tanks and/or surface spills. Second, the potential for impact to surrounding wells from the large volume of water that will be withdrawn from the aquifer to support the operation and amenities of the welcome center. And lastly, the impact that septic waste generated by the facility will have on the quality of the underlying groundwater and nearby streams.

Deepening concerns is the power the State has to take land by eminent domain and bypass local development restrictions. In a recent Westerly Sun article, Hopkinton Town Solicitor Patricia Buckley said the State is not obliged to consult with the town or even obtain approvals from the planning and zoning boards. "Depending upon how the project develops, the State may very well be able to override local zoning and planning regulations and bypass the local boards", she said.

Despite this, the State will be required to consult with the EPA on their development plans. WPWA anticipates that the EPA will require the project to take extra measures in the design and operation of the welcome center to ensure the aquifer is protected. Rest assured that WPWA will continue to watch and comment on this project as it moves forward to ensure the gasoline contamination tragedy that occurred at Exit 3 in the 1980's is not repeated in the future at Exit 1. Return to Top

WPWA Volunteer Appreciation Day

Columbus Day was the perfect day to celebrate WPWA's volunteers with a challenging paddle on the upper Wood River. Over a dozen hardy folks joined WPWA staff Denise Poyer and Elise Torello on the unusually warm, blue sky day for what turned out to be more of a walk than a paddle due to continued low water levels. Spirits remained high as we enjoyed the beauty of the Wood River sporting the colors of fall foliage, finally pulling into the WPWA



Campus for a cookout and some lively conversation. WPWA's volunteers come from all walks of life and contribute in many ways. Included in the paddle group were board members, water quality monitors, and children's paddle program helpers. We hope to have even more volunteers join us next year. Return to Top

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What's Happening

RI Environmental Education Association (RIEEA) Annual Meeting Tuesday, January 12, 2016 RI College Faculty Center Contact Denise Poyer at denisep@wpwa.org for more information.

RI Spring Flower & Garden Show

Thursday - Sunday, February 18 - 21, 2016 RI Convention Center

WPWA does not currently have any programs scheduled.

Related News

Rhode Island plans rebuild project at Upper Wyoming Dam The Westerly Sun December 1, 2015

Public Comment Forces Paddling Restriction Changes ecoRI News October 7, 2015

State proposes new welcome center, RIPTA bus hub off Interstate 95 in Hopkinton The Westerly Sun June 7, 2015

Proposed \$12M Rhode Island Welcome Center Raises Questions The Westerly Sun October 29, 2015

Raimondo plan for R.I. visitor center off Exit 1 on I-95 gets mixed reviews

Providence Journal September 13, 2015

River Detour is Finally Removed



A river cleanup on a grand scale was a smashing success this summer. Often referred to as "a piece of trash in the river", the White Rock dam is now fading into the history books. For the first time since 1770 the Pawcatuck River now flows freely in the area between Potter Hill and downtown Westerly. The dam's removal will improve fish passage and reduce future flooding impacts.

The overall project remains on schedule and on budget, according to Scott Comings, an associate director with the Rhode Island Nature Conservancy, the leader of the project. "WPWA is pleased to provide ongoing technical support for this dam removal" said WPWA's Chris Fox. "Having another non-governmental agency now experienced in RI dam removals increases the potential for more large restoration projects to occur in this watershed".

The White Rock Dam was renowned for redirecting the Pawcatuck River down a deteriorating man made bypass channel that long ago serviced the downstream mills. While the bypass was a fun ride for boating enthusiasts, its unnatural channel was a barrier to most aquatic species. With the dam gone, critters like migrating herring will have a much easier time moving up and downstream. Hopefully the restoration of the natural river channel will meet with the approval of recreational boaters and fishermen as well.

White Rock is the fifth dam on the Pawcatuck River to be removed or modified in the last decade. Collectively, these restoration projects are designed to improve fish passage and reduce flooding on the 32 mile waterway that stretches from Worden's Pond down to Little Narragansett Bay. Three fish passage projects completed by WPWA on the upper Pawcatuck River are already proving successful. Last April saw the first natural return of spawning herring to Worden Pond in over 150 years. The White Rock dam removal is sure to make their April 2016 migration upstream a lot less exhausting.

This project could not have been completed so quickly and efficiently if not for the partnership between RI and CT's Nature Conservancy, US Fish & Wildlife Service, WPWA, RI DEM, CT DEEP, The White Rock Trust, The Cherenzia Companies, and Wescon. The White Rock dam removal would not have been the success that it is without the design diligence of Fuss & O'Neill's engineers or the surgeons of SumCo Eco Contracting. Return to Top



Corrections

We want to extend our thanks to the following generous donors who were inadvertently omitted from our last printed newsletter:

* Guarino Painting * Jay and Mary Boyer * Wood River Fly Fishing Club

Please accept our sincere apologies for our omission.



Thank you Marnie Lacouture for your moving tribute to Betty Salomon.

We mistakenly attributed this article from our last newsletter to the incorrect author.

Please accept our sincere apologies for our error.

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30, 2015 at the age of 95.

experiences.

Charlie Hickox Passes

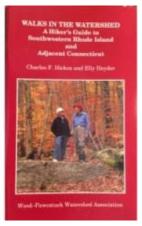
By Denise Poyer

"Let's go on a Penny Adventure" Charlie Hickox would say as a prelude to exploring a hidden gem in a corner of the Wood-Pawcatuck Watershed. I went on my first Penny Adventure with Charlie when I started working for WPWA in 1994. Charlie became my guide not only to the beauty and wonder of the natural resources in the Watershed, but also the passion many of us have towards this pristine treasure. His imprint is in every trail I walk, every section of river I paddle, every student I talk to about local geology. I have no doubt that the same can be said for the many hundreds of people who knew him through his voluminous activities in the Watershed. Charlie Hickox passed away on August

More than just a geologist, Charlie was the consummate teacher. After earning his BS from Harvard, his MS from Columbia University and his PhD from Yale University, he devoted his life to teaching. When he retired after teaching geology at Norwich University in Vermont and Colby College in Maine, he returned to live in Westerly. Total retirement did not suit him so he became an adjunct professor and taught at Connecticut College in New London, CT until he was around 80. His students were not the only ones that benefited from Charlie's knowledge and folksy teaching style. Everyone who went on one of his walks or paddles, used one of his guides, or joined one of the activities he sponsored, came away with a little more understanding and appreciation of the natural world than when they started. As a true educator, he had an unstoppable love of learning. While Charlie was teaching me about schist rocks in CT stone walls, kame and kettle formations in Westerly, or hidden cataracts on unnamed streams in the Arcadia Management Area, he was constantly challenging my knowledge of local plants and animals. Safe to say we both learned a lot through these

Charlie's love of nature was squarely rooted in the Wood-Pawcatuck Watershed. Born in Pennsylvania, Charlie's family moved to Westerly, RI when he was very young. His stories of growing up centered on his adventures in the Pawcatuck River. He often recalled swimming in the river near his house, where, at times, there would be some unsavory effluent floating along with him. This was long before the Clean Waters Act. Years later when WPWA was organizing the first Watershed Watch sampling stations, Charlie was among the first volunteers to do water quality sampling. He volunteered for WPWA ever since.

Charlie's contributions to WPWA and other organizations are many and varied. He developed the first Wood-Pawcatuck River Routes guide with the late Polly Matzinger in 1990. He later updated the guide with his longtime outdoor adventure companion, Elly Heyder. During one of our walks, when Charlie and Elly were showing me some of their favorite trails so that I could lead others there, we discussed developing a hiking guide for the Watershed. Charlie and Elly wanted to do something that was pocket sized, had both maps and text, and would be easy to follow. Using nothing but pedometers (this was before GPS units were common) they created the first Walks in the Watershed in 2000. Updated twice since then, this iconic little booklet contains 16 of Charlie and Elly's favorite hikes. All of them are loops because Charlie didn't like to repeat the same trail twice. Several years ago, while in his 80's, Charlie was at a local AMC meeting to volunteer to lead hikes. Someone asked him if he had any



experience. Charlie held up one of his hiking guides and said "Well, I wrote this book." (To purchase a copy of Walks in the Watershed, click here.)

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Geology, teaching, hiking and paddling were somehow involved in all of Charlie's volunteer activity. His most notable effort may be the preservation of the Champlin Glacial Park in Westerly. Located on the Charlestown Moraine, this area holds prime examples of glacier created land formations, including kettle ponds, kame ridges, and a view of the outwash plain. After deciding that this was of crucial importance to protect, Charlie worked persistently with the Westerly Land Trust to permanently preserve this important area. He and Elly designed and cut the trails on the property so that others would come to know this important treasure. Not surprisingly, one of the best places on the property is the view of the ocean from a spot called "Charlie's Lookout". Westerly Land Trust even took some of Charlie's sketches that explain the glacial process and turned them into wonderful trail information kiosks. This means that Charlie will continue to teach for many generations to come. Return to Top

Water Quality Monitoring: Are we getting this right?

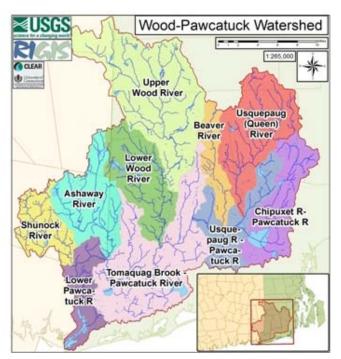


Since 1988, WPWA and our dedicated volunteers have been monitoring the quality of the water in your watershed's lakes/ponds, rivers, and streams. The overall goals of our sampling program are to keep track of the status of these water bodies, to monitor trends in water quality (stable, improving, or declining), and to identify water quality problems which need further investigation. In the past, we have selected sampling locations based on opportunity (volunteers willing to monitor a site near them) or specific project goals. Over the years, we have monitored over 160 sites in the watershed (not

all at the same time), and have gathered over 70,000 data points. In 2014, 14 ponds and 33 rivers and streams were monitored for water quality; of these, WPWA financially sponsored all 14 ponds and 18 rivers and streams. This effort to safeguard the quality of your surface waters costs you, our donors, over \$10,000 per year.

This year we decided to take a comprehensive look at our sampling program and try to answer the following questions: Are we covering the entire 300+ square mile watershed, with monitoring sites in all ten sub-basins and enough in the Pawcatuck River? If not, where should we add sites? Are there any sites that are redundant and can be dropped to save resources? Are there any very stable sites that we could possibly monitor every two or three years? Should we monitor several "reference" sites, and if so, where should they be located? Are we monitoring all of the parameters (e.g. dissolved oxygen, pH, nutrients, bacteria) that we should be? Are we sampling in places where we can detect effects from storm water runoff? What we found out is that we are actually doing a very good job with our monitoring program.

To answer the above questions, we took a very close look at each subbasin in the watershed. We looked at whether all major stream/river sections were being monitored, and whether there was a site near the bottom of each sub-basin before joining the Wood or Pawcatuck River. We examined the location of current and older sampling sites relative to each other and to concentrations of development or major roadways (to assess storm water runoff effects). For sites that were near each other or on an upstream to downstream gradient, we compared total phosphorus data (an important nutrient to water quality) to see if a



site could be dropped. For potential upstream "reference" sites, we looked at the existing monitoring data to assess whether these sites were actually "clean" enough to be considered references. Finally, we looked at whether we had a site at each US Geological Survey stream gage.

We assembled a committee of experts to guide this effort, including Brenda Rashleigh, Ph.D. from the US Environmental Protection Agency; Walt Galloway, WPWA trustee and retired chemist from the US Environmental Protection Agency; Tom Boving, Ph.D., former WPWA trustee and Professor of Geosciences/Civil and Environmental Engineering at the University of RI; and Denise Poyer, WPWA Project Coordinator who has run WPWA's sampling program since 1994. WPWA Program Specialist Elise Torello performed the background research, geographic analysis, monitoring data assessment, and documentation/write-up. Once this process was complete, Denise and Elise came up with a recommendation of sites we definitely want to keep (tier one sites), sites that we would like to keep if resources allow (tier two sites), and sites that can be dropped (tier three sites). We also decided to not try to sample "reference" sites because of the difficulty of accessing truly pristine sites, so we will be comparing sites to a reference total phosphorus value instead.

Our assessment of WPWA's monitoring scheme has demonstrated that overall, our current sampling locations provide a good spatial coverage of the watershed. We have only identified two new sites to add and two older sites to re-activate. Dropping, or sampling on a rotating basis, the tier two sites would increase the efficiency (and decrease the cost) of WPWA's monitoring program. Outside organizations or associations that pay for their own sampling sites can use this assessment to determine whether they need to sample all of their current sites, or if they can drop or move one or more of them.

The next step is for the committee to discuss these recommendations and come up with a final sampling plan moving forward. We may also add a new sampling parameter to try to assess storm water effects: conductivity (measures dissolved chemicals in water).



This effort was supported by a grant from the RI Bays, Rivers, and Watersheds Coordination Team, a National Fish and Wildlife Foundation Hurricane Sandy Coastal Resiliency Competitive Grant, and donations from our WPWA members. We deeply appreciate your continuing support. Return to Top

