



OUR MISSION

TO CONSERVE THE
NATURAL AND SCENIC
ENVIRONMENT OF THE
PISCATAQUOG RIVER
WATERSHED AND
PROTECT THE PURITY
OF ITS WATERS.

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2003



Watershed News

THE PISCATAQUOG WATERSHED ASSOCIATION NEWSLETTER

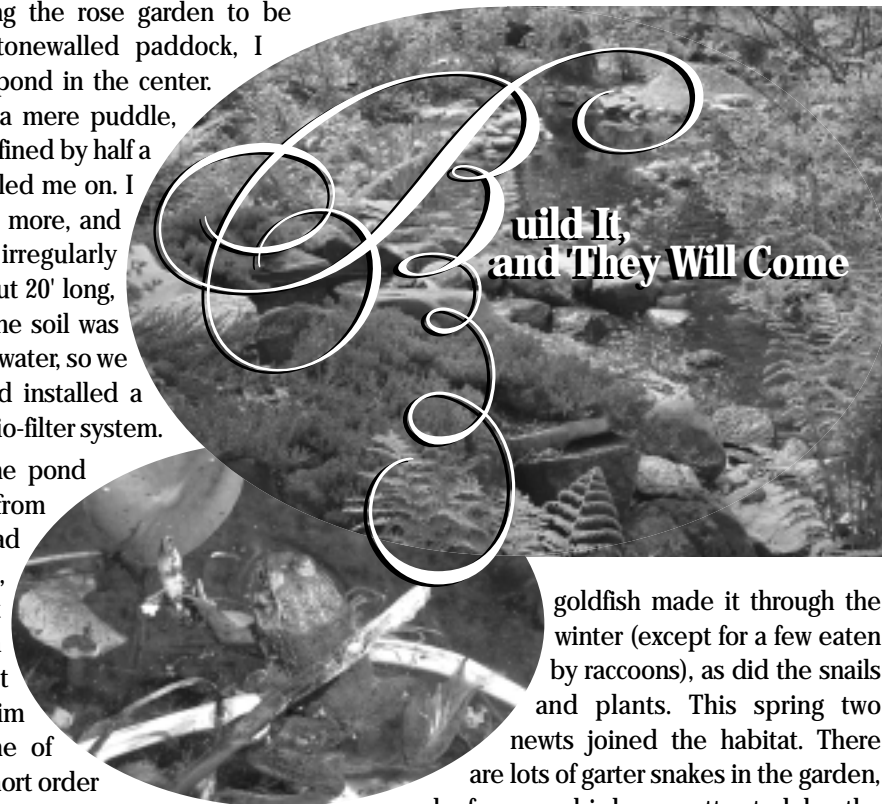
by John McCausland

One of the more unusual corners of the Piscataquog watershed is the ornamental pond in our rose garden in Weare. When we bought our old farmhouse above Lake Horace it had everything we were looking for except a stream or pond. So when I was planning the rose garden to be installed in an old, stonewalled paddock, I decided to dig a little pond in the center. Originally I envisioned a mere puddle, but the topography – defined by half a dozen giant boulders – led me on. I dug a little, then a little more, and soon there was an irregularly shaped depression about 20' long, 8' wide, and 3' deep. The soil was gravelly and didn't hold water, so we lined it with rubber and installed a recycling waterfall and bio-filter system.

As soon as we filled the pond (with water pumped from the old dug well that had served the former barn), nature took over. That very night we heard a frog singing. The next morning we spotted him sunning himself on one of the giant boulders. In short order he was joined by others. We learned to identify their voices: the jug-o-rum of the bull frog (the largest named Budweiser by our grandson), the banjo pluck of the green frog, and the trills of tree frogs. American and Woodhouse toads also came to join the chorus and lay their eggs.

We watched the black dots in the egg masses develop into tiny tadpoles and then into larger ones. Tadpoles do a great job of eating algae off rocks. One day as I sat by the pool I noticed dozens of what I first thought were houseflies around the edges of the pond, all moving in reverse lemming fashion away from the water. As I peered more closely, I saw they were hopping, not walking, and they were toads, not flies. The cycle of amphibian life was returning to its land phase.

We have been careful to use only native species in the pond: indigenous water lilies, cattails, pickerel weed, iris – bought from nurseries, not dug from the wild. We did buy goldfish, though interestingly they or their offspring reverted to a native carp gray. The



goldfish made it through the winter (except for a few eaten by raccoons), as did the snails and plants. This spring two newts joined the habitat. There are lots of garter snakes in the garden, and of course birds are attracted by the water. Water insects arrived with the first frogs, it seemed: water boatmen and common water striders, dragonflies and whirligig beetles.

We may add a hornpout or two from a fish farm in Deering. The only introduction that has not worked was a painted turtle. A teenage friend "rescued" one from the highway and brought it to us, but we learned that turtles cannot be moved like that. It immediately vanished, hopefully making its way safely back down through the forest to whatever destination it originally had in mind. Our pond isn't natural, which gave us some pause, but nature has adopted it. It has become a part of the watershed.

For this we give thanks.

John McCausland serves on the PWA Board and heads the Development Committee. He welcomes PWA members to his garden and pond at 457 Reservoir Drive, Weare.



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(603) 487-5114
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Hannah Proctor*

Keeping Track Coordinator

Allison Thomson*

* member volunteer

IT'S RAARP TIME!

Reports on frogs, salamanders, snakes, & turtles from the Piscataquog River watershed & elsewhere in the state provide important & valuable information.

document. Though patches of ice still lingered on the vernal pool that participants visited, Laura Deming's slides and life histories of vernal pool inhabitants brought these amazing and fast vanishing habitats and creatures to life.

Whether or not you attended the workshop, the RAARP welcomes your reports of "herp" sightings. Reports on frogs, salamanders, snakes, and turtles from the Piscataquog River watershed and elsewhere in the state provide important and valuable information. Of particular interest are sightings of Blanding's turtle, spotted turtle, wood turtle, northern leopard frog, eastern hognose snake, black racer, smooth green snake, and ringneck snake.

If you find a marbled salamander, please try to take a photo of it, record the location, and contact the NH Fish & Game Nongame and Endangered Wildlife Program at 271-2461 as soon as possible.

Data from the watershed will be integrated into the PWA's Living Legacy conservation effort and will be used to protect reptiles and amphibians and their habitats.

You can obtain a packet of reporting slips, a copy of RAARP guidelines and species identification key, and additional information by contacting Carla Dudley at NH Fish & Game (cdudley@wildlife.state.nh.us or 603-271-2462).

A limited number of packets are available from the PWA office. RAARP forms can also be downloaded and printed from the website:

www.wildlife.state.nh.us

Place your cursor on **Wildlife** at the top of the page (under the blue butterfly).

Select **Nongame and Endangered Wildlife** from the menu.

Click to print a PDF file of the RAARP form.

HOT TIP

Link to live video & still shots of peregrine chicks in a nest atop a NH office tower:

<http://www.nhaidubon.org/research/pcam.htm>

THESE VOLUNTEERS

REALLY DIG IT!

In late April, dedicated volunteers dug up 50 purple loosestrife plants (with special permission from the New Hampshire Dept. of Environmental Services). The plants were then potted and placed in wading pools where they will become nurseries for this year's crop of *Galerucella* sp. beetles. In recent years the PWA has been releasing beetles to selected sites for biological control of this alien, invasive, wetland plant. **Thanks to this year's volunteers: Meg Freeman, Sandy Kent, Pat Myers, Hannah Proctor, Karen Roy, Mike Roy, and Barbara Thomson.**



Meg Freeman harvests a sizable root ball.

PHOTOGRAPHS BY HANNAH PROCTOR



Karen Roy and Meg prepare the pots.

Purple Loosestrife Road Show

Lyn Lombard and Hannah Proctor are putting together a slide presentation about the threat and control of purple loosestrife, a non-native plant that threatens our wetlands and habitat for native plants and animals. If you would like them to address your group or community organization, contact Lyn at 487-5114.

Wish List:

Lyn and Hannah could use a donated projector and carousels for the purple loosestrife slide show.

RESULTS OF 2002 WATER QUALITY MONITORING IN THE WATERSHED

by John Magee

One goal of the PWA is to protect the Piscataquog River watershed for native species of fish and wildlife. The PWA has been monitoring water quality in watershed streams since 1991 to better quantify the aquatic environment in the watershed and to create a database of water quality. With this database, we will be able to track changes to water quality over time. Additionally, the New Hampshire Department of Environmental Services (NHDES) keeps our data in a database along with data from other rivers throughout the state.

In the summer and fall of 2002, PWA volunteers monitored water quality at 31 sites in the watershed (4 in the Middle Branch, 13 in the North Branch, 11 in the South Branch, and 3 in the mainstem) to better quantify the water quality at base flow. We used several digital meters from the NHDES Volunteer River Assessment Program (VARP) to measure temperature, dissolved oxygen, conductivity, turbidity, and pH in the three branches and selected tributaries of the Piscataquog River.

Last summer and fall there was little precipitation, and daytime air temperatures seemed higher than average. Consequently, the Piscataquog River and its tributaries experienced very low flows. In general, the water quality at the monitored sites met or exceeded NH Water Quality Standards for Class A (cleanest and least impacted) surface waters. However, because of the low flows, several sites had low dissolved oxygen levels, and one of these sites had a low pH value recorded. This site is at the outlet of a large, shallow wetland in North Weare, and the low pH is likely due to natural acidity in the wetland. No incidences of point source pollution were observed at the sample locations; however, efforts in 2002 were concentrated in the upstream portions of the Piscataquog River watershed.

Several measurements of pH made in March 2003 indicated that the North Branch and several of its tributaries experience episodes of low pH. Watch the PWA website for a detailed report.

John Magee, a PWA member and fisheries scientist who lives and works in Weare, initiated the PWA's expanded water quality testing program.

THANKS TO CONTRIBUTIONS FROM VOLUNTEERS AND LOCAL BUSINESSES, THE PWA WAS RECENTLY ABLE TO PURCHASE ITS OWN WATER QUALITY TESTING EQUIPMENT, AND PLANS TO EXPAND THIS EFFORT IN 2003 TO INCLUDE MORE FREQUENT MONITORING AND MORE SITES. IF YOU WANT TO HELP WITH TESTING THIS YEAR, CALL THE PWA OFFICE, 603-487-3331.

THEY DIG IT, TOO!



PHOTOGRAPH BY BARRY WICKLOW

St. Anselm College students Gwen Goodwen, Christine Rosato, Ashley Southwell, Bill Zawatski, and Jane LaRocque take a break after planting 100 silky dogwoods to help stabilize the bank at the site of last year's streambank restoration project on the Piscataquog River in New Boston. Under the tutelage of professor Barry Wicklow, the students have also analyzed river morphology, taken current velocity profiles, determined substrate composition, and calculated stream health based on the aquatic macroinvertebrates found at the site.

SUMMER SCHEDULE PWA Photo Contest Library Displays

Stop by the following libraries this summer to see photos of the watershed that were entered in the PWA's 2002 photo contest:

JUNE: Westside Community Library / Manchester

JULY: Deering Library

AUGUST: Goffstown Library

The winning photos are also posted on the PWA website, www.pwa-nh.org.



PLEASE CHECK YOUR MAILING LABEL.

If it has a red line, your membership is due for renewal. Won't you please renew right away? And tell a friend about PWA! We depend on your support!

- ☐ \$10 Student/Senior ☐ \$30 Family ☐ \$100 Wood Turtle (Gift option: PWA fanny pack)
☐ \$20 Individual ☐ \$50 Salmon (Gift option: "Vernal Pools" book) ☐ \$250+ Deer (Gift option: Handmade walking stick)

☐ Check here if you want the optional gift premium listed for higher levels.

DOES YOUR COMPANY HAVE A MATCHING GIFT PROGRAM? PWA QUALIFIES FOR MATCHING GIFTS!

YOUR MEMBERSHIP RENEWAL:

Name: _____
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SPREAD THE WORD! GIVE A GIFT MEMBERSHIP:

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Remember to check the other side of this form. Then return it with your payment to:

Piscataquog Watershed Association • 5A Mill Street • New Boston, NH 03070

THANK YOU SO MUCH FOR YOUR CONTINUED HELP IN PROTECTING THE WATERSHED!

PWA Financial Statement for Year 2002

Balance Sheet as of 12/31/02

ASSETS

Checking/Savings (1)	26,861.72
Easement Monitoring Fund	27,254.57
Sallada Fund	2,755.24
Forever Wild	5,626.46
Easements Endowment	
Unrestricted Endowment Fund	10,629.26
Investments (as of 12/31/02) (2)	234,760.11
Real Estate (Fair Market Value)	291,101.00

Total Assets 598,988.36

LIABILITIES

Donor Funds	4,333.00
Committed to Tuthill Project	

Total Liabilities 4,333.00

Total Net Assets 594,655.36

Footnotes:

- 1) Includes money received for Tuthill Woodlands Preservation Project.
- 2) The Board voted to allocate \$50,000 of investment funds to the Easement Monitoring Fund.

**This issue of Watershed News
is sponsored by:**

**GZA Geoenvironmental, Inc.
Manchester, NH
603-623-3600**

**Please let this sponsor know
you appreciate their support
of the PWA!**

Profit & Loss Statement: 1/1/02 to 12/31/02

INCOME

Membership Dues & Contributions	10,097
Annual Appeal	11,634
Corporate Matching Funds	537
Interest Income	1,564
Gifts in Memory of David Hardy	1,750
Gifts in Memory of Jean Petty	300
Donations/Grants	33,086
G. Russell	650
Henniker Veterinary Hospital	100
Weare Animal Hospital	100
Normandeau Associates	1,000
R. French	1,000
Tuthill Project	4,333
Wasserman Project	10,000
Commemorative Gifts	50
N.E. Utilities (Photo Contest)	930
NE Grassroots	
Environmental Fund	1,500
State of NH Moose Plates	373
Wal-Mart	500
DES 319 Grants	
Land Protection Initiative	1,500
Streambank Stabilization	11,000
Annual Meeting	376
Hat and Book Sales	182

Total Income 59,526

If you have any questions regarding this financial statement, please contact PWA Treasurer, Diane Beland, at 529-0427.

EXPENSES

Advertising	224
Newsletter Layout & Printing	1,453
Printing/Copying	1,247
Postage	1,090
Office Expenses	491
Phone	1,138
Rent	1,200
Office Equipment (Copier)	285
Staff (includes taxes)	30,292
Film/Development	54
Dues/Subscriptions	936
Taxes/Fees	162
Insurance	1,609
Hillsborough 4-H Fair	170
Maps	316
Misc	258
Photo Contest	753
Professional Fees	2,776
Fund Development	3,301
Streambank Stabilization Project	5,349
Membership Drive	1,816
Loosestrife Supplies	39
Wasserman Project ¹	30,250
Water Testing	1,134

Total Expenses 66,993

Net Income (7,467)

Footnotes:

- 1) \$20,250 of this total was covered by funds received in 2001, which are not counted as a debit in 2002.

PWA Feedback Form

Let us hear from you – anytime! Please share your news and ideas with PWA.
You can write to us at the address on the reverse or email us at contactpwa@yahoo.com.

- ☐ I'd like to join a Keeping Track team.
- ☐ I'd like to help the Purple Loosestrife Awareness Committee (PLAC).
- ☐ Please send PWA brochures for my neighbors and friends. How many do you need? _____
- ☐ I want to support the PWA in other ways (for example, lead a walk, blaze a trail, write an article, provide publicity, write a grant, do research, raise funds, volunteer to aid school programs, host a local information meeting, etc.).

PLEASE SPECIFY YOUR INTERESTS:

I WANT TO LEARN ABOUT:

- ☐ Ways to protect my land.
- ☐ Remembering the PWA in my will.
- ☐ Making a major contribution to the PWA.

THANK YOU FOR YOUR SUPPORT. YOU ARE THE PWA!

HELP KEEP

INVASIVE SPECIES

FROM INVADING YOUR YARD AND THE WATERSHED

What do burning bush, Norway maple, and purple loosestrife have in common?

Each of these commercially available species is listed on the New Hampshire Invasive Species List. A list of alternatives to these and six other invasive species is being produced by the Minimum Impact Development Project and members of the New Hampshire green landscaping industry. This group is creating a searchable database of plant materials for general use. The database will include canopy trees, understory trees and shrubs, and herbaceous plants. The group also plans to produce a range of sample planting scenarios, with multistory plant selection for a variety of settings around a building or home, including woodland edges, rock gardens, backyard ponds, decorative borders, and container plantings.

The nine invasive plants selected for the database are among the most popular used in landscaping. All listed alternative plants have at least one landscape characteristic in common with the invasive; many have more. Not all of the alternatives are native, but all will thrive in their selected settings, are hardy, low maintenance, multifunctional, noninvasive, and available.

This is not a complete list, but is meant as a starting place. When complete, the full list will be available at

www.nhmid.org

RAINY DAY DESTINATION

If summer is as rainy as spring has been, consider visiting the Museum of NH History in Concord to see their ongoing exhibit:

"Claiming the Land: Our Past, Our Future, Our Choice"

The museum offers free outdoor concerts, free parking, and free admission on Thursday evenings. There's also an exhibit of Old Man memorabilia.

For information, call 603-228-6688 or visit www.nhhistory.org.

1. NORWAY MAPLE

(*Acer platanoides*)

Landscape characteristics of alternatives:

- All varieties: Handles poor soils, salt tolerant, drought tolerant, winged seeds
- Red-leafed varieties: Deep red leaf color, slow growing
- Green-leafed varieties: Fast growing

Red Maple (*Acer rubrum*); Sugar Maple (*A. saccharinum*); Trident Maple (*A. buergerianum*); Pignut Hickory (*Carya glabra*); Shagbark Hickory (*C. ovata*); Catalpa; Green Ash (*Fraxinus pennsylvanica*); Ginkgo; Honey Locust (*Gleditsia triacanthos 'inermis'*); Kentucky Coffee Tree (*Gymnocladus dioica*); Red-leafed Crabapples (*Malus*) - disease-resistant varieties only; Black Gum (*Nyssa sylvatica*); Amur Cork Tree (*Phellodendron amurense*); London Plane Tree (*Platanus acerifolia*); Eastern Cottonwood (*Populus deltoides*); Red-leafed Plums (*Prunus*); Pin Oak (*Quercus palustris*); Red Oak (*Q. rubra*); American Mountain Ash (*Sorbus americana*); Basswood (*Tilia americana*); Littleleaf Linden (*T. cordata*); Japanese Zelkova.

2. JAPANESE BARBERRY

(*Berberis thunbergii*)

Landscape characteristics of alternatives:

- Red leafed, small tight plant, neat appearance, red edible fruit, good for wildlife, barrier plant, deer resistant, low maintenance

Bearberry (*Arctostaphylos uva-ursi*); Boxwood (*Buxus*); Quince (*Choenomeles*); compact varieties of Cotoneaster; Huckleberry (*Gaylussacia brachycera*); Winterberry Holly (*Ilex verticillata*); Forsythia; Ninebark, (*Physocarpus opulifolius 'Diablo'*), and Cutleaf Stephanandra (*Stephanandra incisa 'Crispa'*); Slender Deutzia; Dwarf Fothergilla (*F. gardenii*); Japanese Holly (*Ilex crenata*); Oregon Grapeholly (*Mahonia aquifolium*); Gnome Firethorn (*Pyracantha*); Beach Plum (*Prunus maritima*); Korean Lilacs (*Syringa meyeri*); Lowbush Blueberry (*Vaccinium angustifolium*); American Cranberry (*V. macrocarpon*); various Viburnum and Weigela.

3. BURNING BUSH

(*Euonymus alata*)

Landscape characteristics of alternatives:

- Red fall color, winged bark, used for hedging
- Serviceberry (*Amelanchier grandiflora*); Red Chokecherry (*Aronia arbutifolia*); Pagoda Dogwood (*Cornus alternifolia*); Gray Dogwood (*C. racemosa*); Smokebush (*Cotinus coggygria*); Red-veined Enkianthus (*E. campanulatus*); Large & Dwarf Fothergilla; Witch Hazel (*Hamamelis*); Henry's Garnet Virginia Sweetpire (*Itea virginica*); Northern Bayberry (*Myrica pensylvanica*); 'Diablo' Ninebark; Fragrant Sumac (*Rhus aromatica*); Daphne Spirea (*Spiraea japonica*); Mountain Stewartia; Miss Kim Lilac (*Syringa patula 'Miss Kim'*); Highbush Blueberry (*Vaccinium corymbosum*); various Viburnum.

4. WATER FLAG

(*Iris pseudacorus*)

Landscape characteristics of alternatives:

- Wet feet, yellow flower, vertical form, drought tolerant, similar bloom time

Japanese Iris (*Iris ensata*); Siberian Iris (*Iris sibirica*); Blue Flag (*Iris versicolor*).

5. PURPLE LOOSESTRIFE

(*Lythrum salicaria*)

Landscape characteristics of alternatives:

- Purple/pink color, spike, wet feet, similar bloom time

Butterfly Flower (*Asclepias incarnata*); False Blue Indigo (*Baptisia australis*); Pink Turtlehead (*Chelone lyonii*); Purple Coneflower (*Echinacea purpurea*); Joe Pye Weed (*Eupatorium maculatum*); Meadowsweet (*Filipendula rubra*); various Lobelia; Monkey Flower (*Mimulus*); Bee Balm (*Monarda*); Japanese Burnet (*Sanguisorba obtusa*); Speedwell (*Veronica*); Culiver's Root (*Veronicastrum virginicum*).

OTHER INVASIVES TO AVOID

Lists of alternative plantings for the following invasive species are still being developed:

6. Autumn Olive (*Elaeagnus umbellata*)
7. Tartarian Honeysuckle (*Lonicera tatarica*)
8. Japanese Honeysuckle (*L. japonica*)
9. Morrow's Honeysuckle (*L. morrowii*)



5A Mill Street
New Boston, NH 03070
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www.pwa-nh.org

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It's time to renew your membership!
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**Senate threatens to cut LCHIP funds by 81%!
Contact Citizens for NH Land & Community Heritage (230-9729) ASAP
to learn what you can do.**

Photograph by Beatrice Trum Hunter

SUMMER KEEPING TRACK

NOVICES ALWAYS WELCOME!

Sun., June 8 (Dunbarton) *Call Margaret 774-7120*

Sat., July 12 (New Boston) *Call Graham 487-2636*

Sun., July 13 (Weare) *Call Gordon 487-2994*

Sun., July 20 (Weare) *Call Gordon 487-2994*

**DATES ARE SUBJECT TO CHANGE.
Call leaders to confirm.**

Welcome to Our New Members!

Kenneth Brooks	Bedford
Herbert Elliott	New Boston
David Erikson & Karen Broemme*	Weare
Polly Freese	Francestown
Phil & Carol Ireland	Francestown
Dave & Sue Jonas **	Francestown
Ralph & Maureen Joyce	Weare
Sandy Kent	Deering
Ralph & Elizabeth Lavallee	Francestown
Holly MacAdam	York, ME
John & Sorrell MacKay	Francestown
Mary Jane Marsden	Francestown
Marianne McDaniel	Francestown
Melanie McManus *	Arlington, TX
Daniel Peterson	Francestown
Pat Place	Francestown
Lawrence & Diane Savage	Francestown
George & Grita Schneck	Deering
Mark & Holly Stanley	Francestown
David G. Sturm	Amherst
Geoffrey Tupper & Monica Derr	Francestown
Jeanne Ann Whittington & Jim Halla	Dunbarton
Lou & Judy Zivic	Hollis

Member Renewals Since Last Newsletter

Len & Meredith Allen *	Francestown
William Boisvert	Weare
Donald & Marion Buck	Hadlyme, CT
John & Meredith Bunting	New Boston
Yvonne Gomes	New Boston
Robin & Ben Haubrich	Francestown
Linda & Bob Lindgren *	Francestown
Paul Susca & Peg Lopata *	Francestown
Bill & Catherine Morrissey	New Boston
Walter & Bonita Morse	Hillsboro
Charles & Veda O'Neill	Francestown
Janet Nixon *	New Boston
Jeff & Susan Osburn	Goffstown
Normand Pinard	Manchester
Lois Richards	Dunbarton
Mildred St. Pierre	Concord
Daniel & Maureen Teague **	New Boston
Scott & Ofelia Wilkinson	Weare

* *denotes extra contribution*

** *denotes contribution of \$100 or more*

Gifts in Memory of Marion C. Russell (Gordon Russell's mother)

Jed Callen & Carol Hess
Peggy & John Golden
Dr. Steven & Joan Hoffman
Mary Ann McDonald
Margaret Watkins
Samuel & Edith Weinstein
Andrea Winters
Peter & Ellen Zane

**The PWA thanks
Jay Marden of New Boston
for a generous contribution to the
PWA Open Space Fund
which is used to protect land
in the watershed by acquisition
or conservation easement.**

**Thanks to our new members and donations from other
new sources in 2003, we have met a challenge grant of \$5000 from the
John F. and Dorothy H. McCabe Environmental Fund of the NH Charitable Foundation.**