

Wiscousin Trout

January 2010

We need a stronger groundwater law

By Rep. Spencer Black

The Little Plover River in Portage County is a Class I trout stream, but you might never have guessed that had you happened upon sections of the stream this past September. Instead of a naturally reproducing trout stream, you

would have seen a streambed. drv Hundreds of trout lay dead in driedup holes. While central Wisconsin had less rain than in a normal summer, that doesn't begin to explain what happened.

Prior to the last decade, even in dry years, there

every year since.

Special 2010 Groundwater Issue

Look for this water

droplet symbol

throughout this

the state of

Wisconsin's

groundwater.

issue. It identifies

stories describing

What's going on? It appears that a large concentration of wells in the area has deprived the Little Plover of the groundwater that is its life blood. The Little

had been no record of the Little Plover going dry. But it nearly went

dry in 2003 and has dried up almost

Plover is perhaps the best known example of the problems caused to our surface waters by our often careless use of groundwater. While our supply of water is plentiful, it's not unlimited.

Continued on p. 7



LITTLE PLOVER'S DRY-UPS SPARK PROTECTION CONCERNS

The Little Plover River's sporadic dry-ups in recent years have many wondering how this can happen following Wisconsin's adoption of a historic groundwater protection law. The Wisconsin Legislature is in a position to address gaps in the law in the coming months.

Next steps in groundwater pumping management

By George Kraft

Wisconsin's groundwater is a key natural resource.



We pump 800 million gallons a day, which is used to supply drinking water for three-fourths of our households, municipal water for 95% of our cities and villag-

es, process water for 30% of industrial use, and almost all the irrigation and livestock water used in our farm economy.

Groundwater also feeds our lakes and streams, fills our wetlands, and supports fishing, hunting, swimming, and other activities that are part of Wisconsin's heritage.

Though groundwater is abundant, it's not infinite. The realization has been increasing that groundwater pumping laws need to be fixed to solve two important resource problems:

1. Depleting ("drying up") surface waters. When a well is pumped, groundwater is diverted from the lake, stream, or wetland that it would naturally feed. Too much pumping causes too much of a diversion.

2. Large regional drawdowns. Particularly in the deep aquifer of eastern Wisconsin, excessive pumping has caused a drop in groundwater levels greater than 458 feet!

2004 Groundwater Bill accomplishments

Wisconsin 2004 Act 310 was described as a first step in better management of our groundwater. In a nutshell, the law:

- Somewhat protects certain large springs, trout streams, and other outstanding/exceptional resource waters from excessive impacts by new wells to be sited within 1,200 feet.
- Creates groundwater management areas (GMAs), which are areas with a rapidly declining water table (basically Brown and Waukesha counties and surroundings).
- Grandfathered existing high-capacity well approvals.
- Solicited input on "next-steps" from a 14-member Groundwater Advisory Committee.
- Raised money for groundwater management. New domestic

wells are subject to a \$50 fee. New high-cap wells are subject to a \$500 fee. This supports implementation of the legislation.

Required that high-capacity well users must report the amount of their pumping.

Gaps in the legislation

The 2004 groundwater law was a political compromise, and it left important gaps in groundwater management.

Protection gaps include:

1. No protection for 99% of lakes. 92% of streams, wetlands, and 99+% springs. The "1201" problem. A 1,200-foot zone buffer between a well and a water body offers no particular assurance that the well will not impact the water body. So no trout stream nor exceptional and outstanding waters are actually protected.

Continued on p. 5

DNR reduces walk-in hours at all 30 service centers

The WDNR began reducing walk-in service hours at its 30 service centers statewide on January 4.

"January and February traditionally are a slower time for walk-in contacts and is the best time for the public to adjust to our new hours," says DNR Customer Service Director Diane Brookbank.

DNR is reducing walk-in hours at all its service centers as part of cost reductions in state government mandated in the state budget. The service centers — which had been open three, four, or five days per week — will now be open one, two, three, or four days per week from 9 a.m. to 12:30 p.m. and 1:30 to 4 p.m.

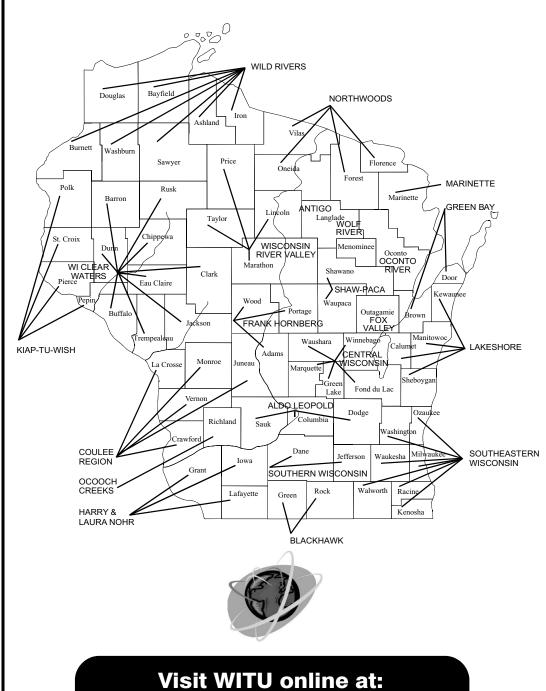
In recent years, DNR has introduced new service options that reflect what the public has come to expect from the marketplace:

- A toll-free call center is available daily from 7 a.m. to 10 p.m., at 1-888-936-7463. Hmong and Spanish service is also offered.
- Customers can visit DNR's web site at dnr.wi.gov. Click on "Hunting and Fishing Licenses and Permits" or call 1-877-945-4236 24/7 to buy a license. Phone callers can, for example, order a fishing license, get a confirmation number, and head out fishing right away.
- Live on-line chats are available on DNR's web site 7 a.m. until 9:45 p.m. at dnr.wi.gov. Click on "Contact us."
- DNR partners with 1,400+ retail stores offering convenient service and hours for buying hunting and fishing licenses. For a list of agents, visit dnr.wi.gov, click on "Contact Us," and select "License Sales Agents" in the left hand column.

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Contact TU National when you change addresses or chapter leaders

TU National manages WITU's mailing list, so members should contact TU National at 1-800-834-2419 to change addresses. Address changes can also be done on-line by going to www.tu.org and signing in with your member number, which is found on your wallet card or *TROUT* magazine label.

If you are moving to a different city and wish to be affiliated with the TU chapter in your new area, note the new chapter number (see the text next to the map above for the numbers of our chapters).

WISCONSIN TROUT

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Ideas for improving our groundwater protection laws

By John "Duke" Welter

If experience is the best teacher, we should now be well-equipped with the knowledge to make some sensible and much-needed improvements to our state's groundwater protection law.

Editorial

For eight decades, Wisconsin law's basic assumptions about our groundwater were that it was limitless and "unknowable." We now know both of these assumptions are wrong. We also learned 10

years ago, from the efforts of Nestle/Perrier to turn the springheads of the Mecan River into a commercial water bottling operation, that Wisconsin law provided no protection for that groundwater.

In 2004, with strong input from Wisconsin TU, the state Legislature passed a landmark groundwater protection statute. It wasn't a perfect bill, but it provided some basic protections for groundwater and adjacent surface waters from high-capacity wells.

One of the keys to that law was a Groundwater Advisory Council (GAC) which was to recommend further improvements to the law. The GAC included environmental groups like TU and the River Alliance, ag groups, and development interests. A year or two ago, it attempted to refine its suggestions, but essentially could not reach agreement. The development groups effectively stymied efforts to improve tools for protection, claiming the law worked fine.

But has it? Look what's happened since 2004:

- The Little Plover River near Stevens Point, a class I trout stream, has dried up almost every summer as a variety of high-capacity wells have drawn away its groundwater. Negotiations among water users have resulted in no agreement and no constructive action. The rivershed, essentially, is oversubscribed as permitted users take more water than it contains in summer conditions.
- Cooks Run, a trout spawning stream and tributary to Bishops
 Branch in Vernon County, dried up twice a year when gravel
 washing began at a nearby quarry. But the quarry's high-capacity well was operating within its permit conditions and was located outside the 1,200- foot buffer the 2004 law required for wells
 near trout streams.
- Springs are now protected if their flows are over five cubic feet per second. But thousands of smaller springs and seeps contribute to hundreds of streams and lakes.
- Right now, an applicant for a high-capacity well permit in much of the state has little burden to meet to prove the well will not impact our surface or ground waters.

There's much to do in a legislative revisiting, and we should be looking to environmental and legislative leaders to move things forward. What should a revised bill consider?

- Declare a connection between ground and surface waters, or ask whether a proposed high-capacity well will affect surface waters. This is a necessary step to allow the use of the Public Trust Doctrine to stave off adverse impacts.
- 2. Broaden the classes of waters to be protected beyond trout streams or other sensitive areas, and consider special protections for parts of the state where groundwater is oversubscribed.
- 3. Make all high-capacity well permits existing and proposed valid for a limited time period, such as 10 years. Most will be renewed without much question, but where conditions have changed or more protection is needed, renewals can include protection for surface waters.
- 4. Make sure all high-capacity wells whether for agriculture, industry, municipal, or other uses are required to have permits. No exemptions. How can you evaluate cumulative impacts if you don't know how much water all of the users are taking?
- Put the burden on permit applicants to pay for hydrological studies to ensure high-capacity wells will have no adverse impacts on ground or surface waters.
- 6. Protect the springs that contribute to our lakes and streams by lowering the size we will protect to ½ cubic foot per second.
- 7. Allow adverse cumulative impacts on a watershed of existing and proposed high-capacity well permits to warrant permit denials and modifications of existing permits.

We keep looking to the American West for examples of serious impacts of water waste and over appropriation. In western states, prior appropriation laws allow water rights holders to dry up a stream to exercise their property rights to that water. Water law reform has required a major effort by TU and others in the West to keep water in streams for the species living there.

If we don't insist on meaningful protection for Wisconsin's waters from what amounts to permitted over-appropriation, then even in this state, which we have considered a land of bountiful water, we won't have enough.

Some final thoughts as your State Council Chair

By Bill Heart

WITU State Council Chair

A couple of week ago, WisTrout Editor Todd Hanson sent me a list of articles for the January issue, and one on the list was "Bill's final column." Boy, it's hard to believe that it has been almost three years since I became State Council Chair. It has been a wonderful experience for me. Just getting to know such a wonderful group of passionate conservationists at the state and national level has been great.

I thoroughly enjoy trout fishing and spend many days a year out on our coldwater streams, but the real "feel good" part of the experience is protecting and restoring these resources. I remember at one of my first meetings hearing Chuck Steudel from the Harry & Laura Nohr Chapter say something like, "There are givers and takers when it comes to our resources, and TU is one of the givers." I think of those words often when dealing with the likes of Nestle/Perrier, the no-regulation people, and those with mining interests who could care less about our coldwater resources.

We have been very busy in the past three years. TUDARE is as strong as ever and doing a great job under Jeff Hastings. It is very exciting to see what is going on, not only in Wisconsin, but in Minnesota, Iowa, and Illinois. Every year there is improvement of so many trout streams, and the economic impact to the region is an impressive \$1.1 billion dollars annually.

TU has also been instrumental in the Dane County Land and Water Legacy Fund to obtain easements on Black Earth and Vermont creeks in the county. Along the same line, we have also developed a Watershed Access Fund and sent out a fundraising letter to all WITU members with pretty good results. The re-

quest included a free ticket for February's annual banquet. You are still able to receive this ticket if you mail in your donation as soon as possible. We have already received a couple of requests for funds to help with more land acquisition.

TU's youth education programs seem to be getting much better. The

Youth Outdoor Education Expo held in May in Beaver Dam is getting larger every year, and our presence is very important. The Expo is expanding to another venue farther north this year. We will keep you informed because we will be needing more volunteers.

And let's not forget about all of our chapters who are doing such wonderful work, from restoration on Pine Creek by Kiap-TU-Wish to removing beaver dams on critical coldwater tribs of the Wolf River by the Wolf River Chapter. Please check out the chapter reports section of *WisTrout* for more details.

Speaking of chapters, I cannot forget to mention the Gold Trout Award for chapter excellence that the Southeastern Wisconsin Chapter was honored to receive at the TU National meeting in August.

This group is really doing a wonderful job and having a great time doing it.

As I write this and think about all of the good things that we have accomplished, I cannot help stopping



Bill Heart with dog Ellie

to think about some of those we have lost. Jeff Carlson's passing in 2001 really pushed me into getting more involved in TU. I made a promise to myself that I would keep Jeff's work with coaster brook trout ongoing. That work on coasters is progressing, but it is going to take a long time before we have a viable fishery. Although, this past spring while working with US Fish & Wildlife, we did shock and tag an 11-inch brook trout near the mouth of Whittlesey Creek. This is only the second non-hatchery brook trout taken since the coaster study began.

In a matter of four months during the past year, we lost three TU-

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ers who were very close to me. State Council Treasurer Meicher, Larry Wild Rivers Treasurer and close friend John Casperson, and conservationist Martin Hanson. I worked closely with all three in their support of Trout Unlimited. Larry, of course, was the heart of the State Council as Treasurer,

Committee Chair, and doer of anything else that was asked of him. John was Wild Rivers chief chef and was always available to do any cooking that was needed for our fundraisers or outings (especially Whack-a-Northern). And then there is Martin. Well, there was no one like Martin. His passion for conservation, and especially coaster brook trout, was unparalleled.

I really appreciate having had the opportunity to serve as chair for the past three years. It has truly been a highlight of my life. Even at my age, I think that I have grown immensely in the past three years. A friend once told me, "You only grow old when you do more things for the last time and fewer things for the first time." I encourage everyone to get involved, especially in a leadership capacity, as it is very rewarding.

Tom Helgeson headlines WITU's annual banquet

By Bill Pielsticker

The annual Wisconsin TU Banquet will be held at the Holiday Inn and Convention Center in Stevens Point on Saturday, Feb. 13.

The featured speaker will be Tom Helgeson, founder of Midwest Fly Fishing magazine and organizer of the Great Waters Fly Fishing expos in Chicago and Minneapolis. Tom will share some tales with us about small trout, Alaskan steelhead, and Florida tarpon.

This is a special fundraising evening, with all of the proceeds going to WITU's new Watershed Access Fund. Grants from this fund will mainly be used by chapters in cooperation with local land trusts or conservancies to purchase land or permanent easements on key trout streams in the state.

We have invited a representative of the Gathering Waters Conservancy to briefly address attendees on how this can work to all our benefit.

Other special events

Another featured event this year will be a fishing-oriented training session just for women conducted by Becoming an Outdoor Woman (BOW) Director Peggy Farrell (see

Scott Grady bamboo rod to help new Watershed Access Fund

By Kim McCarthy

Bamboo rod maker Scott Grady has generously donated one of his highly sought-after, hand-crafted rods to generate funds for WITU's new Watershed Access Fund.

The rod will be a 7-foot 4-weight with two tips, a rod bag, and an aluminum tube. It should be a perfect rod for Wisconsin's smaller creeks.

Tickets are \$10. Each chapter has received some tickets, so everyone interested in both helping the new fund and possibly winning a great rod should contact his or her chapter leaders for tickets.

If tickets remain, they will be available at the State Council Banquet in Stevens Point Feb. 13. The lucky winner will be selected at the State Council banquet.

TU helping sponsor 2010 **Conservation Lobby Day**

By Bill Pielsticker

Wisconsin TU is a sponsor for Conservation Lobby Day 2010.

Members of Wisconsin TU, Wisconsin Wildlife Federation, and other hunters and anglers will join with citizen environmentalists on Tues., Jan. 26 to meet with state legislators and to push for firm commitments to protect Wisconsin's natural re-

This year's priority issues are:

- improving groundwater protec-
- protecting the state's drinking water,
- restoring the Secretary of the DNR as an appointee of the Nat-

ural Resources Board, and

reducing Wisconsin's contribution to global climate change.

You must pre-register online for Lobby Day. Just go to www.conservationvoters.org, click on Lobby Day 2010, and follow the easy instructions.

It is common for several members of a chapter to attend, so ask around and set up car pools for the drive.

The day concludes with the Wild Game Feed. This will take place at the Inn on the Park. It costs \$10 per person and begins at 5 p.m. Pre-registration is not needed for the Game Feed.

separate story about the BOW program on this page).

Fly fishing instructor certification will again be offered during the day under the direction of UW-Stout fly fishing instructor Dennis Vanden Bloomen.

Early arrivals are invited to attend a wildlife photography session with nature photographer Bill Pielsticker. Pielsticker will discuss and demonstrate both the how-tos of wildlife photography as well as how to get the most from your images using tools available in the digital darkroom. This mini-workshop begins at 3:30 p.m. and is free.

Guided and hosted trips will be auctioned off throughout the evening, and there will be a great line of bucket raffle items and silent auction packages as well. Artist Dan Burrish will be completing a painting that will itself be caught by the winner of a separate raffle.

Another raffle will feature a custom bamboo rod made by Scott Grady (see story on this page).

The banquet begins with a cocktail hour from 5-6 p.m., followed by a streamlined awards presentation (formerly done at the Noon luncheon). Dinner is at 6:30.

The cost of the banquet is the same as last year — \$24 per person or \$10 for those under 18. See the ad in this issue for details on an early bird raffle and hotel reservations.

BOW to present women's program at annual meeting

By Bill Heart

Wisconsin TU is very excited to have Peggy Farrell, director of the International Becoming an Outdoor Woman (BOW) program, lead

a workshop as part our annual meeting Feb. 13.

Farrell has been involved with BOW for more than 14 years. She has taught beginner-level outdoor skills workshops to

thousands of women in a way that helps them better enjoy nature and feel more confident outdoors.

BOW has won many awards for its weekend-long outdoors skills programs highlighting introductory hunting and shooting, fishing, and other outdoor activities like camping and canoeing. Yes, these programs also include basic fishing and fly fishing.

Farrell's workshop will be held from 9:00 a.m. to 4 p.m. Spouses, daughters, and friends of the membership are encouraged to attend. Participants in the workshop will be able to choose from 3-4 hands-on activities like fly casting, Dutch oven basics, and home firearm safety.

There is no charge for this workshop, but it is limited to 25 women. To reserve a spot, e-mail Bill Heart at wwheart@centurytel.net.

All participants will also receive 30 free raffle tickets for use at the evening banquet.

Last call for nominations

There is still time to nominate someone for the WITU State Council annual awards.

Awards will be presented on Saturday, Feb. 13, as part of the WITU annual meeting and State Council banquet at the Holiday Inn Conference Center in Stevens Point.

Refer to the list of past award recipients and the awards criteria on this page to guide your nominations.

The awards committee consists of Todd Hanson, Bill Heart, Gary Stoychoff, and Henry Koltz. Contact any of them for more information about the awards.

Wisconsin TU State Council Awards Criteria

Trout Unlimited Resource Award of Merit

Recipient can be a person, corporation, organization, employer, or representative of any of the above. May be a nonmember.

Award can be presented posthumously.

Award is given for outstanding contributions to conservation (does not need to be given for trout or salmon contributions).

Nature of award — TU National's print of the year or the Wisconsin trout stamp print of the year with inscribed plate attached.

Lee and Joan Wulff Conservation Leadership Award

Recipient an individual who has demonstrated outstanding service in the field Recipient to be selected by the Exec. Committee of the Council.

Award remains with a recipient for one year and then travels to the next year's recipient. Nature of award — a framed collection of flies tied by Lee Wulff.

Trout Unlimited Gold Trout Award for Service

Recipient must be a member in good standing of Wisconsin TU.

Award will be presented to any person who has been an officer of the State Council, a national director, or any committee chairman, elected or appointed. This individual must have served at least one year of his or her term.

Nature of award — an inscribed plaque with leaping gold trout. Trout Unlimited Gold Net Award

- Recipient an individual who has been a member in good standing of WITU for a period of at least five years.
- Recipient must have participated in at least one major state or chapter fundraising event in the last five years.
- Recipient must have worked on or attended at least five TU resource projects in the last five years.

Nature of award — a custom net with gold mesh and inscribed handle.

Silver Trout Award for Chapter Merit

- Recipient a WITU chapter that has restored, enhanced, or protected Wisconsin's trout or salmon resource.
- Total value of the project, including the value placed on man-hours and materials, must total at least \$3,500.

The project must involve trout and salmon resources available to the public to fish. Projects for private use only do not qualify.

The end result of the project must demonstrate a long-term commitment or

benefit to the trout or salmon resource. *Nature of award — a silver plaque with printed inscription.*

Jeffrey Carlson Volunteer Award

- Recipient a WITU member who, following the example of Jeff's work over many years on coaster brook trout restoration, has taken a leadership role on a major project that either improved an entire stream, reach, or watershed, or which preserved or restored a species in a body of water.
- The recipient's efforts on the project in question must span more than one

Nature of award — inscribed plaque suitable for on-site placement.

Special Appreciation DNR Personnel Award

Recipient a state fish manager who has shown concern for the trout resource over and above his or her normal duties. Nature of award — a certificate outlining his or her accomplishments.

Certificate of Appreciation

- Recipient must be a member of Wisconsin TU, with the exception of certain
- Recipient can be indirectly related to the trout and salmon resource (e.g., the recipient can be a landowner on a project, an educator, a media representative, a contributor of certain equipment, or a related conservation organization).
- Recipient can be someone in an organization for his or her efforts within that organization (e.g., DNR employee).

Nature of award — a certificate outlining his or her accomplishments.

NOTES: All award nominations must be submitted to the awards committee as a written narrative describing the candidates' accomplishments, be that nominee an individual, chapter, or other. Nominations must be submitted to the committee at least 60 days before the annual banquet. Successful recipients will be notified by the committee at least 15 days prior to the banquet. All award recipients must be present at the awards banquet. The judgment and selection of all award recipients will be made by the awards committee, and their selections will be final.

New shoreland development rules will help recharge groundwater

The WI Natural Resources Board adopted revisions to Wisconsin's shoreland development rules on Nov. 13.

Some of the new provisions will help increase groundwater recharge. These include:

Property owners expanding the physical footprint of a non-con-



forming structure will be required to offset the environmental impact of the expansion by choosing from a number of options. Examples

include reducing the amount of mowing next to the water, installing rain gardens to absorb storm runoff, or replanting native vegetation near the shoreline. Counties will set what the specific mitigation requirements are as they update their ordinances.

- A new standard caps the total amount of hard or impervious surfaces such as roofs, pavement, and decks allowed on shoreland property. The caps apply only to properties within 300 feet of lakes or rivers, and they do not affect existing property owners unless the owners try to make major changes that would cover up more land with hard surfaces.
- No limitations would exist for additions or new buildings where the lot's impervious surfaces do not exceed 15 percent of the total lot size. Where the sum total of impervious surfaces is between 15 percent and 30 percent of the lot size, property owners would be required to take measures to offset the environmental impact of their proposed project.

The final, official rules are expected to be officially published in early 2010.

County governments will have two years from that time to update their shoreland development rules to be consistent with or exceed the state's rules.

Major rule update

It has been 40 years since state shoreland development rules were first adopted.

The minimum statewide standards are just one tool Wisconsin uses to safeguard shorelands for the

Now and after the rules are enacted locally, owners of existing homes and buildings can keep what they have. They will not have to do anything different unless they propose a major change on their property, like remodeling their home, expanding it, or paving or covering more surfaces. Then, they may have

to take steps to offset potential negative impacts from their project, such as:

- increased water runoff and pollutants.
- loss of plants to filter runoff and provide wildlife habitat, and
- impacts on their neighbors' and lake and river users' scenic views.

Key development provisions in revised shoreland protection rule

Besides the implications relating to groundwater recharge noted in the attached story — the three bullet points after paragraph two here are the other key provisions of the revised shoreland protection

Standards remaining the same

- Homes must still be set back 75 feet from the water.
- Minimum lot size requirements remain at 20,000 square feet and 10,000 square feet.

Standards that have changed

- · Spending limits on repairs to existing non-conforming residences within 75 feet of the water's edge have been eliminated.
- Expansion of an existing home closer than 75 feet from the water is now allowed in some cases. A property owner can build a second story or otherwise add on vertically, if their existing house is at least 35 feet back from the water. Expansion of an existing home more than 75 feet from the water is still allowed.

Standards that are new

- Building setbacks and minimum lot sizes stay the same:
 - Structures must be at least 75 feet from the ordinary high water mark.
 - Minimum lot sizes will remain 10,000 sq. feet with 65 feet of frontage for lots served by sanitary sewers and 20,000 sq. feet and 100 feet of frontage for lots not served by sanitary sewers.
- Rules on legal nonconforming structures have been made clearer and more flexible. Legal nonconforming structures those built before their counties adopted shoreland standards and which are now closer to the water than standards allow can more easily be maintained and repaired. The proposal will:
 - Eliminate dollar limits on the maintenance and repair of legal nonconforming structures.
 - Allow some expansion of buildings at least 35 feet from the water if the owner takes offsetting steps like restoring native plants or taking measures to reduce runoff.
 - Set height restrictions for those portions of buildings within the first 75 feet from the water's edge.
- New standard seeks to cut runoff pollution by limiting hard surfaces. Construction or expansion of buildings, driveways, or other areas which prevent water from soaking into the ground is limited to 30 percent of the lot to reduce runoff and protect water quality in lakes and streams.

KRAFT: next steps for groundwater pumping

Continued from p. 1

- 2. **Regionalization.** What happens when an individual well doesn't impact a water body, but the cumulative effects of multiple users does? Some sort of regional approaches are needed.
- 3. Gaps in data for better management. We need to do better at tracking water levels and flows.
- 4. No adaptive management. There are no provisions for assessing pumping impacts, pumping de-

mands, and modifying allowable amounts of pumping to protect surface waters.

Next steps

I see the following as important next steps for improving Wisconsin's groundwater management:

- 1. Offer protections for all surface
- 2. Regulate pumping through a **permit system.** Permits would be good for a period of perhaps 5-10 years, at which time they would
- be reviewed for consistency with surface water management goals. Permits could be modified accordingly. Generally, permit renewals would benefit from being done concurrently by geographical areas.
- 3. Improve processes for designating areas where regional man**agement is needed.** Then develop and implement management plans in those regions consistent with water management goals.
- 4. Develop a streamlined permitting system. Low-risk pumping is should be permitted easily while high-risk pumping should get the review it needs.

(George Kraft is professor of water resources at UW-Stevens Point and directs UW-SP's Center for Watershed Science and Education. He is also a member of Wisconsin's Groundwater Advisory Committee. -Ed.)

Video cameras available for chapters to use

By Laura Hewitt

TU National recently received a grant to purchase a number of Flip Cam video cameras for staff and grassroots use.

These are very simple and small (about the size of a pocket digital camera) digital video recorders that hold up to an hour of footage. They also have built-in software that makes downloading to a computer and then to the web very simple.

We want members to get the word out about TU's conservation projects and chapter events by using this new outreach tool. You can use the video content on your web sites, to develop DVDs, and whatever other creative ideas you have.

TU also has a YouTube channel now, and we're asking chapters and councils using the Flip Cams to upload footage to that site.

I have one of these nifty little gadgets in my office, and Jeff Hastings has another one at his. Please contact us if you have projects that you want to record.

TU legal victory halts water grab

TU recently won an important Colorado Supreme Court case that reaffirmed that mu-



nicipalities can't claim more water than they reasonably need for future water projects.

This decision will protect stream

flows and trout habitat in the state's rivers. The Court ruled that Pagosa Springs-area water districts had not sufficiently shown a need for the amount of water they claimed for the proposed Dry Gulch Reservoir.



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Which percent of Wisconsin residents get their drinking water from groundwater?

A. 57% B. 67% C. 77% D. 87%

Answer: B.

Groundwater key for trout as our climate warms

By Matt Mitro

Trout anglers and biologists alike recognize the importance of cold groundwater to coldwater streams and the trout that live therein. To-



day we also recognize the threat that a changing climate at the global scale poses to species whose distributions and life histories are critically dependent on temperature.

How are climate, temperature, and groundwater linked? This is an important question, the answers to which will help fisheries managers develop and implement adaptation strategies to protect trout in our rapidly changing environment.

Temperature may be the most important factor that determines where trout can and cannot live. Trout are fishes that evolved in a coldwater environment. For stream classification purposes, we have found it useful to identify a temperature boundary for coldwater streams: maximum summer water temperatures that are typically below 72°F. The best trout waters have summer water temperatures much lower, in the range of 55-61°F, which for most salmonids is the optimum temperature for feeding growth.

To understand the challenges we face with climate change, it is helpful to consider how different factors at different scales affect the coldwater stream environment.

Stream temperature is influenced by many factors, the most important of which for coldwater streams may be cold groundwater inputs. The geology of Wisconsin allows for cold groundwater inputs to streams throughout the state, particularly in the Driftless Area in southwestern Wisconsin and in central and northern parts of the state. Improvements in agricultural land use in recent years have led to improvements in groundwater recharge and higher base flows in many streams. Such improvements include the utilization of conservation tillage practices and the enrollment of land into the Conservation Reserve Program.

Stream restoration efforts have also been successful at fixing degraded channels so that coldwater

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inputs can be conserved over longer stream distances. Higher base flows have lowered summertime stream

temperatures in many coldwater streams. Cold groundwater inputs to streams may therefore be an important buffer to a warming climate.

Global warming threat to trout

Despite the positive influence of groundwater on stream temperature, warming air temperatures associated with changes in global climate pose a sig-

nificant threat to stream trout populations. Changes in stream temperature tend to track changes in air temperature. This relationship has proved useful in developing models to predict water temperature, and hence fish distribution, in Wisconsin streams.

I am currently working with other scientists in the Wisconsin DNR and USGS to improve our stream temperature and fish distribution models by better accounting for linkages between precipitation, groundwater, and stream temperature. With these improved models we will be able to better identify coldwater refugia in streams across the state, to explore the potential effects of climate change on coldwater streams and fishes in Wisconsin, and help to develop fisheries management adaptation strategies in response to climate change.

What prediction models say

The University of Wisconsin-Madison Center for Climatic Research has recently released climate model predictions for Wisconsin. We can expect to see by the mid-21st century warmer average temperatures across Wisconsin, with greater increases in winter (5-11°F) versus summer (3-8°F). This predicted warming will include an increase in the number of days in which the daily high temperature exceeds 90°F.

The models also predict an increase in precipitation in winter (there is currently no consensus on how precipitation may change at other times of the year in Wisconsin) and an increase in the frequency of extreme precipitation events (precipitation events of at least two inches). Details on climate predictions for Wisconsin can be found on the web at wicci.wisc.edu/climate/index.html.

We experienced two unusually extreme precipitation events in parts of Wisconsin in August 2007 and June 2008. While these rain events caused much damage in many areas, many trout streams benefited from the groundwater recharge. I coincidentally began monitoring stream flow one month before the first flood in July 2007 in a number of Driftless Area streams in which we have set up trout monitoring stations to be surveyed on an annual basis. While some monitors were lost in the flooding, many survived and provided interesting and valuable data.

In Timber Coulee Creek, for example, water depth at the monitoring site increased from less than 2 ft. to briefly over 13 ft. during the August 2007 flood. Following this flash flood, the base flow had increased by about 12%. This base flow per-

sisted to the following year and increased by another 12% following the June 2008 flood. These observa-

"The conservation of groundwater resources will play a critical role in protecting coldwater resources in Wisconsin in the face of a changing climate. Increases in precipitation in Wisconsin will likely benefit the recharge of groundwater, the extent to which will vary across watersheds, and may help buffer streams to

the effects of warming...."

tions suggest that the extreme precipitation events were beneficial to groundwater recharge and input in the Timber Coulee watershed.

This was not the case in all watersheds. Flooding also occurred in Mormon Coulee Creek in a nearby watershed (water level increased from 2 ft. to briefly over 17 ft. during the Au-

gust 2007 flood) but base flow did not increase.

Conserving groundwater

The conservation of groundwater resources will play a critical role in protecting coldwater resources in Wisconsin in the face of a changing climate. Increases in precipitation in Wisconsin will likely benefit the recharge of groundwater, the extent to which will vary across watersheds, and may help buffer streams to the effects of warming temperatures.

But we also need to be aware that should changes in climate bring drought conditions, the threat of warming air temperatures will be that much worse. Therefore, the protection of groundwater resources that support a coldwater environment in streams will be critical to the preservation of trout in Wisconsin in the face of our changing climate.

(Matt Mitro is the Coldwater Fisheries Research Scientist for the WDNR. -Ed.)

Report lists ag chemicals present in WI groundwater

A 2008 report entitled "Agricultural Chemicals in Wisconsin Groundwater" (Agricultural Resource Management Publication 98)



contains the most recent survey of the chemical impacts to Wisconsin's groundwater from the state's agriculture industry

The report is the result of a co-

operative effort between three units of Wisconsin government:

- the WI Dept. of Agriculture, Trade and Consumer Protection (DATCP) was responsible for overall project management and laboratory analysis;
- the Bureau of Environmental & Occupational Health of the Wisconsin Department of Health and Family Services provided funding and supplemental water testing kits and will analyze information on water use by rural households; and
- the Wisconsin Field Office of the National Agricultural Statistics Service developed survey procedures, collected water use data, and summarized lab results.

Between January 2007 and June 2007, 398 private drinking water wells were sampled as part of a statewide survey of agricultural chemicals in WI groundwater.

Besides getting a current picture of ag chemicals in groundwater, the survey results could also be compared to the levels in earlier surveys conducted in 1994, 1996, and 2001.

Wells were selected using a stratified random sampling procedure and were used to represent Wisconsin groundwater accessible by private wells.

Compounds tested for

Samples were analyzed for 32 compounds, including herbicides, herbicide metabolites, one insecticide, and nitrate-nitrogen.

Based on statistical analysis of the sample results, it was estimated that the proportion of wells in Wisconsin that contained a detectable level of a pesticide or pesticide metabolite was 33.5%.

Areas of the state with a higher intensity of agriculture generally had higher frequencies of detections of pesticides and nitrate-nitrogen.

The two most commonly detected pesticide compounds were the herbicide metabolites alachlor and

metolachlor, which each had a proportion estimate of 21.6%.

The statewide estimate of the proportion of wells that contained atrazine total chlorinated residues (TCR) was 11.7%. The estimate of the proportion of wells that exceeded the 3 μ g/l enforcement standard for TCR was 0.4%. Estimates of the mean detect concentrations for pesticides were generally less than 1.0 μ g/l. The estimate of the proportion of wells that exceeded the 10 mg/l enforcement standard for nitrate-nitrogen was 9.0%.

Changes over time

A time trend analysis was performed to determine whether the proportion estimates for atrazine, nitrate-nitrogen, alachlor, and metolachlor in private wells had changed between the 2001 survey and the 2007 survey.

The results of this analysis did not show any statistically significant changes for these compounds over this time period.

About the chemicals cited in this report

Alachlor is marketed under the trade names Alanex, Bronco, Cannon, Crop Star, Intrro, Lariat, Lasso, Micro-Tech, and Partner. It mixes well with other herbicides, and is found in mixed formulations with atrazine and other chemicals to control annual grasses and broadleaf weeds in worn, soybeans, and peanuts.

Atrazine is used to stop pre- and post-emergence broadleaf and grassy weeds. Atrazine was banned in the European Union (EU) in 2004 because of its persistent groundwater contamination. It is said to be the most commonly used herbicide in the world.

Metolachlor is a general use pesticide sold under the trade names Bicep, CGA-24705, Dual, Pennant, and Pimagram. The compound may be used in formulations with other pesticides (often herbicides that control broad leaved weeds) including atrazine, cyanazine, and fluometuron. Metolachlor is moderately toxic to fish, including rainbow trout, carp, and bluegill.

NEW LAW: Wisconsin needs to revise its groundwater law

Continued from p. 1

Groundwater is rightfully called Wisconsin's buried treasure. More than 70% of our drinking water is supplied from groundwater sources. Groundwater is essential to Wisconsin's agriculture and industry. The health of our natural resources is also tied to our groundwater. Most of our lakes, streams, and wetlands are directly connected to groundwater.



Spencer Black

Unfortunately, our current laws are not strong enough to protect our groundwater resources. For example, the current law regulates only those high-cap wells that are within 1,200 feet

of any exceptional resource water, such as the Little Plover River. However, none of the agricultural or municipal wells that are affecting that stream are within that 1,200-foot distance.

That is why, as the Chair of the Assembly Natural Resources Committee, I have undertaken the task of revising the current groundwater law to better protect our trout streams, drinking water supply, and other vital resources. I have been joined in the effort by Senator Mark Miller who chairs the Senate Environment Committee.

To write this new law, Senator Miller and I have formed a bipartisan groundwater legislative working group. This group of seven legislators has listened to testimony from hydrogeologists and other experts. We have sought input from conservationists as well as users of our groundwater, including water utilities, industry, and agriculture. The legislators have also been out in the field looking at the impacted resources and talking with concerned citizens. We are using the information gathered to develop a new and stronger law to protect our groundwater.

The Little Plover River is just one example of the problems facing Wisconsin due to our unwise use of groundwater. The groundwater work group also visited Long Lake in near Plainfield. What we saw there was striking. Part of the scene there is unremarkable — cottages

COUNCIL: no consensus

Continued from p. 11

"These hydrogeologists also suggested that research projects carried out during the past two decades, many with funding from the department, have gone a long way toward developing data, models, and techniques that can be used for modern regulatory decision making."

About the GCC

Wisconsin's Groundwater Protection Act of 2004 established the GCC. The GCC is composed of representatives of state agencies with groundwater protection responsibilities.

The GCC also has four subcommittees to assist in its work (see member list on this page). The subcommittees are composed of about 60 people and include some members of the GCC, various state agency employees, county and municipal officials, and public members.

Long-time TU member and leader Steve Born serves as a GCC advisor in the "Local Government and Planning" section.

with trophy bass on the wall, sand beaches, and piers. What was missing was the water. Long Lake is dry, with prairie grasses and even small trees growing where the lake used to be. Long Lake is one of about 30 seepage lakes in the area which have either dried up or have water levels seriously reduced.

In Waukesha, excessive with-drawals have lowered groundwater levels as much as 150 feet, resulting in dangerous levels of radium in local drinking water supplies. The urbanized areas of Dane County and the Fox Valley also have experienced significant lowering of groundwater levels.

Water use has long been contentious. Mark Twain is reputed to have said after a trip out west, "Whiskey is for drinking and water is for fighting over."

Perhaps it's no surprise that in the arid western states, competition for water is an endless source of conflict. But here in Wisconsin, we're blessed with a plentiful supply of water. Nonetheless, groundwater use has been contentious issue in the Badger State as well. In 1999, Perrier announced plans for a water bottling plant at Mecan Springs, the source of the Mecan River. Perrier planned to pump nearly 3/4 of a million gallons of water each day. The proposal demonstrated that state laws protecting our groundwater supply were virtually nonexistent.

This concern about the proposed Perrier plant led to the 2004 Groundwater Protection Act. That law was a good first step, but it is only that — a first step. In a recent report, the Wisconsin Groundwater Coordinating Council found that "a very high percentage of lakes, streams, small springs and wetlands are afforded little to no protection" by the 2004 law.

The law we are preparing will have stricter protections for areas that are most impacted by pumping from large wells. It will also signifi-

cantly strengthen protection for springs statewide, and it will better protect both drinking water supplies and water resources that are dependent on groundwater flow.

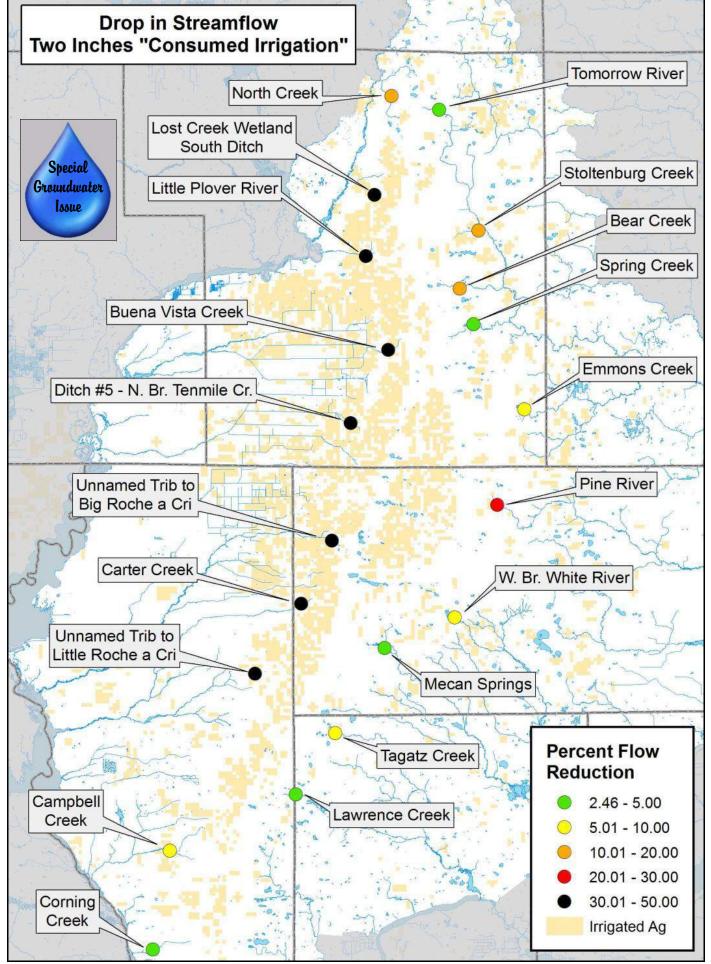
If we act wisely, Wisconsin can have sufficient water resources for

the foreseeable future. Our economy and our outdoors are both dependent on wise stewardship of our water. That is why we need legislation that will protect and secure



our groundwater resources for the next generation. Now is the time to put the tools in place to plan for the future wise use of our groundwater resource.

(Rep. Spencer Black is Chair of the Assembly Committee on Natural Resources. He is leading an effort to improve our groundwater laws. -Ed.)



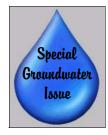
STREAM FLOW REDUCTIONS IN WISCONSIN'S CENTRAL SANDS AREA

This graphic from the Central Wisconsin Groundwater Center at UW-Stevens Point shows the degree to which streams in the central sands area are being impacted by groundwater withdrawals.

Wisconsin Trout book excerpt

Glennon book argues for a market-based system of allocating the nation's water

Wisconsin Trout reprinted a chapter from water expert Robert Glennon's book Water Follies in our last special groundwater issue. Now Glennon has

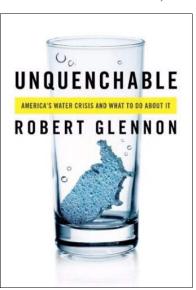


a new book that goes beyond outlining various battles over the nation's water. In *Unquenchable*, Glennon has some thoughts on how we can eliminate most of the contentiousness that is built into the water allocation methods used in different parts of our country.

Glennon's proposed solution is outlined in this chapter entitled "The Buffalo's Lament." Glennon envisions a market-based allocation system that would lock in the water consumption of current users, giving those users a "right" to that water in perpetuity. Once granted, some or all of those rights could be sold to others. Are there precedents for this? Yes, and Trout Unlimited is specifically mentioned by Glennon as a conservation group that has tried this approach.

By Robert Glennon

Between 1800 and 1900, the number of buffalo in North America plummeted from an estimated 30 million to less than 1,000. Everyone shares



blame in this morality tale. Native Americans used buffalo not only for their daily needs but also trade for goods. European settlers decimated the herds to make room for cattle ranching and largescale farming. United States Army and the U.S. Department of the Interior fa-

vored buffalo eradication as a way to confine roaming bands of Plains Indians to reservations.

Eliminating the buffalo became part of America's Manifest Destiny of subduing the frontier and establishing "civilization."

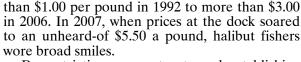
But one group bears special culpability for the demise of the buffalo: commercial hunters. As killing machines, they were admirably efficient in responding to a rising market for tanned buffalo skins used for clothing, rugs, and industrial machine belts. Discard your romantic notion of the solitary hunter perched on a ridge knocking off a few bison and replace it with the hard reality of a cadre of hunters, skinners, gun cleaners, and cartridge loaders, backed by a wagon train serviced by blacksmiths, wranglers, teamsters, and cooks. In the 1870s, almost a thousand commercial hunting outfits harvested buffalo. With no restrictions on the seasons or on numbers, size, or gender of buffalo hunted, they killed more than a mil-

lion buffalo a year, bringing them to the brink of extinction.

Similar practices of unrestricted grazing, logging, hunting, and fishing decimated the grasslands of the Great Plains, the eastern hemlock forests, the lobster fishery in Maine, the cod and haddock fisheries in the North Atlantic Ocean, and the salmon and halibut fisheries in Alaska, as well as the once-vast populations of whales, swordfish, alewives, shad, green sea turtles, tiger sharks, giant tortoises, sea otters, fur seals, elephant seals, flounder, oysters, porpoises, swordfish, abalone, and bluefin tuna in the open oceans. A recent victim of relentless fishing pressure is the Chilean sea bass (Patagonian toothfish). Whether for oil, skins, wood, fur, or meat, the hunters, ranchers, loggers, and fishers responded to open access with entrepreneurial zeal, seizing the opportunity to make money off natural resources. Commercial buffalo hunters, for example, had no incentive to limit their kills because buffalo not killed by them would be killed by other hunters. It was literally open season. Unrestricted access to a public resource encourages its overuse and potential depletion or extinction, whether that resource is buffalo, grassland, a forest, salmon, or water.

Ultimately, Alaska's halibut fishers saved their livelihoods and the fishery by mutually agreeing to limit their catches. The first efforts along these lines were fragmentary: a five-month season in the 1970s gave way to "derby style" fishing in the 1980s. At a certain starting time, boats raced off to the fishing grounds for forty-eight-hour open periods. The pressure on the fishery was short but brutal; captains hauled in as many fish as possible; overloaded boats sometimes sank; fish size and quality plummeted; and fishers risked their lives by fishing in whatever challenging weather conditions the Bering Sea and the Gulf of Alaska dished up. In a typical year during the 1990s, thirty-four boats capsized and twenty-four fishers lost their lives in Alaskan waters — twenty times the national average for fatalities in industry in general. The boats that did return dumped tons of halibut on the docks all at the same time, causing prices to plummet, as most halibut had to be frozen. This system needed an overhaul.

The International Pacific Halibut Commission, a joint United States-Canada association estab-



By restricting new entrants and establishing catch quotas, Alaska has broken the relentless cycle of overfishing and has invested fishers with a financial stake in the future health of the fishery. Having property rights in the fishery has increased the income of commercial halibut fishers, improved their safety, spread out their working hours, and stabilized their future earning power. In 2007, the Environmental Defense Fund released an in-depth analysis of ten United States fisheries, before and after implementation of catch shares, which concluded that such programs reduced bycatch (unwanted fish and marine mammals caught in nets) by more than 40 percent, increased revenues per boat by 80 percent, doubled safety rates, and ended the race for fish.

Alaska's halibut fishery offers a lesson for how we should regulate water in the United States. We must break the relentless cycle of overuse by restricting new access to the public resource, by protecting existing users with quantified water rights, by making these water rights transferable, and by insisting that new users purchase and retire exist-

ing water rights in exchange for permission to place a new demand on the resource.

In eastern states, the doctrine of riparian water rights allows diversions of surface water from lakes and rivers by any owner of land abutting the lake or watercourse. The owner shares the right with fellow property owners. In the nineteenth century, when the law restricted the owner's diversion of water to the amount that could be used on the land next to the lake or river, the riparian doctrine had a self-contained limit on how much water property owners could use. But twentiethcentury courts began to allow riparian water rights to be used on other lands, thus vastly expanding the potential for overuse of the resource. Today, most eastern states have moved to a regulated riparian system, with permits issued by a state agency that possesses

authority to set limits on the quantity of water used by riparian owners. However, most states exempt from regulation any use under a certain threshold, often 100,000 gallons a day — cumulatively a lot of water — and most states grant considerable discretion to their departments of water resources to implement the system. When asked to put teeth into lax standards, many state agencies, not surprisingly, lack the fortitude to deny permits to citizens, companies, or municipalities that want or need more water.

In the West, states adopted the prior appropriation doctrine, a "first in time, first in right" rule that encourages diversions of water from rivers by rewarding the earliest diverters with senior rights. In theory, the seniority system prevents harm to senior diverters when flows are low by requiring juniors to halt their diversions. In reality, some state agencies continue to grant permits even for rivers that are fully appropriated. Again, state agencies are loath to deny permits.

This puts the burden on existing diverters to persuade a judge to order juniors to cease their diversions, a costly, time-consuming process in-



lished in 1923, oversees the fishery. On the basis of scientific research, with input from fishers, the commission has begun to estimate the sustainable catch for each season and to recommend quotas for implementation by the two governments.

In 1995, Alaska began awarding halibut permits to captains of vessels on the basis of their past halibut catches, allocated as a percentage share of the annual harvest. These individual fishing quotas, or IFQs, revolutionized commercial halibut fishing. With percentage shares of the catch, captains no longer need to worry about beating other boats to the fish. Without frantic forty-eight-hour seasons, captains schedule their trips according to weather conditions. And without all the boats returning to the dock at the same time, halibut fishers receive higher prices for delivering fresh fish over an eight-month season. Because anyone who wants to become a commercial halibut fisher must purchase a permit from a current captain, a robust market for IFQs has developed and the value of permits has steadily increased. Dockside prices for halibut have more than tripled since the advent of IFQs, from less

volving complicated factual claims about priority dates, differences between amounts diverted and consumed, forfeiture and abandonment for nonuse, and return flows. Many people think that the priority system creates precise, quantified rights; in practice, however, seniors often have only claims to water, not legal rights confirmed by a court decree. Under this unruly system, juniors merrily proceed to use water without regard to priority.

While the riparian and priority systems of surface water rights do set some restrictions on water use, groundwater rules in most states allow unlim-

ited access to a finite resource. The majority of states recognize the "reasonable use" doctrine, an ill-conceived rule that encourages exploitation of the resource. Even those states that restrict groundwater pumping still allow exemptions from regulation for domestic wells. These wells, it is thought, extract so little water and are so critical for homeowners that it makes sense to give homeowners unbridled permission to drill domestic wells. But 15 percent of Americans get their water from such

wells, and 800,000 new wells are being drilled every year. New Mexico allows domestic wells to pump 1 million gallons per year; in Arizona, it's 3 million gallons. In Washington State, developers have skirted the priority system and provided water to entire subdivisions by using multiple wells, each of which serve only a few homes in the development. We must close such loopholes and end the calamitous tradition of encouraging unsustainable use of our nation's water resources.

This Byzantine system needs a major overhaul. As we enter the era of water reallocation, what will bring about this needed change? Perhaps reform could come from government rules and regulations that impose conservation requirements, eliminate subsidies, encourage investment in modernization, and require "full-cost pricing," which would require the beneficiaries of U.S. Bu-

reau of Reclamation projects to pay the actual cost of the water they receive. But these proposals, each desirable in the abstract, would be extraordinarily difficult to execute in the real world. Several involve very expensive system improvements, such as lining canals with concrete or laserleveling fields, which can cost hundreds of thousands of dollars for a single farm. Where is the money to come from, given that many farmers operate on paper-thin margins? It is not feasible, reasonable, or equitable to require farmers to undertake massive expenditures in order to make their irrigation systems more efficient. It's no fault of farmers that the world has changed around them and that their customary irrigation methods now seem obsolete to outsiders. In general, they still work quite nicely for the farmers.

Neither state legislatures nor Congress is likely to mandate such reforms, for one very practical reason: farmers wield immense political power. Legislators would imperil their political futures were they to require their farmer constituents to shoulder the burden of these huge expenses. Heavy-handed government mandates would generate bitter political controversy and endless litigation over whether the government has the authority to act so cavalierly and whether the United States Constitution prevents the confiscation of water rights.

Perhaps other constituencies could pressure legislators to impose conservation standards on farmers. The rise of the environmental movement, the

growing demands of cities, and the increasing role of recreation on public lands in the West have created groups of voters whose interests in water differ from those of farmers. Even though these constituencies consist of a large number of voters, they are geographically diverse and lack focus on any particular issue involving farming practices. For example, a politician contemplating how to vote on a bill to require farmers to laser-level their fields can be confident that 100 percent of the farmers will be strident opponents, but he would be uncertain about the views of his other constituents. This is a good example of a common political phenomenon in which a small number of

deeply committed voters wields inordinate political influence over the legislature. Politicians listen carefully to voters who represent the dominant economic interests in the state. Accepting this political reality, we must recognize that state legislators will not impose costly changes on the farming community.

It would be far better to encourage voluntary transfers between willing sellers and buyers. Let them decide what the water is worth to each of them. The best way to reform agricultural water use in the United States is to give farmers a financial incentive to use less: let them sell the water

It would be far better to encourage voluntary transfers between willing sellers and buyers. Let them decide what the water is worth to each of them. The best way to reform agricultural water use in the United States is to give farmers a financial incentive to use less: let them sell the water they save to Google for its server farms or Trout Unlimited for fish habitat.

they save to Google for its server farms or Trout Unlimited for fish habitat. The funds generated will enable farmers to modernize their irrigation systems, and make a profit on the side.

Market-based transfers can take many forms, from sales to leases, from forbearance agreements to dry-year options, and from land fallowing to conservation measures that save water. Each offers the prospect of a win-win result. The seller secures a price that she finds attractive and the buyer secures a water supply at a price that he finds attractive. The case for water marketing rests on the assumption that ownership of an item invests the owner with an incentive to take care of it. While this is surely not a universally valid proposition, it is still generally true that ownership changes one's behavior.

Ask yourself, for example, whether you treat



your new car the same way you treat a rental car. When was the last time you washed a rental car? The same point might be made about hotel rooms, public parks, and parking lots. I have never seen a cigarette smoker dump his ashtray in his driveway, but some smokers do not hesitate to do so in parking lots. Others dump trash on public highways, something they would never do in their own yards. Of course, not all people treat public property recklessly. Some of us pick up trash in parks and on hiking trails; others tidy up hotel rooms. Whether driven by the golden rule, feelings of guilt or shame, concern for the labor of chambermaids, or the belief that civility ennobles

us as a people and a culture, many Americans do take responsibility for public places. Others, alas, habitually degrade public spaces. Whether the habit of littering is cultural or rooted in status and class, people act differently toward things they care about.

The ability to transfer ownership creates an incentive to shepherd the resource wisely, to use property more productively, as we saw in the stories of agricultural innovation and ranchers collaborating with environmentalists. This is the core idea of markets. Owners of property assess its value to themselves and part with it if they will real-

ize a profit. Buyers seek to change the use of property and capture the value added by the new use. In this process, both sellers and buyers may profit, and society benefits from increased efficiency. Water markets have other benefits, including conservation. If a farmer can profit from the sale of water, he will be motivated to invest in conservation practices that save water and thus free it up for other users.

Most defenders of markets rely on economic arguments, but, as my colleague Carol Rose has shown, mar-

kets can also promote democracy and liberty. Property in the hands of citizens rather than the state diffuses political power, holds government in check, and expands the range of individual autonomy. It may even foster civility because merchants will be solicitous of their customers. Rose notes that, when McDonald's opened its first restaurant in Moscow, it trained employees to smile at customers, which amazed the patrons.

If water markets are to flourish, there must be a system of quantified water rights that are transferable. Water markets can develop only if current water users have known and fixed rights that they can sell or lease. Without a property right that is quantified and transferable, there will be no voluntary reallocation of water use.

If we could turn the clock back and start over in allocating our water resources, we might not

create a prior appropriation system or permissive groundwater rules. But instead of wistfully thinking about "what if," let's acknowledge reality. In the United States, people have legal rights to use water. The prior appropriation system has recognized surface water rights for more than 150 years. Entire communities have arisen that depend on reasonable use groundwater rules. In irrigation districts, generations of farmers have relied on contractual rights with the Bureau of Reclamation for water for their crops. And federal law recognizes water rights held by Native American communities. Courts will protect these legal rights, as they should; and states may not unilaterally abrogate these property or contractual inter-

It bothers many people to think of water as a commodity, but water in the United States is both a public good and an economic good. In 1982, the United States Supreme Court decided a case involving a Nebraska law that tried to prevent people from pumping groundwater from beneath their land and exporting it to Colorado. The Court struck down the law as an interference with interstate commerce: Nebraska could not hoard groundwater through rules that discriminate against out-of-state sales because simple protectionism of this kind violates the free market principles in the U.S. Constitution. As shocking as this result may seem, Nebraska has several other options to protect its resources. The state could prohibit the export of water from be-

neath Nebraska-owned lands. Or it could enact stringent regulations on groundwater use and impose them on all users, including those who would like to export the water. Or Nebraska could protect its environment with regulations evenhandedly imposed on all users. Of course, Nebraska has done none of these things because its farm sector, the dominant economic interest in the state, depends on the state's relaxed groundwater regulations.

Before we get too caught up in the wonders and glories of the market, we need to remember that markets produce winners and losers.

Continued on p. 10

GLENNON: new book argues for market-based water system

Continued from p. 9

Markets have great utility, but I don't worship at the shrine of the free market. At the core of economic theory is the bedrock conviction that markets make everyone better off; when individuals act out of enlightened self-interest, it encourages innovation, promotes specialization, and results in the movement of goods to those persons who can make the best use of them. This belief rests not on immutable principles of science but

on faith, as shown by Duncan K. Foley in his 2006 book, *Adam's Fallacy: A Guide to Economic Theology*. Foley, an economist, attacks the idea that it's possible to separate an economic sphere of life, guided by self-interest, from the rest of social life. Adam Smith's fallacy, to Foley, is that self-ishness in the service of capitalist market relations helps our fellow human beings. This convenient rationalization allows us to ignore the harsh consequences of a cruel market, ranging from large-scale unemployment to en-

vironmental degradation to the destruction of cultures and communities.

For any market to operate, the state must establish and protect property rights and enforce contracts. The choices made by the state about when and how to enforce contractual arrangements involve resource allocation decisions. In other words, there is no such thing as a "free market." Markets involve political decisions made by the state that define property rights and influence the division of labor. The state is responsible for the consequences of these choices. That's why we should insist on state oversight of the process and the outcomes for markets in water rights. I envision a regulated market with state responsibility to protect third parties from potential harm caused by water transfers and to ensure that transfers do not harm the environment.

Let me respond to three likely objections to water markets: the sellers make windfall profits; markets encourage sprawl; and environmentalists can't compete with the deep pockets of developers. Some people object to the idea that farmers who paid nothing for the right to use water under the prior appropriation or reasonable use doctrines can turn around and sell the water for a huge profit. Even worse, tens of thousands

of western farmers and ranchers get water through heavily subsidized Bureau of Reclamation irrigation projects. The federal government built the infrastructure and then asked the beneficiaries to repay only a fraction of the costs with zero-interest loans stretched out over fifty years. The government, it is argued, should reap the benefit from its largesse rather than allow farmers and ranchers to realize windfall profits.A regulated market makes eminent sense in the case of water, a resource with cultural, spiritual, religious, environmental, and economic value. Water is a shared resource, widely but unevenly distributed, used and reused, in constant movement through the hydrologic cycle. As a shared resource owned by the state and used by its citizens, water requires stewardship by the state. A state-regulated market makes sense for a public good such as water in order to prevent externalities, an exam-

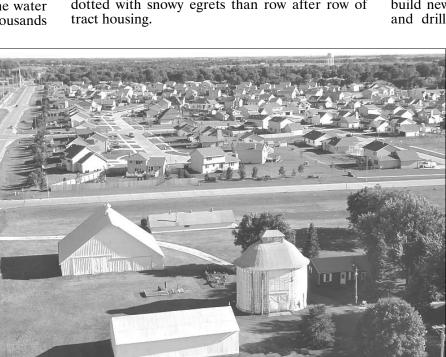
ple of what economists call market failure. If a farmer diverts the entire flow of a creek into his canal, the resulting death of the fish downstream is a cost of his action but not a cost paid for by the farmer. Instead, he externalizes this cost, which is paid (or suffered) by his neighbors or society generally. Markets have difficulty internalizing environmental values. The same is true for a farmer who sells water to a distant city and then fires his workers. The lost wages of the farmworkers are a consequence of the farmer's transaction but are not costs absorbed by the farmer, unless we insist on it. And we should. We must also address the concerns of communities harmed by water transfers when people move away, school enrollments decline, and local businesses suffer. The lesson to be learned from the story of the Imperial Irrigation District is that democratic oversight by a popularly elected board of directors protected the community.

Perhaps. But existing water rights holders will not sell their water unless they profit from it. Instead, they'll continue growing alfalfa, cotton, or other low-value products. It's that simple. If we want to encourage low-value agricultural producers to use less water, we must give them an incentive to do so. And that incentive is money. Given a choice between making farmers and ranchers rich from the sale of their water rights and enabling them to continue to use huge quantities of water to grow, say, cotton, I think the choice is easy. The beneficiaries of these trades will usually

The environmental community should embrace water transfers as a critical element in a comprehensive strategy for protecting the environment. ... From an environmental perspective, water marketing lessens the pressure to build new dams, divert additional surface water, and drill more wells. Water marketing avoids these environmentally destructive alternatives.

be cities, whose developers can easily afford to pay for the water rights. Although the farmers paid nothing for the rights in the past, these rights nevertheless have enormous present value. Our focus should be on the current value of the water, not on what the farmers originally paid for it. For that matter, many of the original recipients of the windfall are long gone. Subsequent purchasers paid higher prices for the farms because of the value of the subsidy.

That leads to the second objection: sprawl. Transferring water from farms to cities and suburbs may provide liquid nourishment to feed growth. I'm neither a fan of mindless sprawl nor a shill for developers. As a resident of Tucson, I sometimes feel that the dominant bird call is the peeping sound that heavy construction equipment makes in reverse gear. Losing an acre per hour of pristine Sonoran Desert habitat to support population growth is a tragedy that we must halt. Around the country, developers are replacing the open spaces of pastureland, cotton fields, and rice paddies with red-tile-roof subdivisions, 7-Elevens, Walgreens, and the occasional Wal-Mart or Home Depot. I'd much rather see a green alfalfa field dotted with snowy egrets than row after row of tract housing.



What role does water play in encouraging this growth? In situations in which limited water supplies might constrain development, water marketing could facilitate growth. But lack of water seldom halts development. Despite limited supplies, growth perversely marches on. Our existing water law tolerates both wasteful irrigation and mind-numbing sprawl. We have not chosen one over the other: we supply water to serve both. We should require those proposing new development to purchase and retire existing water rights in order to break the relentless cycle of overuse and move toward sustainable water use. If developers must purchase water rights, at least some of them would shelve their plans.

The third objection to water markets is that environmental interests cannot compete in a market-driven system. It is feared that developers will always outbid environmental organizations. This need not be the case if those of us who care about the environment pony up to protect it. If we want farmers to leave more water in the river for fish or

habitat, we must give them an incentive. In fact, environmentalists have often prevailed in market settings. In the American West, Forest Guardians, the Western Watersheds Project, and other conservation groups have outbid ranchers for USDA Forest Service grazing leases. The Sonoran Institute and other environmental organizations have spearheaded efforts to reform the sale of state trust lands to protect sensitive habitat. We've seen the Oregon Water Trust, the Montana Water

Trust, Trout Unlimited, and other environmental groups use leases and sales of water rights to restore and maintain stream flows. As a final example, consider The Nature Conservancy, whose main strategy for decades has been to acquire parcels of land and accompanying water rights that its scientific analyses have determined are worthy of protection. No other environmental organization in the world owns as much land as The Nature Conservancy, whose members continue to support its mar-

ket-based approach to environmental stewardship.

Environmental interests have sometimes succeeded through the political process in securing government funds to protect in-stream flows, anadromous fish, and riparian habitat. For example, in the 1992 Central Valley Project Improvement Act, Congress dedicated funds to acquire water rights to 800,000 acre-feet of water to protect the environment. Finally, the reallocation of water from agricultural to urban use is unlikely to harm the environment directly because farmers are already diverting or pumping the water to irrigate their fields. A simple change in use poses little risk of further environmental damage. If any particular transfer is environmentally objectionable, environmentalists can raise objections during the government review process.

The environmental community should embrace water transfers as a critical element in a comprehensive strategy for protecting the environment. If we don't require developers to purchase existing water rights, then we're back to business as usual. From an environmental perspective, water marketing lessens the pressure to build new dams, divert additional surface water, and drill more wells. Water marketing avoids

these environmentally destructive alternatives.

Resistance to water marketing is visceral in some quarters, an ideological response rooted in opposition to markets, especially for water. I understand the argument, even if I don't agree. Opponents of marketing must offer an alternative for dealing with the immense demand for more water. If we're not going to use markets to reallocate water, there is really only one alternative: the public sector. Such allocations would occur at the direction of elected politicians or at the discretion of bureaucrats. No economist thinks that's an efficient way to make decisions about the allocation of public resources. Indeed, that system already exists in the American West. Water laws routinely favor agricultural interests in states such as Nebraska. Elsewhere, the Bureau of Reclamation for generations has curried favor with important

members of Congress and influential agricultural organizations by distributing federal project water to irrigation districts.

These cozy relationships prove that water allocated through the political process inevitably goes to the most powerful economic and political interests in the state. Faith in a benign public interest bureaucracy is unwarranted.

Voluntary transfers offer an alternative to a politically driven system of allocating water. Water marketing can provide water for valued new demands and break the relentless cycle of overuse. The lament of the buffalo and the lessons learned by habitat fishers offer guideposts to the future.

(This excerpt is from Unquenchable: America's Water Crisis and What to Do About It by Robert Glennon. Copyright © 2009 Robert Glennon. Reproduced by permission of Island Press, Washington, DC. Visit www.rglennon.com for more information. -Ed.)

No consensus from Groundwater Coordinating Council for an overall WI regulatory framework

By Todd Hanson

Wisconsin's Groundwater Coordinating Council (GCC) is having difficulty reaching consensus on a long-term framework for managing and protecting Wisconsin's groundwater according to the group's most recent report to the Legislature.

According to the GČC's 2009 Report to the Legislature, "The GAC was unable to reach unanimous agreement on the merits of the existing regulatory review process applicable to high-capacity wells within groundwater protection areas and the need for enhancement of the current regulatory framework. Committee members developed alternatives that range from maintaining the current structure and review

GCC lists groundwater protection priorities

The Wisconsin Groundwater Coordinating Council (GCC) has agreed upon the following priorities for future groundwater protection and management in Wisconsin. These items come from the GCC's 2009 Report to the Legislature published last August.

- Evaluate acute and chronic impacts to groundwater from manure management practices.
- Understand and better predict impacts from groundwater withdrawals.
- Continue to evaluate and catalog Wisconsin's groundwater resources.
- Investigate extent and origins of naturally occurring substances in groundwater.
- Evaluate occurrence of recently discovered groundwater contaminants.
- Understand the links between land use and groundwater quantity and quality.
- Evaluate potential impacts of climate change on Wisconsin's groundwater.
- Address groundwater quantity management issues at both statewide and regional levels.
- Find solutions to groundwater nonpoint pollution problems.
- Meet funding needs for nutrient management practice research to evaluate resource protection effectiveness.
- Develop methods to assess and protect against health hazards posed by exposure to 'orphan' contaminants as well as multiple contaminants in a water supply
- nants in a water supply.

 Continue to fund groundwater monitoring and research.
- Support implementation of a Statewide Groundwater Monitoring Strategy.
- Support Implementation of the Great Lakes Compact.
- Coordinate and facilitate consistent messages on groundwater related issues.
- Promote consistency between the agencies on data management issues.
- Ensure access to findings of groundwater research and monitoring projects.

process to suggesting that the system be completely restructured to eliminate the 1,200' groundwater protection area and require hydrologic analysis of all high-capacity well applications.

"Other alternatives suggest expansion of the scope of waters protected under the law and expanding the area of a groundwater protection area."

Concerns about springs

Another contentious subject within the GCC relates to springs.

According to the report, "Much of the GAC's work in 2007 was related to evaluating the definition of 'springs' and the adequacy of the existing groundwater protection area approach to protecting specified high quality surface waters.

"The GAC considered a number of approaches to revise the definition of 'spring' and formulated a near-unanimous recommendation providing for deferral of a determination of the appropriate threshold spring flow (currently 1 cfs) until an updated comprehensive survey of springs is completed.

"The GAC was unable to reach consensus positions on these issues and subsequently developed two alternatives for the Legislature to consider in addressing the issues related to springs:

- 1. maintaining the existing definition and
- 2. reducing the threshold flow requirement."

Reviewing high-capacity wells

The GCC report summarizes some specific concerns the group is struggling with regarding the approval of high-capacity wells near exceptional water resources like trout streams.

According to the report, "Many state groundwater experts believe that the existing regulatory review process used by the DNR to evaluate permits for new high-capacity wells is inadequate and outmoded, and this was the subject of much debate within the GAC. Other states, notably Florida, Kansas, and Michigan, use sophisticated and well documented technical hydrogeologic review processes to determine the potential impacts of new high-capacity wells, including analyses of the combined impacts of several wells pumping simultaneously.

"State and university hydrogeologists indicated that such quantitative methods, including computer modeling, are currently the state of the practice in modern groundwater analyses. These methods can be data-intensive but are also systematic, transparent, unbiased, and reproducible. These hydrogeologists presented the committee with example "decision-tree" schemes that would apply hydrogeologic analysis to well-approval issues in an organized, systematic, and scientifically defensible way.

"The DNR responded that several of these quantitative techniques

are currently used by DNR staff to evaluate the extent of impacts for proposed high-capacity wells within groundwater protection areas. Under the existing regulatory framework, the department uses

quantitative tools that it believes are appropriate for the given high-capacity well application. Thus, a proposed high-capacity well that is quite distant from a sensitive protect-



ed surface water resource receives little hydrogeologic scrutiny, whereas a proposed high-capacity well of significant capacity that is close to a protected surface water undergoes much more complex quantitative analysis.

"DNR also contends that routinely requiring such analyses for all high-capacity wells, regardless of their size and location, would be unnecessary, overly time-consuming, and beyond the technical expertise of the applicant.

"Several state hydrogeologists, members of the GAC science and technical work group, disagreed with this view, and argued that by evaluating only one well at a time, the present system can underestimate the combined impacts of multiple wells in the same area.

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WI Groundwater Coordinating Council Members

Department of Natural Resources - Todd Ambs (Chair)
Department of Agriculture, Trade, and Consumer Protection – Kathy F. Pielsticker
Department of Commerce - Berni Mattsson
Department of Health Services - Henry Anderson, MD
Department of Transportation - Dan Scudder
Geological and Natural History Survey (State Geologist) - James Robertson
Governor's Representative – George Kraft
University of Wisconsin System – Anders Andren

SUBCOMMITTEE MEMBERS

Research

Geological and Natural History Survey - Ken Bradbury

Department of Agriculture, Trade and Consumer Protection - **Jeff Postle**

Department of Commerce – **Harold Stanlick**Department of Health Services - **Henry Anderson and Robert Thiboldeaux**

Department of Natural Resources – Bill Phelps
University of Wisconsin System - David Armstrong,
Paul McGinley and Maureen Muldoon
U. S. Geological Survey - Randy Hunt and Chuck
Dunning

Monitoring & Data Management

Monitoring Work Group

Department of Natural Resources – **Jeff Helmuth** (Chair) and Mike Lemcke

Department of Agriculture, Trade and Consumer

Protection – Rick Graham

Department of Commerce - Jon Heberer
Department of Health Services - Bruce Rheineck
Geological and Natural History Survey - Madeline

Center for Watershed Science and Education - **George Kraft**

U. S. Geological Survey – **Jason Smith** *Data Management Work Group*

Department of Natural Resources – **Jeff Helmuth** (Chair), and Randell Clark

Geological and Natural History Survey - **Bill Bristoll** Center for Watershed Science and Education – **Dave**

Mechenich
Department of Agriculture, Trade and Consumer
Protection – Cody Cook

Department of Health - Bruce Rheineck U. S. Geological Survey – Jason Smith

Education

Center for Watershed Science and Education - Kevin

Masarik (Acting Chair)

Department of Agriculture, Trade and Consumer

Protection – Jason Lowery

Department of Commerce - Thomas Braun Department of Health Services - Jessica Maloney

Department of Natural Resources – **Dorie Turpin and Jeff Helmuth**

Geological and Natural History Survey - Dave Hart Natural Resources Conservation Service - Jim Kaap State Laboratory of Hygiene – Amy Mager and Jeremy

Olstad
University of Wisconsin System – Suzanne Wade and
Ken Genskow

Local Government and Planning

Department of Natural Resources - vacant (Chair)
Association of Wisconsin Regional Planning Commissions
- Eric Fowle

Center for Watershed Science and Education –Lynn Markham

Department of Agriculture, Trade and Consumer Protection – **Duane Klein**

U. S. Geological Survey - Chuck Dunning

Protection – **Duane Klein**

Department of Commerce - Roman Kaminski
Department of Health Services - Bruce Rheineck
Geological and Natural History Survey - Fred Madison
Wisconsin Alliance of Cities -Mayor John David
Wisconsin County Code Administrators - Ray Schmidt
Dane County Conservation and Planning - Mike Kakuska
Wisconsin Rural Water Association - Patrick Harrington
Wisconsin Water Association - Nancy Quirk
Department of Transportation - Bob Pearson
University of Wisconsin System - Steve Born



Aldo Leopold Chapter

We are looking forward to our chapter's five-week beginners' fly tying class. Classes will be held at the **Beaver Dam Community Library**, 311 N. Spring St., Beaver Dam. Class dates are Jan. 13, 20 & 27 and Feb. 3 & 10.

The chapter is also holding an advanced fly tying class Feb. 13 from 9:00 a.m. to 1:00 p.m. This class will also be held at the Beaver Dam Community Library.

The **Bear Creek** project site survey was completed in November. Now over the winter, **Brent Bergstrom** from **Sauk County Land Con-** servation Department will design the project. We do have a preliminary estimate of the project scope: about 5,600 feet of stream length, 4,500 cubic yards of stone (250 18-yard dump truck loads), around 70 lunker structures, 14 cross logs, 60 stone weirs, 160 boulder placements, and 6 acres of native prairie planted on streambanks. The project's cost, based on similar projects, is estimated at around \$165,000. We anticipate breaking it up into a multi-year effort.

-Mike Barniskis

Antigo Chapter

Hope everyone had a great fall, and now we are getting into winter.

We attended our winter TU N.E. Region winter meeting at **Buettner's Wild Wolf Inn** in White Lake on Sat., Dec. 5. The meeting was at-

for standard 1 or 2 room suites!

The trout life is a good life!

tended by all eight chapters in our region, along with area **DNR fisheries** personnel and the **National Forest Service** people.

After it was all said and done, our region funded about \$51,000

any trout stamp projects in our region. These projects included beaver control, stream brushing, and three stream improvement projects on the **Hunting**, **Evergreen**, and **Prairie** rivers.

In October, our chapter stocked **Remington Lake** in the city of Antigo with rainbow trout for the kids of

In October, our chapter stocked **Remington Lake** in the city of Antigo with rainbow trout for the kids of the area to catch this fall and winter. Remington Lake was established about two years ago as an urban fishery.

worth of projects above and beyond

Our annual fund-raising banquet will be held on Sat., March 27, at the **Knights of Columbus Hall** in **Antigo**. We hope to have a great event and raise some money for our coldwater resource.

I would like to personally thank **Kim McCarthy**, our **N.E. Region VP**, for the excellent job he has done for our region the past couple of years. THANKS, Kim.

Merry Christmas to all of you from Antigo TU.

—Scott Henricks

Blackhawk Chapter

The Blackhawk Chapter has donated money for stream work or has been involved in stream work on the following streams:

- Hefty Cr. and Little Sugar R. in Green Cty.,
- Reads Cr. and Elk Cr. in Vernon Cty., and
- Van Slyke Cr. in Walworth Cty.

The membership approved the release \$2,700 to be spent on a reconstruction project on an eased area on the **West Fork of the Kickapoo**.

Fly tying classes will be held on Tuesdays and Thursdays starting in January and run through February. The beginners will meet on Tuesdays and the advanced tyers will meet on Thursdays. The first class will start January 5. The classes will start at 7:00 p.m. The beginners will be provided with materials and tools, and there will be a \$15 fee. The advanced tyers will have to provide their own tools. The beginning class will be open to all club members who want to come in and tie at

no charge. The beginners class will be under the direction of club members, and the advanced tyers will be under the direction of **Bob Stevens**. Check for the location since the DNR building will be closed in Janesville.

Spring banquet plans are in progress. The banquet will be held the last Monday in April at the **Pontiac Center** in **Janesville**. Any organization or chapter wanting to make a donation should contact one of the officers. All the proceeds will be put toward stream work and educational projects like outdoor education and fly tying classes.

The election of officers took place at the November regular meeting with these results:

President — William Hosely, V. President — John Miller,

Treas. — Steve Bentz/Don Studt, Secretary — Arlan Hilgendorf,

Our new banquet chairperson is **Richard Alfors.**

—Arlan Hilgendorf

Central Wisconsin Chapter

CWTU's Annual Conservation Banquet was held Thursday, October 15, at LaSure's Banquet Hall in Oshkosh. Attendance was down slightly this year, but with plenty of good food, great prizes, and lots of fun, our net revenue was close to budget. This was helped by strong participation in the raffles and auctions. Next year's banquet will be October 16 at the Wautoma Veteran's Memorial.

The following awards were presented at the banquet:

John Tucker and Jim Humphrey presented the Chapter Appreciation Award and a \$250 check to Rawhide Boys Ranch for their extensive help in restoring parts of Lawrence Creek.

Dan Harmon III presented Jim Humphrey with the "Arling Erickson Work Day Award" for his dedicated service in supervising, directing, and planning the chapter work days for the last four years.

Tom Poullette presented a CPR plaque to Bob Hunt that was written in four languages and obtained from the Henry's Fork Foundation. Bob's efforts in this endeavor have spread to the west and have made more people aware of the term "Consider Proper Release."

David Seligman was presented with the "Curmudgeon Award" by Tom Poullette. David did an outstanding job of organizing and orchestrating this year's banquet, in spite of being a curmudgeon.

The WCTU Award was presented to **Tracy Moran** by **Dan Harmon III**. This is a fun award that spoofs a chapter member's efforts on the part of the chapter.

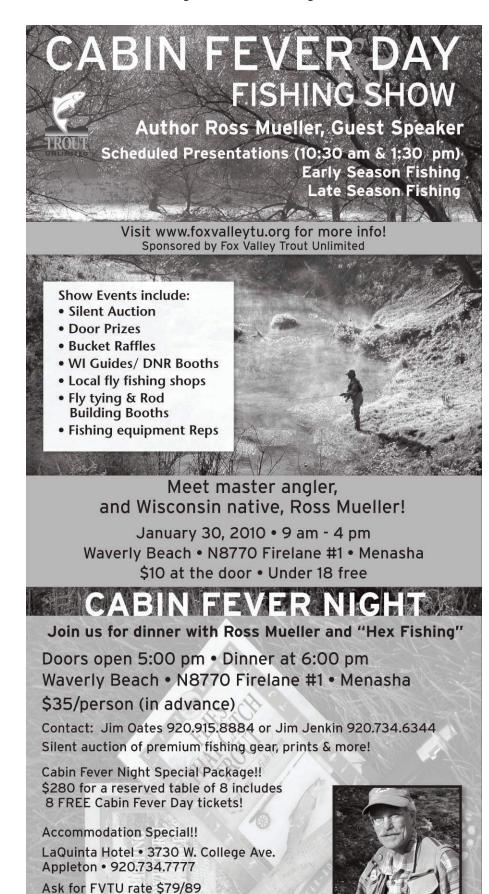
A Service Appreciation Award was presented to **Pat Strom** by **Dan Harmon III** for the many framed pencil drawings that she has donated for banquet auctions.

Tom Poullette presented the "Ozzie Award" for Lifetime Humanitarian Achievement to Elward Engle. This award is named in honor of Richard W. Osborn and a moment of silence was observed to honor Ozzie's passing on October 5, 2009. Elward's accomplishments are many through the years. He has worked for the DNR, given tireless dedication to projects for his church, and presented beautiful flower slide shows and nature walks throughout central Wisconsin.

Dan Harmon III presented the "Brookie Award," the chapter's highest award, to **Russ** and **Sue Bouck**. Russ and Sue have been president and secretary during the same term and have served the chapter's Annual Fly Fishing School, Trout Fest, Fly Casting Spring Tune-up, and Masters Fly Tying classes. They have participated in chapter work days and many other events around the state promoting the chapter and Trout Unlimited.

TroutFest '10 will be held at the **Fin 'N Feather** in Winneconne on February 27. There will be 10 miniseminars, raffles, fly tying demos, artisans, used equipment sale, guides, outfitters, youth fly tying instruction, information on water monitoring, stream rehabilitation, and more. Contact **Bob Smaglik** at (920-582-7410).

The Masters Fly Tying class under the leadership of **Ira Giese**, will be held at the **Winneconne High**





School Jan 21 and 28, and Feb. 4, 11, and 25. Instructors will be Rich Mlodzik, Greg Vodak, John Gremmer, a rep from the Driftless Angler, and one more unidentified instructor. Contact Ira at (920) 229-5133.

CWTU's Annual Fly Fishing School will be held the weekend of June 4-6 at Camp LuWiSoMo near Wild Rose. Fly Casting, reading the water, understanding hatches, selecting fly patterns, tackle selection, knot tying, and fly tying demos are just some of the topics covered. Contact School Director Dan Harmon III at (920) 235-1761 for more information.

John Gremmer is once again teaching "Introduction to Fly Fishing and Fly Tying" at the Fox Valley Technical College. The classes will meet for six consecutive Tuesdays beginning January 19, then in April for a casting clinic and once more in May for an on-stream fishing experience. Contact John at (920) 582-7802) for more information.

Members of CWTU are now providing fly tying instructions for patients at the **John H. Bradley VA Outpatient Clinic** in **Appleton**. The classes are held from 3:30-5 p.m. on the first and third Thursdays each month. For more information, contact **John Tucker** at (920) 725-8219.

—*John Tucker*

Fox Valley Chapter

The Fox Valley Chapter has started the winter schedule of meetings which have a bit slower pace than the activities of the spring and summer months. We are also preparing for our annual fund-raiser, **Cabin Fever Day**, which will be held on January 30.

Our featured presenter at this year's Cabin Fever Day will be **Ross Mueller**, a local author, fly tyer, and fly fisherman extraordinaire. Our event will be held at **Waverly Beach** again this year. Our evening program will feature Ross Mueller and his program "Hex Fishing." Please check www.foxvalleytu.org for additional information on Cabin Fever Day and our other activities.

Our October activities included a trip to the **Besadny Fish Station** on the **Kewaunee River**. We are hoping to make this an annual venture for our members to take people who do not normally have an chance to get out to view the fall salmon run.

A number of chapter members assisted the **Bubolz Nature Preserve** with their annual fund-raiser called **Romp in the Swamp**.

Chapter member **Joe Bach** has also been assisting the Bubolz Nature Preserve with the replacement of a bridge and culvert.

Our November meeting was a popcorn and DVD night with the showing of the "The Drift." Kim McCarthy from the Green Bay Chapter also told us about a plan to work with the DNR and several of the Northeast Wisconsin TU chapters to fund some significant stream work in Northeast Wisconsin during the spring and summer of 2010. Sev-

eral chapter members have stepped up and provided additional financial support so our chapter can take part in the project.

Our December was a casual evening that we are calling "Tie and Lie." It will be an evening for members to do some tying and show others a particular favorite fly or to share an interesting fishing story with those in attendance. Truths and half truths will be shared with those in attendance. **Bob Kinderman**, the chapter chef, will be preparing a couple of his favorite recipes. He has a monthly recipe in our chapter newsletter.

Our January 21 meeting will be our annual meeting at **Fox Valley Technical College**. A couple of student chefs along with **Chef John** will be demonstrating some ways to prepare some of those fish we catch. If you are interested in joining us for the evening, please check the web site for specifics and call **Rich Erickson** at (920) 982-9080 with the number of people who will be attending with you. We need to let the chefs know how many will be in attendance so they have an adequate amount of samples for tasting.

The recent snow storm and the decorated houses have many of us thinking of Christmas and the holidays and the special times that we will be having with family and friends over the next few weeks. Relax and enjoy this great season. From all of us at Fox Valley TU, Merry Christmas and Happy New Year, and "We'll see you on a trout stream."

—Rich Erickson

Frank Hornberg Chapter

Members of the Frank Hornberg Chapter were back in the water on the evening of September 17 at the **Stedman Creek** work site. We cleared a path to the creek and removed a fallen tree blocking the outlet where the creek flows into the **Tomorrow River**. The crew then retired to the home of **Bob** and **Louise Juracka**, sat on the front porch, and enjoyed refreshments and popcorn supplied by Louise.

The final workday of the regular season was on Oct. 17, with chapter members meeting at the **Welton Road** work site in **Nelsonville** for lunch, a season wrap-up, and stream work planning.

This year we scheduled a special work day on Saturday, Dec. 12. We will be constructing lunker structures at the **Bob Lea** farm on **Alm Road**. These structures will be used in a DNR stream rehabilitation of the **Tomorrow River** north of **Lake**

Meyers Road. We are more than happy to help with this project, since it should improve the quality of our favorite local trout stream.

With the approach of winter, we turn our attention indoors. We will have three fly tying workshops in January, February, and March. The first one will be at Clancey's Stone Lion in Custer on January 19. The second one will be at the Portage County Public Library in Stevens Point on February 20. The third one will be at Shooters Supper Club in Plover on March 18. The first and third are in the evening, starting at 7:00 p.m. The second is a family-oriented event, starting at 10:00 a.m.

Our first general meeting of the season was on Thursday, November 12. **George Kraft**, professor of Water Resources at UW-Steven Point and UW-Extension spoke on the topic "Low Stream and Lake Levels and Ground Water Pumping." This





SCOTT GRADY AT WORK ON A SPECIAL ROD FOR WISCONSIN TU

CWTU member Scott Grady is helping the State Council's new Watershed Access Fund get off to a good start by donating one of his custom bamboo rods. In the top picture, he uses a propane torch to flame the bamboo section, or culm, to give it strength and character. Below he splits the culm into 12 strips.

To learn more about the process of building a bamboo rod, visit the State Council's web site at www.WisconsinTU.org, click on the "Programs" tab, and go to "Access Fund." If you cannot attend the State Council banquet, tickets for this rod are available from your local chapter president. For more information on the rod, contact Scott Grady at (920) 687-0987.

was a very informative presentation of data looking at the effects of high-capacity wells on groundwater levels. A trout stream of particular interest to us is the Little Plover River right here in Portage County. We hope the Wisconsin Legislature takes Professor Kraft's data into consideration when it debates the question of pumping regulations.

Our second general meeting will be on Jan. 14 when **Michael Bozek**, unit leader of the **Wisconsin Cooperative Fishery Research Unit** based at **UW-SP**, talks about the influence of riparian vegetation on trout stream temperature.

Our third general meeting will be on February 11. **Rich Osthoff** will speak on "Fly-Fishing the West's Best Rivers on Your Own." Rich will show us where and how to wade fish public tailwaters on the Green, Madison, San Juan, and Bighorn rivers without a guide.

Our fourth general meeting will be on March 11. **Jay Thurston** will speak on "Time, Temperature and Turbidity." Drawing on his fishing experience in both northern and southern Wisconsin, Jay will show why these three factors are so important for fishing success. We are very pleased to have these speakers for our meetings, and we look forward to hearing what they have to say

—John Vollrath
Continued on p. 14



Green Bay Chapter

Continued from p. 13

The big news from the Green Bay Chapter comes from our annual Christmas and Awards meeting. Every year this meeting is designated as an event where members, spouses, and friends get together to celebrate the Christmas season with food, entertainment, and camaraderie.

We also use this evening to recognize people who have been instrumental in the success of the chapter as we work to improve our coldwa-

ter resources. First off, we recognize Business Category went to two area very deserving of this award.

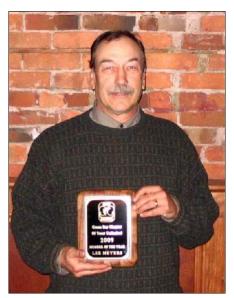
The award in the artist category

people and businesses who have

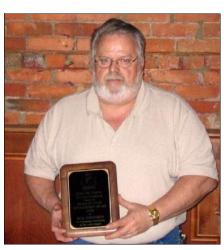
went to Bob Johnson of Bob's

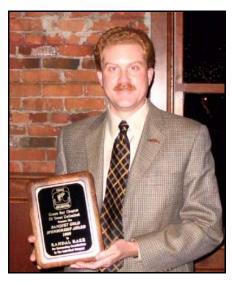












GBTU AWARD WINNERS

Numerous people were thanked by the Green Bay Chapter at its annual chapter awards meeting. Receiving awards were (top, r to I) Wally Heil of Morning Glory Foods and Tim and Sara Landwehr of Tight Lines Fly Fishing Company. Others receiving awards were (row 2, I to r) Lee Meyers and Leo Nikowitz, (row 3, I to r) Kim McCarthy and Bob Johnson, and (row 4) Randal Rake. (See the GBTU chapter report above for the details of these annual awards to chapter members and friends.)

Woodshop. Bob has been contributing hand-crafted items for as long as we have had a banquet.

The award in the individual category went to Randy Rake who has contributed financially for many

Our final banquet award is the Unsung Hero award which goes to someone whose behind-the-scenes work aids greatly in the smooth running of the event. This year, that award went to Leo Nikowitz.

Next up were the chapter awards. The first of these was the President's Club induction. This recognizes someone whose attendance at chapter work projects and public education events has been exemplary. Randy Rake was this year's inductee.

Following that was the recognition of the Member Of The Year. Earning that coveted award was Lee Meyers. Lee has been active in the affairs of the chapter for many years, including chairing the Kid's Fishing Day Committee. In the past year, Lee has joined our board of directors and taken over chairing the Work Project Committee where he did an outstanding job getting members out working on area streams.

Finally, the chapter awarded the Silver Trout Award to Kim McCarthy. This award recognizes someone whose commitment to the chapter and our conservation efforts has been long term. Kim is a past president of the chapter, served on the board of directors for many years, and has been our representative to WITU's Northeast Region and the State Council for years. Congratulations to all the award winners.

The chapter is preparing for the best conservation banquet in the ar-

Our 35th Annual fund-raising banquet will be held March 25 and will provide the chapter with the funds necessary to continue the work we do on behalf of our trout

—Gary Stoychoff

Harry & Laura Nohr Chapter

We are hosting a series of presentations on climate change in SW Wisconsin by representatives of the Wisconsin Initiative on Climate Change Impacts (WICCI). WICCI is a partnership of citizens and scientists whose goal is to develop practical information for Wisconsin businesses, farmers, communities, and governments on climate change effects and how we can respond to them. The first presentation by retired UW-Madison professor John Magnuson provided an informative introduction to the issues, particularly as they may play out in SW Wisconsin. The presentation was held on October 25 in Dodgeville. The presentation was followed by a pot-luck supper.

Two further presentations on climate change impacts are planned for the coming winter of 2010. One will be focused specifically on the impacts on agriculture and the second on the impacts on wildlife and fisheries.

Two guests will discuss the history of land use in SW Wisconsin and how that has impacted today's waterways, plus what is currently being done to restore and reclaim those resources, on Jan. 10. Dave Vetrano, WDNR fisheries team supervisor from La Crosse and Jeff Hastings, project manager for TU's **Driftless** Area Restoration Effort (TU-DARE), will present this program at 4:00 p.m. at the Stonefield Apartments in Dodgeville. Dave and Jeff are going to discuss why the Driftless Area looks as it does and what opportunities we have to work with the land and water to enhance our enjoyment of this spectacular place. A question and answer session will follow the presentation. A chili supper follows the program.

-Brian Larson

Kiap-TU-Wish Chapter

Kiap-TU-Wish Chapter member Lowell 'Hap' Lutter passed away on Oct. 4. He had battled cancer for four years. Hap had been an active chapter member. He volunteered on stream projects, was a past board member, and served as chapter treasurer. He was an ardent fly fisher and conservationist, and he was also on the board of directors of the **Kin**nickinnic River Land Trust. Hap, always aware of the chapter's need for fund-raising, created the Kiap-**TU-Wish Annual Spring Appeal** fund-raiser and nurtured the idea from day one. He organized the Spring Appeal and ran it with help from his family and mailing help from board members. He wrote the letters, kept the lists, and kept track of all the business for the appeal.

Hap was the former Chief of Staff at Gillette Children's Hospital until 1997 and was the editor of the Journal of Foot and Ankle Surgery. He spent much of his medical career working with children with muscular dystrophy, brittle bone disease, and dwarfism. He spent six weeks of every summer in Tunisia teaching about medical disorders. He retired from private practice in orthopedics

Hap participated in 26 marathons, including 10 trips to the Boston Marathon.

Hap was 70 and is survived by his wife. Judy, daughter Wendy, sons Reid and Parke, and four grandchildren. He will be greatly missed by the chapter as a friend, volunteer, board member, and officer. We were extremely fortunate to have shared in his life.

—Greg Dietl

Lakeshore Chapter

We also held two workdays on Nov. 7 and 21 at the public fishing access to the Manitowoc River at Manitowoc Rapids. This is an old DNR fishing area that the DNR deeded over to the Manitowoc County Parks Department, and it needed maintenance and brush re-

moval. Adam Backhaus, director of the Manitowoc County Parks Dept., spoke to us at our October meeting to ask for our help and showed us a plan that he has for the area including a walking path and removal of unwanted trees and vegetation. TU members who helped on these



workdays were Dave Pozorski, Jeff Yax, Chuck Wolf, Robert Athorp, Bill Rogers, Wayne Trupke, and Jeff Preiss. More workdays will be scheduled on this project for late winter and early spring.Lakeshore TU members have been very busy since our last report. We held two Onion River workdays on Oct. 3 and 10. These workdays were devoted to removing a large tree that had fallen into the river and was collecting debris and damming the river as much as any beaver dam I have seen. We also worked on other sections of the river that had dead falls and other stream-blocking impediments. TU members who helped at the workdays were Robert Athorp, Tom Mockert, Bill Rogers, Al Spindler, Ken Zimmermann, and Wayne

Chapter members were also involved with teaching fly tying and fly casting at two local schools. We worked with eighth grade students at **Kiel Middle School** on Oct. 5, 6, 26, and 27 and with juniors and seniors at **Plymouth High School** on Oct. 22 and 23. Lakeshore members who helped instruct these students were **Jeff Preiss, Mike Hiebing, Bob Jones, Rodney Johnson, Frank Kushnier, Ken Zimmerman, Wayne Trupke, Tom Mockert, Tom Beschta, George Close, Bill Rogers, Chuck Wolff, and Bruce Balisterri.**

On November 11, members Ron McCormick and Tom Steinberg represented our chapter at Buck Fever Night. This is an annual event held at the Club Bil-Mar prior to the gun deer season. Ron and Tom tied flies that incorporate deer hair and also donated a door prize to the event.

Our October meeting was followed by an interesting presentation by **Tony Smith** and **Vicki Hall** of the **Glacial Lakes Conservancy**. This is an organization that has many of the same goals as Trout Unlimited, only they are more concerned with protection of land parcels. It was interesting to hear from a local group that shares similar values.

Our November meeting featured a presentation by **Ross Muel-ler**, a well known fly fisherman and author. Ross gave an outstanding presentation on "Fall Fly Fishing in the Driftless." His program was both informative and entertaining, as they always are. I am always amazed by his knowledge and the time he puts in on the stream.

Jeff Preiss has announced that our annual Conservation Banquet will take place at the Club Bil-Mar in Manitowoc on Saturday, March 27.

-Wayne Trupke

Northwoods Chapter

The Northwoods Chapter began the year with an organizational meeting and elections on October 12. Newly elected board members include **Hannah Hansen**, **Fred Johnson**, and **Aaron Nelson**. Officers include:

President — Brian Hegge,

Vice President — Josh Kunzman, and

Secretary/Treasurer — **Terrence Cummings**.

These elected officers and board members represent the core of the Northwoods Chapter and it's great to be part of an organization with these hardworking people.

Sue Reinicke from the US Forest Service gave a presentation on the whole tree drop that took place in the border Brule River this past summer. The project is a joint project between WE Energies, the US Forest Service, and the Michigan Department of Natural Resources to place whole trees in the section of river downstream from the Iron River that flows out of iviicnigan. The goal is to return woody habitat to the river that was removed during the logging era over a hundred years ago to decrease the stream width and increase stream depth. This first tree drop was completed on a mile of stream, and there are plans to drop trees downstream for a few more miles in upcoming years.

Chapter representatives attended the TU Northeast Region meet-

ing on Dec. 5 and allocated money toward the dredging of the N. Trout Springs project in Vilas County, the Brule River tree drop project, and the US Forest Service stream habitat crew.

On Dec. 14 we had our Christmas party at the **Fireside Restaurant** in **Rhinelander**. It was great to get back together with members and reflect on this year's fishing trips, projects, and plans for the future.

Chapter meetings are scheduled for the second Monday of the month and are held at the **Oneida County Rhinelander Airport** community room in the basement. Officers and board members meet from 6:30-7:00 p.m., followed by a general meeting.

Fly tying will be held in January, February, and March to fill fly boxes for our annual banquet.

The Northwoods **36th Annual Conservation Banquet** will be held on Saturday, March 27, at **Holiday Acres Resort** east of **Rhinelander**. Planning for the banquet has already begun and tickets will be available at the Jan. 11 chapter meeting.

The Northwoods Chapter has gone green and relies on e-mail distribution of newsletters and events. If you want to receive our newsletter or information about chapter events, send your e-mail to lostskier@charter.net.

—Brian Hegge

Shaw-Paca Chapter

Our annual banquet date is Thursday April 8, at the **Northwinds Banquet Hall** in **Marion**. Tickets are available. I'll be happy to sell you one. Contact me at lwkcjk@charter.net.

We have renewed our membership in the **Northeast Wisconsin Land Trust**. We have also renewed our library memberships which include copies of *Trout* and *Wisconsin Trout* to local high school and college libraries.

We will be sponsoring two separate work crews in our Shawano-Waupaca county area this next summer. There is certainly a lot of brush to cut and stream work to do.

Our annual fly tying class is scheduled for January 19 and 26 and

Feb. 2, 9, 16, and 23. The location is the **Pella Town Hall** with a 7:00 p.m. start time. Master tyer **Jerry Weath-**

erwax will again be our leader with assistance from chapter members.

—Lee Kersten

Southeastern Wisconsin Chapter

The Southeastern Wisconsin Chapter resumed its regular allchapter monthly meetings in September. Our meetings are held at the Thunder Bay Grille, located just off of the intersection of I-94 and Pewaukee Road, at N14 W24130 Tower Place, in Waukesha, behind the Mobile station. Dinner starts at 6:00ish, and our meeting and speaker follow at 7:30ish. Meetings run from September through May, and anyone is welcome to attend. If you are an SEWTU member reading this who hasn't been out to one of our meetings, stop by and see what we're about.

SEWTU's Sept. 22 meeting featured **Peter DeBoer**. Peter is an experienced angler and guide who works out of our good friend **Pat Ehler's The Fly Fishers** in **Milwaukee**. DeBoer demonstrated some amazing spey casting techniques right in our meeting room. He gave an incredibly useful talk about how such techniques are useful on Wisconsin's small streams using lightweight (2-5 wt.) equipment.

Also at our Sept. 22 meeting, SEWTU presented its membership with the TU National's Gold Trout Award for the top chapter across the U.S. The award was presented to SEWTU at this year's national TU meeting in Traverse City, MI, on the 50th anniversary of TU's founding, The award was given to all of SEWTU's volunteers, to whom it truly belongs.

At our Oct. 27 meeting, we welcomed **Nelson French**, executive director of the **Kinnickinnick Land**

Trust in western Wisconsin. Nelson discussed his organization, what land trusts do, and how TU's mission of coldwater conservation mixes well with the mission of land trusts.

The meeting also included our annual awards ceremony. This year the following individuals were recognized for their incredible efforts on behalf of our chapter: Jim LaRose, Mike and Sue Arneson, The Gary Borger Chapter of TU, Jim Wierzba, Stan Strelka, Herb Oechler, and Henry Koltz. SEWTU thanks all who have made our chapter a success over the past year.

On Nov. 17, SEWTU welcomed one of our chapter's best friends, **Pat Ehlers** of **The Fly Fishers** in **Milwaukee**. Pat discussed warm water fly angling, and we're talking tropical warm. Just in time to help ease our communal cabin fever, Pat's talk about fishing, equipment, and travel planning provided one heck of a lot of information about when, where, and how to travel to warm water destinations.

On Dec. 15, SEWTU held its annual holiday meeting and first-ever year-end swap meet. At the meeting, interested members engaged in a gift exchange, and then screened two incredible movies. We watched "Chasing Down the Man," a documentary about fishing for rooster fish on the beaches of Baja Sur in Mexico and "The Hatch," a documentary about the epic stonefly hatch in the Black Canyon of the Gunnison River in Colorado.

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Field & Stream names SEWTU a "hero of conservation"

Besides being named the best TU chapter in the country for 2009 by TU National, SEWTU was honored as a "Hero of Conservation" by Field & Stream magazine in the publication's November '08 issue. The honor came with a \$1,000 grant from Toyota.

The magazine quoted SEWTU President Henry Koltz as saying, "If you take care of the water, then the fishing will take care of itself."

The write-up also mentioned the work the chapter did on a recent stream improvement project where members stabilized banks and improved trout habitat.

Heroes of Conservation Three conservation-organization chapters working to

save our forests, streams, and wetlands > BY TOM TIBERIO



ZAAK WALTON LEAGUE OF AMERICA

Wildlife Achievement Chapter, Damascus, Md.

A lot has changed in the 60 years since this IWLA chapter started. "We grew up on the Chesapeake Bay fishing and crabbing," says chapter president Stephen Lefebvre "And it's just not like it used to be." To help mitigate the effects of development and pollution, volunteers clean up the roads and waterways of the Patuxent River

"And it's just not like it used to be." To help mitigate the effects of development and pollution, volunteers clean up the roads and waterways of the Patuxent River watershed, removing everything from tires to refrigerators. They've planted 1,200 trees, which buffer the riparian zone, and they've also helped reestablish species of elms and chestnuts. "We're starting to make an impact," Lefebvre says.



DELTA WATERFOWL
Illinois Prairie Chapter,

Biomington, III.
This central-Illinois group has installed 300 wood-duck and mallard nesting structures across the state, a project that helped two local teens attain Eagle Scout status. They also sponsor bird-related research for PhD students, and host a youth duck hunt and waterfowl seminars. "Being a conservation organization isn't just about hunting," says chapter secretary Pat Gregory. "We're teaching these kids stewardship."



TROUT UNLIMITED
Southeast Wisconsin Chapter

"If you take care of the water," says chapter president Henry Koltz, "then the fishing will take care of itself." Working with another TU chapter, members placed 100 wooden "lunker" structures along 1 mile of a public-access stream, stabilizing damaged banks and improving trout habitat. The chapter also holds casting and fly-tying clinics and takes veterans fishing.



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During this meeting, members held a swap meet gear exchange/flea market sale. Another swap meet will take place in May, so start gathering up your unused equipment now!

SEWTU's upcoming meetings will be just as good as those that have passed. The Jan. 26 meeting will feature **Bill Schultz**. Bill lives in **New Berlin**, WI, and will give a talk entitled "**Kayaking for Door County Smallies**," something he knows a great deal about. Since 1995, Bill has spent 130 days catching and releasing 3,500 smallmouth bass in the beautiful clear waters of **Door**

County. When you add his river fishing, he has caught and released over 12,000 smallies during the past 15 years. Bill will share what you need to know to have a successful fishing experience on one of the top smallie fisheries in the country.

The Feb. 23 meeting will feature an update on the **Driftless Area** work SEWTU has and will be doing as part of TU's **Driftless Area Restoration Effort** (TUDARE). If you enjoy fishing in Southwest Wisconsin, this is a meeting you won't want to miss!

Speakers for our March 23 and April 27 meetings are yet to be named. The March meeting will feature SEWTU's **Sports Show** raffle drawing. This meeting is typically one of SEWTU's largest yearly meetings, and you won't want to miss it.

Our May 25 meeting will be something completely new. We're going to give members a chance to get up and talk about great trips they've been on. Anyone tech savvy enough to create either a slide show or a PowerPoint presentation is urged to do so. Presentations should be only about 10-15 minutes long (no need to go crazy), and should simply be about where you went, how you got there, travel tips, fishing tips, and the fish you caught (or didn't!). This is intended to be lighthearted and vaguely informative (no need to give away holes or rivers, though). If you are interested in carving out 10 minutes, please contact Henry Koltz. At this meeting we'll also have another gear exchange, sale, swap meet event. Bring you used equipment and see if someone else can put it to use!

On our workday front, on we joined forces with the **Blackhawk** and **Gary Borger** chapters of TU on Sept. 19 to complete our work at **Van Slyke Creek**. As many know, Van Slyke Creek is a coldwater stream located in **Fontana**, WI, that runs in to **Geneva Lake**. This stream is within SEWTU's chapter area, and it is one of our rare coldwater gems.

Last summer we aided the Village of Fontana, and Blackhawk TU members and project leaders Wes Milner and Jill Wegner in restoring a huge stretch of river. We removed impoundments, obstructions, downed timber, and encroaching vegetation. We also replaced a culvert that had been an absolute barrier to fish passage.

This year, we completed our work, brushing and making the stream accessible downstream through the **Abbey Resort**, which generously agreed to partner with us on this project, and which provided

an incredible catered, wedding-like "lunch on the green" at the resort. Henry has warned members not to get used to the top shelf treatment — it's heart bomb brats starting again in October!

In October, SEWTU worked on Genesee Creek under the leadership of Carroll College Professor Jason Freund, who is also an SEWTU board member. With Freund's regular crew of college student volunteers, we brushed invasive buckthorn and removed multiple large trees which had fallen into the creek from a recent wind storm. Newly FISTA-certified chain saw operators felled and cut cedar trees to length for use in future in-stream restoration projects, and still other members repaired washouts where the stream was attempting to leave its banks.

As always, SEWTU took November off in order to accommodate our hunting members.

December's workday, which had been scheduled to include streambank preparation and mini-lunker construction with the Gary Borger Chapter in the Southern District of the Kettle Moraine was cancelled by the WDNR. This was because 18" of wet, heavy snow covered the worksite the week of our workday. Our work area resembled an ice skating rink, and our wood piles looked like ice sculptures.

SEWTU has a busy workday schedule planned for 2010, including workdays in January, March, April, May (in mid-state), June (in the **Driftless Area**), July, August, September, October, and December. We'll more than make up for the date we missed, and we'll also have a major 2010 **TUDARE** stream restoration project at **Elk Creek**.

On the education front, SEW-TU has manned conservation education booths featuring mission information, fly tying, and casting instructions at Cabela's and Gander Mountain. These events have been under the supervision of past president Chuck Beeler and past president Dan Asmus. The events have relied heavily on the volunteer efforts of Al Dalfanso, Joe Valcoun, Herb Oechler, and John Knitter, who also continue to teach fly tying classes as the Milwaukee Veterans Administration.

On Oct, 10, members of SEW-TU, Gary Borger TU, Blackhawk TU, and Carroll College met at Genesee Creek to attend a training program put on by the Forest Industry Safety Training Alliance (FISTA). Members learned how to operate, care for, and use power cutting equipment, and all attending were certified at the end of the program. SEWTU plans to repeat this event next year. If you are interested, contact Henry Koltz at hek@sdelaw.com.

On Sat., Oct. 17, **Dan Asmus** and **Mike Kuhr** led members of **Gary Borger TU** in manning a booth at the **Root River Hatchery Facility** as part of an event hosted by the **WDNR**. We taught children and parents about SEWTU's mission and gave fly casting and fly tying demonstrations. Hundreds of attendees were pleased to see our booth.

On Dec 11, SEWTU members attended a **Big Brothers/Big Sisters** event at the Richfield **Cabela's** location. We talked about our group and how Big Brothers/Big Sisters participants could become involved. We also taught fly tying and casting to





SWEEPER INSTALLATION ON BLACK EARTH CREEK

Mike Grimes (top) applies some chain saw persuasion to a branch during a recent stream project on Black Earth Creek in Dane County. Meanwhile, other STU members move a tree branch to its new home as a streambank sweeper.



participants under the leadership of **Chuck Beeler.**

Finally, SEWTU anticipates that it will be starting a youth camp somewhere in Southwest Wisconsin this summer. If you can help this program in any way — be it as a leader, financially, or through equipment donations — it would be greatly appreciated. We'll teach children about conservation, fishing, why our streams are important. This will give them a chance to get involved with what TU is all about. Those who can help are asked to contact Henry Koltz hek@sdelaw.com.

With respect to our ongoing Project Healing Waters program, Mike Kuhr has completed the program's establishment with the Milwaukee Veterans Administration. Mike and his band of volunteers have now finished two fishing outings with VA attendees, one at Lakeshore State Park and another at a local fishing pond. Members and volunteers alike have had an incredible time, and Mike thanks everyone who has contributed to the program, including the family of Mary Kwitek, who recently donated a number of demo fishing rods for use at instructional and fishing events, and Pat Ehlers, who has been a consistent contributor. If you have rods, vices, or tying equipment that you can donate for this or other SEWTU programs, contact Henry

On its fund-raising front, our fundraising committee held our annual Fall Habitat Fund-raiser at the Charcoal Grill and Rotisserie. This year's event featured and incredible number of quality prizes, including

limited edition rods, trips, wine, jewelry, apparel, sunglasses, and much more. **Dave Vetrano** was on hand to talk about different stream restoration techniques, structures, and methods that are used on Wisconsin's streams. This year's event was our most successful in recent memory, netting nearly \$10,000 for upcoming stream restoration projects.

Fundraising committee heads Chuck Beeler, Stan Strelka, Jim Wierzba, Rich Vetrano, and Jay Zawerschnik are owed an incredibly big "thank you" from our chapter.

Finally, SEWTU has established separate committees for habitat, education, fund-raising, and membership. If you are an SEWTU member interested in becoming a part of a committee, please contact Henry Koltz for information. This is a great chance for any and all to get involved. Together we are making a great impact on the resource. We are getting more work and education accomplished than ever before, and we're honestly having a great time doing it. Step up and be a part of the progress. You'll be glad that you did.

Thanks to everyone who has helped to make what SEWTU is doing possible. This thank you goes first and foremost to our members, but also extends to those at the state level, people from other chapters, and those from the TU National office who have gone far out of their way to help us. The result has been a group where "organization" has been replaced by "family" as its operative description. Let's keep this thing going!

—Henry Koltz

Rolland Kiel for volunteering multiple days, and to Joe Harner and Jim **Emerson**. The volunteers help with moving electro fishing gear, netting fish, clipping fins, and recording data. We look forward to learning what the survey will show on the brook trout restoration experiment currently in progress on Whittlesey Creek. Thanks to Dennis Pratt of the **WDNR** for inviting the chapter to a tour of the Lamprey Barrier on the Brule River. Hearing about this important facility and its history over many years made for an interesting tour. Chapter members and some Brule River Sportsmen's Club members learned a lot about the fight against the lamprey and the Brule River fishery.

The Great lakes Restoration Initiative is described by Grant Herman of the Sigurd Olson Environmental Institute as "the best chance in our lifetime to secure federal funds to restore the Great Lakes." The Institute hosted a group of area partners on October 27 where ideas on projects were exchanged. Bill Heart, Al House, and others spoke on the need to fund

habitat restoration and other conservation work in the **Chequamegon Bay** area.

This group of area agencies and conservation groups has been working on a coordinated request for funding to the **EPA**. Chapter members **Dick Berge** and **Bill Heart** suggested projects on the **White River**. Dick listed the important **Bolens Creek** tributary as a trouble spot for erosion. **Scott Toshner** listed several other White River projects that were recommended in the recent White River report.

The chapter's **Adopt a Highway** clean-up day provided an opportunity to enjoy a warm fall afternoon, pick up Hwy H at Delta, and enjoy the food at the **Delta Diner**. **Roger Gustafson** had half of the work done before we arrived, but volunteers **Jim** and **Jane Emerson**, **Don Sutliff**, **Joe Harner**, and **Chuck Campbell** completed the job. Many thanks to all of the 2009 volunteers.

The chapter added several new projects this year, and we look forward to working on a busy 2010 schedule.

—Chuck Campbell

Wisconsin Clear Waters

The chapter's annual financial report was completed on-line a few days before the deadline. The purchase of **QuickBooks Pro** for the treasurer was approved by the board at the December meeting. It is anticipated that the treasurer can cate-

gorize income and expenses and build reports to match the TU National financial report.

A 7th year of restoration was completed on **Gilbert Creek** downstream to **Hwy 29** in **Dunn County**. *Continued on p. 18*

(608) 833-9191

'Next to Target"

Southern Wisconsin Chapter

Come help us break the ice and have a ton of fun while raising money for our coldwater resource! SWTU's annual Ice Icebreaker Event is set for Saturday, Jan. 16 at the Promega Center in Fitchburg. Our keynote speaker for the Icebreaker will be Bob Linsenman, author, angler, tyer, fly shop owner, and guide.

Based out of **Mio, Michigan**, Bob is a noted name in the world of fly fi shing. He has authored numerous books on fly fishing in Michigan, but he is perhaps best known as co-author of *Modern Streamers for Trophy Trout*. Bob will be sharing his tactics and techniques for using big flies to catch big fish. He will also be demonstrating his streamer tying techniques. It's very exciting to have such a noted practitioner and lover of our sport coming to share his knowledge at our Icebreaker.

The Promega Center offers a clean, professional, and relaxed atmosphere for the event. We will be serving up a great lunch, and there will be many opportunities for door prizes and bucket raffle items, including a bamboo rod!

This year we've added a fun, educational event for kids, the **Stream Explorers Corner**, from 10 a.m. to Noon. One kid under 10 gets in free to the Icebreaker with every paid parent's admission.

Our chapter and all who value our state's coldwater resource owe a huge debt of gratitude to **Mike Grimes**, our outgoing Project Chair who recently headed up his last stream workday. Mike is stepping down after many years of extraordinary dedication. He worked to promote and execute scores of stream improvement projects.

More than just encouraging chapter members to show up for a morning of brushing trees and installing sweepers, Mike worked with city, county, and state officials to identify what needed to be done and make it happen. Thank you, Mike!

This was our chapter's 40th year, and it was a great one. We're looking forward to the next 40! Learn more about us and our activities at www.swtu.org. Our 40th year is already looking to be very busy and very rewarding.

—Ďrew Kasel

Wild Rivers Chapter

The beautiful September weather in Wild Rivers country made for enjoyable days for chapter members to participate in some interesting events. The **Iron River National Fish Hatchery Open House** was very successful. Thanks to **Carrie Edwards** for coordinating the event. Over 300 people attended, half of whom were children. **Rob Kemkes** and **Don Sutliff** demonstrated fly

casting. **Bill Heart** and **Chuck Campbell** were busy all day with fly tying demonstrations.

This year's fall run also benefited from the nice weather. The annual week-long survey of the Whittlesey Creek fish population is conducted by the USFWS, DNR, and Whittlesey Creek Refuge staff biologists with the aid of volunteers. Thanks to volunteers Don Sutliff and







LAMPREY BARRIER TOUR

WDNR Fisheries Biologist Dennis Pratt (far right) recently gave members of the Wild Rivers Chapter a tour of the Bois Brule's lamprey barrier. Some members of the Brule River Sportsmen's Club were also present.

Continued from p. 17

A USDA WHIP contract for Duncan Cr. was certified and reimbursement received. Work in 2010 and beyond will proceed downstream through a stretch recently purchased by DNR through the Stewardship Fund as

chapter and trout stamp funds are available.

Elk and Trout creek work planned for 2009 was postponed due to a decrease in trout stamp funds. Our 2010 work will depend on fund raising and how much of the additional \$275K trout stamp funds will be allotted to our area.

Plans by the WDNR's Rob Herman f or work in Trempealeau, Jackson, and Buffalo counties continues. Several projects are pending funding and easement procurement. Rob has forged many partnerships with local sportsmen and schools to complete these projects. Success is documented in many shocking demo photos and before/after photos of streambank and habitat work.

At our Dec. 3 chapter meeting, members shared videos, discussed recent fishing trips, and made tentative plans for 2010. So much water and so little time!

Our chapter now has an active web site at www.wisconsintu.org/clearwaters. The site is being actively developed and we hope to have it become our primary source for information for ongoing and upcom-

ing events. Periodic newsletters will be published on the web site, and you can get information on scheduled events on the site's calendar. Members' pictures are in the photo gallery, and stories about recent work are being added to the projects section. Please register at the site.

For information or to submit items for the web site, please contact **Lon Christianson** at lchrist@charter.net.

Chapter officers are:

President — Tim Meyer,

V. Pres. — open,

Secretary — Duke Welter, and

Treasurer — James Fulkerson.

Our annual banquet is scheduled for April 22 at the **Holiday Inn Campus** in **Eau Claire**. Mark your calendars. Banquet volunteers are already starting their planning.

—Tim Meyer

Wisconsin River Valley Chapter

With inland trout fishing coming to an end here, our chapter got busy with our fall events and programs. We started the fall program off with a bang on Sept. 14, when **Todd Hanson**, editor of *Wisconsin Trout*, gave a talk on trout in Wisconsin and the 50th anniversary of TU. Unfortunately, Todd did not bring some of his homebrew, which countered his well-done program!

On October 12, our program talk was on the **Wisconsin Outdoor Expo**. The expo is going to be held in **Wausau** on May 10, 2010, and our chapter is very excited to be part of this wonderful event that teaches kids about fishing, hunting, and the outdoors.

October 13 and 15 was **Plover River Day**. Over 100 students from **Wausau East High School** came to



WITU Looking Back

From the Fall 1979 WITU Newsletter...



Roger Fairbanks (left) accepting T.U.'s 1979 Trout Conservationist Award at the Annual Meeting in Seattle, Washington. Pictured also are Tom Sopkovich (right) and Phil Bracewell, National Director from North Carolina and Awards Chairman.

From the Jan. 2000 Wisconsin Trout...

Mecan springs target of new Perrier plant

By John Welter

A plan proposed by French bottled-water manufacturer Perrier would install a 100-foot-deep well on the public land in Mecan River Springs State Natural Area to pipe water to a factory to be built nearby.

Word of the plan surfaced in mid-December as real estate agents working for Perrier tried to tie down land purchases near the State Natural Area. Perrier officials have asked the state if an easement across the natural area would be available to allow placement of the well there. TU's Central Wisconsin Chapter and the Wisconsin State Council joined other environmental groups in asking the DNR to conduct a full environmental impact survey on the plant proposal. From the Jan. 1990 Wisconsin Trout...

From the Chairman

by Dick Kraus

Being a pound or two overweight, I decided (with help from my wife!) that as of the first of the New Year I should eat a little less, drink a little less and watch my cholesterol. It's the time of the year to make such resolutions. Problem is, it seems to me, we've made those resolutions before.

Another resolution 1 should make is never to predict the end of a drought again. Last year, 1 predicted that the Great Drought of 1988/1989 was over. That was more optimism than insight. The drought was not then, and is not now, over.

The Wisconsin Department of Natural Resources has seen fit to seek an emergency order closing the early trout season in southwestern Wisconsin that would have run from January 1 to May 4, 1990. The DNR stated to the Natural Resources Board the following reasons for seeking the closure this year: 1) southwestern Wisconsin was heavily impacted by the drought, which caused poor natural reproduction of trout and high mortality of the fish in streams; 2) belownormal precipitation has resulted in streamflows that are ten-year lows; 3) trout stocking has been curtailed by up to 80 percent in some areas because there is no water in the streams.

Realizing the seriousness of the situation, the Natural Resources Board approved the emergency order at their November meeting, and the 1990 early trout season thus will never be.



the Plover River at the Herb Hintze Riffle section to learn all about trout, the river, and how streams work. This program has been going for over a dozen years now, and it is always a highlight for our chapter and the kids. John Meachen, Linda Lehman, Henry Kanemoto, Bob Pills, Gene Koshak, and Dan Grauer were there to help.

On Oct. 20 at the Edgar High School, the "Bob and Al Show" was presented by Bob Pills and Al Hauber. This is their second time presenting a "Trout in the Classroom" program to the class. Bob and Al discussed trout, invertebrates, and fly tying. The "Bob and Al Show" is always entertaining, and the kids get a real treat when these two get together to add to the curriculum.

On Nov. 9, **Richard Wunsch** gave us a great talk on "Taking Outdoor Digital Photos." Richard gave great insight on the different digital cameras available, their capabilities, and the "art" of taking a photo so you get the most out of your pictures.

At the time of this writing, we will be having our next program on "Musky on the Fly" with **Brad Bohen**, the world record holder for muskie caught on a fly. We expect this will be an excellent introduction to big-rod flies and what it takes to catch these toothy critters.

Our future programs include a highly anticipated talk on Monday, January 11, by **Dave Carlson** of the *Northland Adventures* TV program.

February 8 is popcorn and movie night with the viewing of *Trout Bum Diaries*, *Volume 1*, *Pat agonia*.

March 8 features a program on "River Invasives" presented by the River Alliance of Wisconsin.

Our winter/spring schedule of programs held the second Monday of every month can be found at our web site at **www.wrvtu.org**.

If that wasn't enough, we are also beginning our planning for our spring banquet that will be held Saturday, April 10.

Henry Kanemoto is taking the lead on a chapter fly fishing course. We anticipate offering this course, skewed to new comers to fly fishing, in the early summer of 2010. This is quite an undertaking by Henry, and he is feverishly putting together quite a course for new fly fishers!

Other than that, the rest of us are waiting for the spring 2010 early catch and release season. It's only mere months away. Happy Holidays to you all from Wisconsin River Valley Trout Unlimited.

—Doug Brown

Wolf River Chapter

On Saturday December 5, the Northeast Region of Wisconsin TU held its annual meeting at the Wild Wolf Inn along the banks of the Wolf River. All programs requesting funding were financed through the generosity of the various chapters involved. Herb Buettner gave a rousing speech on the past, present, and future restoration of the Wolf River and it's tributaries. Kim McCarthy chaired his last regional meeting. Thank you, Kim, for your hard work with the region, and good luck at the state level.

Our nomination committee is currently collecting nominations for chapter president. The election will be held at the March general membership meeting. We will be sponsoring another snowshoe exploration of the Evergreen River, particularly the headwaters at Flora Springs. Last year during the exploration, a beaver dam was located. The coordinates were sent to the DNR, and a short time later, the dam and beaver were removed. The date for this winter's exploration has been set for Jan. 23. Anyone interested should contact Jim Waters at (715) 484-4612) for more information.

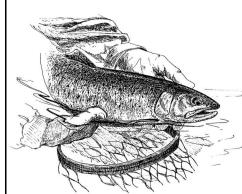
The Wolf River Chapter has one fund-raiser each year, our brat stand. The stand is located on the corner of highways 64 and 55 at Mike's Service Station in Langlade and features homemade sauerkraut. We are there most weekends during the summer. The chapter would like to thank Mike for letting us set up at his station.

—Tim Waters

Consider Proper Release

The future of trout fishing is in your hands!

Practice these CPR steps to help ensure the fish you release have their best chance of survival.



- **1. Don't play fish to exhaustion.** Instead use a landing net to bring fish under control before they're played out.
- **2.** Handle fish in the net. Grasp them across the back and head for firm but gentle control. Use the net fabric as your "glove."
- **3. Turn fish belly up while removing hooks.** This disorients fish momentarily for easier, quicker handling.
- 4. Don't remove swallowed hooks. Just cut the line...doing so saves two-thirds of deeply hooked trout.
- 5. Don't keep fish out of the water more than 10-15 seconds. Fragile gills are damaged after that...especially in cold weather.





STUDENTS ENJOY A DAY ON THE PLOVER RIVER COURTESY OF WRVTU

Wisconsin River Valley Chapter President John Meachen and Linda Lehman (bottom, in stream on far left) addressed a big group of Wausau East students during the chapter's Plover River Day Oct. 13 and 15. Part of the program's activities included sampling for insects (top).

Northeast Region sees big rise in habitat work

By Kim McCarthy

A common question around Wisconsin TU's Northeast Region in past years has been; "Why don't we see more habitat work on the trout waters in Northern Wisconsin?"

That question might become a thing of the past if current habitat improvement trends continue. Joint efforts between DNR, USFS, and TU's Northeast Region chapters produced a large amount of habitat work during the summer of 2009 and promise to produce an even larger amount of work in 2010.

A new concept began to show results during the 2009 work season. NE TU chapters cooperated with DNR to hire a full-time summer habitat crew for Marinette and Oconto counties. Results have now been published and are impressive. The crew improved habitat on six streams. The habitat work was performed on 21,500 linear feet of stream frontage. The habitat work included brushing, bundling, and rehabilitating old non-performing structures.

In addition to the hired crew in Marinette and Oconto counties, Antigo DNR personnel began using equipment funded by TU to improve several Antigo-area waters.

The U.S. Forest Service also used TU funding to hire a seasonal technician who also worked all summer on trout habitat on National Forest streams. It was a good 2009 work season on NE Region trout waters.

2010 work planned

The good news is that the amount of habitat work in 2010 will exceed the amount completed in

2009. The NE Region held its annual meeting on Saturday, Dec. 5, and agreed to help fund a very large amount of work for next year.

2010 will once again see a hired crew in the region. Funding has been approved by the regional chapters to place a hired crew in Shawano and Waupaca counties for the next work season. Plans are in place to have the crew work on as many as 10 streams in the targeted counties. If the crew matches the 2009 effort, we should see miles of habitat improvement.

NE Region chapters have also agreed to partner with DNR on over three miles of habitat work on the Prairie, Evergreen, and Hunting rivers. Those streams represent some of the most productive water in the NE Region, and the scope of the projects should result in increased trout populations in each of the waters.

Beaver control continues

Fisheries biologists feel that beaver control remains the single most important factor in the North Country to protect trout populations and enhance habitat. As beaver and their dams are removed and streams return to their free-flowing condition, trout habitat increases.

The NE Region has once again made significant funding commitments to the Forest Service and DNR to battle beaver infestations.

Border Brule River tree drop

The NE Region has also become involved with a large three-mile-long project to improve trout habitat on the Border Brule River. Water quality on the river has been good, but cover for trout has been lacking since most of the cover was removed years ago during logging operations.

Michigan DNR and the USFS are engaged in a helicopter tree drop project to return large woody cover to the river, as was reported on in the last issue of *Wisconsin Trout*. The NE Region is joining the effort by agreeing to fund the anchors required to fix the trees in place as they are brought in by the helicopters.

Temperature monitoring

The NE Region has also committed funds for temperature monitoring on the North Branch Oconto River system and for some of the work needed to prepare for the dredging of Hemlock Springs in 2011.

Put it all together, and it is safe to say that during the 2009-10 time period, over 10 miles of habitat work will be completed. Those are miles of habitat work that would not have happened without TU assistance.

Some help from Mother Nature is the missing piece of the trout picture in the NE Region. We have been experiencing a prolonged drought that has led to very low water levels, including some recorded record lows.

Biologists are reporting that trout populations are managing in spite of the lack of water. A couple of wet years, combined with all of the work taking place, would be the perfect combination for trout in NE Wisconsin.

(Kim McCarthy has been WITU's Northeast Region Vice Chair for several years. He is on the ballot to replace Bill Heart as State Council Chair this February. -Ed.)

State adding to White R. Fishery Area by Wautoma

The WDNR has obtained an option to purchase 125.4 acres for the White River Fishery Area in Waushara County.

The Souzek tract is located in the south-central part of Waushara County in the Town of Dakota about three miles southwest of the city of Wautoma. The parcel is within the White River System Fishery Area project.

WDNR owns property on the south side of the tract (shown in grey in the attached map below the black outline of the addition).

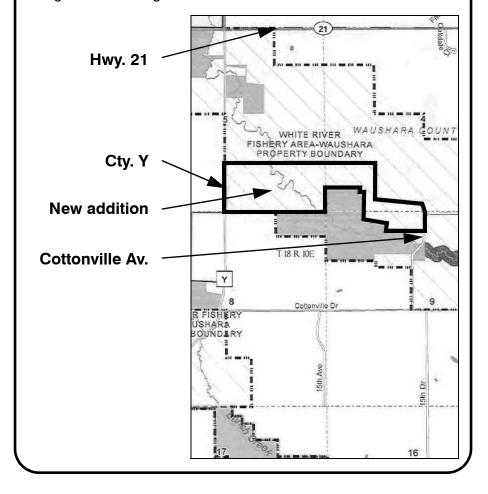
The tract has a significant portion of the West Br. White R. running through it. The parcel has excellent access from Cty. Hwy. Y, which abuts the property along its western edge. There is

also access from Cottonville Av. on the eastern side of the parcel. Cottonville Av. runs east into Hwy. 22 just south of Wautoma.

White R. Fishery Area history

The White River Fishery Area project was established in 1986 and includes property along the White River and several tributaries. Land on the White R. was first acquired in 1948 for fishery management, trout habitat, and water quality protection.

The White River receives heavy public use and may be one of the heaviest used fishing waters in Wisconsin. The water is well known internationally by trout fishermen who make it their destination.



Study says hatchery fish could hurt wild trout survival

An Oregon State University researcher has found that steelhead trout that are originally bred in hatcheries are so genetically impaired that, even if they survive and reproduce in the wild, their offspring will also be significantly less successful at reproducing.

Poor reproductive fitness — the ability to survive and reproduce — of the wild-born offspring of hatchery fish means that adding hatchery fish to wild populations may ultimately be hurting efforts to sustain those wild runs, scientists said.

The study found that a fish born in the wild as the offspring of two hatchery-reared steelhead averaged only 37 percent the reproductive fitness of a fish with two wild parents, and 87 percent the fitness if one parent was wild and one was from a hatchery. Most importantly, these differences were still detectable after a full generation of natural selection in the wild.

The effect of hatcheries on reproductive fitness in succeeding generations had been predicted in theory, experts say, but until now had never been demonstrated in actual field experiments.

"If anyone ever had any doubts about the genetic differences between hatchery and wild fish, the data are now pretty clear," said Michael Blouin, an OSU professor of zoology. "The effect is so strong that it carries over into the first wild-born generation. Even if fish are born in the wild and survive to reproduce, those adults that had hatchery parents still produce substantially fewer surviving offspring than

Even if fish are born in the wild and survive to reproduce, those adults that had hatchery parents still produce substantially fewer surviving offspring than those with wild parents.

those with wild parents. That's pretty remarkable."

An earlier report, published in 2007 in the journal *Science*, had already shown that hatchery fish that migrate to the ocean and return to spawn leave far fewer offspring than their wild relatives. The newest findings suggest the problem doesn't end there, but carries over into their wild-born descendants.

The implication, Blouin said, is that hatchery salmonids — many of which do survive to reproduce in the wild — could be gradually reducing the fitness of the wild populations with which they interbreed. Those hatchery fish provide one more hurdle to overcome in the goal of sustaining wild runs, along with problems caused by dams, loss or degradation of habitat, pollution, overfishing, and other causes.

Aside from weakening the wild gene pool, the release of captive-bred fish also raises the risk of introducing diseases and increasing competition for limited resources, the report noted.

This research, which was published in *Biology Letters*, was supported by grants from the Bonneville Power Administration and the Oregon Department of Fish and Wildlife. It was based on years of genetic analysis of thousands of steelhead trout in Oregon's Hood River, in field work dating back to 1991. Scientists have been able to genetically "fingerprint" three generations of returning fish to determine who their parents were, and whether or not they were wild or hatchery fish.

Continued on p. 21

Kiap-TU-Wish working to boost access on Pine Cr.

Watershed

First funding request approved by new land fund

By Todd Hanson

Following Wisconsin TU's creation of its new Watershed Access Fund last fall, the State Council has already received and approved a

first request for funds to help purchase a key parcel of land on Pine Cr. in Pierce County.

The Kiap-TU-Wish Chapter has requested \$2,000 from the fund. This money will be added to other pledges of funding in a purchase that would ultimately be made by Kiap-TU-Wish's partner, the West Wisconsin Land Trust (WWLT).

According to the Kiap-TU-Wish request, "As a continuation of its efforts to protect the Pine Creek corridor, WWLT, with support from Kiap-TU-Wish, is in the process of acquiring a 40-acre parcel in the Pine Creek headwaters area (see map). Pine Creek flows through the parcel near the southern boundary, with eastern brook trout in residence.

"The property also features an extensive oak-maple hardwood forest, steep slopes and coulees, and a bluff outcrop with an outstanding view of the Pine Creek Valley and Lake Pepin. WWLT ownership and a conservation easement will protect this property in perpetuity and provide public access to another 1,500 feet of Pine Creek trout waters, with a potential for additional restora-

> tion work by WDNR. Purchase of this

clude WDNR and the U.S. Fish and Wildlife Service.

According to the grant application, "In 2002 and 2003, the WWLT purchased two properties (220 acres) that encompass much of the permanently flowing portion of Pine Creek, thus conserving these areas forever. With the stream corridor in WWLT ownership and open to the

public, WWLT, the Kiap-TU-Wish Chapter of Trout Unlimited (TU), and the Wisconsin Department of Natural Resources (WDNR) began planning a stream restoration project in 2006.

"The Pine Creek Restoration Project has been conducted in three phases, with restoration of

Lower Pine Creek (1,700 feet) completed in 2007, and restoration of Upper Pine Creek (4,550 feet) and two spring tributaries completed in 2008-2009. The 2007-2009 restora-

If your chapter would like to contribute toward this purchase effort, contact Kent Johnson of the Kiap-TU-Wish Chapter at (715) 386-5299.

GCC Fund

'headwaters' property will also

'headwaters' property will also help protect the downstream restoration work completed in 2007-2009."

Kiap-TU-Wish is making a \$1,000 (50%) matching donation to the purchase campaign in order to qualify for the Watershed Access Fund contribution. The chapter is also seeking funds from other sources for the purchase campaign.

The various groups involved in the purchase are hoping to complete the transaction with the owner in late 2010. Other funding partners for this property acquisition may inPUBLIC FISHING

STREAM

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PUBLIC FISHING

STREAM AND BIMES

DESIGNATED BY THESE SIGNS

ACCESS AT DESIGNATED PINTS

ACTIVITIES OTHER THAN FISHING BIT LULIANTIL

AVOID THESPASS ON OTHER LIMES.

RIGHTS PROVIDED UNDER FASHIONIS

SECURED FROM LANDOWNERS.

RESPECT THEIR PROPERTY

tion work earned Pine Creek a prestigious '2009 Waters to Watch'

award from the National Fish Habi-

tat Action Plan (NFHAP), placing

Pine Creek among the top 10 stream

restoration projects in the country."

WITU Watershed Access Fund

2009-10 contributors can "opt out" of list

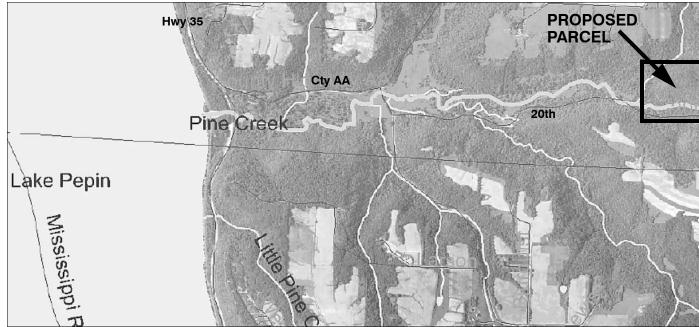
WITU's new Watershed Access Fund is off to a rousing start. Consider the following:

- All the proceeds of the State Council's annual banquet in Stevens Point on Feb. 13 will go into this new fund.
- Scott Grady is donating one of his custom bamboo rods for a special raffle to benefit the fund.
- Members are generously contributing to the fund as a result of a recent fund-raising appeal.

Opt out?

The State Council plans to recognize contributors by listing their names in each issue of *Wisconsin Trout*, just as we do with the Friends of WITU program. However, we never made this name recognition clear in the recent fund-raising letter.

Therefore, if you would like your name to be left off the list, please contact Kim McCarthy. Otherwise, look for your name in the next issue.



PINE CREEK PURCHASE WILL ADD TO EXISTING PUBLIC-ACCESS LANDS

The proposed 40-acre parcel shown on this map will add to the extensive West Wisconsin Land Trust (WWLT) and WDNR holdings above and below this site. Nearly all of the land along Pine Cr. from this parcel downstream to where it flows into Lake Pepin is in public ownership or land trust ownership/easement. In addition, the WWLT owns conservation easements on three more parcels upstream of the proposed purchase, two of which adjoin the proposed parcel.

STUDY: hatchery fish could hurt the survival of wild trout

Continued from p. 20

The underlying problem, experts say, is Darwinian natural selection. Fish that do well in the safe, quiet world of the hatcheries are selected to be different than those that do well in a much more hostile and predatory real-world environment. Using wild fish as brood stock each year should lessen the problem, but it was just that type of hatchery fish that were used in the Hood River study. This demonstrates that even a single generation of hatchery culture can still have strong effects.

Although this study was done with steelhead trout, it would be reasonable to extrapolate its results to other salmonids, researchers said. It's less clear what the findings mean to the many other species that are now being bred in captivity in efforts to help wild populations recover, Blouin said, but it's possible that similar effects could be found.

Captive breeding is now a cornerstone of recovery efforts by conservation programs for many threatened or endangered species, the researchers noted in their report. Thousands of species may require captive breeding to prevent their extinction in the next 200 years. This makes it particularly important to find out if such programs will ultimately work. This study raises doubts.

"The message should be clear," the researchers wrote in their report's conclusion. "Captive breeding for reintroduction or supplementation can have a serious, long-term downside in some taxa, and so should not be considered as a panacea for the recovery of all endangered populations."



Plan now to attend Wisconsin TU's 25th annual

State Council Banquet

A Fund-raiser for the New Watershed Access Fund

Sat., Feb. 13, 2010

Holiday Inn Conference Center, Stevens Point



This year's special banquet speaker is

Tom Helgeson

editor of *Midwest Fly Fishing* magazine and the person behind the Great Waters Fly Fishing Expos.

Other banquet highlights include:



 A special Becoming an Outdoor Woman

> program just for the ladies taught by BOW International Director Peggy Farrell of UW-Stevens Point.

- Fishing instructor certification training by Dennis Vanden Bloomen.
- An outdoor photography seminar by Bill Pielsticker.
- A raffle of a Scott Grady custom 4 wt. bamboo rod.
- Plus many guided fishing trips, bucket raffle items, and door prizes!

Make checks payable to WIS. TROUT UNLIMITED and mail to:

YES! I want to attend Wisconsin TU's

25th Annual Banquet

Bill Heart 29450 Verners Rd. Ashland, WI 54806

Name/s: _____ (Include \$24/adult; \$10 under age 18)

Special room rates available at two Stevens Point Holiday Inn locations through Jan. 23. Call (715) 344-0200 for details and reservations.

Order by Feb. 1 and be eligible for early bird drawings of \$100, \$50 & \$25!

Trout tip

Five major choices affect your fly fishing success

By Henry Kanemoto

Fly fishers tend to focus on fly choice as *the* key to success. The first thing we ask someone who is successful is "What fly are you using?"

According to Norm Albiston, a fly fishing instructor at the University of Utah, there are five major choices in fly fishing. They are:

- (A) the location you fish,
- (B) the time of day you fish,
- (C) the water column you fish,
- (D) the fly/flies you use, and
- (E) the action you impart.

Yet we almost always ask only about one of the five, the fly choice. In fact, all five choices determine whether you will catch fish. In my view, choices A-C determine fly choices, and (D) determines (E).

These five choices form a systematic method that will help you become a better fly fisherman. They can form a basic way to analyze what is going on, if you will examine what you are doing and why you are doing it, based on the five choices.

Here is the method to examine a new river. Break down a large river into small sections. The water type will generally determine the aquatic organisms. You are reading the water, but you should also be reading the food. Riffles, for example, will generally have clinging mayflies and cased caddis, slower sections may have burrowing mayflies, and so on. I turn over rocks and pull up some aquatic vegetation to confirm what

lives underwater, and I shake a few bushes to see if there has been a hatch recently.

Based on (A) water type and what I have found when I looked at rocks and bushes, and (B) the time of day, I'll choose (C) the water column I'm going to fish. This determines (D) fly choice and that determines (E) how I am going to fish it. If there is a hatch going on, all five choices are determined when you decide to fish with a dry.

One last tip. In my experience, the first question that one should ask a successful fisher is not what fly he's using, but what water layer he is fishing and how he's fishing it. I think this is the one important decision that is most often ignored. In my experience, during non-hatch

opportunistic feeding, a fish will take almost any fly that looks like food if it is presented at the right level with the right action.

On the San Juan River, where almost all the fish are feeding all the time, the best tip I ever received was from guide Peggy Harrell. She said to change the weight rather than the fly. I have seen Peggy purposely put on the "wrong" fly, but take fish with it because she was fishing it at the right level with the right action. So take a tip from one of the best guides I have ever met; when nymphing, change the weight before changing the fly.

(Henry Kanemoto is a member of the WI River Valley Chapter. This story originally appeared in his chapter's The Riffle and Pool newsletter. -Ed.)

Bob's Tying Tips

Advice from the bench of Bob Haase

Modify hackle for fast-water dry flies



Properly tied dry flies often get sucked down quickly in fast water riffles. Sometimes this is OK as I have had fish take the fly as it gets sucked down, but many times the fly fishes better while on the surface. To help the fly float better, I tie the hackle tighter and over a larger portion of the fly such as this simple

BWO pattern. The extra hackle makes the fly easier for the fish to see. Though this also makes for a larger fly profile, this will usually not turn off the fish as the water is refracted so the fish can't see the detail.

Force beads around hook bends with pliers



Depending on the bend of the hook and the size of the bead you are using, it is sometimes difficult to force the bead over the bend of the hook. By using a flat, smooth pliers like a barb-crimping pliers, you can get a good grip on the bead and force it over the bend of the hook.

By gripping the bead as shown, you can get the leverage to force it over the bend without slipping and putting the hook in your finger.

Use fabric softener sheets to zap static



Static electricity can cause some fly tying materials such as deer hair, marabou, and others to become difficult to work with. Keep a box of clothes dryer fabric softener sheets handy to eliminate the static electricity. Just rub the sheet over the materials before you clip off the amount you want and it will eliminate most of the static electricity. If

you are tying an elk hair caddis, just rub the dryer sheet over the patch of elk hair before you clip off the amount you want. This will also make the hair stack better in a hair stacker by reducing static.

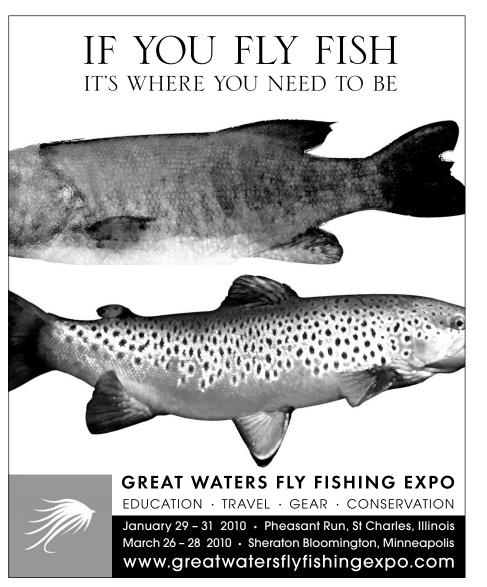
Start a tying material scrap box



We usually end up with small scraps or extra pieces of tying material that may be inconvenient to put back into the package they came in. A good solution is to place these extra materials in what I call a "scrap box." When the box fills up, take an evening or a cold winter afternoon and try to tie various flies from the materials that are in the box. By lim-

ited yourself to tying with the materials in the scrap box, it can help develop creativity in your fly patterns. Another fun thing to do is to get together with a couple other tyers and have everybody dump their materials in the center of the table and all tie from the same pile. It is amazing what you can come up with.





Thanks, Friends, for your continuing generosity

By Steve Hill Friends of WITU Chair

There's still time to contribute to and become a 2009 member of Wisconsin Trout Unlimited's Friends of Wisconsin Trout program.

Everyone knows that we are in the middle of a bad economy, but the trout don't know that. They still need our help, so please send as much as you can!

I can't think of one of our chapters that hasn't used Friends money at one time or another over the years to help pay for their local habitat projects. They've appreciated having this money ready and waiting for their restoration projects.

Your annual contribution of \$100 or more means you will be listed with all the other "Friends" in four consecutive issues of *Wisconsin Trout*.

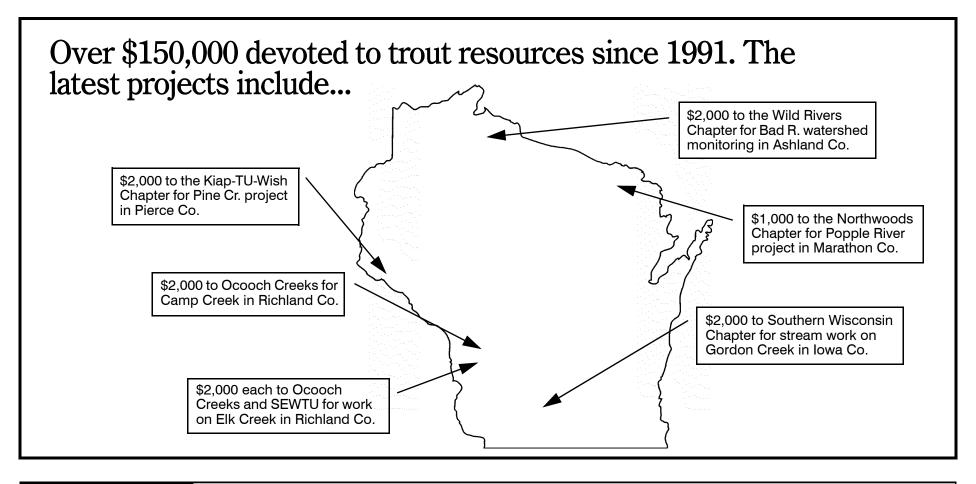
Also, this year we are sending all Friends a very special hat. The hat not only has the Friends of Wisconsin TU name on it, but also TU's 50th anniversary logo. It will become one of your favorites.

Just as importantly, though, you'll receive the satisfaction of knowing that you donated to a cause that has made a difference in Wisconsin's trout fishery.

Like any solid investment, your donation will pay dividends down the road for you and future generations.

So, as you get ready for another great Wisconsin trout fishing season, please consider becoming or renewing your membership in the Friend of Wisconsin Trout Unlimited





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Yes, I want to join the "Friends" of Wisconsin TU. Enclosed is my check for \$100. \$250. or more pay.

Enclosed is my check for \$100, \$250, or more payable to Wisconsin Trout Unlimited.

MAIL TO: Friends of Wisconsin TU % Steve Hill 107 S. 5th St.

Watertown, WI 53094

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