

NARROW RIVER NOTES

Narrow River Preservation Association: Preserving the Narrow River and the Watershed

Spring 2006

19th Annual Road Race on a New Course Presented by Citizens Bank

The 19th annual NRPA Narrow River Road Race—the “Run to the Rock”—is scheduled for May 20th. Citizens Bank is again our major sponsor, and many other businesses and individual donors will also be providing support. The Road Race is NRPA’s largest fund-raising event of the year; the proceeds help support all of our programs. It is being planned and managed by a committee from the Board of Directors, chaired by Blue Wheeler. Once again there will be a 10K run, a 5K run, and a 5K walk.

The course for the Road Race has been changed this year. Everyone’s favorite stretch, across Middle Bridge (which was sorely missed in 2003 and 2004 during construction of the new bridge) is still there, but we’ve eliminated the section on Bridgetown Road where runners had to deal with way too many cars.



Race director Blue Wheeler says that, “the new course is a great visual experience and a lot safer than the previous course.” The 10K run begins at the Narragansett Beach North Pavilion, turns around at Treaty Rock Park on Middlebridge Road, and finishes back at the Beach. The 5K run and 5K walk will both start at Treaty Rock Park and finish at Narragansett Beach. The new course has been certified by the USA Track and Field Association (#RI06004RN).

Registration begins at 8:30 AM at the Narragansett Beach North Pavilion. The 5K run and 5K walk start at 9:30. Participants in both 5K’s will be bused to the starting line; the buses will depart promptly at 9:15. The 10K run starts at 10:00. The Race will go on, rain or shine. Refreshments and prizes will be available at the awards ceremony at the conclusion of the races at the North Pavilion, Narragansett Town Beach. There will be prizes for the first-place finishers in each age category in both the 10K and 5K runs, and for the first overall finisher in the 5K walk. All junior entrants will get prizes, and there will be many other participant

prizes. The first 300 entrants will receive 2006 Narrow River Road Race T-shirts, sure to become priceless collectibles.

Treaty Rock, or Pettaquamscutt Rock, was the Narragansetts’ traditional location for conducting significant business. It was there on January 20, 1658 that the three chief sachems, Quassuchquansh, Kachanaquant, and Quequaquenuet, sold about 12 square miles of land for 16 pounds to Samuel Wilbor, John Hull, John Porter, Samuel Wilson, and Thomas Mumford. The tract, known as the “Pettaquamscutt Purchase,” included much of modern-day South Kingstown.

The entrance fee for the Road Race is \$20.00 until May 8th, and \$25.00 afterwards up to the day of the race. Visit the NRPA web site (www.narrowriver.org/roadrace.htm) for on-line registration, to print out an application for registration by mail, or for a map of the course and directions to the Narragansett Town Beach. You can also contact us at (401) 783-6277 or nrpa@netsense.net to get an application, or pick one up at any Citizens Bank branch.

-Blue Wheeler

First Annual Narrow River Turnaround Swim New Event Highlighting Improved Water Quality in the River

In June swimmers will dive into the waters of Narrow River for the first “Narrow River Turnaround Swim.” Although individuals and even some teams have been swimming in Narrow River for years, this group swim of 1 mile will showcase the River’s improving water quality, in the first of what is planned to be an annual event. The Swim is a benefit for NRPA, with the proceeds helping to support our education, preservation, and protection programs—including the Active Watershed Education (AWEsome)

program being used in local schools and the River Watch water quality monitoring program, now entering its 15th year.

The Swim, scheduled for June 24, 2006, will be a 1-mile round-trip, beginning at the URI crew team’s Campanella Rowing Center on Walmsley Lane in North Kingstown. Swimmers will go a half mile down Narrow River, turn around, and finish back at the Rowing Center.

The Swim is being organized by a committee headed by two people who are
(Continued on page 3)

ALSO IN THIS ISSUE

President’s Cove Update:	Page 2
Revised Harbor Mgmt Plan Approved	Page 2
River Watch Volunteers Needed	Page 3
Storm-water Treatment System	Page 4
Thank you to our members	Page 5
Latest on Water Quality	Page 6
Poetry	Page 6

The President's Cove

"It was a banner year in fund raising." With the assistance of the Rhode Island Rivers Council (RIRC), a quasi-state agency comprising eight watershed organizations, NRPA was able to generate a more comprehensive mailing list. This broader mailing list is used to notify all residents of the Narrow River Watershed and other friends of Narrow River about our accomplishments at least once a year. Last year the grant from RIRC enabled us to contact 9,000 residents and friends, advising them of the 2005 membership drive and about our noteworthy activity in the Watershed.

Your response to our membership drive was terrific. Renewals, new memberships, and donations were still coming in after our Fall/Winter newsletter went to press. This issue includes the rest of our 2005 list of members and donors—your generosity is very much appreciated. Without it, we could not do the things that we do, as the majority of our support comes from you. So you should give yourself a pat on the pack in recognition of our joint successes. Our River Watch program is entering its 15th year of monitoring water quality in the River. The River Watch results have helped in getting state and federal funding for other studies and for better storm-water treatment. Senator Jack Reed called me the other day and thanked NRPA for our work, which helped him get the money approved for the Army Corps of Engineer study of habitat improvements in the lower River. Our Education Committee provides college scholarships and science fair awards, and oversees the AWESome program that trained 29 new teachers last year (who will reach thousands of students over the years). And our land-use program has been busy behind the scenes, reviewing CRMC applications and keeping tabs on development in the Watershed.

This year a new event joins the Road Race and Kayak Raffle on our calendar—the "Narrow River Turnaround" open-water swim. While it is a fund-raiser, the event's primary function is to raise awareness of the River and its improving water quality. The River is clean enough for swimming, and we look forward to the day when water quality improves enough so it can be re-opened for shell-fishing.

So—thanks for your past support, and thanks in advance for your support in 2006, and 2007, and so on. Your dues and donations will allow NRPA to continue improving the conditions for all the communities of life in the Narrow River Watershed. You may also make a donation designated toward the NRPA/John Elder Dick Endowment Fund that is managed for us by the Rhode Island Foundation to provide a permanent source of operating income.



—Richard B. Grant

MISSION STATEMENT

The Narrow River Preservation Association (NRPA) works to preserve, protect, and restore the natural environment and the quality of life of all the communities within the Narrow (Pettaquamscutt) River Estuary and Watershed.

www.narrowriver.org

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Revised Narragansett Harbor Management Plan Approved

The Narragansett Town Council voted at their February 6th meeting to approve the revised Harbor Management Plan (HMP) for the town. NRPA submitted comments on the draft HMP in December 2005. We made some recommendations regarding water quality sections of the HMP, and also recommended the establishment of a no-wake zone in the River from the mouth to Lacey Bridge. Our water quality recommendations were incorporated into the revised HMP, but the Harbor Management Commission (HMC) rejected the no-wake zone.

(Continued on page 5)

6239

NRPA is part of the United Way Workplace Campaign. This is our donor option number.

If you plan to make a United Way donation, please consider designating a portion of your gift to NRPA

River Watch Volunteers Needed

NRPA is looking for volunteers to join our River Watch program. No previous experience in water-quality monitoring is required. All new volunteers receive both classroom and field training from URI's Watershed Watch personnel. Manuals and all necessary monitoring equipment are provided.

This year's monitoring season will run from May until October. The program consists of biweekly measurements of temperature, algae concentration, salinity, water clarity, and dissolved oxygen. Each volunteer is assigned a River location for monitoring. Some locations can be monitored from the shore while other locations require a boat or canoe for monitoring. Volunteers are needed for both, but particularly those requiring boats.

Classroom training is recommended for all new volunteers. The training is designed to help people learn more about water quality in general, and about the Watershed Watch program. New volunteers have a choice of attending classroom training on either:

- *Saturday, April 1, 2006; 9:00–11:30 AM,*
- *Tuesday, April 4, 2006; 6:30–9:30 PM*

The training sessions will be held in Weaver Auditorium in the Coastal Institute on the URI Kingston Campus. Volunteers only need to attend one of the sessions.

Field training for Narrow River volunteers is required and will be offered on Saturday April 29, 2006 (time and location to be announced). If you are unable to attend on this date, alternate training dates are offered.

Volunteering to be a water-quality monitor is a great way to learn more about the water quality of the Narrow River, and at the same time provide a much-needed service to NRPA. The training does not cost anything, but in order to be sure that there are adequate materials for everyone, please pre-register by calling (401) 874-2905 or by email at uriww@etal.uri.edu. Additional information about the Watershed Watch program can be found on the web at <http://www.uri.edu/ce/wq/ww/html/ww.html>.

—Annette DeSilva

Narrow River Swim

(Continued from page 1)

interested in Narrow River and, in addition to being avid swimmers themselves, also have plenty of credentials in teaching and organizing swimming. They are Paul McCaffrey, a Narragansett Elementary School physical education teacher who started a learn-to-swim program for 3rd



graders 8 years ago, and Mick Westkott, the URI Swim Team coach and also the volunteer coach for the "Coast 93.3" Save the Bay Swim Team. Others on the Swim Committee are: Karen DeQuattro, Pat Gannon, Richard Grant, Perry Moylan, Tina Paniel, Lori Pugh, Jason McNamee, Felix Sarubbi, and Veronica Berounsky.

It is fitting that the Swim will take place from the Rowing Center, also the site of LaFarge Point Park. WER LaFarge was one of the founders of NRPA in 1970 and lived on a farm on the River and, at his untimely death from cancer in 1994, bequeathed a piece of the farm as land for the Rowing Center. One of the stories about WER was that he became involved in founding NRPA because he was distressed that his children could not swim in the River due to poor water quality. Since that time, thanks to NRPA and others, water quality in Narrow River has improved, particularly in that area. As Elizabeth Herron from URI's Watershed Watch program has noted, data from NRPA's River Watch volunteer monitoring program has shown that the area where the Swim will take place "has

consistently low fecal coliform bacteria levels—within the range that is considered safe for swimming."

More information about the Narrow River Turnaround Swim is on the NRPA website, www.narrowriver.org. If you'd like to participate, application forms can be printed from the website, filled out, and mailed with a check for the registration fee to NRPA. You can also get a form mailed to you by calling

Paul McCaffrey at the number given below, or the NRPA office at (401) 783-6277. Pre-registration deadline is June 14, 2006. If you are interested in being a sponsor of the swim and making a contribution in support of NRPA, you can also check out the sponsor letter and forms on the website. There are several categories of sponsorship, including "Benefactor," which will get your company's name on the official swim T-shirt. Any contributions or donated goods or services are tax deductible.

If you need further information about the swim or about sponsoring the swim, please contact Paul McCaffrey at mccaffreyeg@cox.net or (401) 884-1223.

—Veronica M. Berounsky



Rhode Island Rivers Council
Working together to protect and restore
Rhode Island's rivers and their watersheds

NRPA is proud to be a member of the
Rhode Island Rivers Council.

The Mettatuxet Beach Storm-water Treatment System

For many years now, water quality in the Narrow River has been impacted by bacteria, excess nutrients, and other pollutants frequently found in storm-water runoff. One location along the River where high concentrations of pollutants have been observed is Mettatuxet Beach.

In 2002, the Town of Narragansett and the Coastal Resources Management Council (CRMC) joined forces and obtained partial funding from the U.S. Environmental Protection Agency for installing a storm-water treatment system at Mettatuxet Beach. A state-of-the-art system was designed and installed in the fall of 2005.

The system takes advantage of a combination of several treatment technologies. First, the storm water running off from surrounding streets and residential lots enters a swirl reactor. Inside the swirl reactor, suspended solids, such as sand, are settled out and retained. Because some toxic pollutants, especially heavy metals and petroleum hydrocarbons, are attached to these solids, their removal also lowers the pollutant load quite effectively. The swirl reactor also holds back floatable

swirl reactor, including bacteria, require further treatment. At the Mettatuxet site this additional treatment of water



The swirl reactor being installed at Mettatuxet Beach. The openings on the top will allow periodic inspection and removal of accumulated sediment

leaving the swirl reactor is facilitated by infiltration into the subsurface. This filtration process takes advantages of the natural capability of permeable sediments to hold back harmful pollutants and facilitate their breakdown. The Mettatuxet treatment system is unique in Rhode Island because not just one, but two infiltration systems work side

site is a detention pond—an artificial depression in the ground that fills with runoff overflowing the swirl reactor and Cultech during stronger storms.

Over the next day or so, the runoff in the detention pond infiltrates into the subsurface and flows towards the River—leaving behind most if not all pollutants. Once vegetation is established in the currently bare detention pond, the plants will supplement the infiltration treatment by

absorbing excess nutrients in the water.

Although the entire treatment system has a capacity to treat even a 25-year storm, there are overflow protection measures installed that prevent flooding of the neighborhood in case of exceptionally strong storms.

There have been extensive discussions regarding which of the two infiltration systems will be more effective. We have been awarded a grant by CRMC to study the two systems and evaluate their effectiveness. We have drilled sampling wells up- and down-gradient from the site and have installed automated data recorders within the treatment system to measure the flow and water quality before and after treatment. This study will be a multi-year effort, but we expect that first results will become available later this year.

- Thomas Boving and Nathan McGillivray

[Thomas Boving is a Professor of Geosciences at the University of Rhode Island, and Nathan McGillivray is his graduate student whose thesis research project is the Mettatuxet Beach treatment system.]



Installation of the Cultech component of the Mettatuxet treatment system. The perforated pipes are only partially in place and being buried in fine gravel. The entire thing is now hidden below the parking lot.

debris, such as candy wrappers and coffee cups, and, at least to some extent, grease and oil. Those pollutants that cannot effectively be removed by the

eventually becomes groundwater, which then slowly discharges into the River nearby.

The second infiltration system at the

THANK-YOU TO OUR 2005 MEMBERS AND DONORS (continued)

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Harbor Management Plan *(continued from page 2)*

At the Council meeting, Charlie Vandemoer from the U.S. Fish & Wildlife Service (FWS), the manager of the National Wildlife Refuges in the state, testified in favor of a no-wake zone extending approximately 300 feet south and 1300 feet north of Sprague Bridge in deeper areas of the existing channel—beyond the 100-foot no-wake zone in existing regulations that is neither posted nor enforced. There is a high volume of boat and kayak traffic in the vicinity of Sprague Bridge and many boats are moving above headway speed and posing a significant safety risk to people swimming, clamming, fishing, canoeing, and kayaking in that area. Boat wakes in the area north of the bridge are also accelerating erosion of the salt marsh. These areas are in the John H. Chafee National Wildlife Refuge at Pettaquamscutt Cove. The Comprehensive Conservation Plan for this area directs FWS to recommend a no-wake zone in the lower Narrow River and Pettaquamscutt Cove to protect the salt marsh habitats and minimize disturbance to wildlife.

Although the Town Council approved the revised HMP, they agreed that the Plan could be amended as the need arose. Because of the FWS recommendations and the support from both NRPA and the Friends of the National Wildlife Refuges of R.I., the Council recommended that the HMC consider the implementation of a no-wake zone in the lower Narrow River and report back to the Council in April. The HMC has discussed this issue at their February and March meetings, and FWS has offered to at least partially offset the costs of required signs and marker buoys. NRPA supports the FWS position to protect the environmental fragility of the area, while also addressing important safety concerns. We encourage our readers to contact the Narragansett Town Council to add their support.

What's the Latest News on Water Quality in Narrow River and Other Areas?

On January 17th, NRPA, the RI Chapter of the Surfrider Foundation (RISF), and URI Watershed Watch co-hosted a public meeting to pass on the latest news about about local water quality conditions and new technologies. The well-attended meeting—"Water Quality Problems and Solutions in the Narrow River Watershed and at Narragansett and Scarborough Beaches"—was held at the Coastal Institute on the URI Bay Campus. Attendees were welcomed by Dr. Veronica Berounsky, NRPA Board of Directors, and Gerri Miceli, Co-Coordinator of the RISF Blue Water Task Force. There were six presentations during the evening:

- Annette DeSilva, NRPA Riverwatch Coordinator, gave a "Summary of Riverwatch Data" that focused on seasonal trends in fecal coliform bacteria data from 1992 to 2005. The data showed no clear trend in water quality improvement. In recent years high levels were seen more frequently, particularly after rain events. One piece of good news was that pond locations in the northern part of the River regularly exhibit lower coliform levels.
- Heather Saffert, URI Graduate School of Oceanography (GSO) graduate student, talked about "A Water Quality Study of the Narrow River, Narragansett Beach Area, and the Mumford Brook Watershed; and a New Bacterial Source Tracking Method." This new method allowed her and Marek Kirs (also a GSO graduate student) to examine sources of bacteria found at 12 stations in the Mumford Brook watershed. Birds appeared to be the primary source, though human sources could not be ruled out, and high counts were often found at stands of the common reed, *Phragmites*.
- Heather also gave a "Summary of Surfrider/RI Dept. of Health Data from Narragansett and Scarborough Beaches." This showed that high levels of bacteria were found at the Scarborough Beach outfall pipes almost all the time, but levels were lower at the beach. At Narragansett Beach, most sites were clean except after some rain events.
- Nathan McGillivray, URI Department of Geosciences graduate student, spoke about new technologies for dealing with "Mettatuxett Storm-water Management," which is covered in detail in another article in this issue.
- James Riordan, Project Manager for Fuss & O'Neill, talked about the "Narrow River Storm-water Abatement Study." The goal of this project is to return the River to pre-development levels of bacteria. They hope to achieve this by addressing the 11 storm-water outfalls that account for 93% of the fecal coliform bacteria loads in the River.
- Christine Palmer of Crossman Engineering, who works with Dr. Ray Wright of URI, spoke on a "Pilot Project Using Smart Sponge to Improve Water Quality at Scarborough Beach." This anti-microbial filter should help reduce levels of bacteria found in water discharging from outfall pipes onto the beach.

Most of these presentations can be found on the NRPA web site: http://www.narrowriver.org/water_quality_problems_and_solutions.htm. NRPA would like to thank Heather Saffert for organizing this informative and interesting meeting

—Veronica Berounsky

The Pettaquamscutt

As we drift along the river,
I wonder.
About the shanty on the isthmus,
Faded and bent,
Like memories.

About the stone walls,
Long piles of hope
And desire
Stacked neatly.

About the river bench,
Lopsided and weathered,
Like dreams.

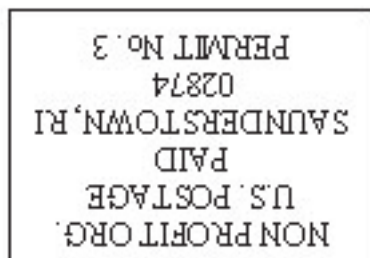
About the people whose hands
Build this shanty,
Those walls,
These dreams.

—Rea Killeen, Milton, Mass.

[contributed by sister-in-law Carol
Killeen, Saunderstown]



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