

## Riverbank Restored at the Fort at No. 4

**B**IOLOGISTS, archeologists, soil scientists, engineers and construction workers gathered on November 14, 2003 with officials from the US Environmental Protection Agency, National Oceanographic and Atmospheric Administration, and the Connecticut River Joint Commissions to dedicate the completion of a 850-foot-long riverbank restoration project at an historic site on the Connecticut River.

The project, funded by EPA, NOAA, and others, stabilized a severely eroding riverbank at one of New Hampshire's most significant archeological sites—at a re-creation of a French and Indian War era fort known as the Fort at No. 4 in Charlestown.

"The riverbank restoration work at the Fort site is an excellent example of river conservation and stewardship," said Robert W. Varney, regional administrator of EPA's New England *continued on page 2*



*CRJC Executive Director Sharon Francis, left, leads a tour of the new riverbank restoration at Fort at No. 4 on a brisk day in November. Mussel biologist Ethan Nedeau is at center in cap.*

## CRJC Launches Study of River Behavior

**R**IVERS can behave uncomfortably like teenagers. They can be unpredictable — sometimes tempestuous, sometimes placid, and something is always going on just under the surface. Even worse, their actions often reflect the influence of some long-forgotten incident in the past.

Well aware of landowners' struggles to co-exist with a sometimes surly river, especially in the North Country, the Connecticut River Joint Commissions have turned to the emerging science of fluvial geomorphology to gain an understanding of what makes the Connecticut River do what it does. Fluvial geomorphology is the study of a river's form, how it behaves as it flows through the landscape, and why.

CRJC has just received a Strategic Focus Grant from the Upper Connecticut River

Mitigation & Enhancement Fund for \$32,600 to conduct a fluvial geomorphic assessment of the 85 miles of the Connecticut River from Murphy Dam in Pittsburg to the Gilman Dam in Lunenburg/Dalton. The project will be completed in October, 2004 and result in an engineering design and cost estimates for restoration of at least one top priority erosion site. The total cost of the project is \$68,300, of which CRJC and partners will contribute \$35,700.

Dr. John Field, who will conduct the study, holds a PhD in fluvial geomorphology and has worked on watershed assessments and stream restoration projects in New England, Washington State, and Arizona. He has just completed an assessment of the Coos County Farm's riverbank in West Stewartstown.

*continued on page 4*

### Inside

Stormwater Savvy .....	3
New Faces .....	4
Progress on the Plan .....	5
New Invader .....	5
Vermont Yankee .....	6
Varves .....	7
New Exhibit .....	7
Calendar .....	8
River Ripples .....	8
Living with Murphy .....	8

*Partnership Grants Available... pg. 6*



Diver Sean Werle pauses during his search of the project site for the tiny Dwarf Wedgemussel.

**Riverbank Restored**, continued Office. “In addition to improving water quality and wildlife habitat, this project will protect important cultural resources and boost awareness and education about endangered Dwarf Wedgemussels. I want to commend the Connecticut River Joint Commissions for their outstanding work in implementing key actions of their Corridor Management Plan as well as in the American Heritage Rivers Initiative.”

CRJC’s three-year-long project involved local, state, and federal agencies in addition to Fort staff and trustees. The riverbank had been scoured and eroded by ice and water, and boat wakes contributed to bank instability. The site is also influenced by water level fluctuations in the impoundment behind Bellows Falls Dam. Archeological resources, investigated a few years earlier in a dig sponsored by CRJC, had been eroding into the river.

As part of their Sustainable Riverbanks project, CRJC worked with the conservation districts along the river to identify erosion sites like this one. CRJC recruited a technical team of professionals from a variety of agencies to review the priorities, and in 2001, selected three top candidate sites for restoration. The Fort site is the third project of three now completed.

CRJC called upon the Connecticut engineering firm of Milone and MacBroom to design the project for maximum protection of the sensitive archeological site with minimum loss of wildlife habitat. A key goal was to restore the natural appearance of the riverbank, particularly vegetation which had been lost over the years.

The project design features a narrow stone pathway at the water’s edge. Supported by this stone toe at the base of the slope, new fill was added against the slope, terraced, and extensively planted with native shrubs, grasses, and large trees to provide root systems to hold the soil.

The contractor had to “tiptoe” with heavy equipment in order not to disturb archeological materials, and at the same time minimize any disturbance to endangered mussel habitat on the adjacent river bottom. Visitors at the dedication ceremony commented on the attractiveness of the site, as well as its functional design.

The Natural Resources Conservation

Service, Fort board members and local volunteers planted a riparian buffer of 800 plants at the top of the bank, using native trees and shrubs which colonists would have found growing naturally at this site, and which they would have used for food, craft, or building supplies.

An unexpected challenge came with the discovery of a federally endangered mussel just offshore. Seeking to do no harm, the Commissions hired an aquatic biologist to census and then tag and relocate out of harm’s way all mussels found in the project area. This work was done by Ethan Nedeau of BioDRAWversity in Amherst, MA, under the supervision of the US Fish and Wildlife Service. Twenty mussels were discovered and moved to a safe location. They have been brought “home” to the waters adjacent to the Fort’s riverbank now that work is complete.

“Rather than looking at this small animal as an expensive annoyance,” said CRJC Executive Director Sharon Francis, “the River Commissions view the endangered mussel’s presence as a source of pride and a valuable resource to protect.”

The New Hampshire State Archeologist helped guide the project’s preservation of archeological features, which had been the subject of investigations by archeologist Wesley Stinson and others for a number of years.

The stabilized riverbank has apparently also assisted the Fort in interpreting events that took place here during the French and Indian War. “I was down there the other day, attacking the Fort,” reported John Soule, the Fort’s Program Manager, who is often seen there dressed in the swashbuckling garb of a French general. “It’s really made a difference for the French Army. Thanks very much!”

The project was funded with \$87,400 from NOAA and \$70,000 from EPA. NRCS’s Wildlife Habitat Incentive Program provided \$11,000 for buffer plants and removal of Asiatic honeysuckle and other invasive exotics. The contractor, Charlestown’s St. Pierre, Inc., donated \$6,500 in services. Hal Wilkins, of Ramsey & McLaren in Westminster, donated his time as project field coordinator. CRJC’s Executive Director contributed substantial time in planning and coordinating the project. USGen New England was able to manage Bellows Falls Dam to allow construction to proceed at the lowest possible water levels.

For more information on erosion, see [www.crjc.org/erosion.htm](http://www.crjc.org/erosion.htm). The Commissions emphasize that erosion is a natural, ongoing process, and can never be eliminated, but good conservation stewardship can minimize its harmful effects and loss of property. 🌿

The Fort’s riverbank visitors included EPA Regional Administrator Bob Varney (l), former CRJC President George Moulton, second from left, and even an officer of the c. 1760s French militia, portrayed by John Soule, right.



# Keeping Stormwater Where It Falls

## Successful Conference Inspires 130

ON November 6 and 7, 2003, planners, developers, landscape architects, engineers, and local officials from Vermont and New Hampshire gathered for two days at the Montshire Museum in Norwich, VT, for “Keeping Stormwater Where It Falls” and were inspired to seek a more naturalistic approach to dealing with stormwater.

Experts guided the audience in an exploration of Low-Impact Development (LID), a strategy to mimic pre-development hydrology by attaining no increase in run-off, so that stream functions continue, groundwater is recharged, and pollutants are removed. Especially well received was the news that most of the techniques described are lower in cost as well as environmental impact, to the point where developers’ associations are promoting their use and encouraging state regulators to update their stormwater management guidelines to include LID principles.

Keynote speaker Larry Coffman and thirteen panelists fully engaged the overflow audience. Over 130 people attended on Thursday, and nearly 60 on Friday, enthused with the lively discussion of these fresh ideas. One was overheard to say it was “one of the best seminars I’ve attended in 25 years!”

Nationally recognized for his pioneering work in stormwater management through bio-retention, Coffman has applied these principles in the Department of Environmental Resources in Prince George’s County, Maryland and elsewhere.

Conference coordinator Barbara McIlroy noted, “I think this meeting was just the beginning of a sea change. Most folks stayed until the very end of the meeting on Thursday.... most unusual.”

Coffman and other expert speakers recommended a wide range of innovative methods to treat stormwater to slow it down and soak it up. Dispersed “rain gardens” retain, detain, filter, recharge, and pass runoff through attractive small-scale, decentralized water collection points, rather than the standard storm sewer collection system or the detention pond now gaining a reputation for stealing land, posing hazards, and growing algae.

Low impact stormwater management makes clean, simple sense, and has potential everywhere. Colebrook’s Headwaters Subcommittee representative Kevin McKinnon observed, “If you control your runoff at every

single dwelling then you don’t have a problem with all that water running into your stream.” The design for a massive Home Depot store proposed for heavily developed West Lebanon now includes landscaped bio-retention “cells”

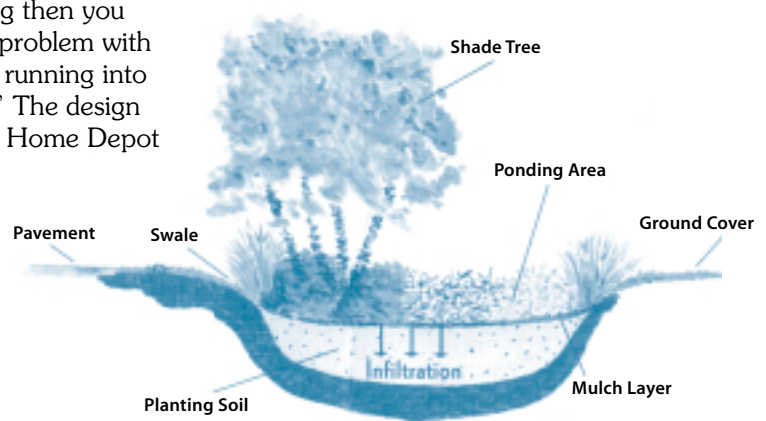
scattered throughout its 748-space parking lot, to soak up stormwater rather than flushing it away.

The conference’s second day began at Hanover’s Gile Tract, where the town hopes to build affordable housing. Led by Hanover’s planners Jonathan Edwards and Vicki Smith, participants toured the steep, forested boulder-strewn property. Seven teams then sketched and presented their own low-impact development-inspired layouts for the difficult site. The results have been shared with Hanover’s Affordable Housing Commission.

A grant from the Connecticut River Joint Commissions’ Partnership Program underwrote the conference, with organizing by the Upper Valley Lake Sunapee Regional Planning Commission and the League of Women Voters of the Upper Valley. Joanna Whitcomb of Burnt Rock Associates, Inc. shared excellent materials on stormwater developed by her firm. CRJC Executive Director Sharon Francis moderated the entire first day of the meeting, and NH Senator Clif Below moderated an evening session for the general public.

The League of Women Voters and the Hanover Conservation Council provided funds, and over 50 volunteers contributed their efforts to the success of the conference, from packet packing to parking coordination. The Montshire Museum donated space, making the meeting affordable for small towns to send staff, including road agents.

“I hope I’ve left my curse on you all,” writes speaker Larry Coffman, “of seeing our landscape full of untapped potential and possibilities for maintaining the ecological integrity of our receiving waters. Now comes the hard part of changing institutional thinking.” 🌿



*Anatomy of a “rain garden,” an inexpensive and attractive technique for retaining stormwater. From “Rain Gardens—The Natural Solution,” a pamphlet published by Prince George’s County (MD) Department of Environmental Services.*

The League of Women Voters is posting meeting results and useful links and information at [www.uppervalleyleague.org/stormwater\\_1.htm](http://www.uppervalleyleague.org/stormwater_1.htm).

Learn more about LID at [www.lowimpactdevelopment.org](http://www.lowimpactdevelopment.org). EPA also has a page on LID at [www.epa.gov/owow/nps/lid](http://www.epa.gov/owow/nps/lid).

# New Faces at CRJC and Local Subcommittees

## On-Line Course: *Under the Connecticut*

We thought you'd like to know about a new on-line course, offered by Prof. Ed Klekowski of the University of Massachusetts at Amherst. *Under the Connecticut, Biology 290*, will be offered this spring. The course will cover the geology, history, archaeology, and biology of the Connecticut from a "what's under the surface?" perspective. Check details at [www.bio.umass.edu/biology/conn.river](http://www.bio.umass.edu/biology/conn.river).

GOVERNOR Jim Douglas has appointed **Kenneth Bishop of Springfield** and **Norman Wright of Putney** to serve on the Vermont Commission. Bishop, a lifelong dairy farmer, is president of the Windsor County Farm Bureau and chairs the County Agricultural Fair. Wright, a former state representative and Fish and Wildlife Commissioner, served until last year as chief executive officer of the Vermont Hospital Association. He is a member of the Windham Regional Planning Commission's executive committee.

Bishop and Wright replace commissioners **Scott Labun** and **David Deen**, whose terms had come to an end. Scott will keep in touch as **Newbury's** representative to the Riverbend Subcommittee, and David, one of CRJC's founders, will remain involved in Connecticut River issues as a Vermont legislator and as the Watershed Council's Upper River Steward. We appreciate all that they have contributed to the Commissions over the years.

The local river subcommittees have also welcomed more new members. **Maidstone**

has appointed **Bruce Hobaugh** to the Headwaters Subcommittee. He joins new member **David Begin of Canaan**. The Riverbend Subcommittee welcomes **Andy Mosedale of Barnet**, who has extensive experience in water quality issues.

**Rockingham** has sent **Margaret Perry** and **Tom Hernon** to the Mt. Ascutney River Subcommittee. They have both been active in conservation and river-related issues in town. Tom, a local businessman, says, "I believe that business owners have a personal responsibility to be good corporate citizens as well as good stewards of the land. Also I enjoy the diversity of the many talented people in [the Mt. Ascutney Subcommittee.] I think it brings a nicely balanced approach."

Local River Subcommittee representatives are currently sought to fill vacancies in Ryegate, Hartland, and Weathersfield, Vermont, and Clarksville, Plainfield, and Claremont, New Hampshire. Members must be nominated by their select board with a letter to CRJC. For more information, contact Adair Mulligan at 603-795-2104. 🌿

**River Behavior Study**, continued Working with Dr. Field will be natural resource consultant Deborah Noble, Concord VT's representative to the Riverbend Subcommittee.

Until now, stabilization of erosion sites has occurred primarily on a site-by-site basis without a full understanding of the root causes of the erosion problem or how the protection of one bank may affect the stability of those nearby. This project will help determine which riverbank stabilization projects will have the greatest potential for success with the least impacts upstream and downstream.

The Northern River Assessment will:

- ❖ Characterize the natural and human land use factors in the watershed affecting river channel behavior and stability;
- ❖ Document current river channel conditions and response to watershed characteristics;
- ❖ Develop a GIS database showing erosion sites and other channel features such as bank composition, riparian buffer width, and human alterations; and

- ❖ Compile a list of high priority restoration sites and develop engineering designs and cost estimates for the highest priority site.

Advising CRJC and Dr. Field on this project are Barry Cahoon and Mike Kline from the Vermont DEC, and Tim McKay from NRCS, Essex & Caledonia Counties. The project will also provide training for New Hampshire agency staff in the study techniques pioneered by Vermont.

CRJC's Headwaters and Riverbend Subcommittees will provide local expertise about the river, and co-sponsor two public presentations by Dr. Field this spring and early next fall, to explain this view of river behavior and report on what he has found.

The Mitigation and Enhancement Fund, supported by US Gen New England, was established as part of the Settlement Agreement for the new license for the Fifteen Mile Falls hydro development. 🌿

CRJC team views severe erosion on a Groveton riverbank. The Northern River Assessment project will include a look at the river's form and behavior in this reach.



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# Every Drop Counts

## Progress on the Connecticut River Corridor Management Plan

THE local river subcommittees, tackling the challenge of updating the 1997 Connecticut River Corridor Management Plan, have identified extensive gaps in current knowledge about the river's water quality. They have asked CRJC to pursue an assessment to fill those gaps, and CRJC has turned to NH DES and EPA to resume their water quality monitoring to this end. In the meantime, the local subcommittees are turning to their recreation chapters, finding much new territory to cover, and many accomplishments to celebrate.

Assisting in this effort is US Gen New England, which has awarded an environmental education grant to CRJC to cover costs of new GIS mapping for the new plan. The Upper Valley Lake Sunapee Regional Planning Commission will produce maps, and provide comparisons of current shoreland protection measures in each riverfront town. Progress continues along the river and through the watershed:

🌊 **Colebrook** won a grant in January from the Upper Connecticut River Mitigation and Enhancement Fund (see pg. 4) to protect 67 acres of riverfront meadow, also protecting its water supply, public access, and scenic views.

🌊 **North Country** residents with local scouts and others aged 7 and up, led by Headwaters Subcommittee member Ken Hastings, held a

river cleanup in September reaping 79 tires, 1 snow machine, 1 baby carriage, 2 bicycles, and one highway cone.

🌊 The **Cold River** Local Advisory Committee finished its first full year of monthly water sampling and published a River Journal Calendar.

🌊 LCHIP awarded a grant in February to the Upper Valley Land Trust for farmland protection in **Bath** and **Claremont**.

🌊 **Orford's** Conservation Commission hosted a well-attended celebration of the town's land and heritage in September.

🌊 The **Lyme** Historians and **Haverhill** Heritage hosted a statewide tour in September for the NH Preservation Alliance to share secrets of successful local heritage preservation.

🌊 In November, **Hartford's** Conservation Commission held a river symposium focusing on riparian buffers and stream behavior. The town is considering adopting shoreland protection.

🌊 In December, **Lebanon's** Conservation Commission was invited to join the City Planning Board in reviewing applications for projects near the river.

🌊 Residents interested in the **Wells, Waits, Ompompanoosuc, and Stevens Rivers** in Vermont are gathering to create basin plans for these rivers. 🌿

## Newest Invasive—Water Chestnut

MT. ASCUTNEY River Subcommittee member Jan Lambert reports discovery of an infestation of water chestnut at North Springfield Lake, a flood control impoundment on the Black River. This is an early infestation but the fifteen plants had already gone to seed before they were removed. Army Corps officials plan to monitor the area carefully, perhaps with trained volunteers.

Water chestnut (*Trapa natans*) is a rooted, annual aquatic plant native to Europe, Asia, and Africa. The floating leaves, which form a rosette on the water surface, are triangular with toothed margins and an inflated spongy leaf stem. Submersed leaves are feather-like, and stems can grow up to 16 feet. Dense infestations can make swimming and boating nearly impossible. The sharp, spiny fruits wash ashore and can inflict painful wounds to those who step on them. More than 300

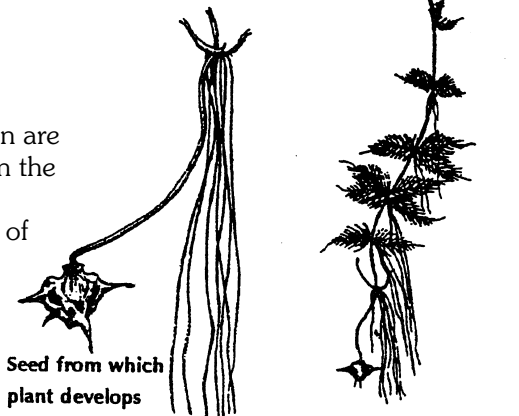
acres of southern Lake Champlain are infested. Jan's report is the first in the Connecticut River watershed.

Should you find an infestation of this plant, contact Vermont DEC (802-241-3777) or New Hampshire DES (603-271-2963).

Jan has scheduled programs to help the public spot water chestnut in case it is already in other local water bodies including the Connecticut River:

❖ March 24, 6 pm, Hartford Municipal Building. Program on milfoil at Dewey's Pond in Quechee. Co-sponsored by US Army Corps, VT DEC, and Town of Hartford.

❖ April 14, 7 pm, Springfield Congregational Church. Invasives presentation sponsored by the Springfield Garden Club. Will be filmed by SAPA TV. 🌿



Water chestnut, newly discovered in North Springfield Lake on the Black River. The rosette of leaves at top floats on the water's surface. Submersed leaves are more ferny in form. The spiny seed is not for bare feet. Illustration from Vermont Invasive Exotic Plant Fact Sheet.

# 2004 Partnership Grants Available

At right, Kingdom Corps crew members build stairs for a new cartop boat access at the Mt. Orne Bridge in Lunenburg, working under a 2003 Partnership grant.

Below, members of the Cold River Local Advisory Committee test their new water quality monitoring equipment, purchased with a 2003 Partnership grant.



Photo courtesy of Cold River Local Advisory Committee.

WE have just received word from Senator Judd Gregg's office that our ever-popular Connecticut River Valley Partnership Program is funded for 2004! We look forward to awarding a total of \$90,000 in grants of \$500-5000 to communities and organizations in the watershed. Eligible projects are locally-inspired and act upon recommendations of the Connecticut River Corridor Management Plan or enhance the Connecticut River Byway.

Applications will be available by the end of

February, and due on April 7. Decisions will be announced in late May, with funds available by late June. Download the application from our web site or call our office (603-826-4800). For more information, including a list of projects funded in previous years, visit



Photo courtesy of Vermont Leadership Center.

[www.crjc.org/partnership.htm](http://www.crjc.org/partnership.htm).

CRJC appreciates the continuing support of our two states' Congressional delegation in allowing us to offer the Partnership Program, which has helped get so many good projects off the ground. 🌿

## Vermont Yankee *A Test of the Emergency Mitigation System*

ON the banks of the Connecticut River in Vernon, Vermont sits a giant "sugarhouse" that boils nuclear energy into usable power, courtesy of cooling water from another state's waterway.

Last year, the new owner of Vermont Yankee proposed a 20 percent increase in power production, which would result in more discharge of heated water to the Connecticut River. Late last fall, the Vermont Department of Public Service signed a Memorandum of Understanding with Entergy which must be approved by the Public Service Board. The MOU includes payment of \$20 million into a series of benefit funds, including one for the environment which would be applied to the State's proposed "clean and clear water initiative."

The Department of Public Service has proposed sending the funds out of the watershed to the far side of Vermont, using them to bring Lake Champlain into compliance with water quality standards six years ahead of schedule. CRJC has written Michael H.

Dworkin, Chair of the Public Service Board, and asked that the Board consider that it is the Connecticut River that bears the adverse consequences of the plant's thermal discharge and cooling towers. Connecticut River Valley communities also must engage in planning for the consequences of potential mishaps at the plant.

CRJC believes that if such compensation is deemed appropriate, it should benefit the Connecticut River and its tributaries on both sides, because the Connecticut River watershed is seamless. CRJC has further suggested, along with the Connecticut River Watershed Council, that the Mitigation and Enhancement Fund established under the Fifteen Mile Falls dam relicensing settlement provides a model for how such funds could be administered without danger of disappearance into Vermont's general fund. The State of New Hampshire has filed a similar comment with the Vermont Public Service Board.

Lake Champlain is a long way from Vernon. 🌿

## New Exhibit

CRJC premiered a new tabletop exhibit at a string of recent river-related events. The display features the work of staff and other amateur local photographers who have captured some of the finest features of the Connecticut River valley, from sunset over a Hanover shore to the soothing scene of sheep grazing at a Westminster farm and a restored Lyme Center Academy guarded by glowing autumn maples.

Several Partnership grant recipients contributed photos of their projects, including the Vermont Leadership Center, the Cold River Local Advisory Committee, and Haverhill Heritage. Coos County Democrat reporter Edith Tucker shared her images of North Country farm life and the Lancaster Rotary Club's annual canoe trip.

Three of the panels illustrate CRJC's program areas: the Partnership, local river subcommittees, water quality, and the Scenic Byway, and the fourth focuses on riparian buffers and protection of riverbanks. Funding to create the exhibit came from the National Oceanographic and Atmospheric Administration. 🌿

*One of several contributions to CRJC's new exhibit by Edith Tucker. Her photo of former river commissioner Tim McKay standing neck deep in ostrich ferns illustrates the lushness of a Connecticut River floodplain forest.*



Photo by Edith Tucker

## The Value of Knowing Varves

WE had our first view of varves last summer through the lens of Prof. Ed Klekowski's underwater camera. What were those accented, alternating layers of fine clay and silt in the river's channel walls? What could they mean for people building on the river's banks?

Some examples: A few years ago in Lyme, a newly built pond suddenly failed and seemed to slip sideways into the Connecticut River, bringing with it a plume of heavy clay sediment.

Soon after, a NH DES wetlands permitting officer called to report odd soil formations found during preparations for rebuilding the Chesterfield-Brattleboro bridge. He wanted to know if we knew anything about them.

Recently, for six tense months, the Town of Rockingham considered a proposal for a major landfill next to the river, on soils that were eroding intensively after heavy tree cutting. A Vermont permitting officer asked us to share expertise on what we suspected might be varves.

CRJC consulted geologist Brian Fowler, who has been exploring varves in the Connecticut River Valley, and who spoke to the Joint Commissions and a large group of town officials, planners, agency regulators, and concerned citizens at our November meeting. Brian explained that varve deposits are sediment layers that accumulated in the meltwater lakes in the wake of the last glacier as it receded between 13,000 and 12,500 years ago. Winter layers, which accumulated when the lake was still under the ice, and

alternating summer sediment layers have differing properties. In the Upper Valley, varve deposits are up to 50–60 ft. thick, while layers 250 ft. thick occur south of this area.

Varves have great significance for land use planning, because they behave differently from other kinds of glacial deposits. The contact layers in varved clay will shift in ways that depend upon their roughness and frictional relationships. Permeability is much higher in silty layers than in clay layers. While clay can be elastic, varved clays have varying strong and weak elasticity, factors which must be addressed in engineering design.

Fowler observed that siting a landfill on top of varved clay is risky, because landfill liners may not produce the hoped-for result if installed on varves. If the liner leaks, or was improperly installed, the leachate could head toward the nearest waterway.

Local planning boards are beginning to give needed attention to varved soils. Hanover is working with USGS and state geologists to map its varves and other surficial geology features. Town boards can include varved soils in the information they require from developers, and can require suitable engineering to address these unique formations. Slopes may have to be laid back to a more gentle angle to reduce stress. Excellent drainage is necessary to increase strength of the layers so they will hold together.

It's not easy living on an old lake bed. 🌿

*Varved clays are deposits made in Lake Hitchcock and other long-gone, post-glacial lakes in our region. The alternating bands of silt and clay were laid down at different seasons. Building upon them may require special engineering.*

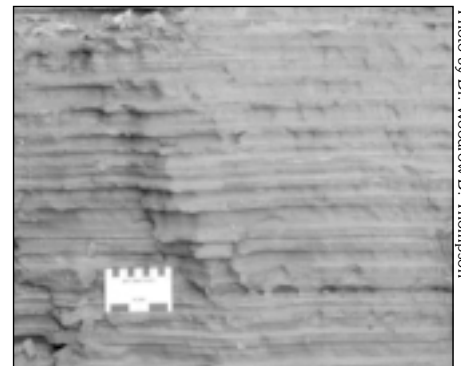
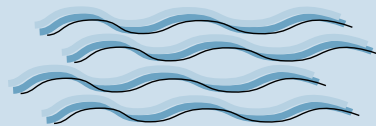


Photo by Dr. Woodrow B. Thompson

## Calendar

For the most current information,  
visit [www.crjc.org/calendar1.htm](http://www.crjc.org/calendar1.htm)

# River Ripples



### FEBRUARY

- 23 CRJC meeting, 1 pm, Conf. Rm., Veterans' Admin. Bldg., WRJ
- 26 Riverbend Subcommittee, Littleton Community House, 7-9 pm

### MARCH

- 9 Mt. Ascutney Subcommittee, Windsor House, 7-9 pm
- 15 Upper Valley Subcommittee, Latham Library, Thetford Hill, 7-9 pm
- 24 Wantastiquet Subcommittee, Westmoreland Town Hall, 7-9 pm
- 29 CRJC meeting, 1pm, location TBA

### APRIL

- 7 Partnership applications due
- 8 Headwaters Subcommittee, Columbia Town Hall, 7-9 pm
- 26 CRJC Annual Meeting, 1pm, location TBA
- 29 Riverbend Subcommittee, Littleton Community House, 7-9 pm

### MAY

- 2 Herrick's Cove Wildlife Festival, Rockingham, VT
- 11 Mt. Ascutney Subcommittee, Windsor House, 7-9 pm
- 17 Upper Valley Subcommittee, Latham Library, Thetford Hill, 7-9 pm

### JUNE

- 1 CRJC meeting, 1pm, location TBA
- 5 RiverFest, Wilder Recreation Area off Route 5, Wilder VT
- 10 Headwaters Subcommittee, Columbia Town Hall, 7-9 pm
- 23 Wantastiquet Subcommittee, Westmoreland Town Hall, 7-9 pm
- 24 Riverbend Subcommittee, Littleton Community House, 7-9 pm

### Farm Awards Given

The New Hampshire Association of Conservation Districts has presented **Upper Valley River Subcommittee member Hal Covert** and his wife, Lisa Knapton, with the 2003 statewide Cooperator of the Year Award. The owners of **Piermont's** Moonstruck Farm won the Grafton County award in 2002. Hal and Lisa have brought new technology and efficiency to their historic family farm on the Connecticut River, adding a manure transfer and storage facility, a curtain side-wall insulated barn, and a water recycling system. 🌿

### Connecticut River Cheesecake, Anyone?

In *New Hampshire: From Farm to Kitchen* (Hippocrene Books, Inc.; December 2003; \$18.95), author Helen Brody provides a kitchen table view of some of the Granite State's most important working farms. We're not surprised to find many Connecticut River valley farms within its pages, including Walpole's Boggy Meadow Farm and Plainfield's McNamara Dairy Farm, which contributed an appetizing recipe for Connecticut River Cheesecake. Brody offers 118 quick and easy recipes using each profiled farm's raw ingredients, from choice seasonal fruits and vegetables to artisanal cheeses and locally raised cattle and poultry. The cookbook includes menus for traditional New Hampshire events, as well as a resource section and map that locates the farms and their products. 🌿

### In the Shadow of Murphy Dam

Murphy Dam in Pittsburg, New Hampshire, is one very big earthen dam. It holds back the waters of 2010-acre Lake Francis, the last of the Connecticut Lakes chain, collecting the drainage of 170 square miles. Eighty-foot-high Murphy carries a "high hazard potential" rating, and therefore warrants the watchful eye of communities on the river's banks just downstream. US Gen New England has a carefully designed emergency plan for this and every other dam it manages, and cooperated with the State of New Hampshire, which owns this dam, in devising one for Murphy.

Headwaters Subcommittee members Kevin McKinnon of Colebrook and David Begin of Canaan recently observed that responsible river planning includes helping communities to prepare for accidents they hope will never happen. They asked CRJC to assist the region's towns in being certain that they have emergency management plans in place, in the event of an accident upstream.

Staff from NH DES' Dam Bureau readily agreed to help, and CRJC will sponsor an event for them to meet with local officials from towns below Murphy on both sides of the river, including those in Quebec. The date is set for May 6 at 7 pm at the Colebrook Library. CRJC Commissioners Brendan Whittaker of Brunswick and Mary Sloat of Northumberland will moderate the meeting. 🌿

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