



ASRA News

Newsletter of the Ausable River Association | Winter 2010

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Volunteers needed for spring/summer 2010 water sampling,



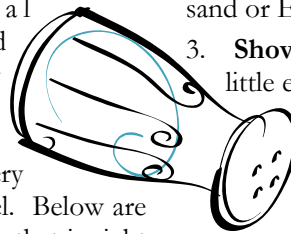
Where on the Ausable? If you can identify the location in this photo call ASRA. The first caller will receive an Ausable River T-shirt. Photograph by John Eldridge.

What You Can Do to Put Your Sidewalk and Driveway on a Low Salt Diet

Keeping ice and snow off your driveway and walkways is important for safety but can have severe environmental implications to your lawn and local waterways. Like reading a food label, choosing an alternative to rock salt can be tricky because of all the mystery “ingredients” listed on the label. Below are some tips for choosing a deicer that is right for your home and budget.

1. **Read the label closely to see what you are buying.** Experts recommend calcium chloride or sodium chloride (rock salt) but different climate and driveway conditions may influence your decision. The table on the right lists some environmental pros and cons of different deicing ingredients:

Ingredients on the Label	Works down to:	Cost:	Environmental Pros (+) and Cons (-)
Calcium Magnesium Acetate (CMA)	22°F to 25°F	20x more than rock salt	+ Chloride free; + Less toxic; + little damage to concrete and plants
Calcium Chloride (CaCl)	-25°F	3x more than rock salt	+Can use lower doses; + safe for plants - Contains Chloride
Urea	22°F to 25°F	5x more than rock salt	+ Less corrosion; - Adds excess nutrients to lakes and streams
Sand	No melting effect	~\$6.50 for 70 lb. bag	- Accumulates in streets and streams
Sodium Chloride (NaCl), (rock salt)	15°F	~\$7.50 for a 50 lb. bag	-Contains cyanide -Contains Chloride; -Extremely corrosive
“Coated Salt” - Magnesium Chloride (MgCl ₂) on NaCl	15°F	~\$7 for a 20 lb. bag	+Less corrosive +less damaging to plans +safer for use on concrete



2. **Avoid Kitty Litter and Ashes.** These items provide little traction, don’t melt ice, and make a big mess! If its traction you’re after use sand or EcoTraction (see page 2).

3. **Shovel Early and Often.** Deicers have little effect on piles of snow; they work best on ice or thin layers of packed snow. In fact, salted slush under piles of snow increases driving hazards by being gabby under the tires and making traction unpredictable.

4. **Avoid products that contain Urea.** Some folks recommend the use of urea because it doubles as a fertilizer for your lawn once the snow melts. If you live near a lake or stream however, you should avoid the use of urea because excess nutrients entering a waterbody cause unsightly algal blooms and reduce water clarity.



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ASRA Board Meetings are held on the third Thursday of each month, 6:30 PM. Members are invited. Please call the ASRA office or email info@ausableriver.org to confirm dates and location.

Rock Salt Alternatives (cont. from p. 1)

5. Be aware of plants with low salt tolerance. You don't want to kill your favorite tree, grass, or shrubbery. Avoid using deicers that contain chlorides if your driveway is lined by any of the plants listed in the table below:

Landscaping Types	Species at Risk from Salting
Deciduous Trees	Green Ash, Hickory,
Conifers	Balsam fir, White Pine, Hemlock, Norway
Shrubs	Dogwood, Redbud, Hawthorn, Rose, Spiraea
Grasses	Kentucky Bluegrass, Red Fesue

6. Apply Salt Early, but Sparingly. "A little salt goes along way." The recommended application rate for rock salt is one handful per square yard. Using more salt won't speed up the melting process.

7. Lastly, Buy Early. Make sure you buy your deicing product before the big snow hits; otherwise you may have to settle for... SALT.

Rock Salt Alternative Available locally within the Ausable Watershed

- "Ice Melt" – Magnesium Chloride, Sodium Chloride mix; 20 lbs. \$6.99.
- "Super Melt" – Calcium Chloride, 20 lbs. \$13.50.
- "Enviromelt" – CMA, 50 lbs. \$16.99.
- "Quick Joe Hot Stuff" – Calcium Chloride, 50 lbs. \$22.99.

Consider ordering some of the following trade names as alternatives to rock salt:

EcoTraction: is a salt free volcanic rock that turns green naturally when it becomes embedded in ice. It is not a melter but it adds instant traction (it was used at the Saranac Lake Ice Palace last year). Once spring arrives and ice melts, this product can be swept into a lawn or garden and provides soil aeration and slowly releases nutrients. Product information claims it can cover nine times the area of salt. If tracked indoors it does not stain or scratch floors because of the soft mineral type.

Magic Salt: is rock salt that has been coated with a mixture of MgCl₂ and an agricultural by-product from distilling. It works down to —30°F. The product information claims it can cover 30 to 50% more area than rock salt, and it will not damage metal or carpets.

Ausable Watershed Educator Grant Awarded to the Town of North Elba

The Town of North Elba was awarded a grant for *Implementation of the Ausable Watershed Management Strategy*, for an amount of: \$39,250. This grant will fund a part-time Ausable Watershed Education and Outreach Coordinator to help implement watershed education projects as part of the Ausable Watershed Management Strategy. The Town will work with the Ausable River Association to hire a coordinator to conduct stormwater and non-point source pollution workshops for watershed municipalities; make education presentations for watershed school districts; present educational materials at local events; and recruit and organize volunteers for river clean-ups, invasive species removal, and native riparian planting.

ASRA Receives Anonymous Donation for Water Protection

The Ausable River Association was selected by Chittenden Wealth Management to receive \$17,000 from an anonymous donor who supports charitable organizations in the Champlain Watershed.

In addition to supporting on-going water quality protection projects, this gift will help ASRA accomplish an unrealized goal: to involve school children in a campaign to raise awareness of the river in order to keep it free of pollutants, trash, and excess sediment. ASRA will visit watershed schools and offer lessons on non-point source pollution and water quality. Second, we will engage the students in a project to create a piece of artwork that illustrates and demonstrates the "Don't Trash our River" message. The "best of show" art piece will be reproduced on signs that will be posted at each bridge and roadway along the river.

Connecting the Ausable River for Fish Passage

In many rivers fish are blocked from their traditional spawning and summer feeding spots by dams. But there is another more prevalent threat to fish migration – culverts. A poorly installed culvert can create obstructions or water velocities that stop fish from swimming upstream. As development increases, watershed streams are cut into 100's of disconnected segments.

In the hottest months of the year passage to smaller, cooler upland streams is an important refuge from the warm temperatures of larger rivers. Ausable River temperatures can stay above 20°C for 20 to 30 days out of the summer (Brook Trout are comfortable at or below 20 degrees). In addition, as global climate change warms temperatures in the Adirondacks, river temperatures are expected to increase even more. Access to summer refugia will be more important than ever.

Even though a stream may pass through a culvert, fish and other organisms may be blocked for a variety of reasons:

- A culvert “perched” more than 8 inches is too high for fish to jump



through (a drop of 4 inches is too high for juveniles).

- Culverts narrower than the stream squeeze it like a finger on the end of a garden hose. Stream velocity speeds up in undersized culverts and fish are unable to swim upstream. (Stream velocity of 2.5 ft/second inhibits fish passage).

- Water depth in a culvert may be too shallow for fish to swim through, or may lack natural material on the bottom that allows other stream organisms to pass through.



- Undersized culverts also cause clogging and ponding. Culverts filled with debris and sediment act as fish barriers and block down-

stream water flow so that ponds or wetlands are created above the culvert. Resulting in habitat conditions less favorable to cold water fishery inhabitants.

As culverts deteriorate and need replacement there is an opportunity to correct fish passage problems. In addition, funds for replacing culverts are becoming available from US Fish and Wildlife, NY DOT, and other wildlife organizations.

The Ausable River Association is in the process of securing funds to assess the condition of culverts watershed wide. A prioritized list of culverts will help planners in the Ausable Watershed identify the best use of funds as they become available.

Temperature of the Ausable River Summer 2009

River Mile (RM)	East West Main	Days above 20°C	# degree days in August
14.6 East	St. Huberts	0	554
19.8 West	Whiteface	23	598
22.7 East	Lacy Bridge	17	600
25 West	Hazelton	32	631
26.7 East	Upper Jay	19	612
33.6 East	Stickney Bridge	29	639
37.25 Main	<i>Grove Street Park</i>	<i>21</i>	<i>596</i>

River temperature was recorded at seven locations along the river in summer 2009. Data loggers recorded temperature every hour between June 15 and October 8.

The table above shows the number of days that average temperature was above 20°C at each location (temperatures are compared to 20°C because Brook Trout prefer temperatures at or below this temperature).

Cumulative temperature data is reported as the number of degree days in a month. A degree day is one 24 hour period at an average temperature of 1°C. The number of degree days in August at each site is listed in the fourth column.

Note that at similar river miles, the East Branch and lower West Branch have similar number of degree days and number of days above 20 degrees Celsius.

Ausable River Association

Annual Report 2009

It was extremely gratifying to put together the Annual Report for 2009 and recount ASRA's many accomplishments for the year. This work could not have been done without the help of ASRA's Board of Directors, numerous volunteers, and members and donors.

In 2009 there were several volunteers who contributed an extraordinary service to ASRA and I would like to name two: Wes Krawiec was instrumental in helping ASRA with the water monitoring program. Not only did he spend one day each month collecting river samples he also spent extra time helping plan the program and conduct instrument setup. The second volunteer

I'd like to recognize is Marion Klauck, my right hand lady of Purple loosestrife. Marion has worked methodically to remove Purple loosestrife from Mill Pond over the past three years and this year happily relinquished this task to the *Galerucella* beetles who then stole all the press recognition!

Thank you to all who participated in ASRA activities, fund raisers, and programs in 2009.

Sincerely,

Carol Treadwell, Ph.D.

Executive Director,

Ausable River Association

ASRA ACCOMPLISHMENTS 2009

- Volunteers conducted monthly water monitoring along entire length of the river. Preliminary results suggest that water quality in most of the watershed is good!
- ASRA's septic pump-out cost share program helped 32 riverfront landowners pay for the cost of a septic clean-out and ultimately helped the river by ensuring waste water will not reach the river.
- "Historic Rambles of the Ausable Watershed" illustrated by Steven Kellogg, was published to accompany hikes and canoe trips along the river.
- "What's the Catch?" brochure was published summarizing four years of data on fish catches from the West Branch Creel Survey.



was hauled out of the river at Upper Jay in October.

- Invasive species were "cut back" and "shut out" by activities involving students and citizens:

At Au Sable Valley School, Mr. Johnson's Earth Science class helped tag and flag invasive Honeysuckle in a wetland adjacent to the school

SUNY Plattsburgh & APIPP interns worked to eradicate invasives along the Ausable River and adjacent wetlands.



ASRA and MLWA volunteers released 1000 beetles in Mill and Power Pond shoreline wetlands in order to combat Purple loosestrife.

"Good Bug, Bad Bug Mask Making and Parade" taught youth and adults about invasive beetles.



- Volunteers planted 1500 trees along the East Branch in order to increase shading and help keep river inhabitants cool. ASRA donated another 500 trees to river front landowners for planting.

Volunteers helped keep the river clean by picking up 33 bags of trash from the river in Wilmington and at Keeseville Riverfront Park. One enormous piece of trash

(continued on p. 5)

ASRA Annual Report (continued)

A “Stop Rock Snot” Cleaning Station was provided by ASRA at the Two-Fly contest in Wilmington in order to educate anglers about the invasive species Didymo.



- ASRA worked to secure donations of rock and fill for the Rivermede Geomorphic Restoration project, inching this 12 year old project closer to a start date.



- ASRA worked with the Essex County Water Quality Committee to allocate funds towards a second Vortechnic Unit at the Wilmington Dam Bridge.

- The Association continues to work towards completing an Ausable Watershed Management Plan.
- Obtained funding for an “Education and Outreach Coordinator” who will work with watershed schools to forward water quality education and will interact daily with the public in the summer in order to stop the encroachment of riverine aquatic invasive species.

FUTURE GOALS

- Implement plans for natural stream design and restoration in the River Road section of the West Branch. Currently design plans are being developed and funds have been secured.
- Continue to lead the Rivermede project forward by acting as a Coordinator between the Town of Keene, consultants, permitting agencies, and the Army Corp of Engineers.
- Work toward improving native trout reproduction by reducing sediment runoff to the Ausable River



and its tributaries.

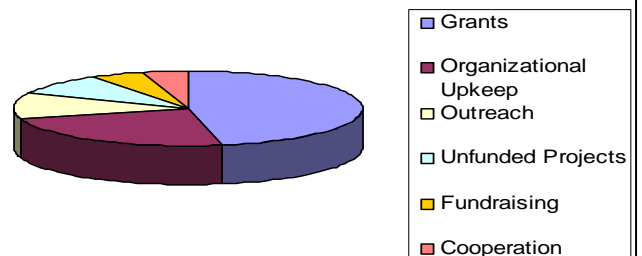
- Enhance native trout survival by facilitating fish migration through improvement of roadway-stream crossings and removal of dams. Currently ASRA is preparing a proposal for the Town of Jay to remove the Lewis Brook Dam.
- Improve scenic roadway vistas and protect the river from storm water runoff at highway turnouts by making improvements to turnout construction and pedestrian access to the river.



2009 STATEMENT OF ACTIVITIES

Revenue	2009	2008
Grants	\$20,747	\$23,957
Fund Raisers	\$1,500	\$5,387
Membership	\$5,635	\$5,526
Donations	\$22,475	1,677
Other	\$294	
Total Revenue	\$50,651	\$36,547
Expenses		
Grants	\$9,831	
Outreach	\$33	
Operational Expenses	\$1,665	\$1,586
Administrative Costs	\$22,692	\$22,641
Other Services	\$280	\$358
Total Expenses	\$34,501	\$24,585

ASRA Effort by Time



What's in Your River Water?

Many citizens of the Ausable Watershed wonder “What is in the river water?” Should I drink it? Fish in it? or Swim in it?¹ Water quality has been reported to be generally “good” in the Ausable, however, incidences of poor water quality and the absence of consistent information about water quality from all branches of the Ausable is lacking. For this reason a group of concerned citizens tested Ausable River water this summer. Conductivity was chosen as the parameter to measure because it is an easy and informative water quality test and is considered by some to be a “Watch dog” environmental test.

Conductivity measures the ability of water to pass an electrical current due to the presence of dissolved ions. Rain, streambank erosion, snow melt, barnyard or pet waste runoff, a failing septic system, or road salt will raise conductivity because of the presence of ions such as chloride, phosphate, nitrate etc. A conductivity probe does not identify the specific ion responsible for an increase in conductivity; it is simply an indication of the level of total dissolved solids (TDS) in the stream. Laboratory tests must be used to determine the specific ion or ions that contribute to conduc-

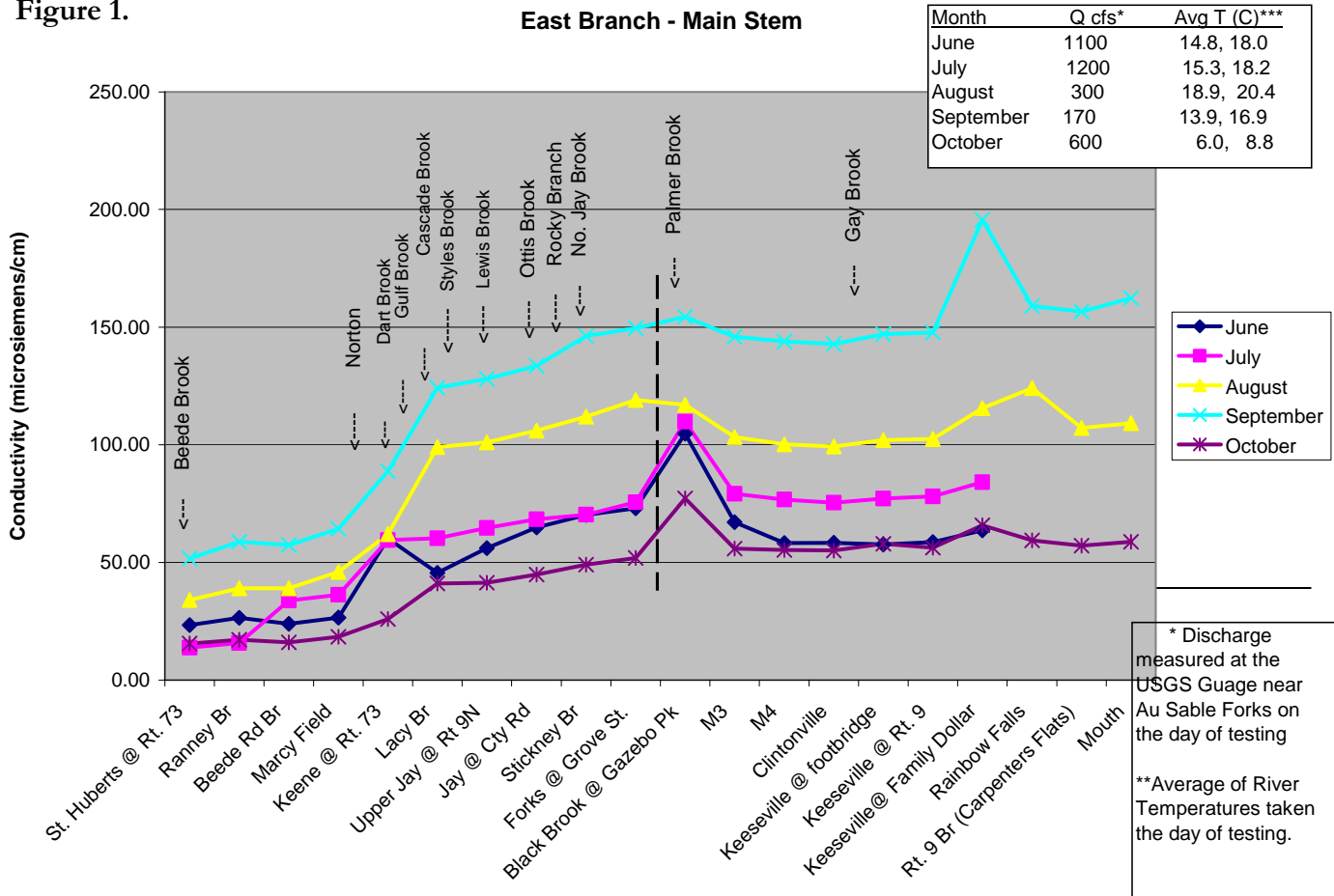
tivity readings.

Conductivity in streams and rivers is affected primarily by the geology of the area through which the river flows. Streams that run through areas with granite bedrock tend to have lower conductivities because granite is composed of more inert materials that do not ionize (dissolve into ionic components). Conversely, streams that run through areas with sedimentary rock or clay soils tend to have higher conductivity because of the presence of materials that ionize when washed into the water. Ground water inflows can have the same affect depending on the bedrock they flow through. Surface water discharges to streams can change the conductivity depending upon its make-up.

The average conductivity of rivers in the United States is between 50 to 1500 μ siemens/cm (a siemen is the unit of measure for conductivity). In Eastern Adirondack Streams conductivity ranges from 49 to 1169 μ s/cm.²

For the Ausable study, water samples were taken at every bridge crossing and at the mouth of every major tributary. This includes 21 sites on the East Branch, 20 sites on the West Branch and 13 sites on the Main Stem.

Figure 1.



Several important trends were found for the Ausable River. First, conductivity of Ausable River water is low compared to other rivers in the US but typical of Eastern Adirondack Streams.

Second, there are several tributaries with higher conductance and where these enter the Ausable River they have a large affect on conductance in the river. On the East Branch, during dry months, conductance starts a steep increase downstream of Spruce Hill , Dart , Cascade and Gulf Brooks (Figure 1). All these tributaries have high measured conductance. This may be from manmade or natural sources but it is likely that the large spike in conductance recorded in Cascade Brook is a due largely to the accumulation of road salt in Cascade Lakes.

On the West Branch, conductance rises sharply after the Chubb River tributary (Figure 2). The Chubb River was also tested above the Lake Placid WWTP and shows an equally high conductivity indicating that the Chubb's effect on the West Branch is due to causes upstream of the WWTP. This could be either natural inputs from wetlands and wildlife or urban run off from Lake Placid Village.

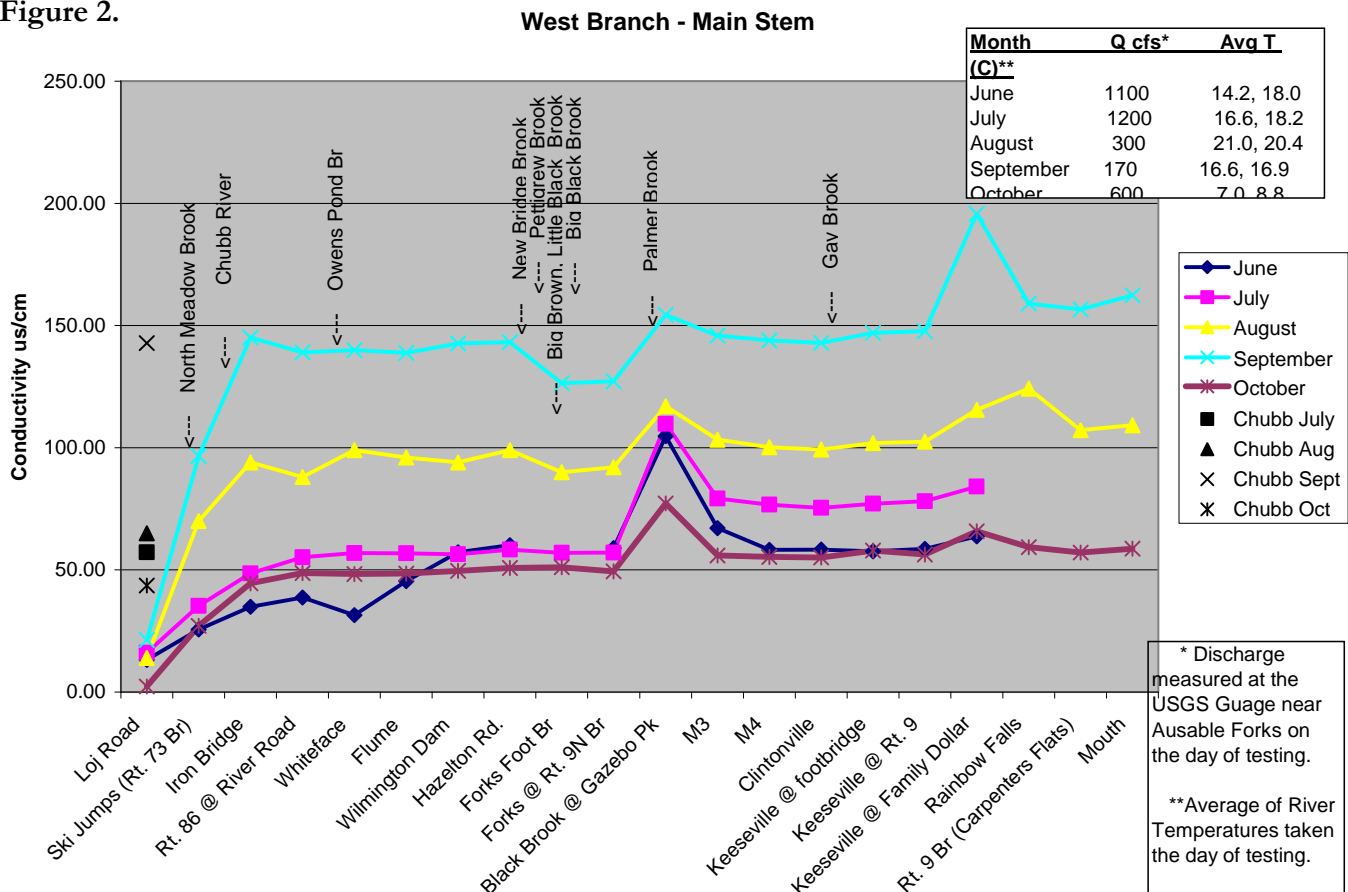
The Main Stem has few major tributaries but shows increases in conductance downstream from Palmer Brook (in

wet months) and downstream of Keeseville (in dry months). "The solution to pollution is dilution" so hot spots are expected to show up in dry months and it is likely that the spike below Keeseville is related to the fact that there is less water in the river to dilute the WWTP outfall during dry months. The spike below Palmer Brook could have several explanations. It spikes only in wet months indicating that the cause is runoff from streets, lawns, or golf courses washed into the river during a rainstorm events.

Conductivity is simply an indicator of how much "stuff" is dissolved in the river; not what stuff or if it is "bad" stuff. Next summer ASRA will work with the Lake Champlain Research Institute to analyze water samples for ion content. This project is part of watershed management planning and will help watershed residents understand where they should focus their efforts as they try to maintain good water quality in the Ausable Watershed.

- 1 Ausable Watershed Management Strategy, 2008, Ausable Watershed Management Planning public input meetings, p. 32.
- 2 Butch, G.K., Murray, P.M., Brooks, L.T., McGrath, Kenneth, Edwards, D.D., 2005, [Water resources data, New York, water year 2004, volume 1, eastern New York excluding Long Island](#): U.S. Geological Survey Water-Data Report NY-04-1, 581 p.

Figure 2.



Ausable River “Monster” Removed

If you drove along Route 9N between Upper Jay and Jay last summer you may have noticed a large black tubular object wrapped around a boulder in the East Branch of the Ausable. The object was first spotted in the river in July by a resident of Upper Jay. After a search for a responsible party failed to illicit help, a volunteer group organized by the Ausable River Association extracted the eyesore from the river on Wednesday, October 21.

Armed with rope, walking sticks, and clothed in waders, the intrepid crew secured the object to the shore, unwrapped it from the boulder, pulled, pushed, and floated it to the river’s edge, and hoisted the waterlogged mass onto the bank. A carload of hikers returning to Plattsburgh stopped to help drag the heavy object up and onto the shoulder of the road. Other motorists stopped to say “Thank you!”

The object may have escaped from a spill containment site or a construction site. The DEC Spill Unit was contacted to retrieve the object and it disappeared from the roadway a few days later.

Thank you everybody for helping to keep the river clean and scenic!

Photo: High five for a job well done! From left to right, Wes Krawiec, Dorris-Marie Firsching, Carol Treadwell, John Monroe. Photograph by John Eldridge.



Partners in Protection

On a sunny day in late September I finished a work day in Wilmington and decided to stop at the Adirondack Wildlife Refuge. Just off of Springfield Road, this hidden piece of property hosts riverside hiking trails and is home to a wildlife refuge and rehabilitation facility. Owner Wendy Hall gave me a tour and introduced me to Grey Wolves, Great Horned Owls, Barred Owls, and everything in between. The refuge is home to birds that are recovering from accidents or are permanently damaged and cannot live in the wild. Most birds are raptors but this past summer Wendy rehabilitated a Bittern and sent these pictures showing its release back into the wild. See more at: ww.adirondackwildlife.org.

2009 Members

Thank you for Supporting the Ausable River Association!

- | | | | |
|--------------------------------|--------------------------------|-----------------------------|---|
| Anonymous (2) | M. Patterson Field | Susan Katz | Mr & Mrs Robert Peters |
| Adirondack Sauna | Rachel Finn | <i>Town of Keene</i> | Craig Phares |
| Mary Ashmead | Mr & Mrs J.G. Fritzinger, Jr. | Edward & Beverly Kerr | Placid Boatworks |
| Jeane Ashworth | Dick & Susan Gaffney | Wes & Bethany Krawiec | Seymore Preston |
| Joseph Barile | Mark Gallogly & Lise Strickler | Warren Kries | Edward Prince |
| Elizabeth Bailey | Chyrle Garno & Doug Potter | Ruth Kuhfahl | Vic & Vickie Putman |
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| Tim & Kay Driscoll | Michael & Nancy Ingersoll | Susan Lourie & Eric Mosher | Jeanne Warner |
| Hollis G. Duensing | Ronald W. Jacobsen | The Mountaineer | William Wellman |
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| Melissa & Dominic Eisinger | Robert Jeffery | Megan Murphy & Eric Teed | The Wilkommenhoff |
| John Eldridge | Paul Johnson | Michael Murray | Whiteface Mountain Ski Area |
| Nathan Farb | William J. Johnson | Jim and Rosemary Olmsted | Whiteface Regional Visitors Bureau |
| Yvonne Farmer | Jones Outfitters, Ltd. | Stan Orlovski | |
| Stephen Farrelly | Georgia Jones | Patagonia, Inc. | |
| | Joseph Kahn | | |

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| <input type="checkbox"/> Tiger Trout (\$500- \$999) | <input type="checkbox"/> Brown Trout (\$50-99) |
| <input type="checkbox"/> Rainbow Trout (\$100-249) | <input type="checkbox"/> Member \$30, Business Member \$50 |

Ausable River Association
P.O. Box 217
Elizabethtown, NY 12932

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**NEWSLETTER OF THE
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E-mail: info@ausableriver.org

**Working to protect and
enhance the cultural and
natural resources of the
Ausable River Watershed.**

**AUSABLE RIVER ASSOCIATION
WINTER 2010 NEWSLETTER**

Volunteer to help Collect Water Samples



You can become involved with a research project being conducted at a University Laboratory by volunteering to collect water samples for the Ausable River Association!

The River Association will be collecting water samples from the river. These will be delivered to the water laboratory at the Lake Champlain Research Institute for analysis.

Sampling is a half day commitment and will take place on three occasions in 2010: the third week of March, mid-July, and late September.

ber.

Training is provided.

If you are curious about the quality of water passing through your Town, hamlet, or village, call to get involved!

Call 873-3752 and talk to Carol if you wish to volunteer.

