



Commonwealth of Massachusetts Department of Fish & Game

Mary B. Griffin, Commissioner

DIVISION of ECOLOGICAL RESTORATION

Tim Purinton, Director

Ebb&Flow

An electronic newsletter from the Massachusetts Division of Ecological Restoration

Ebb&Flow #16

June, 2013

An electronic newsletter from the Mass. Department of Fish and Game's Division of Ecological Restoration (DER)
<http://www.mass.gov/eea/agencies/dfg/der>

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Greetings, restoration friends and colleagues:

The entire staff at DER is truly exceptional, and two of our team (Beth Lambert and Jeremy Bell) have recently been acknowledged for their outstanding contributions to ecological restoration.

Beth Lambert has been recognized by our colleagues at MassDEP with a 2013 Citation Award for her work with the Chickley River Enforcement Group. Beth was part of an interagency team including staff from the Department of Fish and Game and the Division of Fisheries and Wildlife that helped bring about a restoration plan for the Chickley River in Hawley; habitat that was adversely affected by dredging and straightening activities conducted in response to Tropical Storm Irene.

Jeremy Bell has been given the Gulf of Maine Council 2013 Visionary Award from the Gulf of Maine Council on the Marine Environment. To cite his award letter: "Your commendable efforts and exceptional leadership have led to the successful completion of complex coastal projects and resulted in acres of restored habitat in Massachusetts. Your problem-solving skills, ability to guide teams through the challenges of project implementation, and overall can-do attitude serve as an inspiration to the ecological restoration community."

In other news the [website for the Mass. Department of Fish and Game](#) (DFG) and its constituent Divisions and programs (including DER) has recently been redesigned and reorganized as part of an ongoing reconfiguration of the **mass.gov** domain. Joining the mass.gov/EEA (Energy and Environmental Affairs) portal will bring many positives, like a more modern toolset, Google analytics and better integration with other EEA sites. Also, by moving to the portal, our web pages will have more room for our content and will also be "mobile-ready" or easier to view on smartphones and tablets. While some non-conforming content (such as archived editions of

Ebb&Flow from 2012 and earlier) has yet to migrate to the new website, it is expected that much of it will return once it is suitably reformatted. In the meantime, we encourage you check out DER's new web page at its new URL (web address), <http://www.mass.gov/eea/agencies/dfg/der/>, and let us know what you think.

Finally: this will be my last Director's letter for a year, as I am headed across the river to study at Harvard's Kennedy School of Government under the Governor Robert F. Bradford Fellowship for Excellence in Public Administration. Hunt Durey and Eileen Goldberg will take the reins in my absence.

Enjoy this packed edition of **Ebb&Flow** and see you on the water (or in my case the library).

Sincerely,



Tim Purinton, Director

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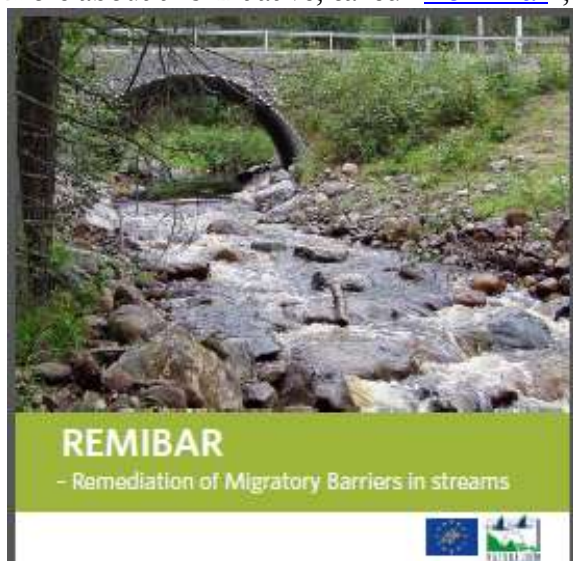


Feature Article

Restoring Swedish Fish Habitat

By Tim Purinton, Director, DER

Last month, DER hosted a delegation of environmental officials from northern Sweden. They represented across-section of public and private professionals interested in improving river and stream connectivity in five large watersheds in the Swedish [provinces of Norrbotten and Vasterbotten](#). With an infusion of grant funding from the European Union, the Swedish team is tasked to install wildlife-friendly culverts and remove dams at over 300 locations in a five-year time period across a broad swath of Lapland. [Click [here](#) or on the image below to learn more about this initiative, called "**ReMiBar**", short for "Remediation of Migratory Barriers in stream crossings".]



In January, Ida Schonfeldt, project coordinator for the Swedish Transportation Administration (Trafikverket), reached out to DER staff to see if we could share our experience with building a river restoration program that focuses on barrier removal, and in particular to learn how we plan, design and implement projects. In May, the Swedish team arrived in New England for a week of immersion in river restoration.



MassDOT Environmental Analyst Tim Dexter and DER's Carrie Banks guide the visiting delegation from Sweden on a tour of the award-winning bridge replacement and stream restoration at McNearney Road over Shaker Mill Brook in Becket (Photo courtesy MassDOT.)

The exchange focused on how we work in partnership to develop and complete projects. The trip was heavy on site visits to recently completed restoration sites in Massachusetts and Vermont. To accentuate our partnership-approach, staff from MassDOT and MassWildlife co-presented on their wildlife-friendly transportation planning. NGO partners like the [Berkshire Environmental Action Team](#) (BEAT) discussed how volunteers are assessing hundreds of culverts across the Berkshires to evaluate their ability to pass fish and wildlife and how that information is plugged into the [Critical Linkages](#) work that UMass is spearheading. The US Forest Service, based out of Vermont's Green Mountains, also showcased their work in the forested landscape, which is somewhat akin to the forested portions of Lapland.

The sharing of ideas and information was clearly two-way. The Swedes, like those engaged in similar work in New England, toil to reduce project costs and educate stakeholders. We also both strive to incentivize the construction of green infrastructure and improve the regulatory approval process.

The more information we shared, the more we realized that the challenges and successes of river restoration are universal. While, in Sweden, they focus on restoring native Brown Trout habitat and ridding streams of the invasive, non-native Brook Trout, our similarities far outweigh our differences. We wish them luck in their ambitious goal to restore hundreds of kilometers of the Ranealven, Varjisan and Angesan Rivers, and we might just take them up on their offer of visiting Sweden in 2018 to revel in their success.

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Division of Ecological Restoration News and Project Updates

Improving Stream Crossings: Flood Resilient, Fish Friendly



Participants in the “Improving Stream Crossings: Flood Resilient, Fish Friendly” workshops get to practice scenarios on the “Stream Table” to see how various road-stream crossings function in the stream channel.

Where our roads and streams intersect has become a hot topic over the last few years. DER staff has led efforts across the Commonwealth to inventory and assess these locations for potential barriers to fish and wildlife, while road crews have been responding to many of these same locations to address clogged culverts, washouts, and road closures. This convergence of interest resulted in over 200 municipal highway, planning and DPW staff, municipal officials, conservation commissioners, engineering consultants, regional planning staff, state agency staff, environmental organization staff and volunteers taking part in [Improving Stream Crossings: Flood Resilient, Fish Friendly](#) workshops held in western Massachusetts earlier this year. Three day-long workshop sessions, held in collaboration with the [Massachusetts Rivers Alliance](#), Baystate Roads, and [River Continuity Partners](#), brought state-wide experts from all sectors to cover:

- The Value of Road-Smart Stream Crossings
- Massachusetts Stream Crossings Standards and Permitting
- Engineering Standards and Guidance
- Case Studies
- Technical and Funding Resources

As the demand for these workshops far exceeded expectations, DER is working with River Continuity Partners to host another series in the Marlborough, Taunton, and Wakefield/Woburn areas this coming October (click [here](#) to download more info). Intended for municipal public works staff, municipal staff and volunteers, and engineering consultants, these workshops focus on making stream crossings safer and more resilient in the face of future storms. Expert presenters will provide best practices and case studies on replacing road/stream crossings – covering site assessment, engineering standards, permitting, funding and installation. Final logistics are being ironed out, but, in the meantime, [save the dates of Thursday, Oct 10th; Thursday, Oct. 17th; and Tuesday, October 29th.](#)

Probable workshop locations are in the Marlborough, Taunton, and Wakefield/Woburn areas. Registration and more info about this second round of ***Improving Stream Crossing Design: Flood Resilient, Fish Friendly*** workshops will eventually be available via the [BayState Roads Program](#) website.

In the meantime: you might want to take a look at recently-updated (June 2012) versions of the [Massachusetts Stream Crossing Handbook](#), designed to inform and educate local decision makers and conservationists about the importance of properly designed stream crossings, and include several case studies and technical resources. Hard copies of the *Handbook* and a related Poster are available; contact Carrie Banks at carrie.banks@state.ma.us or (413) 579-3015 for more info. Additional related info includes [Design of Bridges and Culverts for Wildlife Passage at Freshwater Streams](#), put out in December, 2010 by MassDOT Environmental Services.

River Instream Flow Stewards (RIFLS) Update



RIFLS staff measure flow downstream of the newly-installed staff gage (see lower left corner) on River Meadow Brook in Carlisle.

Interested in getting involved in streamflow monitoring? DER's River Instream Flow Stewards program is always seeking additional volunteers to track this important aspect of river health. You could get involved at a gage that has existed for many years, or at one of our more recently-installed gages. New RIFLS gages may be found in the following rivers and streams:

- Weir River at Union Ave, Hingham;
- River Meadow Brook at Curve Street, Carlisle;
- Ipswich River at Haverhill Street and Martin's Brook at Park Street, both in North Reading;
- Chickley River at Chickley Road, Charlemont;
- Cold River at South County Road, Florida;
- Parkers Brook at Cold Brook Road, Oakham; and
- May Brook at May Brook Road, Holland.

Some gages are installed to monitor potential water supply withdrawal impacts, others to understand current conditions that may be affected in the future. Later this summer, we hope to install two new gages in tributaries to the Millers River, in partnership with the Millers River Watershed Council. To see whether there is a RIFLS gage near you, visit www.rifls.org and click on your home watershed. Contact Laila Parker at laila.parker@state.ma.us or (617) 626-1533 to learn more.

Coastal Projects Update

Stewart's Creek, Barnstable

April marked the completion of construction activities as part of the Stewart's Creek Salt Marsh Restoration Project in Barnstable. The project involved the replacement of a 3-foot diameter culvert under Ocean Avenue in Barnstable with a 4 foot by 6 foot box culvert and sluice gate. The project will restore tidal flow to a 14-acre salt marsh and coastal wetland, and improve water quality within Stewart's Creek.

During the project's decade-long development, DER provided technical assistance to the project leads: the Town of Barnstable and the U.S. Army Corps of Engineers. The Corps developed the restoration plan to restore tidal flows, salt marsh and benthic habitat within Stewart's Creek. With funding from the Town of Barnstable and the U.S. Army Corps of Engineers Estuary Restoration Act, the \$470,000 construction project was accomplished by SumCo Eco-Contracting of Salem.

The new structure is equipped a sluice gate to provide some flood control during large coastal storms. Until the fall, the gate will be used to maintain a similar size opening to the pre-construction culvert. Come fall though, after the summer beach season, the gate will be opened completely and tidal exchange restored.



Figure 1: Construction underway at Stewart's Creek – A coffer dam maintains a dry worksite throughout construction. A trench box (red) stabilizes the excavation while the culvert footings are placed.



Figure 2: The original three-foot diameter culvert severely restricted tidal flow to Stewart’s Creek, impairing the upstream marsh and reducing nutrient and sediment flushing.



Figure 3: The newly installed box culvert and sluice gate at Stewart’s Creek will restore tidal flow to the 14-acre coastal marsh and wetland.

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Resources and Grants

Grant, Prize, Fellowship, Contest, Award, Fundraising, etc. Opportunities

(presented in rough chronological order by application/ nomination/ entry deadline)

As spending time outside can make us all [happier](#) and [healthier](#), [GOOD](#), the “social network for social good”, is offering a \$5,000 [Do GOOD Outdoors Prize](#) “to help you use the great outdoors to do GOOD in your

community. Whether you want to organize an educational trip to the tidepools, start a rock-climbing club for kids, or plant flowers in a communal garden, we want to know what you're up to! Tell us how you'll be doing GOOD while getting some fresh air this summer and you'll be eligible for \$5,000. Tell us how your outdoor project is promoting social change from **June 15 to July 19** (noon Pacific Time). From **July 19 to August 3** (noon Pacific Time), we'll open it up to public voting. Rally your colleagues and friends to get behind your effort and join the GOOD community in selecting the winner." Click [here](#) for more details on how to enter this contest.

The [Mass. Executive Office of Energy and Environmental Affairs](#) (EEA)'s [Division of Conservation Services](#) (DCS)'s **FY14 grant round** is still open for a few programs. Municipalities can apply for a [Local Acquisitions for Natural Diversity \(LAND\)](#) grant, which provides reimbursement funding to municipal conservation commissions to acquire land or conservation restrictions for open space and passive public recreation; or a [Parkland Acquisitions and Renovations for Communities \(PARC\)](#) grant to acquire parkland, develop a new park, or renovate an existing park. For both programs, the grant award maximum for FY14 is \$400,000 and the application **deadline** is **July 17, 2013** at 3:00 PM. The [Conservation Partnership](#) grant program provides 1:1 reimbursement funding to **non-profit organizations** to acquire land or conservation restrictions for open space and public recreation purposes; the maximum award is: \$85,000. The application **deadline** is **July 22, 2013** at 3:00 PM. The [Drinking Water Supply Protection Grant Program](#) (DWSP) provides financial assistance on a 1:1 matching basis to public water systems and municipal water departments for the purchase of land or interests in land for the following purposes: 1) protection of existing DEP-approved public drinking water supplies; 2) protection of planned future public drinking water supplies; or 3) groundwater recharge. The maximum award is \$350,000 and the application **deadline** is **July 31, 2013** at 5:00 PM. For LAND or DWSP grant questions, contact Celia Riechel [(617) 626-1187, celia.riechel@state.ma.us]; for PARC or Conservation Partnership grant questions, contact Melissa Cryan [(617) 626-1171, melissa.cryan@state.ma.us].

The [Mertz Gilmore Foundation's Climate Change Solutions Program](#) invites 2-3 page Letters of Inquiry from organizations seeking to develop new constituencies and approaches for a national climate movement by generating broader grassroots civic engagement and catalyzing volunteer activism. Letters of inquiry for the fall 2013 grant cycle are due by **Monday, August 5, 2013**; click [here](#) for more info.

Established in 1992, one of the major funding priorities of the [Sarah K. de Coizart Article TENTH Perpetual Charitable Trust](#) is [environment and species conservation](#). The Trust supports a range of projects dealing with environmental hazards, wildlife conservation, protection of ecologically important areas and land use policy. The latter may include preservation of parks and open space in urban areas or analyses of environmental problems associated with sprawl. Grants focus exclusively on project support and will range in size from \$20,000 to \$100,000 per year. Multi-year commitments will be considered. Priority is given to projects focused on the tri-state area (NY/NJ/CT) and **New England**. The annual application **deadline** is **August 15**; click [here](#) to apply or for more info.

The [Massachusetts Emergency Management Agency](#) (MEMA) and the [Department of Conservation and Recreation](#) (DCR) are inviting communities, state agencies, and tribal governments and territories to submit applications for the [Federal Emergency Management Agency \(FEMA\) Hazard Mitigation Grant Program](#). These competitive grants assist applicants with hazard mitigation planning and the implementation of hazard mitigation projects to reduce or eliminate the loss of life and property due to natural hazards. Full applications are due by **August 30**; click [here](#) for more info.

The [Mass. Executive Office of Energy and Environmental Affairs](#) (EEA) is in charge of administering the newly-established **Dam and Coastal and Inland Flooding Infrastructure Program**, created by the passage this past January of [An Act Further Regulating Dam Safety, Repair And Removal](#) (aka Chapter 448 of the Acts of 2012). The RFR soliciting applications for grants and low-interest loans under this program is tentatively scheduled to be issued on **August 2nd**, with a **due date** of **August 29th**. In the meantime, prospective applicants are advised to get your dam removal and coastal resilience proposals ready so you can apply to the program. The [draft regulations](#) indicate that EEA will be looking for shovel-ready projects that provide public safety and environmental

benefits. Priority criteria are likely to include: improving public health and safety; protection of public property, designing for consideration of climate change impacts, improving natural systems, and reducing threats to native animal and plant species. [N.B.: the \$20 million of funding available will be split evenly between dams and flooding infrastructure (coastal and inland).]

Sometime **this month**, NOAA's [Federal Coastal and Estuarine Land Conservation Program](#) (CELCP, pronounced 'kelp') is expected to release a notice of availability for funding for Federal Fiscal Year (FFY) 2014. Shortly following this notice, the [Mass. Office of Coastal Zone Management](#) (CZM) will post the state's Request for Responses (RFR) soliciting potential projects for this funding opportunity. CZM will review applications and select which project(s) the state will include in its nomination package to NOAA for consideration in the national CELCP ranking. NOAA will then release the national ranking of priority projects and fund selected projects. The CELCP funding level for federal FY2014 is projected to be approximately \$3 million available nationwide. Individual projects will likely be able to request up to \$1 million in CELCP funding, and will require at least a 50% non-federal match. The anticipated timeline for this funding opportunity is subject to change, but is projected to be as follows: **RFR project applications due to CZM in late August**, state nominations due to NOAA late September, NOAA's release of national ranking of priority projects in late winter 2014, and funding of projects in the fall of 2014. Click [here](#), [here](#), or contact CELCP Mass. state contact David Janik [(508) 291-3625 ext. 12, david.janik@state.ma.us] for more info.

[Island Press](#) is partnering with the [Society of Ecological Restoration](#) (SER) to offer a [Student Video Contest](#). Produce a video no longer than four minutes that addresses the question "**Why restore?**". You can share details of an ecological restoration project you started, facilitated, or in which you participated that explores restoration, its importance to ecology and the broader environment, and its impact on the community at large. The Contest is open to students and early-career professionals no more than two years out of school. The person(s) who created the winning video will receive a total of \$500 to apply towards travel expenses associated with attending the [SER 2013 World Conference](#) in Madison, Wisconsin, October 6-11, where the winner will be announced. The entry **deadline** is **September 1, 2013**; click [here](#) for more info.

Mass Audubon's [2013 "Picture This" photo contest](#) is currently (from now until **September 30**) seeking photos that highlight people in nature and the beauty of Massachusetts wildlife and landscapes. Each month some of the entries will be featured on [Mass. Audubon's Facebook photo page](#). Click [here](#) to enter the contest or for more info.

The mission of the [Captain Planet Foundation](#) is to promote and support high-quality educational programs that enable children and youth to understand and appreciate the world through active, hands-on projects designed to improve the environment in their schools and communities. The foundation intends its grants to serve as catalysts for getting environment-based education into schools and inspire youth and communities to participate in community service through environmental stewardship. The foundation primarily makes grants of up to \$2,500 to schools and organizations in the U.S. with annual operating budgets of less than \$3 million. To be eligible for funding, applicant organizations or sponsoring agencies must have 501(c)(3) status. Grant applications are typically accepted twice a year, with deadlines on February 28 and **September 30**; click [here](#) for more info.

Sponsored by the [National Environmental Education Foundation](#) (NEEF), [Every Day Capacity Building Grants](#) provide [Friends Groups](#) with grant funds of up to \$5,000 to help the Friends Groups build their capacity to serve public lands, such as through participation in [National Public Lands Day](#) (see Calendar). NEEF wants to unleash the potential of Friends Groups and help strengthen these organizations to enable them to do more to connect their communities to the land. The Every Day Capacity Building Grants provide funding for capacity building which includes, but is not limited to, board development, staff trainings, fundraising support, strategic planning and technology improvements. [View the grant recipients from early 2012 as well as 2009 and 2011 grantees](#). The Every Day Capacity Building Grants accept applications on a rolling basis year-round. Applications that are submitted between November 1 and April 30 will be reviewed in the Summer Cycle, with 25 grants awarded in August. Applications that are submitted between May 1 and October 30 will be reviewed in the Winter Cycle, with 25 grants

awarded in February. The two deadlines are April 30 for the Summer Cycle and **October 30** for the winter cycle.

The **U.S. Department of the Interior** recently announced the start of its [2013 “Share the Experience” Photo Contest](#), giving amateur photographers the chance to join the ranks of Ansel Adams, Thomas Moran, and others who have found recognition for their photographs of the nation’s public lands. The contest showcases our nation’s public lands (including National Parks, Seashores, Wildlife Refuges, and Recreation Areas) and is the largest national park and public land photo contest for amateur photographers. This year, a new [Let’s Move Outside!](#) photo category will encourage families to explore the outdoors and lead active lifestyles. The winning photograph will appear on the 2015 America the Beautiful pass for entrance to 2,000 federal recreation sites, including national parks, national wildlife refuges, and national forests. The Grand Prize winner will also receive a \$15,000 cash prize, a Columbia backpack, a pass to the national parks and other federal lands, and more. All entries have the chance to be featured on the Interior Department’s popular [Twitter](#), [Instagram](#) and [Facebook](#) accounts. Second and third place winners, as well as 7 Honorable Mention winners, will also receive prizes. The “Share the Experience” contest runs through **December 31, 2013**; click [here](#) to participate or for more info.

The [Surdna Foundation’s Sustainable Environments Program](#) invites Letters of Inquiry (LOI) from 501(c)(3) nonprofit organizations for programs that **connect and improve the infrastructure systems of urban places and surrounding areas in ways that maximize positive impacts and minimize negative environmental, economic, and social consequences**. This Program supports four main categories of work: sustainable transportation networks and equitable development patterns, energy efficiency in the built environment, [urban water management](#) (esp. **green infrastructure**), and regional food supply. Organizations seeking funding should promote meaningful collaborations and an integrated approach to infrastructure solutions; focus on infrastructure decisions that better meet the needs of historically underserved communities, including low-income communities and people of color; promote long-term solutions and leverage strategic infrastructure investments; and/or highlight, especially through communications, the multiple benefits of next generation infrastructure. LOIs are accepted on an ongoing basis; click [here](#) for more info or [here](#) to download the complete guidelines.

The [Millipore Corporate Giving Program](#) of the Billerica, MA-based business [EMD Millipore](#) “strives to fulfill its social obligation of serving the public interest directly through contributions to selected 501(c)(3) non-profit organizations and institutions primarily in science education, bioscience research, and local community support.” Primary support is given to programs related to education, science, and sustainability initiatives. Communities /regions eligible for grants include Greater Boston, Bedford, Billerica, Burlington, Danvers, Lawrence and Lowell, MA. Groups seeking funding may submit proof of IRS tax-exempt status along with a letter of inquiry no more than two pages in length briefly describing your organization, the program for which funding is sought, and the amount of funding requested. Those organizations whose programs are of interest to Millipore will be invited to submit full proposals. Millipore accepts the [Associated Grant Makers Common Proposal Form](#). Please mail or email your letter of inquiry to: Tara Duplaga, Millipore Giving Program, 290 Concord Road, Billerica, MA 01821, tara.duplaga@merckgroup.com. Click [here](#) for more info on corporate giving and [here](#) for **Millipore employee volunteer** and related programs.

The [Boston Foundation](#) (TBF)’s [Vision Fund](#) “provides grants of up to \$7,500 to support activities that advance [TBF’s] mission and generally have a total project budget of no more than \$15,000. Eligible activities may include capacity building efforts, pilot or demonstration projects, and/or program design, evaluation or research – *e.g.* board assessment/development, merger/restructuring effort and components of a strategic planning effort. Emphasis is on increasing the organizational impact and effectiveness of nonprofit organizations. The general selection criteria for the Vision Fund grant program are:

- Fit with the [Boston Foundation’s geography, mission and values](#);
- Organizational need/potential of impact on organizational effectiveness;
- Strength or potential impact of the nonprofit organization in addressing community needs; and
- Organizational readiness to do proposed work.”

Requests are accepted on a rolling basis. Click [here](#) or contact Tim Regele, Program Associate at

tim.regele@tbf.org or (617) 338-4453 for more info.

The **David and Katherine Moore Foundation** (no web page) makes grants to educational, environmental and other groups in Massachusetts and elsewhere. Organizations seeking funding should do so in writing at any time, including a description of the organization and the purposes for which the funds are sought. Send it to: David and Katherine Moore Foundation, David E. Moore, c/o D'Arcangelo Co., LLP, 800 Westchester Ave., Suite N-400, Rye Brook, NY 10573. Telephone: (914) 694-4600.

The CT-based **Smart Family Foundation** (no web page) makes grants to a wide variety of educational, environmental and other organizations throughout the U.S. Organizations seeking funding may submit an informal letter at any time outlining the project and purpose for which funds are sought, along with a description of the resources needed and personnel involved, as well as a description of the methods to be used in completing the project. Requests should be submitted to: Raymond L. Smart, President, Smart Family Foundation, 74 Pin Oak Lane, Wilton, CT 06897-1329. Telephone: (203) 834-0400.

The **Dola Hamilton Stenberg Charitable Foundation** (no web page) makes grants to educational, cultural, health and environmental organizations, primarily located in and/or serving Massachusetts. Groups seeking funding should do so in writing, on the charitable organization's stationery, with information about the organization and how the funds sought would be used. Submit requests to: Dola Hamilton Stenberg, Dola Hamilton Stenberg Charitable Foundation, 5 Louisburg Square, Boston, MA 02108. Telephone: (617) 227-5540. There are no specified application deadlines.

The **Esther Simon Charitable Trust** (no web page) provides funding to environmental and other organizations. Massachusetts groups receiving grants have been primarily located in the southeastern portion of the state. Organizations seeking funding should do so in the form of a letter stating the reason for which funds are sought. Send the letter to: Steven A. Simon, Esther Simon Charitable Trust, c/o JP Morgan Chase, 270 Park Avenue, New York, NY 10017. There are no specified application forms or deadlines.

The **Albert Shapiro Fund** (no web page) makes grants to cultural, health, environmental and other charitable organizations; past grant recipients are primarily located in and around Boston. Groups seeking funding should do so in the form of a letter. Send it to: Eileen C. Shapiro, Albert Shapiro Fund, 975 Memorial Drive, Apt. 804, Cambridge, MA 02138. Telephone: (410) 561-4411. There are no specified application deadlines.

The **Cele H. & William B. Rubin Family Fund, Inc.** (no web page) makes grants to a variety of educational, cultural and other charitable organizations, primarily in the eastern U.S. (including Massachusetts). Groups seeking funding should contact: Ellen R. Gordon, Cele H. and William B. Rubin Family Fund, 32 Monadnock Road, Wellesley Hills, MA 02481. Telephone: (781) 235-1075. There are no specified application forms or deadlines.

The **D.J. McManus Foundation** (no web page) provides funding to civic, health, environmental and other organizations, primarily in New York State but occasionally in Massachusetts. Groups seeking funding should do so in writing, on the organization's letterhead, stating the funding need and the specific uses for which the requested funding is sought. Send to: Deborah McManus, D. J. McManus Foundation, 420 West Broadway, PH A, New York, NY 10012-3741. Telephone: (212) 874-7426. There are no specified application deadlines.

The **David and Candace Weir Foundation** (no web page) provides funding to environmental and other organizations, primarily in the Albany, NY area but occasionally elsewhere. Groups seeking funding may do so at any time in the form of a letter, accompanied by supporting documentation of the organization's charitable purposes and federal tax-exempt status. Submit requests to: Candace K. Weir, David and Candace Weir Foundation, 9 Elk St., Albany, NY 12207.

The Keene, NH-based **Putnam Foundation** (no web page) provides funding to educational, cultural and environmental organizations, primarily in southwest NH but occasionally elsewhere. Groups seeking funding

should do so in the form of a letter stating the proposed use of the funds requested, accompanied by supporting documentation of the funding need and the charitable propose and status of the organization. Send requests to: James Putnam, Putnam Foundation, P.O. Box 323, 20 Central Sq., Second Floor, Keene, NH 03431. Telephone: (603) 352-2448.

The NJ-based **Kalkin Family Foundation** (no web page) makes grants for educational and other purposes in Massachusetts and elsewhere. Requests for funding should be submitted by letter indicating the mission of the organization. Submit requests to: Eugene Kalkin, Kalkin Family Foundation, c/o Kalkin & Co., 59-65 Minebrook Road, Bernardsville, NJ 07920. Telephone: (908) 696-1999. There are no specified application forms or deadlines.

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Calendar

(sorted chronologically by date of event, submission deadline, etc. Descriptive text for events provided below is obtained from the events' web pages.)

The [National Park Services' Rivers and Trails Conservation Assistance Program \(RTCA\)](#) supports community-led natural resource conservation and outdoor recreation projects across the nation. RTCA staff can help you:

- Define project vision and goals
- Inventory and map community resources
- Identify and analyze key issues and opportunities
- Engage collaborative partners and stakeholders
- Design community outreach and participation strategies
- Develop concept plans for trails, parks, and natural areas
- Set priorities and build consensus
- Identify funding sources; and
- Develop a sustainable organizational framework to support the project

Groups/projects considering [applying to the RTCA for assistance](#) are strongly encouraged to consult with [RTCA staff covering your region](#) beforehand. If you decide to submit an application, the **RTCA staff would like to know** of your intent to apply **by July 1**. [Applications](#) for assistance are **due by August 1** annually. Click [here](#), [here](#) or contact [Charlie Tracy](#) at (617) 223-5210 for more info.

A [Call for Presentations](#) is in effect **until July 1** for the [2013 New England Bike-Walk Summit](#), which will be held on **Friday, October 4** in Providence, RI. Click [here](#) or contact Eric Weis at [East Coast Greenways](#), at eric@greenway.org or (401) 450-7155

[Buzzards Bay](#) is a national treasure and one of the cleanest estuaries on the east coast, but the threats to its health are mounting. Challenge yourself with the [20th Annual Buzzards Bay Swim](#), while raising funds to protect an essential natural resource. The fully supported 1.2-mile Swim takes place the morning of **Saturday, July 13, 2013**. Swimmers start at [Davy's Locker Beach, 1480 East Rodney French Blvd](#) in New Bedford, and end on a sandy beach in Fairhaven, MA, with breakfast and a lively celebration at the finish line, and transportation back to the start. The event attracts more than 350 swimmers of all ability levels; swimmers can choose from multiple starts, ranging from more accomplished swimmers to swimmers who prefer a [kayak escort](#). By participating in the Buzzards Bay Swim, you are making the statement that clean water and a healthy environment are important and helping to raise much-needed funds to help protect our precious Buzzards Bay. Click [here](#) or call the event organizer/beneficiary [Buzzards Bay Coalition](#) at (508) 999-6363 to sign up or for more info.

The [Charles River Conservancy](#) is hosting a [Community Swim in the Charles River](#) on **Saturday, July 13**. This

will be the first community swim in the Charles in more than half a century. The swim begins/ends at the Fiedler Head Dock on the Esplanade, located between the Longfellow and Harvard bridges. Registration opens at 9:00 AM. There will be remarks at 9:30 AM, and then the community swim will occur in four half-hour blocks starting at 10:00 AM. The event concludes with a group photo at 12:15 PM. Click [here](#) or call (617) 608-1410 to sign up or for more info, including weather updates in the case of a possible weather-related cancelation.

Over the last 5 years, private landowners, federal/state agencies and non-profit groups have been working together to restore wetlands along Otter Creek in west-central Vermont. Find out what was done and why, and see the results first-hand on a ***Wetland Restoration Field Trip***, co-sponsored by the [Society for Ecological Restoration \(SER\) New England Chapter](#) and the [Rutland County Audubon Society](#) and taking place on **Saturday July 13**, beginning at 9:00 AM. The meeting location is along Vermont Route 73, at the pull-off on the east side of the [Otter Creek bridge in Sudbury, VT](#) (approx 3.25 miles west of Brandon). SER-New England will be joined by folks from the Rutland County Audubon Society who will share what species of birds they have seen on site during their monitoring efforts since restoration work was completed. This free event will take place rain or shine, and you are advised to bring boots. Contact Ryan Crehan at (802) 872-0629 ext. 24 or ryan_crehan@fws.gov for more info.

The [Sudbury-Assabet-Concord Cooperative Invasive Species Management Area](#) (SuAsCo CISMA) is offering an ***Aquatic Plant ID Training*** two times this summer: **Wednesday, July 17** and **Wednesday August 7**. Both sessions will take place from 6:00 PM – 8:00 PM and will be held at the [Assabet River National Wildlife Refuge Visitors' Center, 680 Hudson Rd in Sudbury](#). The training begins with an introduction to the invasive non-native species issue, how exotic species are introduced into our waterways, methods of dispersal, basic terminology, and guidance on performing bi-weekly monitoring and completing plant surveys. The remaining 3/4 of the class will engage volunteers in hands-on identification. A variety of non-native and native plant species are provided, and people are encouraged to bring in their own samples. Volunteers will become familiar with using a dichotomous key and, although the emphasis is on exotic species, the goal is to teach volunteers to understand how to use the key so that they will be able to identify the majority of common aquatic plants in their lake or pond (native or otherwise). Click [here](#) or contact Amber Carr [amber_carr@fws.gov, (978) 443-4661 ext.33] to sign up or for more info.

The [Mass. Association of Conservation Commissions](#) (MACC) is hosting a ***Hydric Soil Workshop: Field Identification, Documentation and Delineation*** course on **Thursday, July 18** from 9:00 AM – 4:00 PM at the [Sharon Community Center](#) in Sharon. The instructors are Peter Fletcher and Gillian Davies, and the course will be a combination of a lecture, slides, overhead transparencies, hands-on exercises, and field exercise. The major focus will be on Upland Soils vs. Wetland Soils and Soil Features Associated with Wetlands. Several sites will be visited that have varied wetland and soil conditions. Participants will work in small groups and delineate the hydric soil boundary using the MassDEP Methodology. Field equipment will be provided. Lunch and soil workbook included. Click [here](#) to download a registration form and [here](#) for more info.

The ***2013 Great River Race*** on the North River, sponsored by (and benefitting) the [North and South Rivers Watershed Association](#) (NSRWA), will take place on **Saturday, July 20**. Registration runs from 8:00 AM – 9:45 AM, and the Race begins at 10:00 AM. The starting line is at the [Union/Bridge Street Bridge over the North River](#), on the Norwell (north) side. Take out is at the Hanover Canoe Launch, approximately one mile up river from the Washington Street Bridge "finish line" on the Hanover/Pembroke Line. The [race course](#) is 7 miles long. Awards will be given to the top three winners in each category. Everyone is invited to the post-Race Party and Award Ceremony, beginning at 3:30 PM at McGreal's Tavern, 690 Main Street, Norwell Center. Pre-registration is recommended; click [here](#) or call the NSRWA at (781) 659-8168 to sign up or for more info.

This summer, the [Massachusetts Watershed Coalition](#) (MWC) will offer "citizen science" training on simple ways to restore stream life and revive the uses of local streams and lakes. The [MWC's Stormwater Advocates Training \(SWAT\) Program](#) includes a mix of workshop sessions, guidance materials and fieldwork that will enable participants to reduce polluted stormwater runoff. SWAT training will take place in two locations: Central Mass. SWAT workshops are scheduled for **Saturday July 20** (9:00 AM – 1:00 PM) and **Tuesday July 23** (5:00 PM – 9:00 PM) at [Mass. Audubon's Broad Meadow Brook Sanctuary in Worcester](#). Western Mass. SWAT workshops will take

place on **August 24 and 29** in Northampton. Registration fee is \$40 for workshop sessions, training materials and refreshments. Click [here](#) to download a detailed description of and registration form for the SWAT workshops, or click [here](#), write to bg@commonwaters.org or call (978) 534-0379 to sign up or for more info.

“A Celebration of Rowing on a Cleaner River” is the theme of the **2013 Annual Meeting of the [Connecticut River Watershed Council](#)** (CRWC). The event will be taking place on **Sunday, July 21** at the [Pioneer Valley Riverfront Club](#) (formerly the Bassett Boat Company), North Riverfront Park, in Springfield. Click [here](#) or contact the CRWC at (413) 772-2020 or info@ctriver.org for more info.

The **[Fifth National Conference on Ecosystem Restoration](#)** (NCER) is an interdisciplinary conference on large-scale ecosystem restoration, presenting state-of-the art science and engineering, planning and policy in a partnership environment. NCER brings together nearly 1,000 scientists, engineers, policy makers, planners, and partners from across the country actively involved in ecosystem restoration. This year’s conference runs from **July 29 – August 2** and will take place in Chicago. Click [here](#) to register or for more info.

The **[U.S. EPA’s 13th Community Involvement Training Conference, “The Next Generation of Community Involvement”](#)**, will be held in Boston from **July 30-August 1, 2013**. This three-day conference features plenary sessions with guest speakers, topical discussions, multiple 90-minute information sessions, and dozens of engaging and interactive three, four, and seven hour training sessions. Additionally, there will be field trips demonstrating effective community involvement and cooperative conservation efforts in the Boston area, a poster session, exhibits, a technology demonstration area showcasing new tools, technology, and software, and a variety of networking opportunities and evening activities to add value and fun to the experience. Click [here](#), e-mail the Conference Coordinator at ciconference@emsus.com, or contact Conference Co-Chair Pam Harting-Barrat at (617) 918-1318 or harting-barrat.pamela@epa.gov for more info.

The [Merrimack River Watershed Council](#) is hosting its first ever ***Merrifest***, a celebration of the Merrimack River and all it has to offer. There will be a lot of good food and music for everyone to enjoy as well as kayaking races, fun activities for kids, and educational information from diverse river groups. The event will be held on **Saturday August 3rd** from 11:00 AM – 3:00 PM in Lowell. Click [here](#) or call (978) 655-4742 for more info.

The Blackstone River Corridor in central Massachusetts, the so-called birthplace of the American Industrial Revolution, still contains significant areas of pollution in the river corridor. The Fisherville Mill Canal in South Grafton is one example of the pollution, contaminated for decades by #6 fuel oil. In May 2012, an ambitious and innovative cleanup project began. Through an extensive collaboration including municipal, public, private, and academic partners, John Todd Ecological Design began the [Fisherville Bioremediation Project](#) to clean the water by removing hydrocarbons and nutrients with natural processes. The [Ecological Landscaping Association](#) (ELA) is sponsoring a ***Bioremediation at Blackstone River Canal With Optional Meadow Tour*** field trip on **Tuesday, August 6, 2013**, from 10:00 AM – 12:00 Noon in Grafton, MA, to learn about the innovative “bioremediation” processes being employed to clean up the canal. There is an optional side tour to view a successful meadow restoration in the nearby Blackstone River and Canal Heritage State Park. Click [here](#) to register, or click [here](#) or contact the ELA at ela.info@comcast.net or (617) 436-5838 for more info.

The [Society for Ecological Restoration \(SER\) New England Chapter](#) and the [Ecological Landscaping Association](#) (ELA) are co-sponsoring a ***Penobscot River Restoration: Great Works & Veazie Dam Removals/ Sedgeunkedunk Stream Restoration*** field trip on **Thursday, August 8, 2013** from 10:00 AM – 4:00 PM. The Penobscot River Restoration Project is an unprecedented collaborative effort that will rebalance fisheries restoration with hydropower production and result in the ecological restoration on the Penobscot River. The Project’s major task is the removal of the two most seaward dams (Great Works and Veazie) as well as a create a fish bypass around the Howland dam. Join tour guides Steve Shepard and Sarah Watts for a unique opportunity to see this historic restoration project in process. After viewing the Great Works and Veazie projects, an optional tour will be conducted to the Sedgeunkedunk Stream Restoration where one dam was removed and a second dam was converted to a nature-like, rock ramp for fish passage. Click [here](#) to register, or click [here](#) or contact the ELA at

ela.info@comcast.net or (617) 436-5838 for more info.

Rain gardens take advantage of the natural abundance of rainfall, rather than wasting it as runoff—using water flowing from roofs, driveways, or lawns to create beautiful gardens. In the course [***Rain Gardens and More***](#), scheduled for **Friday, August 9** from 1:00 PM – 3:00 PM at Garden in the Woods in Framingham, learn from ecological landscaper Dori Smith of Gardens for Life about additional rainwater-retention strategies such as bog gardens, roof gardens, swales, and terraces, tailored for particular situations or to solve problems such as erosion, icy walkways, or wet basements. With an inspirational slide program, the class will review design options, construction details, and case studies. Feel free to bring photos of a site issue to discuss. Click [here](#) to sign up or for more info.

[***Art & Estuaries: 25 Artists Celebrate 25 Years of the Waquoit Bay Reserve***](#), an event hosted by the [Waquoit Bay Reserve Foundation](#), will take place on **Saturday, August 10** from 6:00 PM – 9:00 PM at the [Waquoit Bay Reserve](#) in East Falmouth. The event will feature art inspired by estuaries along with live music, sumptuous hors d'oeuvres, open bar, and a silent auction overlooking beautiful Waquoit Bay. All proceeds from the event will benefit the Reserve's programs. Click [here](#) to sign up or for more info.

The [***2013 International Low Impact Development \(LID\) Symposium***](#) will take place from **August 18-21, 2013** at the Saint Paul RiverCentre, Saint Paul, MN. The Symposium will bring together over 1,000 professionals to share their research, implementation, policy, financing, and education strategies to build and restore cities while protecting our environment. Click [here](#) to view the program at a glance, [here](#) to view the draft program, and [here](#) to sign up for the Symposium or the pre-Symposium courses.

The [Housatonic Valley Association](#) (HVA) is sponsoring a [***River Ecology Paddle and Potluck***](#) on **Wednesday, August 21** (rescheduled from June 19). Russ Cohen of the Mass. Department of Fish and Game's Division of Ecological Restoration will share river ecology information during a paddle downstream from Lee, and ending behind HVA's office. A potluck supper will follow. The paddle will run from 3:00 PM to about 6:00 PM, and the post-paddle potluck from 6:30 PM – 7:30 PM. Bring your own boat, or reserve a space in a canoe. Some quick water is encountered early in the trip, and downed trees will have to be negotiated. Paddlers should have some experience. While participation in this paddle trip is free, pre-registration is required. Click [here](#) or contact Alison Dixon [adixon@hvatoday.org, (413) 394-9796] to sign up or for more info.

The [Wildlife Habitat Council](#) (WHC), a nonprofit whose primary mission is to work with corporations and other landowners to create tailored voluntary wildlife habitat enhancement and conservation education programs on corporate facilities and in the communities where they operate, is sponsoring a webinar entitled [***Wetland Habitats: Identification, Monitoring and Use as Outdoor Classrooms***](#). This online [WHC Conservation Academy](#) course is scheduled to take place on **Tuesday, August 27** from 1:00 PM – 2:00 PM. Click [here](#) to sign up or for more info.

The [Stockholm International Water Institute](#) (SIWI) is a Stockholm-based policy institute that generates knowledge and informs decision-making towards water wise policy. Founded in 1991, SIWI performs research, builds institutional capacity and provides advisory services in [five thematic areas](#): water governance, trans-boundary water management, climate change and water, the water-energy-food nexus, and water economics. SIWI also hosts the annual [***World Water Week***](#), which will take place in Stockholm, Sweden from **September 1-6, 2013**. This year's theme is [water cooperation – building partnerships](#). Click [here](#) to download a complete program of the event.

The [***4th Annual Great Stone Dam Classic Canoe, Kayak and SUP \(Stand Up Paddleboard\) Race***](#), sponsored by (and benefitting) the [Greater Lawrence Community Boating Program](#), will take place on **Sunday, September 8, 2013** at the [Abe Bashara Boathouse](#) on the Merrimack River, 1 Eaton Street in, Lawrence. Paddlers are invited to compete in an 8.6-mile, two-loop Racing course; a 3.5-mile Recreational course; or a 1K Youth and Jr./Sr. race. Cookout after the race at the beautiful Abe Bashara Boathouse is included in your registration fee. Click [here](#) to sign up or for more info.

[**Dam Safety 2013**](#), the annual conference of the [Association of Dam Safety Officials](#) (ASDSO), will take place from **September 8-12, 2013** in Providence, RI. Several of the workshop and poster sessions will focus on **dam removal**. Click [here](#) to register or for more info.

[Outdoor Nation](#) (ON), a non-profit founded by a community of outdoors enthusiasts dedicated to reconnecting [millennials](#) with the outdoors, host [Summits](#) around the country, awards [grants](#) for outstanding project ideas, and leads [outdoor outings](#). [**Outdoor Nation Signature and Intensive Training Summits**](#) engage a new, diverse and passionate community of young leaders and outdoor champions. Attendees identify the region's most pressing outdoor issues, develop strategies to solving these challenges, and commit to taking action - together. The summits are free, and anyone ages 16-28 is encouraged to register for the summits or host their own. There's an [**Intensive Training**](#) (ON-IT) [scheduled to take place in Boston](#) from **September 14-15, 2013**; click [here](#) to sign up or for more info.

The [Center for Watershed Protection](#) is hosting a webinar entitled [**Combining Green & Grey in Combined Sewer Watersheds**](#) that is scheduled to take place on **Wednesday, September 18, 2013** (12-2pm EST) from 12:00 Noon to 2:00 PM. Click [here](#) to sign up or for more info.

A [Call for Abstracts](#) has been issued for [**Working Together for Clean Water, the National Water Quality Monitoring Council's \(NWQMC\) 9th National Monitoring Conference**](#), to be held in Cincinnati, Ohio from April 28 - May 2, 2014. Conference attendees exchange information about water monitoring, assessment, research, protection, restoration, and management; learn about new findings on the quality of the Nation's streams and rivers, groundwater, estuaries, lakes and wetlands; and develop new skills and professional networks. The conference includes presentations, panels, poster sessions, exhibits, hands-on interactive workshops, field trips and Fluid 5K run, as well as time for after-hours meetings and networking. The **deadline** to submit abstracts is **September 20, 2013**; click [here](#) for more info.

The [20th Anniversary](#) of [**National Public Lands Day**](#) (NPLD), a national day of service on public lands, is **Saturday, September 28, 2013**. Event organizers can click [here](#) to add an NPLD event to the database, and potential volunteers can click [here](#) to see what NPLD events have already been organized in your area. There is also an opportunity for event organizers to post info about events taking place on other dates on the [Every Day Events Calendar](#). **September 28, 2013** has also been designated as [**National Hunting and Fishing Day**](#); click [here](#) for more info.

The [Wild Trout Symposium](#) has been held every several years since its inception in 1974. The 2013 Symposium, [**Wild Trout XI: Looking Back and Moving Forward**](#), will be taking place from **October 1-4** in Yellowstone National Park. Click [here](#) to sign up or for more info.

Registration is now open for the Water Environment Federation's (WEF) inaugural [**Stormwater Congress**](#) in Chicago on **October 5-9, 2013**. The Congress will be held in conjunction with [WEFTEC](#), the largest annual water quality professionals' conference in North America and the largest annual water quality exhibition in the world. Click [here](#) and [here](#) respectively for more info.

Sponsored by the [Society for Ecological Restoration](#), the [**Fifth World Conference on Ecological Restoration**](#) is taking place from **October 6-11, 2013** in Madison, WI. Click [here](#) to register or for more info.

The [**Coastal Wetlands Conference of 2013**](#), hosted by the [New Hampshire Association of Natural Resource Scientists](#) (NHANRS), will be held on **Friday, October 18** at the [Seacoast Science Center](#) at Odiorne Point State Park in Rye, NH. Click [here](#) for more info and [here](#) to download the Call for Papers for the conference.

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On-line Resources

(Descriptive text provided is obtained from the web pages themselves.)

The most recent edition of the **U.S. EPA's *Nonpoint Source News-Notes, Issue #94 (May 2013)*** is replete with the usual interesting and useful content relating to nonpoint source pollution, such as: *National Rivers and Stream Assessment Reveals Water Quality Challenges*; *EPA Releases New Recreational Water Quality Criteria Recommendations*; and *BLUE® Homeowners Create a Cleaner Lake Champlain*. Click [here](#) to download the entire issue.

[A Quick Guide to Developing Watershed Plans to Restore and Protect Our Waters](#), newly-released by the EPA, provides a streamlined summary of the 2008 document *Handbook for Developing Watershed Plans to Restore and Protect our Waters* (the Handbook). EPA also recently released an online Web module called ***[An Introduction to Watershed Planning](#)*** that serves as a helpful companion. Both products summarize the *Handbook* and provide useful technical training information for states, watershed groups and others on how to develop more effective watershed plans to help restore and protect water resources. The Quick Guide (and module) provide an easy-to-read summary of the Handbook and also highlight some new watershed-related tools that have been developed since 2008 that can be used for more effective decision-making. The Handbook (and the Quick Guide and module) also provide information on how to incorporate the [nine minimum elements from the Clean Water Act section 319 Nonpoint Source Program's funding guidelines](#) into the watershed plan development process.

Working with landowners and managers to find effective and practical solutions to water quality problems is crucial to achieving environmental goals. Using social indicators can help resource managers and conservation professionals understand target audiences, select effective interventions, and evaluate their impacts. Social indicators provide information about the social context, awareness, attitudes, capacities, constraints, and behaviors in a watershed or project area. While ***Using Social Indicators in Watershed Management Projects***, the EPA Watershed Academy-hosted webinar on this topic, took place last May, an archived version and related materials is available online:

- [MP4 version of Webcast \(Quicktime\)](#) (92MB)
- [Flyer on May 1, 2013 Webcast \(PDF\)](#) (1 pg, 114K)
- [Additional Resources for May 1, 2013 Webcast \(PDF\)](#) (1 pg, 46K)
- [PowerPoint Presentation for May 1, 2013 Webinar \(PDF\)](#) (50 pp, 4.4MB)
- [Transcript of Webinar \(PDF\)](#) (45 pp, 267K)

A two-day online course on the Social Indicators Data Management and Analysis (SIDMA) survey methodology discussed in the May webinar is being offered **July 16 and 18**; click [here](#) for more info.

The ***[Winter 2013 edition of Healthy Watersheds News](#)***, put out by the ***[EPA's Healthy Watersheds Initiative](#)*** (HWI), includes a front-page article entitled ***Massachusetts Looks to Develop Statewide Fluvial Geomorphic Assessment*** (FGM), which reports on a one-day workshop held at UMass/Amherst last October to discuss the development of an FGM assessment protocol for the Commonwealth. [Click [here](#) to download presentations delivered at and other material related to last fall's FGM workshop; see also [Mass. State Geologist Steve Mabee's presentation, *Fluvial Geomorphological Assessments \(FGM\) – Next Step for Massachusetts?*](#)] HWI's online forum, **HWI_info**, launched last November, is a place to share and discuss healthy watersheds assessment, protection, and other activities around the nation. To join, visit https://lists.epa.gov/read/all_forums and subscribe to HWI_info.

Recent articles appearing in the EPA's ***[Science Matters](#)*** electronic newsletter and ***[It All Starts With Science](#)*** blog include: *[Fluorescent Tadpoles May Detect Chemical Toxicity](#)*; *[Seagrasses are the Nurseries of our Coastal Waters](#)*; *[Artistic Storm Drains Help Raise Awareness](#)*; and *[Showing Buried Streams the Daylight](#)*. Both these electronic publications are accessible by e-mail via free subscription, or you can simply read them on-line at your convenience.

The [EPA's How's My Waterway website and smartphone app](#) helps you find info on the condition of your local waterways, what's being done to protect and restore those waterways, and what you can do to help. Newly added features include search results color-coded by condition, local information on watersheds, a watershed locator tool, and options to look up dischargers regulated by permits and individual runoff control projects for a specific waterway.

Recently launched by the U.S. Forest Service's [Northeastern Area State and Private Forestry](#) office and the [Northeastern Area Association of State Foresters](#), the [LandscapeStewardship.org](#) website **promotes landscape-scale conservation for nonindustrial private forest landowners**. The website features a private forest landowner forum, inspirational profiles in conservation, a news section with the latest Twitter updates, and additional resources for landowners and others. The site promotes good private forest management practices to improve air and water quality, reduce wildfire risk, create living space for fish and wildlife, and improve recreational opportunities and scenic beauty.

The [Spring 2013 edition of the Narragansett Bay Journal](#) (NBJ), a publication of the [Narragansett Bay Estuary Program](#), focuses on issues related to **climate change**. Articles appearing in this edition include: [Climate Change Impacts to Rhode Island's Salt Marshes](#); [Restoring Water Quality Through Seaweed Bioextraction](#); and [Changing One Step Ahead of the Tides: Using Behavior Change Theory to Promote Climate Change Adaptation](#). Click [here](#) to download the complete issue. The [Summer 2013 edition of the NBJ](#), also well-worth reading, focuses on the **use of volunteers for environmental and other public service projects**.

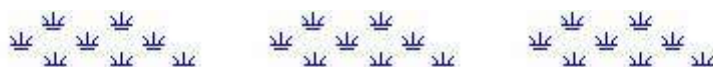
Could volunteer experience be the difference-maker in your next job interview? New, ground-breaking research from the [Corporation for National and Community Service](#) (CNCS) provides evidence of a relationship between volunteering and finding employment. Government leaders, nonprofits, and news media have long provided anecdotal evidence that volunteering can increase employment prospects by helping job seekers learn new skills, expand their networks, and take on leadership roles. Despite this, there has been little quantitative research to date that has established an association between volunteering and finding a job. The new report [Volunteering as a Pathway to Employment](#) provides the most compelling empirical research to date establishing an association between volunteering and employment in the United States. Click [here](#) to download the report and [here](#) for more info.

Recently reported on in the most recent edition (Summer 2013) of the **Mass. Department of Environmental Protection** (MassDEP)'s [Enviromatters Newsletter](#): MassDEP, with the help of [MassGIS](#), has launched a **[new on-line interactive mapping tool depicting the water quality status of the rivers, streams, lakes, ponds, and estuaries in Massachusetts](#)**. The depicted data is based on the most recent MassDEP report on surface water quality (the [2010 "Integrated List of Waters"](#)) that was submitted to, and approved by, the U.S. EPA. [The more recent "[2012 Integrated list of Waters](#)" has yet to receive final approval from the EPA.] The two reporting elements included in "Integrated List of Waters" reports are the **305(b)** and **303(d)** sections of the federal **Clean Water Act**. **Section 305(b) reports on the water's capacity to support the "designated uses" listed in the [Mass. Surface Water Quality Standards](#)**. These uses include: Aquatic Life; Fish Consumption; Public Water Supply; Shellfish Harvesting; Primary Contact-Recreation (such as swimming); Secondary Contact-Recreation (boating), and Aesthetics. **Section 303(d) identifies those waters that are found to be "impaired" (and not supporting the designated uses) and the reason for the impairment**. These 303(d) listed waters are prioritized by the state for the development of pollution control plans called [Total Maximum Daily Loads](#) (TMDLs). The new mapping tool allows users to view assessed waters throughout the state as of 2010, and whether they are meeting the water quality standards. Users can click on an assessed segment of a water body to view information on description, category, watershed, water type, size, class and number of finalized TMDLs. For more info on how the data was gathered or regarding completed TMDLs, contact Arthur Johnson [(508) 767-2873] or Richard McVoy [(508) 767-2877] in MassDEP's Division of Watershed Management in Worcester.

The [2012 Annual Report of the Mass. Department of Conservation and Recreation](#) (DCR) is a detailed, 40-page description of the agency's activities over the last calendar year. Click [here](#) to download a copy; or, if you prefer, limited hard copies are available through DCR's External Affairs and Partnership Office by contacting Evan Hines [(617) 626-1333 or Evan.Hines@state.ma.us]. Presentations and other proceedings of the [2013 Massachusetts Trails Conference](#), co-sponsored by DCR and [MARTAB](#) (the Massachusetts Recreational Trails Advisory Board) and held last May in Devens, have been posted to [DCR's Greenways and Trails web page](#).

The [Town of Arlington, MA's Engineering Division](#) has since 2012 hosted a [Stormwater Awareness Series](#) of presentations designed to educate businesses and residents on Stormwater and the impacts on runoff, water quality, flood control and prevention, erosion, and other stormwater related impacts within the Town. The presentations, made by stormwater professionals and others, are intended to help residents understand how the surrounding environment affects, and impacts, the local water resources and what can be done to reduce these impacts. Past presentations have included such topics as [Permeable Pavers](#), [Depaving](#), [Sustainable Landscaping](#), and [Rain Barrels & Rainwater Harvesting](#). These and other past presentations are viewable online at [acmi.tv](#).

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Non-government On-line Resources

(in rough alphabetical order – the following are offered for information purposes only and are not an endorsement of the items listed below. Descriptive text provided is obtained from the web pages themselves.)

Conservation Finance Network (CFN)

<http://conservationfinancenetwork.org>

Launched earlier this month and expanding on [similar efforts](#) coordinated by [Island Press](#), CFN aims to advance the field of conservation finance by connecting disparate stakeholders in conservation finance and sharing best practices, facilitating learning, and providing resources for the growing network of conservation finance professionals throughout the world. Resources at this page include info on conservation finance [books and articles](#), links to [current news articles](#) (such as [Demystifying Materiality: Hardwiring Biodiversity and Ecosystem Services into Finance](#)) and a [calendar of upcoming conservation finance-related events](#).

ecoMass News

<http://www.ecori.org/massachusetts>

Recently established by the nonprofit [ecoRI Inc.](#), publisher of ecoRI News since 2009. ecoMass News and its RI counterpart “are dedicated to the advancement of environmental and social justice issues that impact Rhode Island and Massachusetts and devoted to protecting the neighboring states’ ecosystems, natural resources and public health through independent journalism. ecoRI Inc accomplishes its mission in separate but linked ways: investigative reporting, community journalism, educational programs, public outreach, green consulting, and compostable food-scrap collection.” Articles recently posted to ecoMass News include [Massachusetts Plays Key Role in Keeping Narragansett Bay Healthy](#).

Explore Rhode Island Blueways and Greenways

<http://www.exploreri.org>

Set up and maintained by the [Rhode Island Blueways Alliance](#), the ExploreRI website is chock-full of info on where

to paddle and hike on and along the waterways of the Ocean State. The more than [thirty “water trail” maps](#) include info on ability level, access points, miles covered, average paddling time, and river history and ecology. The [water trails info and maps](#) include paddling opportunities in adjacent areas in **Massachusetts** as well, including the **Blackstone River** and the **Taunton River**. Click [here](#) to read the [Explore RI May 2013 newsletter](#), which explains the newly-updated features and content on the ExploreRI website, and [here](#) to access the [Massachusetts Online Locator of Coastal Public Access Sites](#).]

fundraise.com

<https://www.fundraise.com>

Founded in March 2011 by Nate Drouin and headquartered in Boston, fundraise.com is a social fundraising platform that **allows anyone to create and manage online fundraisers** (click [here](#) to see an example). You don't have to be a 501(c)(3) tax-exempt organization to use this platform. There are absolutely no costs or fees associated with starting a fundraiser, and all of the features at fundraise.com are free (e.g., no monthly maintenance charges or any other type of fee). The only cost associated with using fundraise.com is a 4.5% fee plus credit card processing costs that are charged to each donation that is processed through your fundraiser page. This covers the credit card processing fee and all of the features available on our site. You can even add offline donations to your fundraiser for no additional charge. Visit [fundraise.com’s FAQ page](#), then call (toll-free) (857) 445-4165 to sign up or for more info.

GIV Mobile

<http://www.givmobile.com>

[Launched this spring](#), GIV Mobile is transforming mobile communication, an essential service for many, into a vehicle for giving and a tool for good. GIV Mobile contributes 8% of its customers’ monthly payment to a nonprofit organization of their choice from a list of pre-screened organizations that profoundly and positively impact the cause for which they were established to support. [[Charities in the “Environment” category](#) include **American Rivers**, **The Conservation Fund** and **The Nature Conservancy**.] Prospective customers can choose from two “Unlimited Everything” plans starting at just \$40 and talk on a nationwide GSM network. Click [here](#) for more info.

Gulf of Maine Times

www.gulfofmaine.org/gomt

A project of the [Gulf of Maine Council’s Outreach Committee](#), the *Gulf of Maine Times* covers stories relating to environmental indicators, protection and restoration projects within the [Gulf of Maine and its adjoining watershed](#), and the people, organizations and agencies engaged in such projects. Stories appearing in the most recent (April 2103) edition of the *Times* include: [Engaging Community Residents Essential for Climate Change Adaptation to Happen](#); [Adaptation efforts lead to enhanced emergency management](#); and [Massachusetts launches innovative communication tool for global warming initiatives](#). The *Times* also includes a [News](#) section, which reports on current happenings, including grant opportunities.

Hemlock Legacy Project (HeLP)

<http://www.geo.wvu.edu/hemlocklegacy>

Able to live up to 500 years, the [annual growth rings](#) of Hemlock trees (*Tsuga canadensis* in this region) offer a record of the Earth’s climactic variation. The recently-established Hemlock Legacy Project seeks volunteers to gather this valuable data before the trees disappear, possibly within decades, due to the dual threat of climate change and

infestations of the invasive [Hemlock woolly adelgid](#). HeLP is enlisting volunteers to take samples with a corer (the wound heals naturally). In addition to coring, researchers are collecting ecological information they could one day use to restore hemlock. Click [here](#) to get involved and [here](#) for more info.

Hummingbirds at Home

<http://www.hummingbirdsathome.org>

Recently launched by the [National Audubon Society](#), Hummingbirds at Home is a citizen science initiative intended to help scientists understand how climate change, flowering patterns and feeding by people are impacting hummingbirds. On the Hummingbirds at Home **website** you can track, report on and follow the spring hummingbird migration in real time. And, a **free mobile app** (for [iPhone/iPad](#) and [Android](#) devices) makes it easy to report sightings, share photos and learn more about these remarkable birds. You can participate at any level – from reporting a single sighting to documenting hummingbird activity in your community throughout the life of the project. Click [here](#) and [here](#) to sign up or for more info.

Inhabitat Project

<http://www.ecehh.org/publication/inhabitat-project>

Sponsored by the [European Centre for Environment & Human Health](#) at the University of Exeter Medical School in England, Inhabitat is an innovative, interactive research project designed to explore relationships between natural environmental condition and aspects of human health and wellbeing. Recent research (published in [Psychological Science](#)) revealed that **people who live in urban areas with more green space tend to report greater well-being than city dwellers who don't have parks, gardens, or other green space nearby**. Examining data from a national longitudinal survey of households in the United Kingdom, the researchers found that individuals reported less mental distress and higher life satisfaction when they were living in greener areas, and this association held even after the researchers accounted for changes in participants' income, employment, marital status, physical health, and housing type. Click [here](#) to read a recent article about this research appearing in *Scientific American Magazine*, and [here](#) and [here](#) for related stories.

Leafsnap

<http://www.leafsnap.com>

Leafsnap is the first in a series of **electronic field guides** being developed by researchers from [Columbia University](#), the [University of Maryland](#), and the [Smithsonian Institution](#). This **free mobile app** (for the iPhone/iPad; an Android version is under development) uses visual recognition software to **help identify tree species from photographs of their leaves**. Leafsnap contains beautiful high-resolution images of leaves, flowers, fruit, petiole, seeds, and bark. Leafsnap currently includes the trees of the Northeast and will soon grow to include the trees of the entire continental United States. This website shows the tree species included in Leafsnap, the collections of its users, and the team of research volunteers working to produce it. Click [here](#) for more info.

Land For People and Wildlife

http://www.massaudubon.org/Nature_Connection/landprotection/index.php

This web page is where to find out about, and participate in, **Mass. Audubon's** ongoing efforts to protect high priority, ecologically significant, land across the Commonwealth for the benefit of wildlife and people. Resources at this page include interviews with landowners sharing stories about why they chose to conserve their lands, as well as [Land Protection Success Stories](#) and a "[People Making A Difference](#)" section, celebrating individuals and families making significant contributions to land protection in Massachusetts. Click [here](#) to read the May 2013 edition of

[Mass. Audubon's *Land for People and Wildlife* electronic newsletter](#), and [here](#) to read the related [Gaining Ground land protection blog](#); you might also like to look at [Mass. Audubon's Summer Vacation Guide](#), organized by region.

Massachusetts Office of Travel and Tourism (MOTT)

<http://www.massvacation.com>

While the primary function of MOTT's website is to entice visitors to the Commonwealth and inform them about things to do/places to go while they are here, much of the content on the site is useful to Mass. residents as well. See, e.g., the info posted under the [Outdoor Activities](#), [History and Heritage](#) or the [Science and Nature](#) sections of the MOTT website. MOTT's [MAGREEN](#) Program promotes businesses that conserve energy, water and otherwise observe "green" practices. MOTT also invites event organizers and venues to submit info for posting on massvacation.com; submit your info to MOTT web manager John Alzapiedi at john.alzapiedi@state.ma.us.

Native Plants & Wildlife Gardens

<http://nativeplantwildlifegarden.com>

Inspired in large part by [Doug Tallamy](#) and his book [*Bringing Nature Home: How You Can Sustain Wildlife with Native Plants*](#), the Native Plants & Wildlife Gardens blog is a rich source of information on the "hows" and "whys" of planting and maintaining native species, particularly in the home landscape, and related topics such as ecological restoration, rain gardens and green roofs. The "[team](#)" of 28 contributors (which includes several people from Massachusetts) represent a diverse set of ecological landscapers and others that share a passion to assist and inspire people to make healthier choices for their gardens, and communities. Examples of content-heavy postings to this blog include [The Ultimate Guide to Butterfly Gardening](#) and [Outreach With Impact \(Parts 1-4\)](#), which offers useful advice on how to successfully engage the public in a native species promotional campaign.

Natural History Network

<http://naturalhistorynetwork.org>

The Natural History Network was established in 2007 to promote the value of natural history by discussing and disseminating ideas and techniques on its successful practice to educators, scientists, artists, writers, the media, and the public at large. The Network now includes a wide range of members, both institutional and individual, and a diverse group of advisers from the sciences, arts and humanities, all of whom are passionate about strengthening the practice and use of natural history. Resources at this page include [interviews with a wide range of naturalists](#) and full, readable/downloadable articles appearing in the [*Journal of Natural History Education and Experience*](#), such as: [What Early 20th Century Nature Study Can Teach Us](#); [The Aesthetic Roots of Natural History](#); and [Local Species Trading Cards: An Activity to Encourage Scientific Creativity and Ecological Predictions from Species' Traits](#).

Nature's Notebook

<https://www.usanpn.org/nn/become-observer>

A project of the [USA National Phenology Network](#), a consortium of individuals and organizations that collect, share, and use phenology data, models, and related information which serves science and society by promoting broad understanding of plant and animal phenology and its relationship with environmental change, Nature's Notebook employs "citizen scientists" to gather info on plant and animal phenology across the U.S. to be used for decision-making on local, national and global scales to ensure the continued vitality of our environment. Over 6,000 naturalists across the nation are already enrolled in Nature's Notebook in taking the pulse of our planet (see, e.g., the [New England Leaf Out Project](#)). Participants use scientifically-vetted observation guidelines, developed for

over 900 species, to ensure data are useful to researchers and decision-makers. Click [here](#) to sign up or for more info, and [here](#) to read a good article about Nature’s Notebook appearing on the *Organic Gardening Magazine* website.

Prezi

<http://prezi.com>

Prezi is an on-line tool that supports “**virtual whiteboards** that transform presentations from monologues into conversations: enabling people to see, understand, and remember ideas...Prezi’s **zooming presentation software** lets you choose between the freedom of the cloud, the security of the desktop, or the mobility of the iPad. Prezi also enables [you the power to create and edit with others in real time and invite others to collaborate, brainstorm, and present using the same zooming canvas](#). Examples of presentations utilizing the Prezi platform include the ones focusing on restoration of the [Malden River](#) and bridges over the [Hudson River](#). There are free (low-powered) as well as medium and high-powered versions of the Prezi tool – click [here](#) for more info.

Project Noah

<http://www.projectnoah.org>

Established in 2010 and backed by National Geographic, Project Noah is a **software platform designed to help people reconnect with the natural world**. Project Noah seeks to mobilize a new generation of nature explorers and help people from around the world appreciate their local wildlife by harnessing the power and popularity of new mobile technologies to collect important ecological data and help preserve global biodiversity. Project Noah’s tools help the mobile masses share their encounters with nature via “crowdsourcing” ecological data collection (via, e.g., downloadable smartphone apps), which in turn provides an important educational tool for wildlife awareness and preservation. The Project’s ultimate goal is to build the go-to platform for documenting all the world’s organisms (click [here](#) to see what is already in Project Noah’s database). Project Noah also enables customized “[missions](#)” (themes of nature exploration/data gathering) as well as anyone to post an image of an unknown organism and ask others for help in identifying it. [Click [here](#) and [here](#) for similar **bird-specific** electronic resources.]

Smore

<https://www.smore.com>

Still in “beta test” mode, Smore is an online tool that enables you to easily create **customized electronic flyers to promote your organization and/or event** that displays equally well on smartphones, tablets and other electronic devices. The tool is paired with user-friendly analytics to see what people do (or don’t do) in reaction to your flyer. The tool is also designed to enable your flyers to be easily sharable via social media platforms like Facebook, Craigslist and so on, as well as optimized for showing up on search engines like Google. Click [here](#) to see some of the featured flyers produced using the Smore tool.

Stormwater Report

<http://stormwater.wef.org>

Recently launched by the [Water Environment Federation](#) (WEF), the Stormwater Report web page is dedicated entirely to stormwater news. The home page presents recent news and a feature story; all news stories on the site are searchable; and information is categorized by news type, region and topics. A sidebar provides information about upcoming events, stormwater videos, a poll question and a feed from WEF’s newly launched [Stormwater Twitter account](#). [See also WEF’s new [Water’s Worth It](#) public outreach website.]

Waterkeeper Swim Guide

<https://www.theswimguide.org>

Set up and maintained by [over a dozen regional affiliates](#) (including [Massachusetts Baykeeper](#)) of the national [Waterkeeper Alliance](#) network, Swim Guide is a free app for iPhone, iPad, iPod touch and Android that makes it easy to explore and enjoy the best beaches locally and in other (mostly coastal and Great Lakes) areas of the U.S. and Canada. With this app, you can:

- Find your closest beach using list, map, or search tools
- Discover a wide variety of beaches, ranging from city parks to remote lakes ideal for camping
- Identify at a glance which beaches are clean for swimming (Green) and which have water quality problems (Red) in real-time
- Get walking, driving, or transit directions to the beach of your choice
- Report pollution or environmental concerns
- The Swim Guide also provides narrative descriptions and photographs of over 1,500 different beaches so you can learn a bit of history and geography as you explore. Click [here](#) to download the app, or [here](#) to access the same info from a computer.

Wetlands One-Stop Mapping

<http://aswm.org/wetland-science/wetlands-one-stop-mapping>

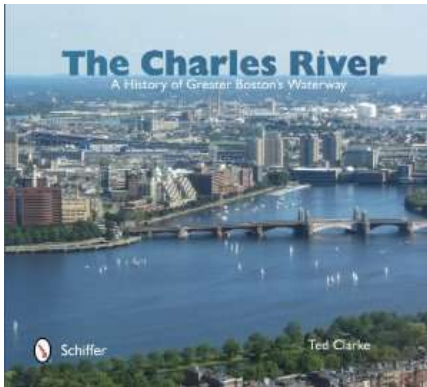
Recently created by the [Association of State Wetland Managers](#) (ASWM) in collaboration with Virginia Tech's Conservation Management Institute (CMI) and the U.S. Fish and Wildlife Service's Northeast Region, the Wetlands One-Stop Mapping website provides easy online access to geospatial data on wetlands and soils produced by federal and state agencies. It provides online access to classification tools for adding hydrogeomorphic-type to wetland inventory data and the results of [National Wetlands Inventory+](#) projects (maps and reports). The geospatial information is linked to aerial imagery (and topographic maps) through ESRI's ArcGIS (including ArcGIS Explorer) for easy viewing of wetlands, their characteristics, and functions for areas where NWI+ data are available. The website also provides links to other federal and [state](#) websites that contain information on wetlands and geospatial wetland data. Among the [national datasets](#) accessible via Wetlands One-Stop Mapping are the NWI's wetlands mapper, USDA's web soil survey, USGS's national hydrography data and hydrologic units (HUCs). Links are also provided to NatureServe Explorer and the U.S. National Vegetation Classification Hierarchy Explorer, along with guidance on how to extract descriptions of wetland plant communities from those sites for specific areas of interest. The site also provides information about the activities of the [Wetland Mapping Consortium](#), including [future](#) and [past](#) recorded webinars, [Coastal Mapping Resources](#), a summary of the status of state wetland mapping and links to federal and state wetland delineation manuals, numerous wetland publications, and federal agency wetland program websites. Click [here](#) to access this tool or for more info.

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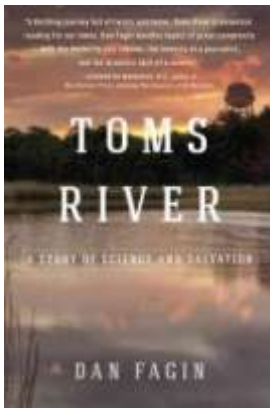
Publications, Videos, etc.

(the following are offered for information purposes only and are not an endorsement of the items listed below. Descriptive text provided is obtained from the web pages themselves.)

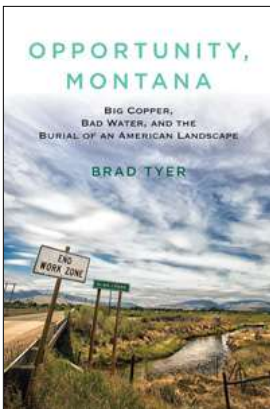


A recently-published book, [*The Charles River: A History of Greater Boston's Waterway*](#), focuses on stories about and taking place in communities located along the river from its mouth in Charlestown and the North End all the way upstream to its origins in Hopkinton. Stories about the bridges and the people for whom they were named include Craigie (the bridge that crosses the Charles next to the Museum of Science) and Longfellow, both of whom lived in the Vassal House on Brattle Street in Cambridge. Author Ted Clarke brings their stories to life, with details about grand parties, romantic aspirations, and failed investments. Illustrated with historic maps and more than 100 color photos, the book also covers the Charles' more recent transition from a poster child for the conflict between man and nature to one of the world's

environmental preservation successes. Click [here](#) to order or for more info.

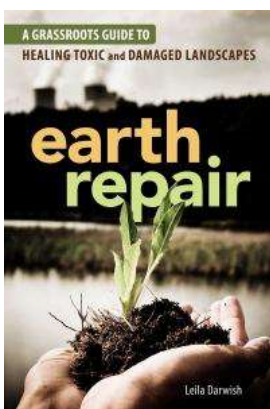


Before the mid-20th century, the most exciting thing to happen in Toms River, N.J., was the American Revolution, when the coastal village's inlet was a popular haven for small-time pirates. But the arrival of the chemical industry in the 20th century ushered in a decades-long drama, culminating in one of the largest legal settlements in the history of toxic dumping. Toms River became home to a cluster of childhood cancers linked to local air and water pollution. Journalist Dan Fagin spent five years uncovering an account of rampant pollution and inadequate oversight. The gripping details are set out in Fagin's recently-published book, [*Toms River: A Story of Science and Salvation*](#), which serves as a cautionary tale for fast-growing industrial towns from South Jersey to China. Click [here](#) for more info on the book and its author, and click [here](#) and [here](#) to listen to interviews with the author on NPR's [All things Considered](#) and the [Diane Rehm Show](#).



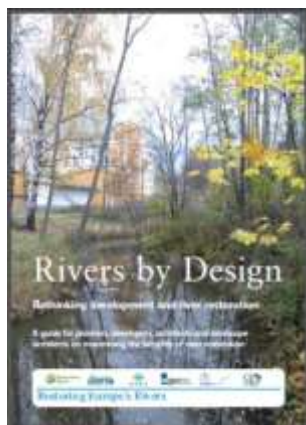
In 2002, Texas journalist Brad Tyler strapped a canoe on his truck and moved to Montana, a state that has long exerted a mythic pull on America's imagination as an unspoiled landscape. The son of an engineer who reclaimed wastewater, Tyler was looking for a pristine river to call his own. What he found instead was a century's worth of industrial poison (primarily from copper mining) clotting the Clark Fork River, a decades-long engineering project to clean it up, and a forgotten town named Opportunity. In [*Opportunity, Montana: Big Copper, Bad Water, and the Burial of an American Landscape*](#), recently-published by Boston-based [Beacon Press](#), Tyler describes the river and community's history and the ongoing effort to restore the Clark Fork River to some semblance of its natural state. Part personal history and part reportorial narrative, *Opportunity, Montana* is a story of progress and its price, of copper and water, of father and

son, and of our attempts to redeem the mistakes of the past. Click [here](#) to order the book and [here](#) to view a Youtube video about the book.



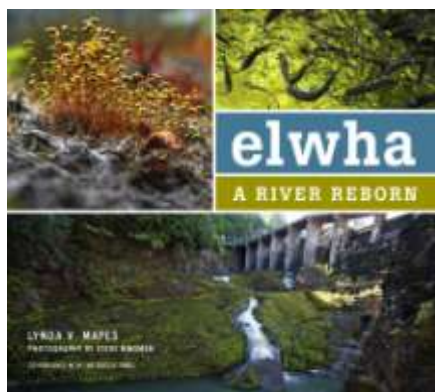
Millions of acres of land have been contaminated by pesticides, improperly handled chemicals, dirty energy projects, toxic waste, and other pollutants in the U.S. and Canada. This toxic legacy impacts the environment, our health, our watersheds, and land that could otherwise be used to grow healthy local food and medicines. Conventional clean-up techniques employed by government and industry are tremendously expensive and resource-intensive and can cause further damage. The new book [*Earth Repair: A Grassroots Guide to Healing Toxic and Damaged Landscapes*](#), by [Leila Darwish](#), describes a host of powerful grassroots bioremediation techniques, including **microbial remediation** (using

microorganisms to break down and bind contaminants); **phytoremediation** (using plants to extract, bind, and transform toxins) and **mycoremediation** (using fungi to clean up contaminated soil and water). Click [here](#) to order the book or for more info.

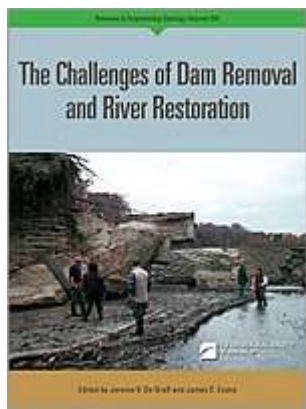


[RESTORE](#) is a [partnership](#) for sharing knowledge and promoting best practice on river restoration in Europe. It is supported by [LIFE+ funding from the European Commission](#) and works closely together with the [European Centre for River Restoration \(ECRR\)](#). RESTORE encourages the restoration of European rivers towards a more natural state. The new RESTORE publication [Rivers by Design: Rethinking development and river restoration: A guide for planners, developers, architects and landscape architects on maximising the benefits of river restoration](#) shows the crucial role these professionals can play in river restoration. It provides practical advice and information to maximise the ecological, social and economic benefits of development by integrating water management into the planning and design at all scales. A series of case studies from RESTORE demonstrates successful examples of how well located, planned and designed development can increase ecological quality, reduce flood risk and create social and economic benefits such as improved recreational facilities and public spaces. Click [here](#) to download the *Rivers by Design* guide.

[Floodplains by Design](#), a new video produced by [The Nature Conservancy](#), illustrates ways of harnessing floodplain ecosystems for humans and wildlife. Floodplains are relatively flat areas that border rivers and are prone to flooding. But floodplains are also some of the most valuable places on Earth, both for people and wildlife. Fertile soils deposited on floodplains by rivers make these areas extremely productive for agriculture, and floodplain forests and marshes are among the richest habitats for wildlife, both in terms of diversity and numbers. Fish and wildlife species thus thrive in and along floodplain rivers, benefiting important commercial and recreational industries. The goal of the *Floodplains by Design* video is to ensure that floodplains are used and managed in ways that enable them to provide these valuable services, while maintaining or even improving flood protection. Click [here](#) to view the video and for related info.

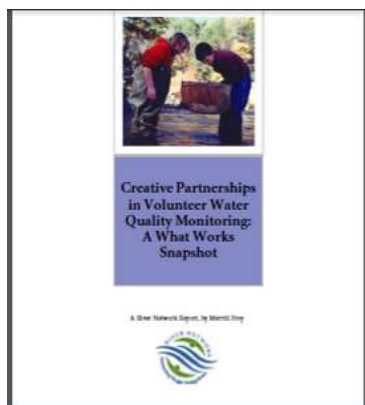


Recently published by [The Mountaineers Books](#), the new book [Elwha: A River Reborn](#), by Seattle Times reporter Linda Mapes, with photography by Steve Ringman, presents a vivid description of the effort to restore the Elwha River on Washington's Olympic Peninsula, such as in the in the fall of 2011, when the Times was on hand as a contractor removed the first pieces from two concrete dams on the river. It was the beginning of the largest dam removal project ever undertaken in North America – one dam was 200 feet tall – and the start of an unprecedented attempt to restore an entire ecosystem. Richly illustrated with stunning photographs, as well as historic images, graphics, and a map, *Elwha* tells the interwoven stories of this region such as that of the Lower Elwha Klallam tribe, who anxiously await the return of renowned salmon runs savored over the generations in the stories of their elders; and the biologists and engineers who are bringing the dams down and laying the plan for renewal, including an unprecedented revegetation effort that will eventually cover more than 700 acres of mudflats. Click [here](#) and [here](#) to read news coverage about the book appearing in Seattle newspapers, and [here](#) to listen to/read a story about the Elwha restoration that recently aired on the [Living on Earth](#) radio program.



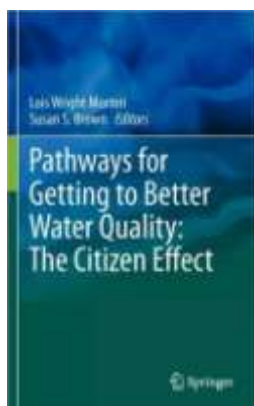
[The Challenges of Dam Removal and River Restoration](#), recently put out by the Geological Society of America, is a collection of 14 research papers focusing on our current understanding of the impacts of removing dams and the role of dam removal in the larger context of river restoration. The chapters are grouped by topic: (1) assessment of existing dams, strategies to determine impounded legacy sediments, and evaluating whether or not to remove the dams; (2) case studies of the hydrologic, sediment, and

ecosystem impacts of recent dam removals; (3) assessment of river restoration by modifying flows or removing dams; and (4) the concept of river restoration in the context of historic changes in river systems. One of the papers, “Dam Removal: A History of Decision Points”, written by Laura Wildman, formerly of [American Rivers](#), looks at the conflict between dams and fish extending far back into our history, and includes some historic dam removals. Click [here](#) to order the book or for more info.

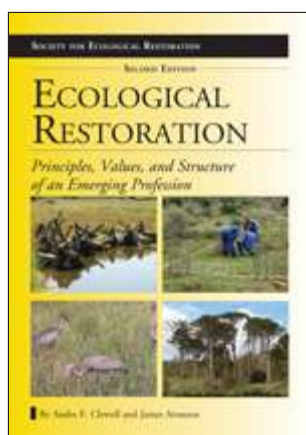


River and watershed groups often struggle to secure the financial and technical capacity to conduct good, long-term monitoring that effectively documents success (or failure) in protecting or improving water quality or habitat. As budgets have shrunk over the last several years, these challenges have only loomed larger. One strategy for stretching water quality monitoring resources is to partner with others who bring complementary skills and resources to the table. That is the intended purpose of [River Network](#)'s recently-released report [*Creative Partnerships in Volunteer Water Quality Monitoring: A What Works Snapshot*](#) to provide creative ideas for river and watershed groups that are considering either creating a new volunteer monitoring partnership effort or adding a partnership component to their existing efforts. Click [here](#) to download the report, [here](#) to read a blog about it, or contact Merritt Frey, River Network's [River Habitat Program](#) Director, at (801)

486-1224 or mfrey@rivernetwork.org for more info and/or to share success stories.

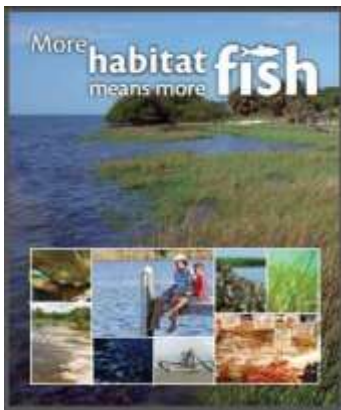


While public sector watershed management strategies involve the physical and natural sciences, they may overlook the human factors that are required to stop a problem or correct degradation. The central message of the 2011 book ***Pathways for Getting to Better Water Quality: The Citizen Effect*** is that the pathway to achieving better water quality is through citizen empowerment and human engagement at a watershed scale. Authors Lois Wright Morton and Susan S. Brown present principles of empowerment and shared leadership aimed at engaging local citizens in collectively taking actions that address water resource issues. Much of the book features a compendium of case studies and applied examples from those involved in watershed projects, who offer insights into how the citizens took charge of resource management at a watershed scale. Click [here](#) to order the book and [here](#) to read a review.

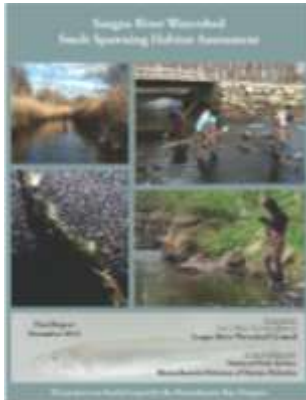


Ecological restoration encompasses a wide range of activities and brings together practitioners and theoreticians from a variety of backgrounds and perspectives, ranging from volunteer backyard restorationists to highly trained academic scientists and professional consultants. The second edition (2013) of [*Ecological Restoration: Principles, Values, and Structure of an Emerging Profession*](#), by Andre F. Clewell and James Aronson, offers a comprehensive and coherent account of the field for everyone who initiates, finances, designs, administers, issues government permits for, manages, and implements ecological restoration projects, and all those who serve in supportive roles. A unique feature of the book is the inclusion of eight “virtual field trips:” short photo essays of project sites around the world that illustrate various points made in the book and are “led” by those who were intimately involved with the project described. Originally published in 2007, this revised and reorganized edition brings the

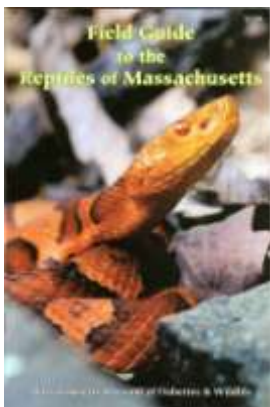
book up to date with new developments and current trends in the field.



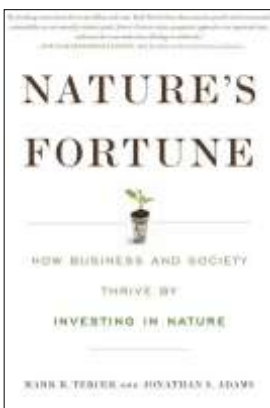
[More Habitat Means More Fish](#), a report released this past May by [Restore America's Estuaries](#) (RAE) and the [American Sportfishing Association](#) (ASA) and co-authored with the [National Oceanic and Atmospheric Administration](#) (NOAA), makes a powerful case that **investing in our nation's coastlines and estuaries leads to healthy habitat and strong fisheries**, which has a positive impact on the businesses and industries, both recreational and commercial, that need healthy fisheries to survive and thrive. Drawing on peer-reviewed articles and original data, the report shows why **habitat conservation is a good investment**, producing significant gains in the size and health of fish populations. Click [here](#) to download *More Habitat Means More Fish*, and [here](#) to read a press release about the report on the ASA website.



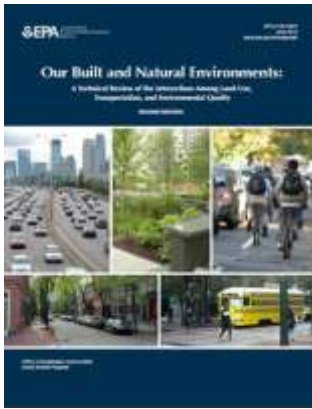
The [Saugus River Watershed Council](#) (SRWC) recently published a **[Final Report highlighting the results of its 2012 Smelt Spawning Habitat Assessment](#)**. “The study was implemented in partnership with the National Park Service and the Massachusetts Division of Marine Fisheries, with funding from the Massachusetts Bays Program. Together, we documented smelt spawning habitat and identified opportunities for restoration in the Saugus River and Shute Brook. During 2013 and beyond, we will work with our partners to implement the recommendations for protecting and restoring smelt spawning habitat identified through this important research project.” Click [here](#) to download the report, or contact Joan LeBlanc at srw@shore.net or (781) 233-5046 for more info.



The second edition of ***Field Guide to the Reptiles of Massachusetts***, recently published by the [Mass. Department of Fish and Game's Division of Fisheries and Wildlife](#) (MassWildlife), contains detailed narrative descriptions and great photos of each species of snake and turtle (other than the five pelagic species) known to occur in the wild in the Commonwealth, along with additional text on the importance of reptile conservation and what MassWildlife and others are doing to monitor and protect populations of native reptiles and their habitats, as well as what you can do to aid in this effort. Copies of the 45-page *Guide* are available for \$3 each from MassWildlife by calling the main Field Headquarters number, (508) 389-6300. While you're at it, you may want to subscribe to [Massachusetts Wildlife Magazine](#) in time to receive the next issue: a special edition entitled ***Field Guide to the Amphibians of Massachusetts***.



In the recently-published book **[Nature's Fortune: How Business and Society Thrive by Investing in Nature](#)**, Mark Tercek, CEO of [The Nature Conservancy](#) and former investment banker, and science writer Jonathan Adams argue that nature is not only the foundation of human well-being, but also the smartest commercial investment any business or government can make. The forests, floodplains, and oyster reefs often seen simply as raw materials or as obstacles to be cleared in the name of progress are, in fact as important to our future prosperity as technology or law or business innovation. *Nature's Fortune* shows how viewing nature as green infrastructure allows for breakthroughs not only in conservation (e.g., protecting water supplies, enhancing the health of fisheries, making cities more sustainable, livable and safe, and dealing with unavoidable climate change) but in economic progress, as well (e.g., risk mitigation, cost reduction, new investment opportunities, and the protection of assets). Click [here](#) to read an excerpt of the book.



The EPA recently released its most comprehensive review to date on how the built environment - the way we build our cities and towns - directly affects our environment and public health. The publication, a second edition of [*Our Built and Natural Environments: A Technical Review of the Interactions among Land Use, Transportation, and Environmental Quality*](#), provides evidence (supported by studies conducted since the first edition was released in 2001) that “smart” land use and transportation strategies can reduce the environmental and human health impacts of development. Click [here](#) to download *Our Built and Natural Environments* and [here](#) for related info, including a [free webinar on Our Built and Natural Environments](#) scheduled to take place on **Wednesday, July 24** from 2:00 PM - 3:00 PM Eastern Time.



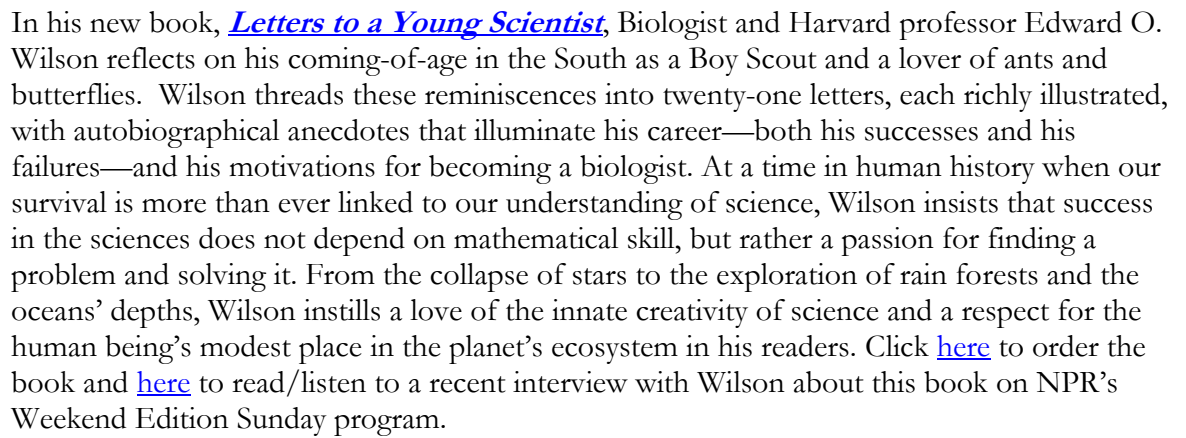
Two new “green infrastructure” documents are now available from the [NatLab Consortium](#), an innovative partnership between The Nature Conservancy, the Natural Resources Defense Council and EKO Asset Management Partners. The documents address the benefits and economic issues associated with using green infrastructure practices, such as porous pavement, green roofs, parks, roadside plantings and rain barrels, to address stormwater pollution. These practices capture rain on or near where it falls, allowing it to infiltrate on site instead of carrying dirty runoff to local waterways. Last March, NatLab released [*Creating Clean Water Cash Flows*](#), which [Philadelphia’s innovative “Green City, Clean Waters” Program](#) as a model for stimulating investment in natural infrastructure. NatLab’s second report, [*Greening Vacant Lots: Planning and Implementation Strategies*](#), describes the benefits of converting vacant lots in urban areas to green spaces that combine recreational use and stormwater management. Click [here](#) for more info.



[*Green Infrastructure: A Landscape Approach*](#), recently put out by the [American Planning Association](#), explains how green infrastructure cleans the air and water, replenishes aquifers, reduces flooding, moderates climate, promotes healthy exercise and offers access to locally grown food. The report also notes that green infrastructure can make communities safer and even helps reduce crime, while boosting the economy as it attracts business, raises property values, and lowers energy and healthcare costs. The authors describe six principles for successful green infrastructure projects and then present 12 detailed case studies describing these principles at work. Click [here](#) to order the 160-page report or for more info.



The recently-published (in English) book [*Nature All Around Us: A Guide to Urban Ecology*](#) is intended to help people recognize (and look after) the natural world we traipse through in our daily lives. *Nature All Around Us* uses the familiar—such as summer Sundays humming with lawn mowers, gray squirrels foraging in planters, and flocks of pigeons—in order to introduce basic ecological concepts. In twenty-five short chapters organized by scale, from the home to the neighborhood to the city at large, it offers a subtle and entertaining education in ecology sure to inspire appreciation and ultimately stewardship of the environment. This book, translated from the French (originally entitled *Écologie en ville*) by Beatrix Beisner, is not only a guide to ever present nature, but also a subtle reminder to care for the natural world that gives us so much pleasure. [Click [here](#) to download a recent [discussion on Urban Nature](#) hosted by [Orion Magazine](#).]



WHY I FLY FISH

Passionate Anglers on the Pastime's Appeal
and How It Has Shaped Their Lives

CHRIS SANTELLA

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Last but not least:



The [Massachusetts Environmental Trust](#) (MET) provides funding to many river, wetland and other water resources protection and restoration projects throughout the Commonwealth. A major source of MET's funding comes from the sale of [environmental license plates](#). Besides the "Right Whale and Roseate Tern" plate (click [here](#), see p. 13), sales of the "Fish and Wildlife" plate (click [here](#), see p.12), depicting a Brook Trout, and the Blackstone Valley plates (click [here](#), see p.10) help fund MET's grant-making programs. (By the way, these three are the only Mass. specialty license plates that exclusively fund environmental programs). Getting an environmental plate is easy and can be done on-line by clicking [here](#), or in person at [your local Registry of Motor Vehicles office](#).

Does [your](#) car have an environmental license plate?

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