



Currents

A Publication of the Saugus River Watershed Council

Volume 14 No.1 , Winter 2005

RiverNight 2005 Set for April 5th



Mark your calendars now for the Saugus River Watershed Council's third annual River Night dinner and auction to be held on Tuesday, 5 April 2005 from 6:00 p.m. to 9:00 p.m. at Spinelli's on Route 1 South in Lynnfield.

Guests at this year's exciting event will enjoy a delicious dinner, live music, and a silent and live auction featuring dinners, art work, getaways, entertainment, sports memorabilia, personal luxuries, and much more!

Proceeds from this year's event will support our innovative environmental education programs that serve approximately 1,000 youths each year. Through field exploration and programs at schools and local libraries, children from Saugus, Lynn, Revere, Wakefield, Lynnfield, Malden, Melrose and other watershed communities learn about natural resources and environmental stewardship.

Contributions at River Night will also support river restoration projects such as those outlined in our 2005 workplan on page two of this newsletter.

For information about tickets, becoming a sponsor, or volunteering at River Night, please contact SRWC at 781-233-5046 or srw@shore.net. Volunteers are needed to assist with event setup and auction logistics. ❖

Saugus River Turning Basin Restoration Project



Photo: Courtesy of National Park Service.

The Saugus River Turning Basin Restoration Project seeks to restore the open water basin at the Saugus Iron Works to historic conditions similar to those illustrated by this 1954 photo.

The National Park Service is planning to restore the historic Saugus River turning basin located at the Saugus Iron Works. At the Council's recent annual meeting, Steven Kesselman and Daniel Noon of the Park Service discussed plans to excavate along the Saugus River to recreate a visible open water turning basin and restore wetlands.

With approximately 14,000 visitors each year, the 8.51-acre Saugus Iron Works site provides a unique opportunity for people to learn about historic iron works and enjoy the natural resources of the Saugus River.

The Saugus River Turning Basin Restoration project would focus on 3.6 acres including the existing Saugus River Channel and surrounding marshes. Excavating sediments to restore an open water basin will improve access for boaters, remove invasive wetlands plants, and enable Iron Works visitors to better under-

stand how sailing vessels transported materials and iron goods up and down the Saugus River during the seventeenth century.

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Editorial:
**Bacterial Pollution
in the Saugus River**

Although water quality conditions in the Saugus River watershed have significantly improved over the past several decades, bacteria from direct sewage discharges, combined sewer overflows, and other sources is still a major problem at several hot spots after heavy rainfalls.

Recent enforcement steps taken by the Department of Environmental Protection have emphasized the importance of stopping direct sewage discharges into the Saugus River by the Town of Saugus. After rainstorms, the Town of Saugus' sewerage infrastructure is often inadequate to transport wastewater to the Lynn Water and Sewer Commission wastewater treatment plant. As a result, untreated sewage ends up being pumped into the river at the Lincoln Street pumping station following some heavy rainstorms.

In Lynn, Strawberry Brook continues to have elevated bacteria levels following rainstorms. Despite completion of significant work by the Lynn Water and Sewer Commission to separate sewer and storm drain lines, combined sewer overflows continue to cause bacterial pollution.

In addition, several smaller tributaries -- such as Town Line Brook in Revere, the Mill River in Wakefield, and Shute Brook in Saugus -- are polluted by bacteria from stormwater runoff and other sources such as possible illegal sewer connections.

Addressing remaining bacteria pollution will eliminate a public health risk and improve conditions for aquatic life. These problems will only be resolved if local communities, as well as, state and federal agencies expand efforts to manage stormwater, control growth, track down illegal connections, and resolve remaining sewage inputs to the watershed.

Joan LeBlanc ❖

SRWC Approves 2005 Work Plan

The Saugus River Watershed Council recently approved its 2005 Work Plan outlining projects and priorities for staff, board of directors, volunteers, and members to focus on this year. Priorities include:

Campaign to Improve Former "Bacon" Property. During 2005, SRWC will launch a major new initiative to promote public access and habitat improvements at the former "Bacon" property, an 8.2-acre site along the Saugus River owned by the Department of Conservation and Recreation. During 2005, the Council will begin conducting a public planning process, help develop preliminary restoration plans for the site, and begin identifying potential funding sources for major park restoration.

Restore Flow and Fisheries. With funding from the Massachusetts Environmental Trust, Gulf of Maine Council, and others, SRWC is working to restore water flow and fisheries in the Saugus River. During 2005, SRWC staff and volunteers will track flow, conduct a fish monitoring project, evaluate hydrology needed to support a fish ladder, and promote water conservation.

Improve Water Quality. SRWC will continue its volunteer-based water quality monitoring program to track dissolved oxygen, bacteria levels, pH, turbidity, conductivity, and temperature throughout the watershed. During 2005, we will also work with local and state officials to resolve pollution problems, particularly bacteria from combined sewer overflows and direct sewage discharges.

Watershed Awareness Program. With funding from the Massachusetts Environmental Trust, the Council will raise awareness about natural resources and pollution problems in the Saugus River watershed. Activities during 2005 will include education, natural history events, outreach to community groups, an expanded website, and educational brochures.

Town Line Brook Initiative. SRWC will continue working with Melrose, Malden, Revere and Everett to address water quality, public access and flooding issues in the Town Line Brook watershed. The underlying goal of this project is to restore shellfish beds in the Sea Plane Basin.

Youth Education. SRWC will continue to educate youths through innovative classroom and field environmental education programs that promote environmental knowledge and stewardship.

Environmental Protection. SRWC will respond to major development projects or potential environmental threats. Staff and board members will testify at public hearings and submit written comments through local, state, and federal environmental permitting processes as appropriate. ❖

Saugus River



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Volunteers Remove Seven Tons of Trash from Town Line Brook



Volunteers cover graffiti on overpasses and remove trash from in and around the Town Line Brook, October 2004.

On 23 October 2004, more than 100 volunteers joined the Saugus River Watershed Council, State Representative Kathi-Anne Reinstein, General Electric Aircraft Engines, Revere High School, and Friends of Town Line Brook to remove over 7 tons of debris and trash from the Town Line Brook in Revere, Malden and Everett.

By working in teams, volunteers covered several different segments of the watershed, removing shopping carts, old appliances, household trash and other marine debris. Volunteers removed trash and branches caught in the tide gates and along the marshes near the Revere movie theatre, and hauled debris out of Trifone Brook in Revere and Town Line Brook in Revere, Malden and Everett. Volunteers also cleaned up the surrounding wooded areas and removed graffiti from the overpasses along the main stem of Town Line Brook.

"Thanks to the efforts of local residents, public officials, students from Revere High School, employees from General Electric, and many others, this year's CoastSweep cleanup made the Town Line Brook much cleaner for wildlife as well as people enjoying the area", said Joan LeBlanc, Director of the Saugus River Watershed Council. "We are particularly thankful for the work crews, equipment and trash removal contributed by General Electric, and the cities of Revere, Malden and Everett", said LeBlanc.

Special thanks to all of our project co-sponsors: Rep. Kathi-Anne Reinstein, General Electric Aircraft Engines, Revere High School, Friends of Town Line Brook, City of Revere, City of Malden, City of Everett, St. Mary's - Revere, Department of Conservation and Recreation, Massachusetts Environmental Trust, and the Massachusetts Office of Coastal Zone Management. ❖

Saugus River Turning Basin Project

....Continued from page 1

During 2004, the National Park Service completed numerous studies associated with the project. These included: 1) topographic elevation survey; 2) freshwater flow, tide variation, and salinity monitoring; 3) sediment contaminant survey and analysis; 4) fish and aquatic invertebrate inventories; and 5) wetland vegetation survey.

Among findings, studies indicated that the Saugus River's benthic community is more productive and diverse than in 1989, suggesting water quality improvement over the last 15 years (since the 1989 Hudsonia Study).

Estimated costs for completing this major restoration project are \$2.6 million. The National Park Service is currently working with a consultant to design the project. Pending funding in the federal budget for fiscal year 2006 and successful completion of permitting, restoration work could begin as soon as the spring of 2006.

Questions about the Saugus River Turning Basin Restoration Project can be directed to Daniel Noon at daniel_noon@nps.gov or 781-231-7339. ❖

"Creating & Managing the Ecological Landscape"

The Ecological Landscaping Association is hosting a two day conference and marketplace on March 4 and 5 at the Royal Plaza Hotel & Trade Center, located in Marlborough, MA. Educational seminars will highlight landscape planning and design, plant recommendations, habitat diversity, weed and insect control, lawn care, and much more.

Develop knowledge and skills to build environmentally-friendly landscapes in your business, home and community. The total cost for both days of the conference is \$160 per person. For more information about programs and registration, go to www.ecolandscaping.org. ❖

2004 Annual Meeting a Success



Left to right: Keynote speakers Steven Kesselman and Daniel Noon of the National Park Service.

Left to right: Award recipients Anthony Guthro (for Kathy Abbott), Bob McLaughlin, and Carl LaGreca.



Last November, 75 people joined the Saugus River Watershed Council for our Annual Meeting and Dinner at Prince Restaurant. Guests enjoyed a delicious Italian buffet dinner and learned about the Council's ongoing projects and priorities.

Keynote speakers Steven Kesselman and Daniel Noon of the National Park Service gave an informative presentation regarding the Saugus River Turning Basin Restoration Project (see page 1 for more information about the project).

The Council presented the following three awards:

-- Carl LaGreca of Lynnfield received a River Stewardship Award for outstanding contributions toward protecting public health and the natural resources of the Saugus River watershed.

-- Robert McLaughlin of Wakefield received a River Stewardship Award for outstanding contributions toward protecting natural resources and educating the public about the history of the Saugus River watershed.

-- Commissioner Kathrine Abbott of the Massachusetts Department of

Conservation and Recreation received a Special Recognition Award for expanding public access to the Saugus River watershed by opening the new Christopher P. Dunne Visitors Center at Breakheart Reservation in Saugus.

During a brief business meeting, the council elected the following officers: Co-Presidents - Lisa Capone-Condon and Frank Ricciardi, Vice President - Doug Heath, Treasurer - Mary Kinsell. The following new board members were elected: Stacy Aubin, Georgeanne Fulgham (elected by board in December), and Debra Panetta. The following board members were re-elected: David Eatough, Ann Farrell, Kory Hellmer, Jim Hohmann, Joe James, Dick Lynch, Ray Maes, Daniel Noon, Tom Pawlina, Walt Silva, Dan Small, Bob Smith and Kathy Wrynn. Special thanks to Kory Hellmer for serving as SRWC President during 2004.

Special thanks to Prince Restaurant for providing a discount on the delicious dinner, Wild Oats Natural Marketplace for donating desserts, and Russo's Candy House for donating fine chocolates. ❖

DEP Prohibits Snow Disposal in Wetlands & Waterways

□ In late January, the Department of Environmental Protection (DEP) issued a press release urging municipal officials and residents alike to refrain from disposing of snow in waterways, wetlands, or other surface waters due to the negative impacts it can cause.

Snow disposal in water may seem benign and even tempting, but the mixture of salt, sand, oil, pollutants and trash carried along with the snow, will degrade the water quality of wetlands, surface waters and harbors that so much money, time and effort has already been expended to improve and protect.

Instead, the DEP has for a number of years, worked with communities to designate vacant or recreational sites upland of waterways where snow can be deposited and left to melt without negative environmental consequences. These so-called "snow fields" are then routinely cleaned of debris after the winter season.

Under certain circumstances, when public safety measures arise, the DEP may allow snow disposal in waterways provided that existing disposal locations are exhausted and certain precautions are taken. However, proper oversight is required along with contacting the conservation commission and the regional DEP office prior to initiating such action.

For more information on DEP's snow disposal policy, visit the DEP web site at: www.mass.gov/dep/brp/files/snowdisp.htm

After the winter has passed, the off-season can provide time to review a community's snow disposal resources, and locate new ones if necessary. DEP has a number of tools to assist municipal officials upon request, including the use of Geographic Information Systems imaging equipment. ❖

SRWC and Partners Launch Fish Monitoring Project

Beginning in March 2005, the Saugus River Watershed Council will work in partnership with the Division of Marine Fisheries, the National Park Service, and the Corporate Wetlands Partnership to conduct a comprehensive fish monitoring project in the Saugus River.

The first part of the project is designed to evaluate the presence of smelt, and will also provide useful information about alewives, herring and other fish in the Saugus River. From early March to mid-May, fyke nets will be set four days per week. Staff and volunteers will check the nets each day to identify, count, and release species. From April to mid-June, traps will also be used to evaluate eel populations in the Saugus River.

To find out more about this project or associated volunteer opportunities, please contact SRWC at srw@shore.net or 781-233-5046. ❖

American Eel



Volunteers Needed!

The Saugus River Watershed Council is looking for volunteers to conduct water quality sampling programs and participate in our new fish monitoring project this spring.

Water Quality Monitoring: SRWC will provide training and equipment to volunteers who then conduct monthly water quality sampling at sites throughout the watershed. Requires commitment of approximately one hour each month plus participation in training for new volunteers.

Fish Monitoring Project: Thanks to funding from the Corporate Wetlands Partnership, SRWC will partner with the National Park Service, Division of Marine Fisheries, and General Electric during the spring of 2005 to conduct a comprehensive fish monitoring project. From March through May, we will conduct a net and release project three days/week. Volunteers will receive training to participate in checking the nets and identifying and counting species. Time commitments will vary, but must be willing to participate at some level for the duration of the project.

A separate notice will be mailed once training programs have been scheduled. Please contact the Council at 781-233-5046 or srw@shore.net if you would like to volunteer for either of these projects. ❖

Massachusetts Division of Marine Fisheries Volunteer River Herring Count Workshop

In February, the Division of Marine Fisheries (DMF) hosted a Volunteer River Herring Count Workshop in Gloucester. Approximately 50 representatives from watershed groups, including the Council, attended.

Mike Armstrong of DMF discussed the status of anadromous fish in Massachusetts Bay. Statewide alewife and blueback herring populations are in fair condition, while American eel and rainbow smelt are in bad condition. It is estimated that there were about 200 river herring runs in 1600, only about 9 in 1920, and approximately 100 in 2003. More recently, herring populations have declined during the past two years.

Factors contributing to decline are dams, pollution, water withdrawals, overfishing, and habitat degradation.

Fish counts are needed to better assess the status of river herring in Massachusetts.

Brad Chase of DMF presented two recommended approaches for conducting local fish counts. The first approach would result in an "Annual Run Estimate". From April to mid-June, volunteers would count fish for nine 10-minute intervals each day. A more informal "Run Monitoring Program" would require volunteers to count fish during three 10-minute intervals per day.

Other presenters discussed recent fish counts, fish counting devices, and statistical methods used to estimate fish populations.

While SRWC has conducted fish counts in the past, this year we will instead be conducting a more comprehensive fish monitoring project (see related article above). ❖

Alewife (*Alosa pseudoharengus*)



Key Features: Gray-green back or dorsal surface. Eye diameter larger in alewife than herring, and exceeds snout length. Average size 10 to 11 inches.

Spawn in lakes and ponds (April and May). Young migrate out to sea as 2 to 4" juveniles after first summer. After 3 to 4 years at sea, adults return to their natal rivers.

Around the Watershed

Jason Welch Earns Eagle Scout for Shute Brook Study



Last year, Jason Welch (shown at right) received the prestigious Eagle Scout designation for conducting a research project about water quality in Shute Brook, Saugus. Jason, a former Revere resident who now lives in Saugus, is shown here with Troop 61 Scout Leader Nelson Miller (left). Jason worked with the Saugus River Watershed Council, and members of Boy Scout Troop 61 of Saugus, to evaluate bacteria, dissolved oxygen, temperature and pH in Shute Brook which runs under Central Street and along Riverside Cemetery in Saugus. Results of the study are being used by the Council to help address bacterial pollution problems in Shute Brook. ❖

SAVE Annual Meeting

Members of the public are invited to join Saugus Action Volunteers for the Environment for a meeting about expanding recycling on Wednesday, 23 March 2005, 7:30 p.m. at the Saugus Italian American Club, 1 Beachview Avenue, Saugus. For more information, please call 781-231-2567.

Bike to the Sea

Join Bike to the Sea on 30 April 2005 for a Saugus Iron Works Ride and tour of the Saugus and Lynn segments of the bike trail. This event will be followed by a picnic. Additional information about this event will soon be posted at www.biketothesea.com.

DEP Recycling Grants

The Department of Environmental Protection recently announced \$583,000 in state grants for recycling education and equipment.

In the Saugus River watershed, Melrose received \$36,800 to assist with Pay-As-You-Throw and recycling, and the following communities received grants for recycling: Everett - \$5,450, Lynn - \$2,100, Saugus - \$2,436, Peabody - \$550, and Stoneham - \$1,774. The grants are part of a statewide effort to reduce waste by 70 percent by the year 2010.

Breakheart Reservation

Several events are being hosted by the Friends of Breakheart Reservation and the Department of Conservation and Recreation this winter. On February 20 and 27, story time will be held at the Breakheart Visitor's Center featuring nature-theme stories, snacks and crafts for preschool children. An animal tracking slide show presentation will take place on February 23 from 7:00 p.m. to 8:00 p.m. A wildlife tracking tour will take place on Sunday, February 27 from 1:00 p.m. to 3:00 p.m. An old-fashioned ham and

bean Sunday supper will be held at the Visitor's Center on 27 February from 3:30 p.m. to 5:00 p.m. For more information or reservations, call 781-710-3129.

Lake Quannapowitt

Join Friends of Lake Quannapowitt for a walk on the first Saturday of each month. Meet at 9:00 a.m. at the monument in the Gertrude Spaulding Park. Topics will include history, geology, architecture, and natural history. For more information about programs scheduled, please contact Meg Michaels at 781-245-6952 or megmichaels@remax.net.

Friends of Lynn Woods Annual Meeting

Members of the public are invited to join the Friends of Lynn Woods for their Annual Meeting on Monday, 7 March 2005 at the Franco-American Hall on Western Avenue in Lynn. Lynn Woods Ranger Dan Small will give a presentation about the history and natural resources of Lynn Woods. For more information, contact the Friends of Lynn Woods at 781-593-7773 or www.flw.org.

Town-Specific Core Habitat Maps

MassWildlife's Natural Heritage and Endangered Species Program has released new town-specific core habitat maps and reports to help town officials, conservation commissions and others learn more about the species and habitats in need of protection in their communities. The reports provide a summary of the rare species, natural communities, and freshwater habitats identified in 336 of the Commonwealth's 351 cities and towns. To review core habitat maps and reports, go to <http://www.mass.gov/dfwele/dfw/nhesp/nhconsmap.htm>. ❖

Bald Eagles Return to the Saugus River

By Daniel Noon

Saugus Iron Works National Historic Site

In late December 2004, while clearing snow from a winter storm, park staff at Saugus Iron Works National Historic Site observed an animal not seen along this portion of the Saugus River in many years. Park staff observed a bald eagle flying overhead and landing atop a tall tree overlooking the Saugus River. During January, other individuals observed one or more bald eagles throughout the Saugus River watershed.

The bald eagle, also known to the scientific world as *Haliaeetus leucocephalus*, appears to be making a comeback within the watershed. This bird of prey, which is in the same family as hawks, harriers, and ospreys, was observed by Europeans in Massachusetts as early as 1634, as noted by William Wood in his *New England Prospect*.

Although the bald eagle became America's national emblem in 1782, the destruction of eagles was commonplace throughout the 19th century. Benjamin Newhall, a businessman, political figure, and local historian, described "many unsuccessful attempts to destroy" the eagle in his *Sketches of Saugus* newspaper series which was published in the Lynn Weekly Reporter during the 1850s and 1860s. During this time, eagles were thought of as marauding pests that pilaged chickens and other domestic livestock from nearby farms in Saugus and Lynn.

As the number of bald eagles steadily declined during the late 19th and early 20th centuries from habitat destruction and use of pesticides, such as DDT, laws were established to protect these magnificent birds. Over the last ten years, the bald eagle has begun to make a dramatic comeback along coastal and inland rivers of Massachusetts. Populations of bald eagles are increasing within the Merrimac River valley, as well as along the Charles and Mystic Rivers.

So, the next time you see a large brown bird with a white head and tail flying overhead along the Saugus River, do not be too surprised to find out that it is a bald eagle, a majestic bird that is slowly returning to the area after a long absence. ❖

Conservation Plates Help Protect Massachusetts Environment

The Massachusetts Environmental Trust protects and preserves the Commonwealth's water resources and their ecosystems through its unique and diverse grant making programs. Recent trust grants included funding for the Saugus River Watershed Council's Watershed Awareness Program and our Saugus River Flow Restoration Project.



The Trust's ability to support critical environmental initiatives throughout Massachusetts stems primarily from the 70,000 Bay State citizens who purchase special environmental license plates -- the only specialty plates sold in Massachusetts that exclusively fund environmental programs.

You can help protect our coastal resources by purchasing a Massachusetts Environmental Trust license plate!



Visit your local Registry of Motor Vehicles, or order a plate online at <http://mass.gov/rmv>. To learn more about conservation plates, the Trust and programs it supports, visit www.massenvironmentaltrust.org. ❖

SRWC Hosts Winter Wildlife Programs



Revere High School teacher and coyote researcher David Eatough presents results of ongoing North Shore coyote tracking program, January 2005.

Thanks to funding from the Massachusetts Environmental Trust, the Saugus River Watershed Council is hosting a series of Winter Wildlife Programs this winter.

In January, approximately 50 people attended an informative presentation at the Breakheart Visitor's Center by local coyote expert David Eatough of Revere. Participants learned about coyote behavior, presence on the North Shore, and ongoing coyote tracking projects.

Due to overwhelming demand, our "In Search of Owls" program at Lynn Woods and "Winter Wildlife Signs" program at Breakheart Reservation scheduled for later this month are already booked. Special thanks to Massachusetts Environmental Trust, the Department of Conservation and Recreation, Lynn Woods Ranger Dan Small, and Revere teacher David Eatough for making these programs possible. ❖

Saugus River Watershed Council
P.O. Box 1092
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Making a Difference

The Saugus River watershed stretches from Lake Quannapowitt to the Lynn Harbor / Saugus River estuary, encompassing all or part of eleven communities.

The Saugus River Watershed Council is a non-profit organization founded in 1991 to protect the natural resources of the watershed. Our priorities include restoring water quality, expanding public access, restoring habitat for anadromous fish and other wild life, and protecting critical resources such as Rumney Marsh and Reedy Meadow.

Please consider adding your voice, as a member of the Council, to our efforts to protect the natural resources and beauty of the Saugus River watershed.

Winter 2005

Join the Saugus River Watershed Council

Yes! I would like to become a member of the Saugus River Watershed Council.*

New Member Membership Renewal

Individual (\$10) Family (\$15) Friend (\$25)
 Steward (\$50) Patron (\$100) Other \$_____

* Corporations interested in joining the Saugus River Watershed Council should call (781) 233-5046 for additional information.

Name _____

Address _____

City _____ State _____ Zip _____

Telephone _____

Send check or money order to:
Saugus River Watershed Council
P.O. Box 1092
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