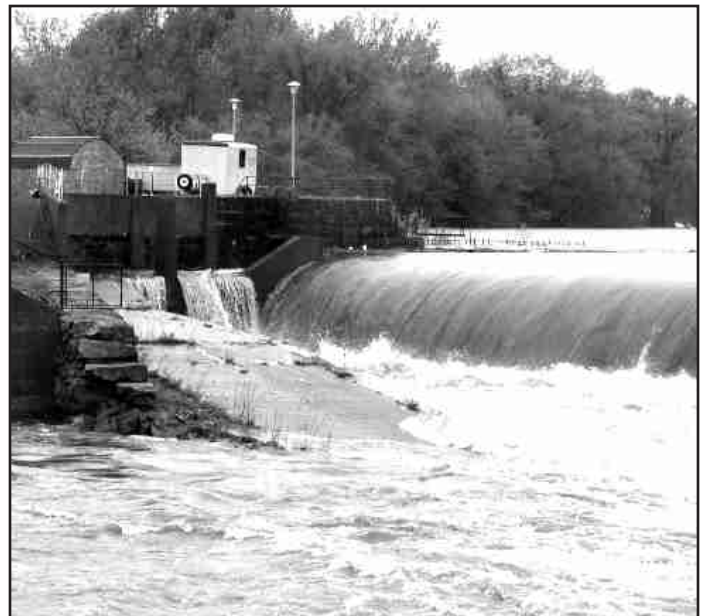


Keeping the Fish Coming to the Charles

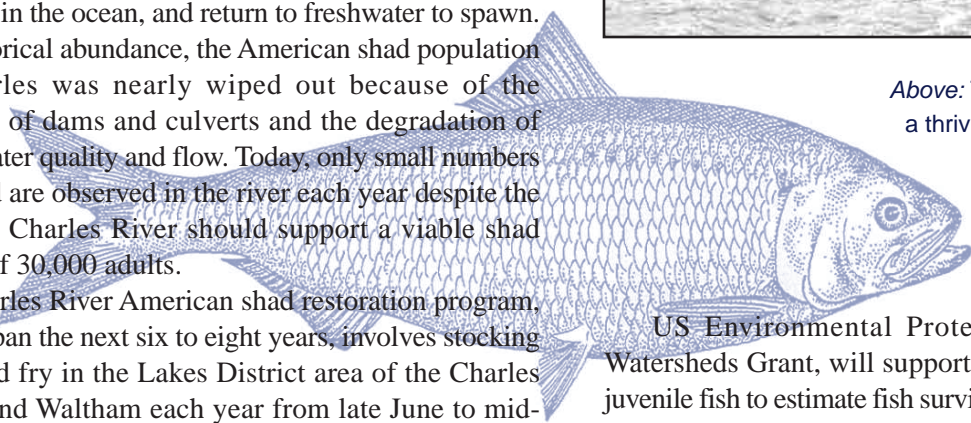
Not long ago, fishing in the Charles River reaped little reward due to potential health risks and few fish. Today it has become safer, more popular, and more enjoyable with many fishermen casting their lines off the docks, bridges and banks of the Charles. Restored fishing in the Charles can be attributed to CRWA's and others efforts to improve water quality and fish passage at dams in the lower river reaches. CRWA's next step in increasing the number and species of fish is a multi-year collaborative effort with MA Division of Marine Fisheries (DMF) and the US Fish and Wildlife Service (FWS) to restore the American shad population in the Charles and to create a local sport fishery.

Dating back to the early 1600s, the Charles River supported an abundant population of American shad, one of five species of anadromous fish found in the river. Anadromous fish are born in freshwater, spend the majority of their lives in the ocean, and return to freshwater to spawn. Despite historical abundance, the American shad population in the Charles was nearly wiped out because of the construction of dams and culverts and the degradation of the river's water quality and flow. Today, only small numbers of adult shad are observed in the river each year despite the fact that the Charles River should support a viable shad population of 30,000 adults.

The Charles River American shad restoration program, which will span the next six to eight years, involves stocking juvenile shad fry in the Lakes District area of the Charles in Newton and Waltham each year from late June to mid-July. The first step of the restoration program is to obtain brood stock shad (adults) from the Merrimack River, where the shad population has rebounded in recent years. Originally, the production goal was to obtain 500 brood stock from the Merrimack River; however, this year we anticipate a lower number because of the unprecedented storm event in early May that affected the population. The brood stock will be transported and spawned at FWS hatcheries where the larvae of the adults will be raised for seven to ten days, and then marked prior to their release so their return to the Charles River in three to four years can be tracked. Funding from



Above: The Merrimack River, home to a thriving American shad population, and source of brood stock for the Charles River American shad restoration program.
Left The American Shad.



US Environmental Protection Agency's Targeted Watersheds Grant, will support CRWA's work in sampling juvenile fish to estimate fish survival and establish recruitment indices, and assess the river's chemistry to determine the best location and timing for stocking.

Successful repopulation of American shad may also involve addressing obstacles to their viability in the Charles including predation by birds, unsuitable flow, poor downriver passage, availability of forage species (i.e., zooplankton) and habitat alterations. If the shad restoration program succeeds, beginning in 2009 adult shad will come back to their birthplace in the Charles and start a new generation of life.

— Anna Eleria, CRWA Project Manager and Engineer

Charles River Watershed Association



CRWA dedicated our new headquarters at 190 Park Road in March, with a capacity crowd. Festive supporters celebrated with Former Board President George Sprague and his wife Lee as they dedicated the great room to Rita Barron thanks to a generous naming gift of \$30,000. Many long time supporters of CRWA came forward to honor Rita with donations to CRWA's Rita Barron Fellowships, established in 2003 with a generous grant from The Harold Whitworth Pierce Charitable Foundation.



Bringing People to the River



In April, over 1,500 racers and thousands of spectators celebrated the river at the **24th Annual CRWA Run of Charles Canoe and Kayak Race**, the largest canoe and kayak race in the Northeast. We are grateful to Boston Duck Tours for being the lead sponsor again this year. Some watched the race on the Henry Longfellow Riverboat as part of CRWA's Riverboat party, thanks to sponsors Charles River Boat Company, Union Boat Club and the Esplanade Association.



At the seventh annual **CRWA Earth Day Charles River Cleanup** more than 1600 volunteers scoured over 70 miles of riverbank on both sides of the Charles. Thirty-two tons of trash were collected!

Thanks to Whole Foods Markets for once again being the lead cleanup sponsor. Since 2002 Whole Foods Markets has designated a "shopper's day" in April at each store in the watershed, donating 5% of their profits from that day to CRWA — this year's total was more than \$34,000.

One hundred donated, sixty-second radio spots showcased the work of CRWA this spring on WBOS, and CRWA was on stage during WBOS's Earthfest concert. Thanks to Whole Foods Markets for requesting this charitable donation from WBOS.



Our board members continue to host fabulous parties for their neighbors, **sharing the accomplishments of CRWA**. In April at the Beacon Hill home of Ginger Lawrence, fifty people gathered, thanks to Ginger and co-host Gordon Burnes. And, in June over 80 people gathered at a garden party at the home of George and Emmy Lewis in Sherborn to canoe and hike on their property along the river.



RUN OF THE RI

Massachusetts Revises Water Quality Standards

Though proposed revisions to the Massachusetts Surface Water Quality Standards (WQSs) are long overdue, CRWA believes MA DEP's changes still fail to meet Clean Water Act requirements. CRWA submitted in-depth comments on the changes, pointing out that the most glaring omission is the lack of narrative streamflow criteria. Streamflow, or water quantity, is directly linked to water *quality*, affecting pollution concentrations, temperature and dissolved oxygen, and can be a major reason a waterbody fails to meet its designated uses. DEP's revisions would also weaken public health protection by increasing permissible bacteria concentrations and the frequency of water quality sampling used to determine those concentrations. CRWA would like the WQSs to include numeric standards for suspended solids and nutrients, both major contributors to waterbody impairment.

Franklin Heights Estates, Franklin MA

The Town of Franklin is one of the fastest growing in the I-95 region, resulting in the proliferation of impervious cover and increased water demand. Franklin is experiencing a water shortage, especially in summer months, and developments need to be more sensitive to their water resources impacts. Franklin Heights Estates will be a 36-acre condominium complex, a quarter of which will be impervious. Over 200,000 square feet of land will also be disturbed in the buffer zone to the wetlands that will need to assimilate the site's storm runoff. CRWA believes that further MEPA review is necessary and should include water conservation strategies, comprehensive stormwater planning, best management practices and wetlands mitigation measures.

Water Conservation Standards Updated

The Massachusetts Water Conservation Standards have not been updated in over a decade, and stresses on the Commonwealth's water resources are evident. CRWA commented on the state's draft conservation standards, urging that they make a stronger connection between water withdrawals and diminished streamflows. Withdrawing water can reduce groundwater contributions to rivers and streams, and also pull water out of the streambed and towards the well. Because water conservation is the most cost-effective means of improving streamflows, 65 gallons per capita day residential use should be adopted as a standard. The standards should also emphasize that lawn watering should not be a priority for water use.



VER CHARLES RIVER WATERSHED ASSOCIATION'S REPORT OF WHAT'S HAPPENING ON (AND AROUND) THE CHARLES



Chestnut Hill Square Draft EIR

The redevelopment of 200 Boylston Street near the Newton/Brookline border is a golden opportunity to clean up local stormwater that drains into Saw Mill Brook. Currently the site is almost entirely paved and impervious to rainwater, thus huge volumes of polluted stormwater run off into the sensitive urban pond and wetland areas of Kennard Park and Conservation Area in Newton, Lost Pond Conservation Area in Brookline, and the state's Lost Pond Reservation. CRWA commented on the draft environmental impact report recommending that the developer's stormwater assessment be revamped to include implementation of Low Impact Development techniques to reduce and filter stormwater runoff to those valuable water resources.

Legacy Place Development, Dedham, MA

The Town of Dedham suffers a large water deficit because it draws water locally and exports its wastewater — much of which is actually clean water leaking into pipes — to Deer Island. Exacerbating this problem is the amount of paved, or impervious, surfaces, which reduces local groundwater recharge. CRWA believes that developments such as Legacy Place, a 47-acre mixed-use redevelopment project near the corner of Providence Highway and Elm Street should maximize infiltration of stormwater and the wise use of water. Commenting on the draft environmental impact report submitted pursuant to the MA Environmental Policy Act (MEPA), CRWA asked that a true alternatives analysis be required, as well as analyses of recharge opportunities and the reduction of impervious cover.

MCI-Norfolk Water Pollution Control Facility

The Norfolk Water Pollution Control Facility (NWPCF) operated by the Massachusetts Correctional Institute in Norfolk discharges treated sewage into the Stop River, a tributary of the Charles. This has led to accelerated eutrophication — excessive plant and algae growth and low dissolved oxygen in the river, caused by phosphorus and other nutrients that are not sufficiently removed from NWPCF's effluent during treatment. Because NWPCF is a major contributor of summertime flow in the Stop River, phosphorus concentrations are not adequately diluted and the effects are observed downstream. NWPCF's discharge permits are now up for renewal, and there is an opportunity to reduce these adverse environmental impacts. CRWA, in a comment letter to the US EPA and MA DEP, requests that the discharge limit for phosphorus be lowered from 0.2 mg/L to 0.1 mg/L in the summer and from 1.0 mg/L to no higher than 0.5 mg/L the rest of the year. This will reduce phosphorus accumulation in the sediments used by plants and algae in the summer.

Mass Highway Faces Pollution Suit

CRWA, Conservation Law Foundation (CLF) and Leominster Land Trust formally notified the Massachusetts Highway Department in May that we would be filing suit against it for continuing to violate the Clean Water Act (CWA) by discharging polluted stormwater without a permit. Sixty-day advance notice is required under the CWA prior to bringing suit. Because informal discussions with Mass Highway have not been productive, formal action is necessary.

Stormwater is one of the most significant causes of pollution to the Charles. When it rains, stormwater contaminated with oil and grease, metals, and nutrients pours into the Charles from Route 128 bridges and other roadways operated by Mass Highway, which, statewide, is responsible for over 4,000 miles of roads and ancillary facilities. Because Mass Highway's stormwater management plan is inadequate and fails to control these pollutants, CRWA and CLF requested a public hearing and made numerous recommendations for improving its plan, including establishing measurable goals and appropriate control measures. Mass Highway has not been receptive to changing its plan. In contrast, CLF and CRWA continue to discuss improvements to its stormwater plan with Massachusetts Turnpike Authority, which has similar stormwater problems.

This is part of a collaborative effort by CRWA and CLF to clean up stormwater pollution in the Charles River Watershed. To read more about this initiative go to www.clf.org/programs/cases.asp?id=490.

— Margaret Van Deusen, CRWA General Counsel and Deputy Director

CRWA Fights to Protect Tidelands and Increase Streamflow

We are often asked whether CRWA members' calls or letters to state legislators on pending bills really matter. The answer is a resounding "Yes!" We experienced this first hand this spring. **House Bill 4741**, intended to "streamline and expedite permitting" for development, would have eliminated the long-standing right of 10 citizens to intervene in proceedings before the Department of Environmental Protection (DEP) involving licenses to build in tidelands, as well as the right to appeal to court. **Tidelands are held in trust for all of the citizens of Massachusetts. Although developers claimed that citizen appeals were stymieing waterfront projects, DEP statistics proved otherwise, and without this threat, developers have little incentive to agree to meaningful public amenities like harbor walks and waterfront parks.** Calls by CRWA's members and others led to a compromise which CRWA helped to broker requiring five of the 10 citizens to reside in the municipality in which the license is located.

CRWA actively opposed two other sections of 4741 passed by the House, but not included in the Senate version, allowing "major" (defined as more than 25 dwelling units, or 25,000 square feet inside) development projects to go forward while a special permit or local variance is being appealed to court, contrary to current practice; and giving Land Court jurisdiction over all appeals of environmental permits including the right to transfer cases unilaterally from Superior Court. With only six judges and no particular environmental permitting expertise, CRWA believes this provision will encourage forum shopping and overwhelm the Land Court's resources. The house version also does not contain any smart growth criteria for areas designated as "priority development sites." CRWA will continue to work to improve the bill that comes out of the House-Senate conference committee.

In May, the Senate adopted a budget amendment requiring the formation of a "blue ribbon" commission headed by the Secretary of the Office of Commonwealth Development to study the effectiveness of DEP's Water Management Act Policy (Policy) governing large water withdrawals, and to report back by the end 2006. While the Commission is unnecessary and duplicative of an existing DEP advisory committee on which CRWA already sits, the amendment originally sought by the Massachusetts Water Works Association (MWWA) would have been far worse: it would have suspended the Policy, effectively negating recent strides by DEP to require water conservation and streamflow protection in permits. CRWA successfully worked behind the scenes with the Environmental League of MA to prevent the MWWA amendment from being introduced. CRWA's letter to the Senate and science response to MWWA's position paper can be found on our website, www.charlesriver.org, on the Take Action/Advocacy Alert page.

— Margaret Van Deusen, CRWA General Counsel and Deputy Director

Stormwater Sessions Workshop

Stormwater runoff is the one of the most significant sources of pollution to the Charles River and is a major cause of water quality degradation, affecting fisheries, habitat, aquatic flora, recreational uses and aesthetic beauty. Effective stormwater management plans that incorporate innovative low-impact development (LID) and stormwater management techniques to reduce runoff at the source are critical to protecting valuable surface water resources from stormwater and ensuring sustainable water use. Yet paying for the development and implementation of these techniques, as well as for operating and maintaining the stormwater drainage infrastructure, has proven to be a great challenge for many communities. The recent record-breaking storms and flood events only underscore how



important this issue is. Across the Commonwealth, municipal officials are trying to balance the need to meet permit requirements, support their local environment, and find ways to pay for growing operating and capital costs.

The Charles River Watershed Association and the Massachusetts Office of Coastal Zone Management (CZM) are hosting the **Charles River Watershed Stormwater Sessions Workshop on Wednesday, June 21st at Dean College in Franklin**. This day-long

workshop will cover two complementary sessions — low impact development techniques and stormwater financing mechanisms — to assist municipalities in designing and paying for a better stormwater management program.

CRWA and CZM also plan to co-sponsor a second LID workshop in North Allston in the Fall of 2006. This workshop will focus on LID site design and stormwater best management practices in an urban context. The workshop will also feature an update on CRWA's work in Environmentally Sensitive Urban Development in the context of North Allston ("*Building a Blue Allston*"), so stay tuned!

— Pallavi Mande, CRWA Urban Restoration Specialist



Upcoming Events

June

21 "The Stormwater Sessions" Workshop on Low Impact Development and Stormwater Management, at Dean College in Franklin

July

11 Brown Bag lunch on MET/Target Fish, at CRWA Office, 12:30pm

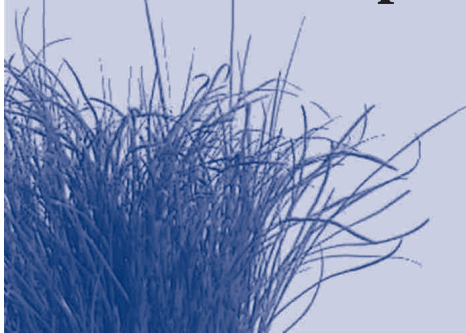
12 Gubernatorial Forum on Environment, at MIT, 6:00-8:00pm

September

12 Brown Bag lunch at CRWA Office, 12:30pm

For more information on any of the above events, visit the Events page of our website, or contact Rebecca Scibek at 781-788-0007 x200, rscibek@crwa.org

Water Saving Lawn Care Tips



Try to reduce the lawn area you water by adding drought-resistant plants to your yard or letting some grass go dormant.

Only irrigate once or twice a week, as lawns only need about one inch of water a week — including rain — to stay green in summer.

Minimize evaporation by watering during the early morning or late evening, when the sun is low and winds are light.

Adjust your lawn mower to a higher setting — 3" high grass is optimal to encourage deeper roots and crowd out weeds.

Set a timer when watering your lawn, or use a hose instead of a sprinkler.

For more information, visit the Greenscapes website: www.nsrwa.org/greenscapes

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