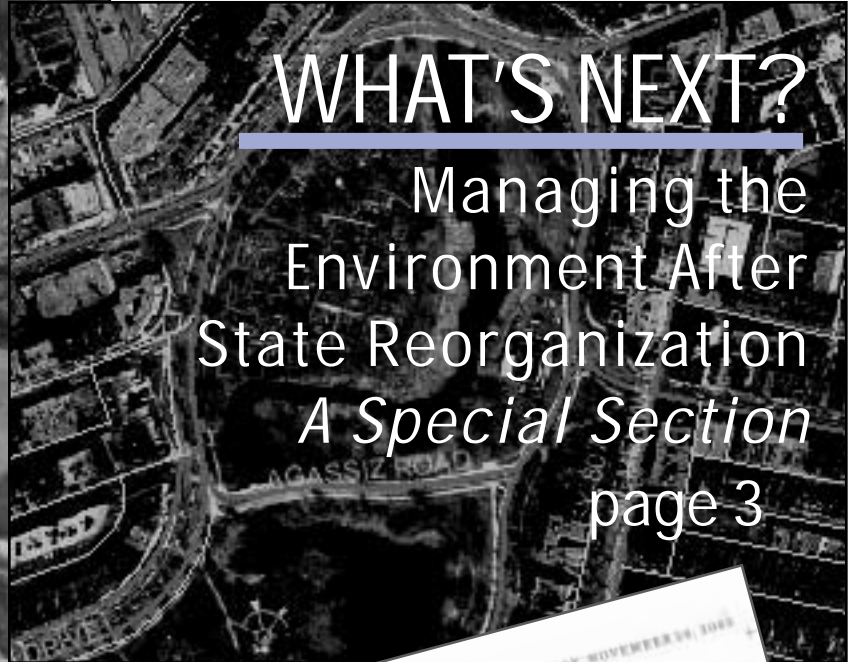




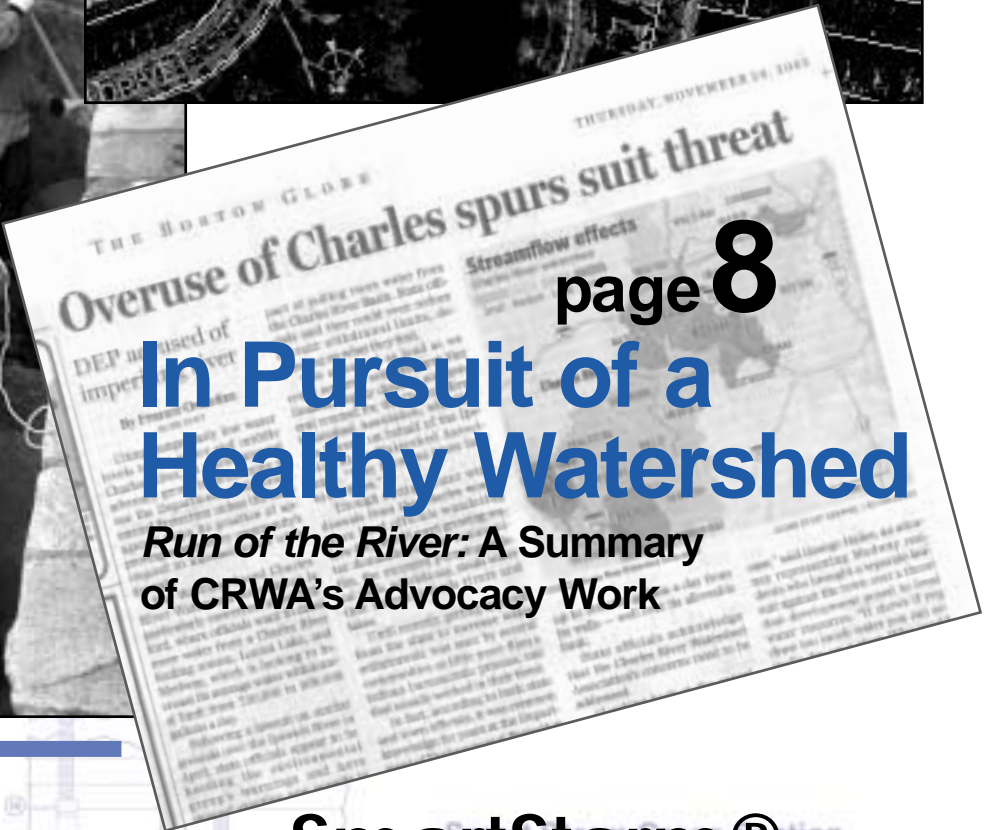
page 7

Fish, Fish
Ladders, and
the Volunteers
Who Love Them



WHAT'S NEXT?

Managing the
Environment After
State Reorganization
A Special Section
page 3



page 8

In Pursuit of a
Healthy Watershed

Run of the River: A Summary
of CRWA's Advocacy Work

Also in this issue:

- Mount Auburn Cemetery sets example with water permit
- Annual Meeting notes
- Fall foliage paddle photos

2003 Annual Report **INSIDE**

SmartStorm®
Project Update
page 11

Streamer

Charles River Watershed Association
48 Woerd Avenue | Waltham, MA | 02453
phone: 781-788-0007 | fax: 781-788-0057
crwa@crwa.org | www.charlesriver.org

BOARD OF DIRECTORS

Executive Committee

Philip L. Hillman, *President*
Kelly McKlintock, *Past President*
Ralph W. Abele, *Vice President/ Environment*
Jane Sender, *Clerk*
Elizabeth Levin, *Treasurer*
John Clark, *Assistant Treasurer**

Lee P. Breckenridge
David Burmaster+
Stephen H. Burrington+
John P. DeVillars
Edward Englander

Elizabeth C. Gilmore
Richard G. Gonci+
James Healy
Jonathan D. Katz
Attila Klein*
Virginia M. Lawrence
Elizabeth Levin
Mindy Lubber
Charles D. McCrea
Brian O'Donovan+
John G. Palfrey, Jr.
Bill Rieders+
Robert F. Sproull
William J. Tedoldi

* elected to Board for FY04
+resigned after FY03

Streamer is published in June and December.

Moving? Send a change of address form to 48 Woerd Avenue, Waltham, MA, 02453.

CRWA is a tax-exempt, nonprofit corporation established in 1965 to protect and enhance the health, beauty and accessibility of the Charles River and its tributaries. CRWA is a member of Earth Share and the Massachusetts Environmental Collaborative.

Streamer is printed on recycled paper.

CRWA STAFF

Robert L. Zimmerman, Jr., *Executive Director*
Margaret Van Deusen, *Deputy Director and General Counsel*
Kathleen Baskin, *Project Manager*
Kate Bowditch, *Senior Environmental Scientist*
Denise Trapani, *Development Director*
John Carney, *Environmental Scientist*
Ariel Dekovic, *Office and Publications Manager*
Kenneth Dews, *Finance Administrator*
Anna Eleria, *Environmental Engineer*
James Fitzgerald, *Laboratory Manager*
Nigel Pickering, *Senior Engineer*
Louise Taylor, *Membership Manager*

Interns: Gina Barberio, Jill Conroy, Robin Curtis, Maura Kelly, and Rebeca Monje

Streamer logo: Lou Mucci

Streamer design: Ariel Dekovic

Photography: Anna Eleria, Kate Bowditch; other photos courtesy of www.alongthecharles.com (credited)

Othographic projections: courtesy of MassGIS

Printed by: Recycled Paper Printing

Restructuring Our State Parks Agency

Over the past eighteen months Charles River Watershed Association (CRWA) has

worked diligently to effect a change in how the state manages its parks system. Working with other park advocates and concerned legislators, we have seen the fruits of our labor in the formation of the Massachusetts Department of Conservation and Recreation (DCR). The excitement continues with the naming of the new Commissioner, Kathy Abbott. Ms. Abbott comes with strong management experience and a desire to build a park system that works better for all its constituencies.

We have the organizational structure in place. Now comes the difficult part of changing the prevailing culture within that structure, as well as upgrading our state parks infrastructure to where it needs to be in the short term. Across the board budget cuts will not make Ms. Abbott's task any easier. Yet CRWA and our partners are committed to the success of the new DCR. An increased focus on public parks and river access issues has been woven into our strategic plan. Our unique combination of a skilled staff, an experienced board of directors and our historical perspective make us natural allies in this effort.

The successful restructuring of the state park agency has huge implications for the Charles River. Parklands tie the river and the community together and are the main place that people interact with the river. Parklands also protect water quality and provide important habitats. The more we can do to improve park maintenance and open space protection, the more we enhance the health of the Charles River.

In the midst of our excitement let's not forget that the kind of changes we want to see will require time, money and patience. As DCR moves to a new level of accountability and transparency there is an expectation that we will get more people involved in this process of change. Perhaps, by working creatively together, we can find the resources to make the necessary changes happen.

MESSAGE
FROM THE
PRESIDENT
PHIL HILLMAN



“We have the organizational structure in place. Now comes the difficult part of changing the prevailing culture within that structure.”

Phil Hillman, President
CRWA Board of Directors



New DCR Commissioner Has Capable Hands Full

An interview with former head of Island Alliance Kathy Abbott

As many *Streamer* readers know, CRWA worked closely with the legislature and administration this year to reorganize the state environmental agencies. On July 1, the following major changes were put in place: the Metropolitan District Commission (MDC) was merged with the Department of Environmental Management (DEM) to create the new Department of Conservation and Recreation (DCR); and a Stewardship Council was established to guide DCR. CRWA supports the reorganization, as it will improve management, increase public participation, and provide accountability and transparency in park and recreation services across the



state. DCR is made up of three divisions: State Parks and Recreation; Urban Parks and Recreation; and Water Supply Protection.

In October, Katherine Abbott took office as the first Commissioner of the Department of Conservation and Recreation (DCR). CRWA asked her a few questions about how she sees the new department.

CRWA: What are you most excited about as you take on this new and important position?

Abbott: Succeeding! We have a great parks system, and we have to build a great department to manage it. I think we can do that, which is why I took the job.

CRWA: What opportunities do you see in the reorganization?

Abbott: The opportunities are tremendous. First, the new structure will quickly eliminate some of the inconsistencies between the

two agencies [MDC and DEM], so that all of our park and recreational resources are managed with a similar philosophy and under the same guidelines. There's real public benefit in that. There will be uniform rules, pricing, and policies so that people know what to expect. We'll have a single web page with all the information

people need to access the whole system, statewide. Second, the reorganization will allow some great people with unique skills, people who were formerly housed in one agency or the other, to serve the whole state. That's a tremendous gain. I think we can take the best out of each agency and blend it into a new iden-

tity that's stronger.

CRWA: What challenges are there in that process?

Abbott: Well, trying to do this quickly is probably the biggest challenge. These agencies have histories that go back over a hundred years. With public agencies that are this old, you have bureaucratic layering and growth that isn't always well planned and doesn't always make

“Citizens have a right to clean air, clean water, protected resources, and scenic beauty.”

sense or work well. That's a lot of history to try to change all at once. Plus, these agencies have been suffering under the threat of consolidation for so long that it's hard to move quickly. But that's what we need to do. We need to involve everyone, all the parties in the

[>>continued on page 14](#)

SPECIAL SECTION After Reorg: The State of Our Government

Restructuring the parks agency from an organizational perspective
>> page 2

An interview with Kathy Abbott, new DCR Commissioner
>> page 3

Making reorganization work: what will have to happen for it to be a success
>> page 4

The state of the environmental budget for FY04 (hint: it doesn't look good)
>> page 5

Making Reorganization Work

by Kate Bowditch, Senior Environmental Scientist

The reorganization of the state's environmental agencies has begun, and CRWA, like everyone else, is still feeling our way along, clear about our goals, but not quite sure how we will get there. At a recent meeting here at CRWA, the reality of reorganization hit home. We were trying to solve a problem, and we needed the state to help. We began our planning: who would contact which sympathetic state legislator, local official, or other community group to lobby to have the money earmarked in the budget.

Suddenly we all realized what we were doing: business as usual, based on the old system of getting things done with the MDC. Environmental advocates are all used to this old way of operating: make a lot of noise, attract the attention of your state representative and senator, hopefully get your mayor or Board of Selectmen to make a couple of calls; get your project funded in a line item in the state budget.

That is a crazy way to manage the environment. Special interest decision-making, lack of process, uneven planning: these are the very problems that plagued the old MDC, and the very problems we fought hard to be fixed through agency reorganization. If government reorganization is to succeed, we have to change as well. We have to give up our old methods and try to do things as they really should be done.

The reorganization that was passed by the legislature and signed into law by the Governor has just begun to be implemented. The transition team at the Executive Office of Environmental Affairs (EOEA) worked all summer and into the fall to put together a strategy, evaluate budgets and set priorities. Commissioner Abbott, hired in October, has just begun her search for senior management staff. Over this winter, the Stewardship Council will be appointed to work with DCR on issues including capital and operating budgets, management plans for parks, and the decision-making process itself.

A summary of the new environmental agency structure can be found on CRWA's website (www.charlesriver.org), or at the EOEA's homepage (www.state.ma.us/envir). More important than organizational charts and new agency names, however, are the goals behind reorganization, goals we all embrace. We want a professionally managed park system, accountable to the public that funds it, with clear, open, and

fair decision-making processes. We want the "world class park system" that Governor Romney dedicated himself and his staff to building.

In an ideal system, the process might go like this. A good project might be suggested to the DCR staff, who would then evaluate it and bring a recommendation to their senior management, and to the Stewardship Council. The project would be evaluated based on a variety of criteria, and a decision about the project's importance and value would be made. Issues to consider might include how the project fits with regional plans and priorities, whether the public supports the project, whether it meets the requirements of best current

practices, whether it is fair from an environmental justice perspective, and how much it costs relative to other needed projects. If a group feels their project has not received fair consideration, they can go directly to the Stewardship Council.

The new DCR system will probably not be perfect. Among other glaring problems in the short term, the state simply does not have enough money to bring our parks and recreational resources up to where they need to be. Institutional inertia is hard to overcome, and the enormous volume of work from management plan development to staffing to retraining will be impossible to complete quickly. Next summer we will probably not see as much change as we all wish for in park maintenance and capital improvement.

But the system should work better. Decisions about which projects to fund should be more rational. Lines of accountability, from an individual park up to a whole region, should be clear.

Capital improvement projects should be tied to improved maintenance. Volunteers should be able to have their efforts welcomed and supported. Private supporters should be able to contribute to projects with confidence that work will be done and commitments honored.

Commissioner Abbott and her staff need our help to make the system work as it should. Rather than call our legislators right away, rather than pull strings and use our personal connections to bump ourselves up on the list of important projects to get funded for next year, we should put together a rationale for why our project should be supported, and bring everyone together to gain DCR support. We need to keep the legislature in the loop, of course: they vote on DCR's budget. And ultimately, if the new park managers don't make sound management decisions, we will continue to demand better stewardship of the parklands and the river.

But the new DCR deserves a chance to do it right. 💧

“Suddenly, we all realized what we were doing: business as usual, based on the old system of getting things done at MDC... That is a crazy way to manage the environment.”

Environmental Advocates See Yet Another Drop in State Environmental Spending for FY 2004

MORE WORK, LESS MONEY


by *Kate Bowditch*

As Kathy Abbott takes over the reins of the new Department of Conservation and Recreation (DCR), her department will have enormous financial challenges as well as organizational ones. According to analyses done by the Environmental League of Massachusetts (ELM), DCR's total budget this year is down 6% from last year, and 23% from 2002 (using the combined budgets of DEM and MDC for comparison, since DCR did not exist last year). As we go to press, advocates hope to ward off more cuts for next year's budget. Expectations are that capital spending, paid for through state bonds, will be down significantly.

How can the state's park and recreational systems be improved with such enormous cuts continuing? Our state already spends a smaller percentage of our budget on our parks than most states, and many of our parks and recreational facilities are in dire need of capital improvements. Kathy Abbott's efforts to improve efficiencies, form partnerships, and set priorities will help, but the reality is that we need more money for our parks. For CRWA and the rest of the environ-

mental community, this is a serious and long term issue.

Parks are not the only place environmental spending is down. ELM's work shows this year's total environmental spending budget of \$166,596,560 is down 5% from last year and down 21% from 2002. The Department of Environmental Protection (DEP) budget is down 5% from last year, and 19% from 2002. DEP's staff, as a result of cuts, early retirements and job attrition, has been reduced from 1215 to 926 employees.

Across the board budget cuts are the only way to balance the state's budget without raising taxes, which no one is willing to suggest. So the short term outlook for measurable improvements in park maintenance, capital projects, and open space protection is grim. The good news is Commissioner Abbott's park management experience, agency reorganization, and improved accountability should lead to maximizing the limited dollars we do have. In the long term, these improvements should give advocacy groups and the public the tools we need to get more funds into the budget so that we will be able to build a "world class park system" to last well into the future. 

>> Environmental spending cuts have a trickle down effect; the Department of Environmental Protection will have to find a way to continue its vital programs under a 24% budget cut from 2002.

"The state's total environmental spending budget for the year is down 5% from last year and down 21% from 2002."

NEWS AND NOTEWORTHY

Putting EPA Grant Money to Work on the Charles

The Charles River Watershed Association was thrilled to learn that the U.S. Environmental Protection Agency selected CRWA to receive a prestigious \$400,000 grant. CRWA's proposal was one of only twenty selected from 176 nominations around the country.

CRWA, with our partners EPA, MA Executive Office of Environmental Affairs (EOEA), MA Department of Environmental Protection (DEP), U.S. Geological Survey, and MA Division of Fisheries and Wildlife, as well as municipalities, businesses, and citizens, will implement projects that improve conditions in the Charles. CRWA monitoring shows that water quality in the river continues to suffer from pollutant-laden discharges that cause widespread violations of the Massachusetts Surface Water Quality Standards. Communities in the rapidly growing upper Charles River watershed rely on local aquifers for water supply and regularly face watering bans starting as early as March and running through October. Increased development in the Charles River watershed causes increased water demand, increased impervious surfaces, and decreased infiltration. Consequently, the entire river suffers from low flows, raised temperatures, lower dissolved oxygen levels, increased concentrations of nutrients and other pollutants, accelerated

eutrophication (low dissolved oxygen levels and an excess of algae caused by too much nitrogen and phosphorus in the water), the conversion of wetlands to uplands, and decreased riverine and riparian habitat.

CRWA will investigate the feasibility of using instream river flow as a medium for innovative, multi-media pollution trading. CRWA will develop incentives and a regulatory framework for keeping stormwater, groundwater and wastewater out of big pipes, ensuring that it is available for stream flow, wetlands and habitat. Demonstration projects aimed at implementing change are critical to the plan and will include installation of CRWA's SmartStorm® rainwater recovery system, and application of an innovative DNA database project to determine, and ultimately eliminate, sources of fecal contamination. Recycling and reusing rainwater is a high priority for CRWA because it will boost instream flows in the river and help ensure ample drinking water supplies for Upper Charles communities. Other plan elements include an assessment of the fisheries population in the Charles and continuation of CRWA's summer boathouse flagging program. CRWA's work will support EPA's goal of a fishable and swimmable Charles River by Earth Day 2005.

-contributed by Kathy Baskin

“Water quality continues to suffer.”

SmartStorm® Plan Makes Cut

CRWA made the difficult first cut in the Yale School of Management-Goldman Sachs Foundation Nonprofit Ventures Competition. CRWA's submittal of its SmartStorm® business plan was one of eighty selected to proceed to Round II. 445 organizations submitted entries. At least three outside evaluators with expertise specific to the venture reviewed each submission across three dimensions: 1) Business Concept, Market and Competition; 2) Organizational Capacity and Fit; and 3) General Impression and Overall Presentation. Winners will be announced in mid-May.

REAL Planning Available on CRWA Website

CRWA's innovative land planning methodology, Resource, Environmental and Land Planning, (REAL Planning), is now available for public review on our website at www.charlesriver.org/EZ/EZ.html. The site contains in-depth explanations of the process of REAL Planning, from identifying critical open space, and assessing water quality and quantity, to auditing current infrastructure. Case studies of Littleton, MA and Holliston, MA illustrate each step in the process.

In the introduction to the site, Executive Director Bob Zimmerman identifies the need for REAL Planning in our current development regulations. He writes, "Land and water work together. It is in our interest to identify how and where land and water interactions are critical to environmental sustainability, wildlife habitat, and surface water flow. We ignore these links at our peril."

-contributed by Ariel Dekovic

CALL FOR VOLUNTEERS

- Are you a Charles River enthusiast?
- Want a hands-on role in protecting the river?
- Looking for an excuse to get out on the Charles once a month?

Join over 80 volunteers who participate in CRWA's water quality monitoring project!

CRWA samples along the entire length of the river, from Milford to Boston, once a month at 6 AM. We need your help! If you are interested in sampling at a site near your home or work, please call Ariel Dekovic at 781-788-0007 x200 for more information.

Herring Run; Volunteers Clean, Count

Volunteers turn out to monitor river herring population, clean up fish ladder

by Ariel Dekovic, Publications Manager

Every year, as the spring water and air temperatures begin to rise, the lower reaches of the Charles fill with the silvery bodies of blueback herring and alewife, collectively known as river herring.

In the spring of 2003, CRWA began a long-term project to monitor the population of river herring passing through the Watertown dam

fish ladder. The data that we obtain will be provided to a state fisheries biologist who is monitoring the long-term population trends of herring in the Charles River.

To make this population count, we

enlisted the help of over thirty dedicated volunteers who visited the dam on a weekly basis to observe the herring passing through the mouth of the fish ladder at ten-minute increments. The goal was to have one ten-minute count every hour of the day, from six in

the morning to eight in the evening. Volunteers recorded the water and air temperature, and cloud cover as well as their best estimate of the number of fish.

Turbid waters often made the counting difficult, but during a couple of dry weeks in the late spring, volunteers had an exciting run of high numbers. During the height of the herring run in mid-May, two volunteers counted separate totals of

675 fish and 588 fish in ten minutes.

In September, in conjunction with the fish counting project, CRWA collaborated with the Department of Conservation and Recreation to organize a cleaning of the Moody St. fish ladder in Waltham, in the hopes that a cleaner ladder will aid the fish as they return to their spawning grounds.

Volunteers shoveled and hauled up debris out of the drained ladder. Despite wet, dreary conditions and the difficult layout of the ladder, these enthusiastic volunteers finished the task in record time. With the hard work of some DCR workers, the Watertown ladder was cleaned out separately.

The fish counting project will pick back up next spring. If you are interested in participating in this exciting project, please email Ariel Dekovic at adekovic@crwa.org.

“During the height of the herring run, a volunteer counted 675 fish in ten minutes.”

>>A SAFER PASSAGE (clockwise

from left): volunteers stand proudly in front of the pile of collected debris; volunteers Damon Carter, Neal Loidoit, Sarah Benjamin, Van Morrill, Kathy Baskin, Chris Albano and Bill Gode get good and dirty; the Charles' gulls are joined at the base of the Watertown dam by another type of fisher.



photo courtesy of www.alongthecharles.com



RUN OF THE RIVER

CRWA'S REPORT OF WHAT'S HAPPENING ON (AND AROUND) THE CHARLES

UPPER WATERSHED

·From Echo Lake to South Natick Dam·
River mile 0 to 38

Proposal to Divert Water in the Headwaters

The **Milford** Water Company (MWC) has applied for a change to its water withdrawal permit that would allow it to divert several million gallons of water per day from Louisa Lake between mid-September and mid-May and to pump it either to the water treatment

plant, or to Echo Lake. CRWA has numerous concerns about this permit amendment, including the location of the diversion in the "highly stressed" headwaters of the river, which dries up in the summer; the draft decision of the MA Department of Environmental Protection (DEP) to allow withdrawals at a very low 'minimum streamflow;' and the review of this permit, in isolation from other basin permits scheduled to be reviewed next year, which prevents DEP from comprehensively addressing the cumulative impacts of water withdrawals in the watershed. CRWA strongly recommends that DEP not allow withdrawals from Louisa Lake in September and October, the normally low flow months, establish higher, protective 'stream-

flow triggers' that vary over the year, and require a drought management plan, permanent monitoring of streamflows, and a stronger, enhanced conservation plan.

Large Commercial Development

The developers of the Hopping Brook Park Project in **Holliston** received a certificate from the Secretary of the MA Executive Office of Environmental Affairs (EOEA) on its Supplemental Environmental Impact Report (SEIR), allowing for Phase II of the project to proceed. Phase II involves development of more than two million square feet of space on 266 acres of land, which will impact nearby wetlands and rare species habitat for the Spotted Turtle and Four-toed Salamander. This project also will add more than 15,000

vehicle trips per day to the already congested Route 16 corridor between Route 126 and I-495. CRWA recommended that the project proponent minimize traffic and single-use vehicle usage by instituting a rewards program for carpooling and providing reliable shuttle van service and on-site convenience services. To minimize stormwater impacts, CRWA strongly encouraged the proponent to utilize low impact development techniques, such as limiting the amount of surface parking

and multi-level structured or below-ground parking, and recharging clean stormwater throughout the site.

Assessment of Local Stormwater Management Programs

Under the auspices of DEP and the U.S. Environmental Protection Agency, CRWA has conducted an assessment of the local stormwater management programs of twelve upper Charles River watershed communities to learn more about local funding, staffing, and resources for stormwater management and to identify the strengths and weaknesses of their programs. The towns included **Bellingham, Dover, Franklin, Holliston, Medfield, Medway, Milford, Millis, Natick, Norfolk, Sherborn, and Wrentham**. CRWA found that many towns make concerted efforts to minimize pollution through street sweeping, catch basin cleaning, and proper snow removal and also encourage or require developers to control stormwater runoff from construction sites. On the other hand, the programs are lacking in educating and involving the public in stormwater management and in detecting and eliminating illicit discharges to the river. Next year, CRWA will present the results to the towns and offer recommendations for improving their stormwater management programs.

"CRWA has numerous concerns about this permit amendment."

MIDDLE WATERSHED

·From South Natick Dam to Watertown Dam·
River mile 38 to 69

Natick Golf Course Proposes New/Old Irrigation Well

A new irrigation well has been proposed for a municipal golf course and recreation area along West Street in **Natick**. The well, with a withdrawal rate of approximately 39,000 gallons per day, is intended to replace municipal water currently

Spotted Salamander. The proposed well was included in the original project proposal submitted to EOEA in 1999, and only after Natick dropped the irrigation well from the original proposal did the EOEA Secretary rule that an Environmental Impact Report (EIR) was not required for the project. With the proposed irrigation well back again as part of

"The proposed well would be located adjacent to wetlands

Avenue, just across from CRWA office. The renovation includes adding a new, two-vehicle wide concrete boat ramp, a paved parking lot adjacent to the boat ramp, and a canoe launching area. The Upper Charles River Reservation pathway will run through the boat launch area, connecting the Waltham Watch Factory portion of the path to the Waltham Island

water currently used for irrigation at the facility. The proposed well would be located adjacent to wetlands that are connected via Indian Brook to the Massachusetts Audubon's Broadmoor Wildlife Sanctuary and are also known to be home to several state-protected species such as the Spotted Turtle, Mystic Valley Amphipod, and Blue

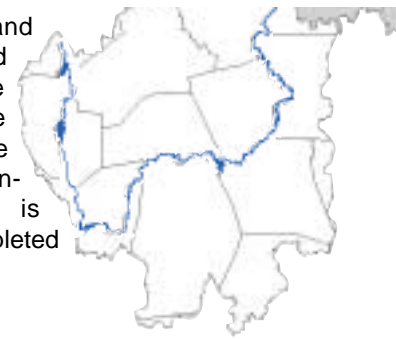
that are connected via Indian Brook to the Broadmoor Wildlife Sanctuary.” agreed, that an EIR is required.

again as part of the project plan, CRWA advocated for, and the State

Boat Ramp Construction Begins in Waltham

Construction recently began on much needed renovations to the **Waltham** Boat Launch located on Woerd

the Waltham Island Neighborhood and the Forest Grove Reservation. The boat ramp area will be closed during construction, which is expected to be completed in the fall of 2004.



LOWER WATERSHED

Expansion in the Longwood Medical Area

The EOEA Secretary has approved the proposed expansion of the Joslin Diabetes Center, located in the Longwood Medical Area of **Boston**. The project calls for the construction of additional research facilities as well as residential apartments in a high rise building complex approximately 308 feet tall. This project is part of a trend of redevelopment and expansion within the Longwood Medical Area, which CRWA feels is an opportunity for implementation of innovative stormwater control measures to reduce runoff from project sites and potentially increase groundwater recharge. CRWA encouraged the project proponent to work with the newly-created MA Office of Public/Private Partnerships to establish an appropriate way for Joslin to participate in the future maintenance of the historic Muddy River parkland.

Museum of Fine Arts Plans for Proposed Expansion

The Museum of Fine Arts in **Boston** recently presented plans for major expansion of its building, which will include additional museum wings as well as reopening the Fenway entrance and new landscaping along Forsyth Way. CRWA, while supporting the expansion, is concerned about potential environmental impacts to the nearby Muddy River and Stony Brook, as well as the likely expanded public use of the Back Bay Fens parkland, and increased traffic on the Fenway. CRWA has recommended that the MFA implement sys-

tems to recharge groundwater and potentially raise groundwater levels and reduce stormwater runoff. CRWA has also recommended that the MFA work with the MA Office of Public/Private Partnerships, the Boston Redevelopment Authority, and the Muddy River Restoration Project to participate in the future maintenance of the Back Bay Fens parkland.

Muddy River Project Update

The **Muddy River** Restoration Project continues to move along, slowly but surely. A decision from the US Army Corps of Engineers - Washington on whether or not to fund the majority (65%) of this \$92 million dollar project is expected soon. The Corps money would go towards dredging large portions of the Muddy River, enlarging undersized culverts, opening up, or "daylighting," two sections of the river that are currently buried, removing the huge *phragmites* stands that have overtaken the river banks and stream channel, and restoring banks and wetlands. Some additional elements of the project, including restoration of important historic park structures, and major improvements to the stormwater drainage system, will be funded by the state, Boston and Brookline. CRWA continues to chair the Muddy River Restoration Project Maintenance and Management Oversight Committee

(MMOC), a citizen watchdog group that oversees the project and protects the public investment.

Restoration of Memorial Drive

The **Memorial Drive** Demonstration Project, a key component to the State Historic Parkways Initiative, commenced in October 2002. The project will improve pedestrian and bicycle access, restore and preserve the historic character of the area, and upgrade the park and parkway drainage system to reduce uncontrolled runoff and improve the quality of stormwater discharges to the river. These improvements include drain and catch basin cleaning, repair and upgrades;

the installation of water quality units; and the construction of swales and landscape improvements. These much-needed structural improvements should serve as a model for future roadway and bridge improvements. Removal of a section of east-bound travel lane between Longfellow Bridge and Fowler Street and creation of new parkland is already near completion with construction of Phase I to be finished by July 2004. Phase II, which will begin in the spring of 2004, is scheduled for completion in the spring of 2007. CRWA is participating in this project as a member of the Historic Parkways Initiative Steering Committee. 🙌

“ A decision from the US Army Corps of Engineers on funding the majority of the \$92 million dollar Muddy River Restoration project is expected soon.”

pletion with construction of Phase I to be finished by July 2004. Phase II, which will begin in the spring of 2004, is scheduled for completion in the spring of 2007. CRWA is participating in this project as a member of the Historic Parkways Initiative Steering Committee. 🙌

EGRETS AND HERONS AND GEESE, OH MY!

CRWA members ring in the fall with a foliage trip through the Lakes District

by Denise Trapani, Development Director

Nearly thirty members of CRWA celebrated the Columbus Day holiday by joining staff members and Board Director Ralph Abele on a fall foliage paddle. The day was spectacularly beautiful as members launched from Charles River Canoe and Kayak, located across from our old headquarters.

As a dedicated paddler, Ralph Abele knows the Charles River well, and guided members down through the Lakes District of the river, noting both great wildlife population and areas of historical significance. Paddlers saw egrets, a blue heron, Canada geese (of course) and mute swans. As the paddlers passed the Stony Brook tributary, Ralph noted that


during most of the year, the water from the tributary is drained for use by the Cambridge Water Department.

The party landed at our new headquarters on Woerd Avenue in Waltham, where a festive lunch of pizza and cider was served. Over lunch, members exchanged their enthusiasm for the Charles River, and discussed the positive impact CRWA has made on the condition of the river over the years. The members toured the new headquarters, and were given a short introduction to our SmartStorm® Rainwater Recovery System (a prototype is always on display at our headquarters).

After lunch, members made the trip back up the river, returned their bor-

rowed canoes, and went off with a new appreciation of the Charles River. Throughout the course of the year, there will be more members' only events to attend. Please join us for one or more - it is a great way to have fun with your family, meet new friends who share your interest in the Charles River, and gain a deeper understanding of CRWA's work. Please mark your calendars for these upcoming events, and plan to join us. We appreciate your membership and welcome the chance to meet you!

Upcoming events for members only:

Saturday, April 3rd - 2nd Annual Take Me to the River Kids' Fair - Interactive programs that teach children about the river and its watershed 



>>ANOTHER WATERSHED

EVENT (clockwise from below): two CRWA members prepare to come ashore at the Waltham boat ramp while a flock of Canada geese looks on; members pause to chat with former CRWA Board President **Kelly McClintock**; fearless leader **Ralph Abele** readies his craft; two members depart from the Charles River Canoe and Kayak dock in Newton.



Celebrating 38 Years of CRWA: Annual Meeting Speaker Foy Calls for Public Involvement

by Louise Taylor, Membership Manager

CRWA celebrated a year of environmental accomplishments at the 38th Annual Meeting held at the Newton Marriott on November 19th.

Board President Kelly McClintock welcomed members and guests. Executive Director Bob Zimmerman then introduced this year's speaker, Doug Foy, Chief of the Office of Commonwealth Development.

Chief Foy gave a dynamic and insightful talk concerning the fiscal crisis facing the state, and the reorganization of the administration of housing, transportation and environmental agencies that he believes will result in a more efficient structure. He mentioned CRWA's leading role in negotiating for an efficient and effective governmental structure to benefit the Charles, the environment and our parklands. Chief Foy focused most of his comments on the problems of sprawl, current zoning laws, and the daunting cost of acquiring open space. He strongly urged the audience to become involved at the local level.

While stressing the importance of saving our towns, Mr. Foy asked the attentive audience, "What are the ten most important aspects of a town?" He

went on to list: the library, schools, a movie theater, hardware store, a pub, grocery store and more. He also said that his number one environmental goal is to have every child be able to walk to the town library; the achievement of that goal would mean centralized, walkable towns all over New England instead of sprawling, car-dependent suburbs.

During the business portion Bob Zimmerman spoke frankly about the serious effect "the state's fiscal crisis and wholesale federal environmental

rollbacks have had on CRWA's budget." Board of Director nominees were approved by the members present. Kelly McClintock concluded five dedicated years as Board President and wel-

comed Philip L. Hillman (formerly CRWA's Vice President/Environment) to take over the reins. Mr. Hillman delivered a warm and enthusiastic speech and looks forward to his new role. Mr. Hillman is the Divisional Vice President of Health, Safety and Environmental Affairs at Polaroid.

CRWA's Lab Manager Jim Fitzgerald thanked CRWA volunteers and interns for their invaluable efforts. Awards were presented to five outstanding individuals. CRWA's 2005 Award

continued on page 15

"Foy's goal is to have every child be able to walk to a library."

The Late Marty Sender, CRWA Director, Honored

Marty Sender raised awareness and worked in earnest for the health of the Charles River. In his honor, CRWA, The Commonwealth of MA, the Division of Conservation and Recreation (DCR) along with the City of Newton collaborated on plans and the construction of a riverwalk. Many people who knew Marty also contributed to its completion.

On October 19th the Marty Sender Riverwalk was officially opened with a ribbon-cutting dedication. Remarks were given by Newton Mayor David Cohen, DCR Senior Planner Dan Driscoll, Rep. Kay Kahn, and CRWA Executive Director Bob Zimmerman. Marty's wife Jane Sender, other family members and neighbors also spoke. Although the weather was rainy, laughter and warm spirits filled the air.

The Riverwalk begins at the foot of Islington Road in Auburndale, MA and is marked by two stone pillars with herons beautifully carved on each. The Riverwalk runs parallel to a ball field, winds through woods and culminates at the entrance to Forest Grove Park in Waltham.

New Projects, New Ideas: What's Ahead for SmartStorm®



CRWA spent the bulk of the summer installing sixteen Smartstorm® systems in various Metro-Boston cities. One of the most notable installations was for the Ipswich Group Home. The main goal of the project was to create sustainable landscape around the group home property using native plants and grasses as well as integrate a rainwater collection system to provide an alternative source of water for the landscape. CRWA donated the materials and labor for the system installation.

The SmartStorm® pilot project, which began last year in Bellingham, continued in 2003. Additional funding was provided by American National Power to continue the project. A total of eleven systems were installed over the summer under the pilot project, with an additional sixteen systems expected to be installed in the Spring and Summer of 2004. In addition to the Bellingham and Ipswich installations, SmartStorm® systems were also installed in Newton, Westwood, and Norwell.

CRWA is exploring development of larger capacity SmartStorm® systems

for use by municipalities, commercial, and industrial facilities. As part of the Bellingham pilot project, American National Power has provided a grant to develop and install a SmartStorm® system for the Bellingham Town Hall. Additionally, Intel Corporation is providing a grant to develop a similar system for the Hudson Fire Department. With projects such as these, and additional residential installations, CRWA will continue to develop and push this innovative technology as a part of the solution to restoring the natural water cycle in our communities.

-contributed by John Carney

Balancing Environmental MOUNT AUBURN CEMETERY WATER WITHDRAWAL PERMIT

by Nigel Pickering, Senior Environmental Engineer

Founded in 1831, Mount Auburn Cemetery (MAC) is a 175-acre cemetery that has a lush arboretum with 5,500 trees, three ponds, and a vernal pool. MAC is a popular bird-watching site and green space within the metropolitan Boston area. It is located in Watertown near the Cambridge border and is mostly in the Charles River Watershed. In springtime, many people visit MAC to see the variety of ornamental flowers and enjoy the migratory birds hiding in the luxuriant foliage.

Part of keeping MAC looking good is an irrigation system to water the cemetery. Most of MAC is irrigated using water trucks and portable sprinklers except for newer areas and a 15-acre "active cemetery" area near Willow Pond that have in-ground sprinklers.

The irrigation water supply at MAC is a groundwater well. In the past two dry summers, well withdrawals have been in the 200,000 gpd (gallons per day) range, which far exceeds the 100,000 gpd withdrawal threshold requiring a permit under the Water Management Act (WMA). Therefore, MAC recently applied for and received a WMA permit for a maximum withdrawal of 250,000 gpd.

Even though MAC's water withdrawal volume is relatively small compared to municipal withdrawals, the cumulative impacts on the Charles River from new water withdrawals, like MAC's, within the past decade are considerable. CRWA has detected a decline in baseflows (streamflow during dry periods) especially in the summer. Low baseflows impact

the Charles by raising the water temperatures, increasing nutrient concentrations and algae levels, and limiting fish populations.

Because of these concerns, CRWA worked closely with MAC and the Department of Environmental Protection to develop a permit that includes streamflow-based water management. MAC is an innovative group and had already adopted many good water management practices, so they were very cooperative in

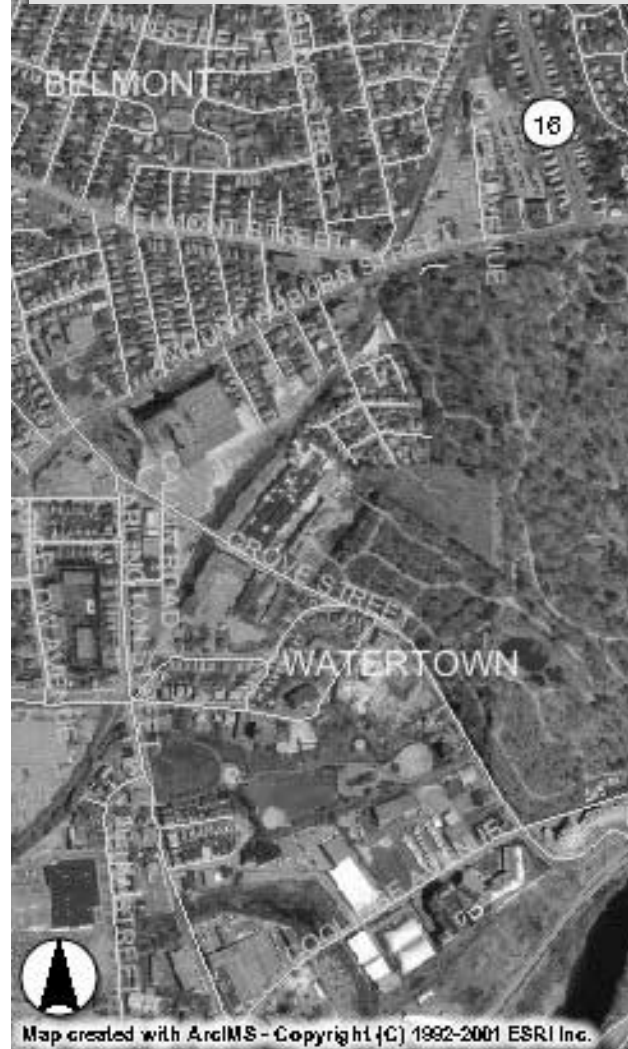
"CRWA has detected a decline in baseflows, which raises the water temperatures, increases nutrient concentrations and algae levels, and limits fish populations."

developing this new approach for their WMA permit. CRWA's task was to define the streamflow trigger (a streamflow level at which some management action needs to be taken) and specify the appropriate water management technique(s) required at each trigger.

Recent studies of the Ipswich River established that summertime streamflow requirements for adequate fish habitat are close to the August median flow proposed in the Aquatic Baseflow policy developed by the US Fish and Wildlife Service. In the Charles River, the August median flow is about 0.41 cfs (cubic feet per square mile). This value is regarded as a Moderate Stress trigger. Previous "minimum" streamflow limits in the Charles River were set at 0.21 cfs by the Department of Conservation and Recreation (formerly the Department of Environmental Management). This value was not particularly biologically based but rather, sought to balance human needs against environmental impacts. This value is regarded as an Extreme Stress trigger.

CRWA and MAC agreed that these two streamflow limits were suitable and would be applied using daily flow data

>> Mount Auburn Cemetery officials work members to develop a water withdrawal needs with the needs of the environment first of its kind in our watershed.



from the United States Geological Survey gage at Waltham. Having firmed up the streamflow thresholds and the appropriate stream gage to monitor, the more difficult task of defining the water management activities at each trigger level began. Since MAC already used progressive water management, many of

Needs With Human Use IT BASED ON STREAMFLOWS IS FIRST FOR CHARLES

the proposed activities were already in place; only the Severe Stress trigger (0.21

moisture, irrigation amounts, pond levels) and ensuring sprinklers are performing properly. Under Moderate

Stress (below 0.41 cfs), the permit requires a public notice that the Moderate Stress level has been reached and that special water management practices are in place. This trigger limits irrigation to once a week and during this period MAC's ponds can to be filled in anticipation of drier conditions. Under Severe Stress (below 0.21 cfs) the permit requires a similar public notice. This trigger requires water management practices like nighttime irrigation, watering limited to less than once a week, and the shut-down of ornamental fountains.

We commend MAC in taking a positive approach and working with CRWA to develop this permit. The permit ratchets down appropriately on water use when the river flows are low-

est and should help protect the river and fisheries. This kind of streamflow-triggered WMA permit is the first of its kind in the Charles River watershed and we hope it will serve as a model for future permits.



worked tirelessly with CRWA staff to develop a permit that balanced human needs. The resulting permit is the



cfs) imposed a substantially new set of water management activities for MAC.

Under normal conditions (greater than 0.41 cfs), the permit requires good water management practices such as monitoring (precipitation, soil

CRWA Advocacy Work

Question: *Why does CRWA write comment letters?*

Answer: A comment letter is one of CRWA's most potent tools for advocacy. Every month, General Counsel Margaret Van Deusen reviews the list of Environmental Impact Reports (EIRs) put forth in the watershed. She chooses projects that either threaten the health of the river or watershed in a substantial way, or smaller projects where a favorable outcome could serve as an example or case study for future developments (the Mount Auburn Cemetery project is a good example of the latter type of project). The EIR is reviewed by a CRWA staff scientist, and a report, in the form of a letter, is created which identifies potential problems with the EIR and recommends solutions. These letters are submitted to the Massachusetts Environmental Protection Act (MEPA) Office for review.

According to the MEPA website, the Act "requires that state agencies study the environmental consequences of their actions, including permitting and financial assistance. It also requires them to take all feasible measures to avoid, minimize, and mitigate damage to the environment."

MEPA further "requires that state agencies use all practicable means and measures to minimize damage to the environment, by studying alternatives to the proposed project, and developing enforceable mitigation commitments, which will become permit conditions for the project if and when it is permitted."

"MEPA review is not a permitting process. MEPA requires public study, disclosure, and development of feasible mitigation for a proposed project. It does not pass judgement on whether a project is environmentally beneficial, or whether a project can or should receive a particular permit. Those decisions are left to the permitting agencies. MEPA review occurs before permitting agencies act, to ensure that they know the environmental consequences of their actions."

"MEPA requires that state agencies use all practicable measures to minimize damage to the environment."

INTERVIEW WITH KATHY ABBOTT, NEW DCR HEAD *continued from page 3*

process, get buy-in, and actually make these changes happen. Of course the budget situation is another huge challenge. With the state's growing fixed expenses, no new taxes, and a slow economic recovery, it won't be easy to do all this. And just in terms of practicalities, there are both financial and political challenges. We need to really define the state's responsibilities, based on article 97 for example [which protects public parkland]. Citizens have a right to clean air, clean water, protected resources, scenic beauty. What are the state's responsibilities to achieve those, and then how do we build on that base with partnerships, new models, new ways to coordinate all the partners in the effort?

CRWA: Can you talk a little bit more about partnerships?

Abbott: Well, at this point, there's less and less public funding available for parks, and I can't see us going back to the days of government paying for everything. Having worked with one model that was fairly successful, I really believe that a multifaceted partnering approach is the future. But we have a lot to learn. What is the right model, not just for capital projects, but for operations? If we build partnerships for our parks, how well will they hold up in economic downturns? How do we make sure everyone remains at the table and participates? In my experience, people don't walk away once they're invested in the process. We also need to reconnect conservation and recreation to public health, safety and education. That's all part of building partnerships.

CRWA: What are some of your specific goals, short term and long?

Abbott: A big long term goal is getting all the state's citi-

zens reengaged and excited about what they own. We need people to believe this is worth doing and to help get it done by getting everyone to become stewards. Short term, for the department, that means developing a new story to tell, and doing it quickly. People need to see change within the next year. We need to create a baseline, to figure out where we really are in terms of our resource conditions, our services, our staffing, our budget, and our mandates. Some of that is going to be bad news, but that's okay. We need to know where we are, decide where we need to be, and then figure out how to get there. In the immediate term, I'm working directly and intensely with staff. Then I need to move out to work with the legislature and local government officials, and with partner groups.

CRWA: What do you think about the new Stewardship Council?

Abbott: Basically, it's my board of directors. Of course the department is answerable to others as well. We are mandated by the legislature to do certain things. We have a budget, and the rest of state and local government we have to work with. But the Stewardship Council is a great concept, and I hope it will be a terrific resource. I see it as a group to advise the department in the development of our vision, policies, strategy, implementation, and planning. I think they will help leverage other resources and create productive partnerships. I'm looking forward to seeing it built, and I hope it can craft its mission in the most productive way possible.

CRWA: You seem pretty upbeat in spite of all the work ahead of you! How do you feel?

Abbott: I'm having a great time!

**“We need to
reconnect
conservation and
recreation
to public health,
safety and
education.”**

2004 Run of the Charles Canoe and Kayak Race

Sunday, April 25, 2004

Register by February 15, 2004 and save!



Whether you're an old pro or a first-time paddler, the Run of Charles has something for you!

Your company or organization belongs at the Run of the Charles! Get a group of friends or co-workers together for the 24-Mile Canoe Relay Race, and you can divide the race into stretches as short as 2 ½ miles. Register your team by February 15, 2004, and save! You don't have to decide yet who will be on your team, simply let us know how many boats you're entering. Early registration is available at the 2003 rates!

The Run of the Charles also includes the Professional Flatwater Canoe Marathon, plus 19-, 9-, and 6-Mile canoe and kayak races. All races end at the Finish Line Festival at Herter Park in Boston with food, music, awards, and displays.

Join nearly 2000 paddlers and thousands of fans at the 2004 Run of the Charles Canoe and Kayak Race. Visit www.charlesriver.org, call (508) 698-6810, or email rotc@charlesriver.org.



THANK YOU

CRWA held a number of activities this year to give you, our members, a chance to enjoy the Charles River and meet new friends through participation in our Fall Foliage Paddle, the Run of the Charles Canoe and Kayak Race, Take Me to the River Kid's Fair, or volunteering for projects such as Water Quality Monitoring, Earth Day Charles River Clean-Up, and the Moody Street Fish Ladder Clean-Up in Waltham. We hope you had a great time. Your involvement is always welcome and highly regarded.

On the financial front, we are pleased to report that the FY03 (10/1/02 – 9/30/03) contributions from members and friends totaled \$358,086. Your contributions were critical to CRWA's work during a year in which we experienced reduced financial support from government sources and foundations.

We have launched our FY04 Annual Appeal. Your contributions will again be critically important to us this year. Thanks to all who already gave to this year's Annual Appeal. If you haven't yet contributed, please do so today. We know you will be as generous as you can. The work of reengineering how water is used, as well as maintaining parklands and a healthy and beautiful Charles, is ongoing. CRWA is most appreciative to those of you who increased your support through membership and Annual Appeal donations.

Donations from Millennium Society members (\$2,500 or more) were given by Ro and John Bloom, Miss Elizabeth B. Jackson, Bruce and Helen Johnstone, Kelly McClintock, Robert F. Sproull, Mr. and Mrs. Holyoke L. Whitney, and two anonymous gifts. CRWA extends our deep appreciation to all these donors.

Likewise, we are very grateful to the following Headwater Society members (\$1,000 to \$2,499) for their recent donations. They include, Honorable and Mrs. Levin H. Campbell, Mr. and Mrs. Alfred Chandler, Carolyn and John Clark, Earl Collier, Anne and Jim Davis, Carole and Chris Ely, Elizabeth Gilmore, Betsy Harper, Mrs. Sturtevant Hobbs, Jonathan Katz and Norah Wylie, Carolyn and John King, Elizabeth Levin, Margot C. Pyle, Margaret E. Richardson, Jane Sender, Dan and Carmen Wheeler, and one anonymous gift.

Unrestricted donations were given to CRWA by the Beacon Hill Garden Club, Earth Share, Kahn Charitable Foundation, the Silver Tie Fund, and Sun Life Assurance Company of Canada. Thank you!

Restricted grants awarded to CRWA came from Crossroads Community Foundation with \$85K for the Bellingham Restoration project, and \$40K from the Jessie B. Cox Charitable Trust for the assessment of the effectiveness of local, state and regional water flow policy and practice. The Charles River Neighborhood Foundation gave \$5K for the Marty Sender Memorial Pathway. CRWA also received one anonymous grant.

Many thanks to Charles River Canoe and Kayak for donating a number of canoes for our successful fall foliage paddle, and to Past Board President and current Board Director Ralph Abele who led the trip.

Each year CRWA attracts interns who provide invaluable assistance to staff. CRWA wishes to thank Gina Barberio, Jill Conroy, Robin Curtis, Maura Kelly, and Rebeca Monje for their tireless efforts.

Thanks again to all of our supporters.

-contributed by Louise Taylor

2003 ANNUAL MEETING WRAP-UP *continued from page 11*

was presented to Peter Weiskel of the Environmental Protection Agency. Dr. Weiskel has worked unwaveringly on behalf of a healthy Charles River. A CRWA Volunteer award was given to Rebeca Monje, our staff intern from Spain who continues to be enormously helpful with CRWA's modeling projects. Bonnie Frechette of Whole Foods Market also received a Volunteer Award

for spearheading a clean-up of the Charles in the Bellingham area, and for her dedication to finding funding sources for CRWA. Kerry Mackin of the Ipswich River Watershed Association received CRWA's Activist Award for her work pursuing solutions for the issue of overuse of water supplies in the Ipswich River watershed, which has led to a dried up river in recent summer months.

Bob Zimmerman presented CRWA's highest honor, the Anne M. Blackburn Award, to Kelly McClintock for his tireless and impressive dedication to the success of CRWA. CRWA is extremely pleased that Kelly will continue to serve on the board and to share with us his expertise in many areas, particularly development. Members honored Kelly with a standing ovation.

WATCHDOG FOR THE RIVER

A list of projects on which CRWA commented to the state, town or developer between May 1, 2003 and October 31, 2003. Copies of the comment letters are available at CRWA.

Town	Project
Boston	Final Environmental Impact Report for Joslin Diabetes Center Expansion
Boston	Final Environmental Impact Report for Museum of Fine Arts
Cambridge	Environmental Notification Form for Historic Parkways Initiative, Memorial Drive Demonstration Project – Phase II
Cambridge	Extension of Variance for Massachusetts Water Resources Authority Combined Sewer Overflow Control Plan
Holliston	Supplemental Environmental Impact Report for Hopping Brook Park
Milford	Water Management Act Draft Permit for Milford Water Company
Natick	Environmental Notification Form for Natick Golf Course

For more information about the comment letter process, see the sidebar on page 13 of this issue of *Streamer*.



Wishing you
a river of
peace and joy
for 2004.

STREAMER

Charles River Watershed Association
48 Woerd Avenue
Waltham, MA 02453



NON PROFIT ORG.
U.S. POSTAGE
PAID
NATICK, MA
PERMIT NO. 61