INSIDE A PEEK AT AQUATIC PLANTS

WISCONSIN NATURAL RESOURCES

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Get schooled in new deer hunting RULES

A trend in trekking: Highpointing

Teal season on tap

Herding carp

Back in the day

Rough fish helped in tough times.

Kathryn A. Kahler

Good intentions don't always produce desired results. Take, for example, a well-meaning program begun in 1881 by the U.S. Bureau of Fisheries to plant carp imported from Germany in lakes, rivers and streams across the country as a food source for citizens. As early as 1895, the Wisconsin Conservation Commission recognized the detrimental effects of the invasive fish and called a halt to the distribution. The damage was done however, and Wisconsin's natural resource agencies have spent more than a century trying to remove them from our waters.

Early on, the Commission and later, the Wisconsin Conservation Department and Department of Natural Resources, contracted commercial fishermen and employed state crews to remove rough fish from Wisconsin waters. From 1912 to 1935, more than 57 million pounds of rough fish were removed from state waters. Thereafter, up to 6 million pounds were removed each year. Chemical treatment of carp-infested waterbodies was added to the arsenal in the 1940s and continues today. The Department of Natural Resources continues to issue contracts to commercial fishermen seining for carp or removing them from under the ice.

Our photo archives abound with images from the 1930s of crews hoisting nets full of carp, loading them onto train cars to eastern markets, distributing them to relief lines, canning them for animal food or spreading them on fields as fertilizer. Here is a sampling.

Kathryn A. Kahler is an editorial writer for Wisconsin Natural Resources *magazine.*

EUGENE SANBORN

In February 1935, crews distribute rough fish at a relief station in Winnebago County. Although the economy was beginning to improve from the Great Depression, unemployment was still high and an estimated 125,000 Wisconsin residents required assistance through local relief agencies that winter. Many communities lacked the tax revenue to provide assistance and rough fish removed from Lake Winnebago provided a valuable source of protein to supplement scarce funds.

DOROTHY FERGUSON

In June 1939, a team of horses pulls a plow through a field covered with dead carp removed from Lake Waubesa in Dane County. Smaller carp that were not suitable for market or canning were plowed into farm fields as fertilizer.

DOROTHY FERGUSON

In July 1939, workers lift seines filled with carp from Lake Winnebago for transfer to a crib (or holding pond), made of boards driven into the bottom of the lake. Carp were fed corn until ready for transfer to markets in New York, Chicago, St. Louis and other large cities with ethnic populations who traditionally valued carp as a food source.

EUGENE SANBORN

In January 1937, an employee of the Wisconsin Conservation Department stacks cans of processed carp at the Nevin Fish Hatchery. Carp were ground, cooked and sealed in 10-pound cans and used for fish food at the state fish hatcheries and for animal food at the state experimental game farm in Poynette. The cannery had a daily capacity of 4,800 pounds.

WISCONSIN NATURAL RESOURCES

DAN THOFTNE

August 2014 | Volume 38, Number 4

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JOSEPH WARREN

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FRONT COVER: Recent changes to Wisconsin's deer hunting season rules require young and old to brush up on the regulations.
Steve Apps
Top: Frank Koshere

BACK COVER: Kangaroo Lake State Natural Area in Door County. INSET: Hine's emerald dragonfly *(Somatachlora hineana)*. To order a guidebook, send a check to State Natural Areas for $18.00 (postage paid), Bureau of Natural Heritage Conservation, DNR, P.O. Box 7921, Madison, WI 53707 or visit dnr.wi.gov and search "SNA."
Thomas A. Meyer
Inset: Kathryn Kirk

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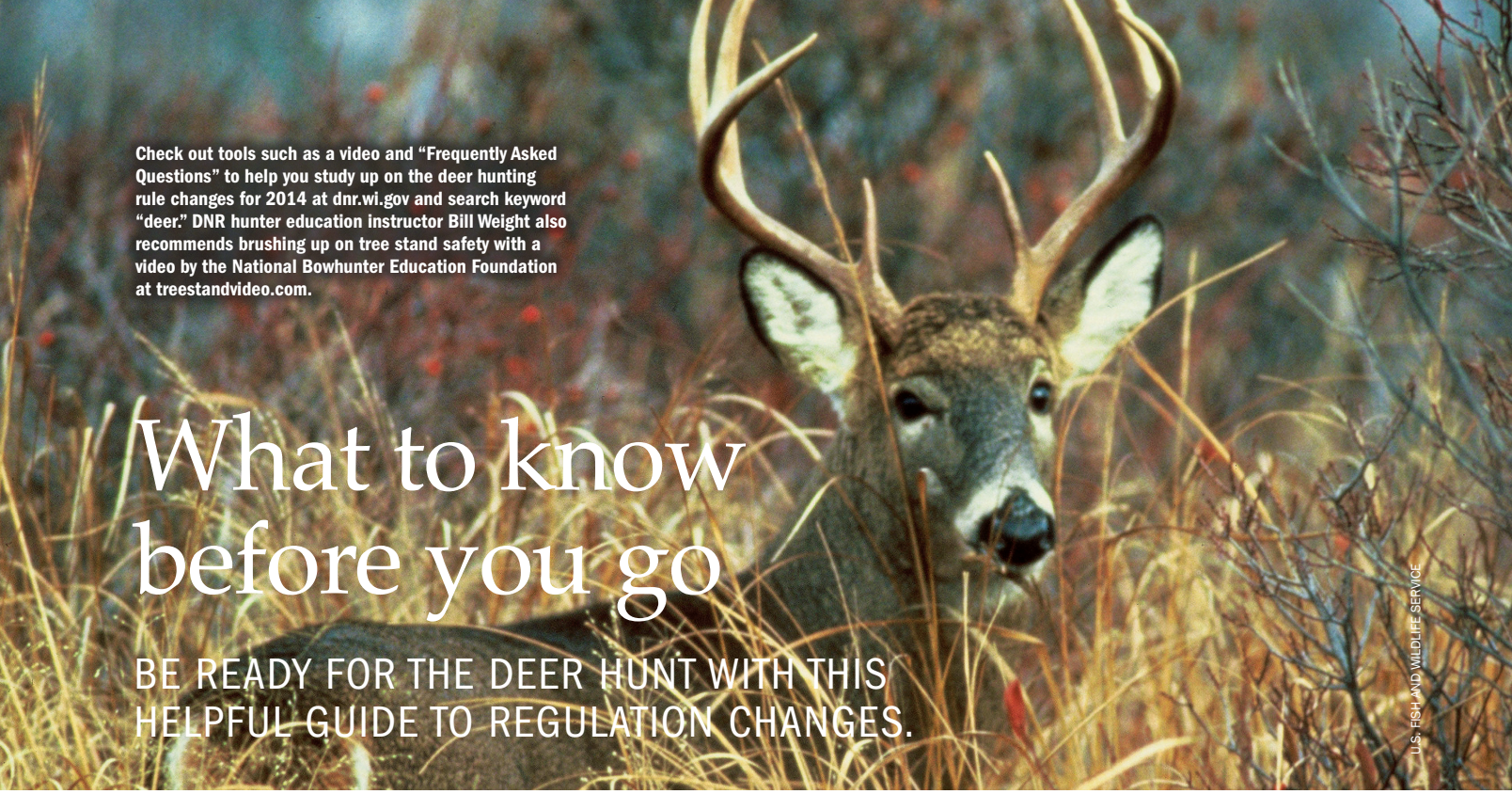


Check out tools such as a video and "Frequently Asked Questions" to help you study up on the deer hunting rule changes for 2014 at dnr.wi.gov and search keyword "deer." DNR hunter education instructor Bill Weight also recommends brushing up on tree stand safety with a video by the National Bowhunter Education Foundation at treestandvideo.com.

U.S. FISH AND WILDLIFE SERVICE

What to know before you go

BE READY FOR THE DEER HUNT WITH THIS HELPFUL GUIDE TO REGULATION CHANGES.

Kevin Wallenfang and Eric Verbeten

You spoke and the Department of Natural Resources listened. This fall, the deer hunting rules are changing. The good news is that folks can expect this season's deer hunting regulations booklet to feel a little lighter after a two-year review of the programs, techniques and rules that the Department of Natural Resources uses to manage the state's deer herd.

The goal was to get the public more involved in making local decisions, improve the hunter/landowner relationship with the department, and wherever possible, streamline deer seasons to help improve the experience for everyone who takes part in Wisconsin's great deer hunting tradition. Several new rule changes take effect this year and become fully implemented by the 2016 deer season.

These changes are a product of a huge effort to review the current program, gather public input, and then use that input to develop new programs and rules that the department hopes will enhance the overall deer management system on many fronts. Through a process known as the Deer Trustee Report, the department attempted to gather input from anyone in the state who has an interest in deer management and especially those who take part in the annual deer hunt.

At first glance, the new rules might seem overwhelming.

"The changes will take some getting used to, but they are not complicated," stresses Chief Conservation Warden Todd Schaller. "Our goal this first year is education. We are more concerned about making sure people understand how the changes affect them specifically. We recommend that hunters not be overly concerned about the broad picture, but rather how the changes impact their specific hunting area."

The following are some of the changes hunters can expect to see this year. There are additional programs and rule changes not listed here. **For a complete listing and description of all new rule changes, hunters are encouraged to visit the department website at dnr.wi.gov. Type keyword "deer" for materials that help explain the changes.** The 2014 deer hunting rules and regulations booklet will also be available wherever hunting and fishing licenses are sold.

Deer Management Units and Management Zones

As a way of providing consistent deer season structure from year to year, the state has been divided into four major deer management zones: Northern Forest, Central Forest, Central Farmland and Southern Farmland. These zones are based broadly on habitat types, which play a key role in many aspects of deer management. These include productivity, impacts of winter weather and other factors such as how quickly a herd can grow. These zone designations provide consistent deer season dates within each zone so hunters know exactly what to expect from year to year.

Hunters will also notice a change from the traditional Deer Management Units (DMUs) to a more simple county-based system. For decades, DMU boundaries were based on habitat types around the state and were designated by major highways, county roads, rivers and other natural landmarks. Beginning this year, nearly all of the former DMUs have been eliminated and converted to a county-based system. Deer Management Units will be reduced from the 134 individual DMUs to 72 county units and four tribal units (76 units total).

Land types: public and private land deer tags

For years, hunters have lamented the fact that much of our public lands see significantly more hunting pressure than private lands, resulting in low deer numbers on public lands. In response, the department is trying a permit allocation system that can designate the land type where a permit can be used. This was done in hopes of offering public land

PHOTO COURTESY JAMES STORANDT

Hunters this season will be randomly selected to participate in automated registration using either telephone or Internet.

JERRY DAVIS

This year, 19 counties will allow buck-only hunting with an antlerless quota of zero for most hunters.

hunters a more satisfying experience through the increased sightings of deer.

This is a first attempt at differentiating permit use between land types. The department is going to see how it works, and is willing to make adjustments or try new methods if this attempt doesn't pan out.

Public land refers to all lands open for public hunting including state land such as wildlife areas, county forests, national forests and other open land in DNR programs like the Managed Forest Law, Forest Crop Law and Voluntary Public Access programs. Private land is any privately-owned land not open for public use as described above.

DNR FILE

In 2014, only bonus antlerless tags will be specific to private or public land.

County Deer Advisory Councils

Another goal of switching from traditional DMUs to a county-based system is to provide a format for people to get more involved and take ownership of deer issues at the local level.

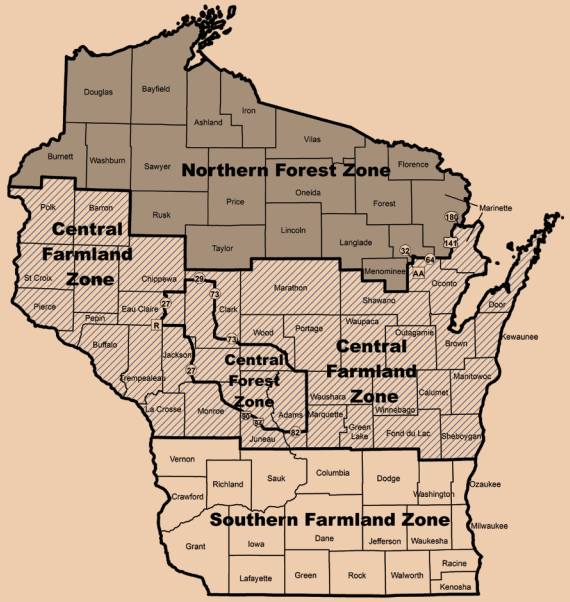
Previous DMU boundaries would extend over county lines resulting in counties "sharing" Deer Management Units, which complicated the decision-making process to address both high and low deer numbers.

The county-based system can now accommodate new County Deer Advisory Councils (CDACs) that consist of dedicated hunters and stakeholders within each county. The councils will study a variety of measuring metrics that include deer impacts on forestry, agriculture and habitat, deer populations, hunter satisfaction, herd health and more.

"The CDACs are a step toward fostering collaboration with all the groups out there who are interested in the same goal, and that is to responsibly manage our deer," says Rob Bohmann, chairman of the Conservation Congress.

With local DNR staff serving as tech-

ANNUAL GUN DEER SEASON STRUCTURE BY ZONE



9-day Nov. Gun Deer + 10-day Muzzleloader Seasons

9-day Nov. Gun Deer + 10-day Muzzleloader + 4-day Dec. Antlerless-only Seasons

9-day Nov. Gun Deer + 10-day Muzzleloader + 9-day Antlerless-only Holiday Hunt Seasons

DNR FILE

DEER HUNTING SEASONS

Archery and Crossbow Seasons (Not including Metro Subunits)	Sept.13-Jan. 4, 2015
Archery and Crossbow Seasons – All Metro Subunits	Sept.13-Jan. 31, 2015
Youth Gun Hunt	Oct. 11 & 12 Statewide
Gun Deer Hunt for Hunters with Certain Disabilities NOT A STATEWIDE SEASON	Oct. 4-12 Enrolled Properties Only
November 9-Day Gun Deer Season (Not including Metro Subunits)	Nov. 22-30 Statewide
Gun Deer Hunting Season – All Metro Subunits	Nov. 22-Dec. 10
Muzzleloader	Dec. 1-10 Statewide
December 4-Day Antlerless-only Hunt NOT A STATEWIDE SEASON	Dec. 11-14 Central Farmland and Central Forest Zone Units Only
Holiday Hunt NOT A STATEWIDE SEASON	Dec. 24-Jan.1, 2015 Antlerless-only Southern Farmland Zone Units Only

**Seasons are statewide unless otherwise noted.*

nical advisors, and chaired by a local delegate of the Wisconsin Conservation Congress, CDACs will formulate recommendations to the department and Natural Resources Board to set annual harvest quota and permit levels, as well as set three-year population objectives to either increase, decrease or stabilize their local deer population.

Electronic registration

Wisconsin is actually one of the few states in the Midwest that has not implemented electronic registration for deer, although the state does use it for a variety of other game species including geese, turkeys and furbearers. However, that will soon be changing to allow for significant cost savings to the department, greater convenience for hunters and almost instantaneous harvest evaluation for game managers.

For the 2014 deer season, all deer hunters are still required to register their deer in-person at any one of over 600 registration stations around the state. To test the new system, approximately 15,000 hunters will be selected and contacted by mail by early September to participate in an electronic registration pilot to report their deer either by phone or online.

By 2015, electronic registration will be fully implemented and all hunters will choose from a variety of registration methods including telephone, Internet and in-person registration stations.

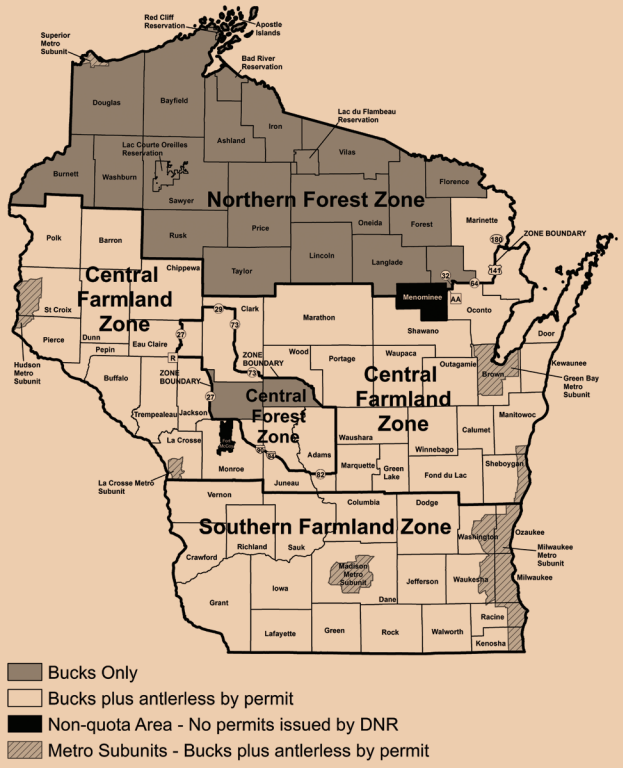
There has been some concern that the fun of going to a check station will be gone, and that's a big part of the deer season tradition for some people. However, it is possible that there will be even more locations to check a deer in the future. Any business that is willing to allow the public access to a computer or phone to register their deer could call itself a registration station.

Hunters have also questioned the compliance rates and quality of data collected.

Department staff has talked with several other states to address these concerns. Some states feel their data and compliance are even better than before the use of electronic registration. After some initial heartburn, their hunters would not be happy to revert back to the old paper methods of registering deer.

Kevin Wallenfang is DNR's big game ecologist. Eric Verbeten is a communications specialist with the DNR's Office of Communications.

2014 ALLOWABLE DEER HARVEST BY DMU



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THE DEER TRUSTEE REPORT — A BRIEF HISTORY

Beginning in 2012, Gov. Scott Walker initiated a full review of Wisconsin's deer management program and hired an outside team of experienced deer biologists to spearhead this effort. The task consisted of hundreds of hours of public hearings, comment periods, public advisory committees, online surveys and more to hear from the many passionate individuals who take part in the yearly deer hunt and other aspects of deer management.

"When they set out to review the deer program, all involved knew that an undertaking in a state so entrenched in the traditions of deer hunting would need to seek lots of public input for it to be a well-rounded and collaborative effort," says Eric Lobner, Deer Trustee Report program coordinator. "Ultimately, the final rules that were adopted by the Natural Resources Board considered all the public feedback to develop recommendations on how to improve the management system, to streamline rules where possible, and to develop new programs that would create better relationships and open new communication avenues for everyone involved in deer management at all levels."

Much of the early work began with the creation of public Action Teams that focused on various over-riding issues of the deer management program. Their goal was to address concerns through the development and implementation of recommendations on specific topics: herd health, regulations and season structures, science and programs designed to help individual landowners improve habitat conditions on their land. This final program is called the Deer Management Assistance Program (DMAP), which had dozens of landowners apply during its first enrollment period last spring. Their combined land tallied over 44,000 acres.

The department hopes the number of participants will increase since more than 630,000 hunters annually participate in the gun deer hunt. More than 2,000 people participated in one online survey and thousands more provided written and verbal comments on ways to improve the deer season.

"Moving forward, the new deer rules will allow for greater flexibility in the way we manage our deer herd from year to year," says Lobner. "There is still a lot to do with implementing all of the new changes, and I'm sure we will continue to fine-tune the changes as we learn about the success of each recommendation."

Get useful hunting information in the palm of your hand. An innovative outdoor guide, powered by Pocket Ranger® technology, brings the outdoors to your fingertips and helps you plan the perfect adventure. Find a place to hunt and get rules, regulations, permit and license details. Go to dnr.wi.gov and search "mobile apps."

DNR FILE

FREQUENTLY ASKED QUESTIONS

Q. How will research scientists be combining data from the previous Deer Management Units to create data for new county units?
A. The department has historically collected deer harvest information by both county and Deer Management Unit and thus can create retrospective county harvest histories. The department has already created county-based population estimates and has estimated deer range by county. Using this data and input from the public, the department has set harvest quotas for the 2014 deer seasons.

Q. Which tags will be issued with the purchase of a deer hunting license?
A. In 2014, hunters who purchase an archery, crossbow or gun deer hunting license will receive one buck tag valid in any unit statewide, plus one antlerless tag that can be filled in any Farmland Zone unit.

Q. What is a "bonus buck" and where is bonus buck allowed during the 2014 deer season?
A. A bonus buck is an additional (bonus) buck that was killed under the authority of a Bonus Buck Authorization sticker (see Deer Regulations pamphlet). Bonus buck is available to hunters only in the Southern Farmland Zone.

Q. Why do bonus antlerless tags cost more than they have in the past?
A. One of the recommendations in the Deer Trustee Report was to sell antlerless permits at a consistent amount. Therefore, charging $12 per tag added value to the resource. The Deer Trustee Report authors thought free tags reduced the value of the experience of harvesting antlerless deer.

Q. Will bonus antlerless tags require the purchaser to indicate public or private land?
A. Yes. In 2014, only bonus antlerless tags will be specific to public or private land. However, starting in 2015, hunters will be required to specify zone, unit and land type (public or private) for all antlerless tags including those that are issued free with the purchase of a deer hunting license.

Q. Will antlerless tags be weapon-specific in 2014?
A. No. All antlerless tags may be filled with any weapon, and during any season with the appropriate license.

Q. Is the CWD Management Zone gone?
A. Yes, the area formerly known as the Chronic Wasting Disease (CWD) Management Zone has been dissolved. Instead, counties where CWD has been found, or a county within 10 miles of a location where CWD is found in either a captive or wild deer population, are now referred to as CWD-Affected Areas. Baiting and feeding of deer are prohibited in these counties as well.

Q. How was the number of land-type-specific antlerless tags (public or private) determined in each Deer Management Unit?
A. The total number of tags issued in each unit was determined, as in the past, based on anticipated hunter success and the number of deer that local wildlife managers felt needed to be removed from the area. The allocation to private and public lands was determined, in some cases, based on the percentage of land area in public and private ownership in each county. The department also applied information about past harvest history on public and private land. Over the coming years, success rates and other important information will become clearer and the department will adjust accordingly.

Q. Hunters can now use crossbows. If someone purchases both an archery and a crossbow license, what tags will they receive?
A. With the purchase of both licenses, hunters will receive one "Bow" buck deer carcass tag valid in any unit statewide and one Farmland Zone Antlerless tag valid in any Farmland Zone unit. These tags may be filled using either weapon. Purchasing both archery and crossbow licenses only authorizes the use of both weapons and hunters will not receive a second set of tags.

Recycling, reinvigorated

WISCONSIN WRAP HELPS RETAILERS AND CONSUMERS GIVE NEW LIFE TO PLASTIC BAGS AND FILM.

Plastic film recycling drop-off locations like this one are spreading throughout the state.

CASEY R. SCHMITT

Casey R. Schmitt

When Amanda Haffele looks at a plastic bag, she doesn't see a piece of trash. The thin plastic film used for retail and grocery bags, dry cleaning bags and other packaging materials is, after all, reusable and recyclable and doesn't belong in a landfill in the first place. But Haffele sees even more. As Dunn County's Recycling Specialist, she sees an opportunity, and businesses all over Wisconsin are beginning to see the same thing.

In 2013, the Department of Natural Resources partnered with the American Chemistry Council's Flexible Film Recycling Group and GreenBlue's Sustainable Packaging Coalition on the Wrap Recycling Action Program (WRAP). With WRAP, Wisconsin is the pilot site for plastic film recycling nationwide. For people like Haffele and other Wisconsin recyclers, collecting everyday plastic film at stores, loading docks and at distribution centers, is an exciting way to create jobs, build community and protect the environment.

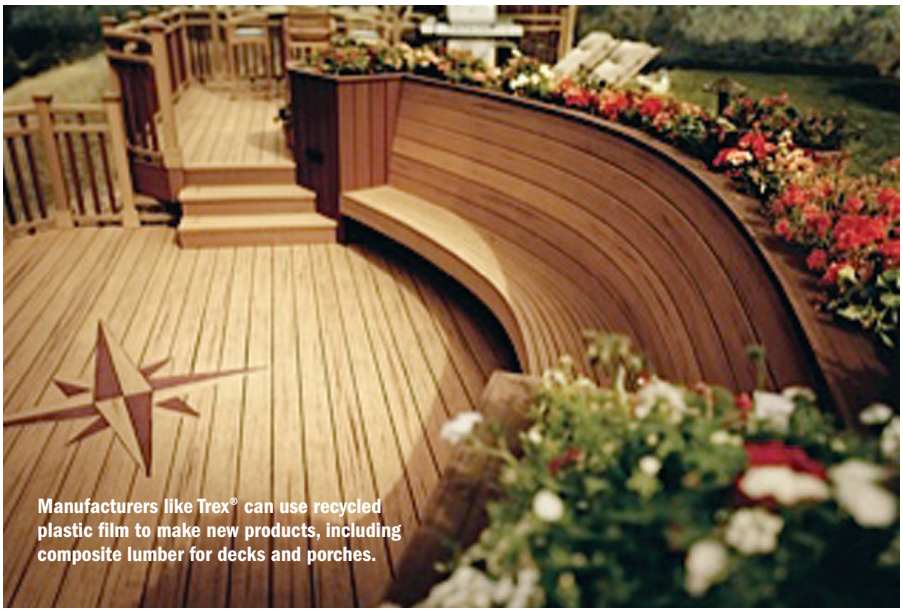
Wisconsin WRAP

DNR's Recycling Program Coordinator Cynthia Moore explains, "Many people know that shopping bags can be recycled. Far fewer are aware that other plastic wrap — like plastic newspaper bags, produce and bread bags, stretch film around furniture or electronics and more — can be used again."

Manufacturers like Trex® can use recycled plastic film to make new products like composite lumber, park benches and playground equipment. As a public/private campaign, WRAP puts businesses, local governments and volunteers in contact with the information they need to facilitate waste reduction efforts and model sustainable practices of their own.

For Haffele, it's the potential for community and business involvement that makes the initiative so exciting. In 2013, for instance, Wisconsin's Council on Recycling held 10 public meetings with 60 industry representatives, recycling professionals and local citizens to discuss their potential roles and the benefits of plastic film recycling. Council member and Dunn County Solid Waste Director George Hayducsko explains, "We're working with national firms. We're working locally. To me, that's a good mix."

WRAP creates statewide networks for plastic film recyclers and processors and provides free information with the goal of bringing common interests together. Just about everyone uses plastic products on a daily basis and plastic's light weight means it requires less energy to transport than other packaging alternatives. WRAP encourages local governments, retailers, schools, consumers and others to use less plastic film such as bags and wrap, and to recycle those when they are no longer usable. From consumers to stores to industrial centers, there truly is a role for everyone.



Manufacturers like Trex® can use recycled plastic film to make new products, including composite lumber for decks and porches.

TREX®

Dunn County Recycling Specialist Amanda Haffele (right) reviews WRAP materials with staff at Indianhead Enterprises in Menomonie.

SUBMITTED BY AMANDA HAFFELE

Plastic film and bags can clog the machinery that sorts regular recycling materials. Using retail drop-off locations for plastic film recycling avoids this damage.

WRAP

A role for everyone

In Dunn County, the process starts with individuals. Even before kicking off the county's WRAP campaign in June, Hayducsko and Haffele saw people collecting plastics in their homes, in office closets and even tucked beneath car seats.

"People were already doing it without us telling them," Hayducsko exclaims. Yet not everyone knew what to do with the material once they had collected it. Most curbside recycling programs will not accept it because plastic wrap, bags and other plastic film can clog recycling and sorting machinery.

"The public wants to recycle this material. Businesses want to do it, too," Hayducsko explains. "So how do we make it work?"

The answer is often just down the road. Grocery and other retail stores, distribution centers, volunteer groups and local governments can set up collection programs with their recyclers and haulers and register their locations as community drop-off centers. These public and private sites not only generate the largest amount of clean, recyclable plastic film, they often have the space and resources to collect and store returned bags and other plastic film from customers as well. In Dunn County, several stores are registered drop-off centers. The Dunn County Solid Waste Program has also registered drop-off locations for plastic film at its eight existing collection stations.

Once the plastic film is collected, it needs to be baled and transferred to a recycler. Material from the Dunn County

TIPS AND RESOURCES

REDUCE AND REUSE FIRST, THEN RECYCLE!

Try to reduce single use of bags and film and reuse bags as trash liners or pet waste containers. To learn additional ways to reduce, reuse and recycle plastic wrap, bags and film, search "plastic film" at dnr.wi.gov.

SETTING UP A COLLECTION PROGRAM

The website plasticfilmrecycling.org provides resources for setting up a local collection program and for registering locations as community drop-off centers. If your location already accepts bags and film from customers, please visit the site to add your information to the Drop-Off Directory.

FIND OR REGISTER A DROP-OFF SITE

To search for a drop-off site in your area or list a location in the Drop-Off Directory, visit plasticfilmrecycling.org.

TIPS FOR BUSINESSES, RETAILERS AND OTHER GROUPS

To learn more about how your store, distribution center, civic group or other organization can get involved – with tips for bin placement, setting up a collection, getting free signs and contacting haulers – search "plastic film" at dnr.wi.gov and look under the "Wisconsin WRAP" tab.

TIPS FOR LOCAL GOVERNMENTS AND OUTREACH

For easy tips on how your local government or group can spread awareness and encourage plastic film recycling in your community, search "plastic film" at dnr.wi.gov and look for the WRAP Plastic Film Recycling Outreach Tip Sheet under the "Wisconsin WRAP" tab.

Solid Waste collection stations are transported to Menomonie's Indianhead Enterprises, a nonprofit rehabilitation facility and vocational center for individuals with disabilities and other barriers to employment. In collaboration with Trex®, Indianhead received a plastic film baler on loan and became a recycling drop-off point. As plastic film recycling increases, Indianhead hopes to produce multiple bales per week, at 800 to 1,000 pounds each, providing enough work for four additional jobs for individuals with disabilities.

Wisconsin WRAP is still in its early stages, but the Dunn County model of partnership among consumers, the county and businesses like Indianhead, is now being replicated statewide.

Looking forward

The next steps for Dunn County include making the process more efficient and removing the need for county-run plastics collection and delivery.

"Our goal," says Hayducsko, "is to do this without utilizing additional resources, like fuel."

The county has expanded partnerships with local businesses and with the University of Wisconsin-Stout. It has applied for grants to allow Indianhead and other local companies to purchase hand balers — decreasing total costs, minimizing the need for multiple trips and increasing financial payback.

Grants and local business involvement, says Haffele, are "the most important parts of this entire project."

As WRAP begins to expand, it's an exciting time in Dunn County and around the state. Individual consumers have the material and the interest. Local governments and volunteers are starting to spread the word. Retail drop-off points and other businesses have access to haulers and storage space. Each is crucial to the project as WRAP ushers in a new era of Wisconsin recycling.

Hayducsko explains, "We have all of this plastic going to a landfill. It provides no benefit to us by going there. Instead, it can create jobs and products and avoid waste."

Plastic film is not only recycled as new plastic products; it can build opportunity, inspiration, motivation and community pride.

Casey R. Schmitt is a communications specialist for the DNR's Bureau of Waste and Materials Management.

WHAT TO RECYCLE

Most clean and dry plastic film and bags are recyclable at participating drop-off locations. The plastics industry strongly encourages recyclers to use retail drop-off locations rather than include them in curbside collection programs, as plastic bags and film can get caught in standard recycling machinery.

You can recycle:

- Plastic grocery and retail bags
- Produce bags (clean and dry)
- Bread bags
- Newspaper bags
- Dry cleaning bags
- Bath tissue, napkin, paper towel and diaper wrap packaging
- Plastic outer wraps (e.g., around snack and beverage cases)
- Pallet wrap
- Shipping pillows

Do not attempt to recycle:

- **Frozen food bags**
- **Prewashed salad mix bags**
- **Degradable or compostable bags**
- **Bags used for water softener salt**
- **Thick or crinkle plastics**

A simple test: If a bag or wrap is not labeled, give it a light tug. If it stretches when pulled, it is likely recyclable. When in doubt, don't recycle items you are unsure about. Bags and wrap with food particles or excess moisture can hinder the recycling process and decrease the market value for entire loads of film and wrap.

A ROLE FOR EVERYONE

You can start today and learn how to do your part to build the economy, keep recyclable plastic film and bags out of Wisconsin landfills and put them back into productive use.

Benefits of WRAP and plastic film recycling:

- Keeps plastic waste out of landfills and the environment
- Reclaims resources for manufacturers to create building materials and park equipment
- Creates jobs in the Wisconsin recycling sector
- Cuts costs and reduces spending compared to new material or plastic alternatives
- Creates community bonds between consumers, retailers, local governments and industry

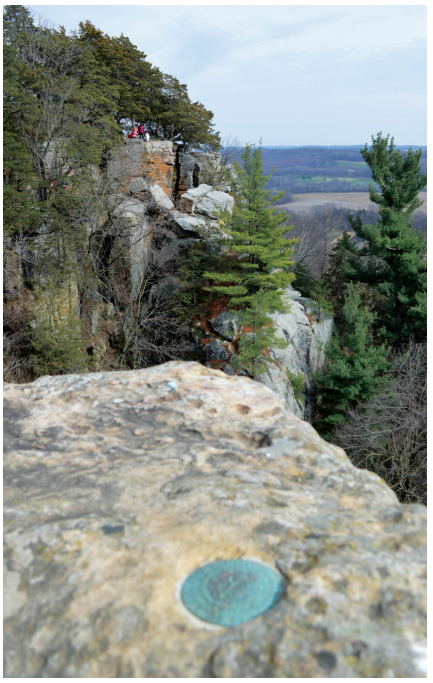
GRAPHICS BY THOMAS J. SENATORI/ISTOCK/SHUTTERSTOCK

Pattison State Park in Douglas County features nine miles of hiking trails that include vistas to see Wisconsin's highest waterfalls.

WISCONSIN DEPARTMENT OF TOURISM

A quirky excuse to roam Wisconsin

HIGHPOINTING HAS ALL OF THE HIGHS AND NONE OF THE LOWS.



JOSEPH WARREN

Rising 200 feet above the surrounding landscape, Gibraltar Rock in Columbia County offers panoramic views of the Wisconsin River Valley. In the foreground is a Geodetic Survey marker.

Jim Mortwedt

Highpoints, points of high elevation, are prominent in history. Perhaps more in the ancient past than present day, and maybe that's why they interest those who fancy themselves a different drummer, including everyone's favorite different drummer, Henry David Thoreau.

The transcendentalist scaled more than a dozen peaks in his short life, including the formidable Mount Washington, highpoint of New England and fraught with winter danger.

Closer to home, some claim the highpoint on the entire run of the Mississippi River is Eagle Bluff near Fountain City, Wis. Yes, you can highpoint the entire Mississippi River Valley in Badgerland. I contend that any overlook on the great river is worth your while.

In Wisconsin, I've scaled most of the highpoints of our 72 counties, and every time I get up on top of one, it's an odd feeling. I ask myself, "Why am I here?"

That question has been asked by people who frequent high places across time and culture.

It would be a stretch to say that I *scale* these highpoints. Some maybe, but not all. The highpoint of Crawford County — county highpoints are mainly what I seek — is a good example why. To reach this point in the pretty little crossroads of Rising Sun, an unincorporated community in the town of Utica, about all you have to do is get out of your car and there it is, well sort of. Highpoints are often unmarked and this is a source of frustration to those who must have closure.

Rising Sun, on State Highway 27, illustrates another appeal of the hobby or sport of highpointing. It, like many state highpoints, figures prominently in the state's history.

For example, Rising Sun is on the old Blackhawk Trail and Blue Mound is near the old Military Ridge Trail, each famed paths in Wisconsin history. Blue Mound is also the highpoint of two counties, Dane and Iowa.

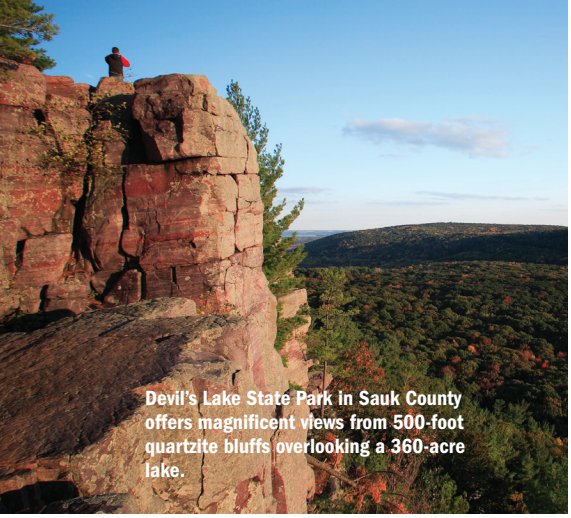
When you travel the state to highpoints, as I have for 15 years, there are revelations. Highpoints were once more prominent, in part, because the early surveyors often triangulated from them. When you do find an exact point, there will often be a U.S. Coast and Geodetic Survey marker sunk in concrete.

For me, part of the attraction is simple; highpointing takes you to places you would not otherwise go. Commit to locating a highpoint and you are likely in for a surprise.

Some highpoints are pretty pedestrian, while at the same time dangerous to the pedestrian. The highpoint in Hales Corners lies near a bridge over multiple lanes of daunting Milwaukee County traffic. Just to the north, the highpoint of Washington County, Holy Hill, is a good

Perrot State Park, where the Trempealeau River meets the Mississippi River, offers breathtaking views from 500-foot bluffs.

WISCONSIN DEPARTMENT OF TOURISM



Devil's Lake State Park in Sauk County offers magnificent views from 500-foot quartzite bluffs overlooking a 360-acre lake.

WISCONSIN DEPARTMENT OF TOURISM

JIM MORTWEDT

A plaque marks the end of a successful hike to Lapham Peak.

SUBMITTED BY JIM MORTWEDT

The author and his dog Zipper at Perrot State Park.

deal more uplifting. It's a Catholic shrine, with a spire to boot. Go say a prayer or take a hike. You're welcome either way.

In ancient Judea, highpoints were sometimes associated with pagan ritual. Even the Mount of Olives, so familiar to Christians, was a pagan hangout long before Jesus put it on the map.

When my brother-in-law and I went on our first highpointing expedition in search of the highpoint of Vilas County, we discovered that you have to have a lot of tolerance for ambiguity. We had no means to verify if we had found the highpoint. We drove up a gravel road and found a path that seemed to end for no other reason than it looked higher than any other point around! I know this is not the way say, Lewis and Clark would have done it. Then again, it wasn't Thomas Jefferson who sent me on these wild goose chases. Keep in mind this first expedition was before the days of the smartphone and map apps, and even before the days of widespread GPS.

Highpointing has a way of drawing you in and we rationalized that day *that in all likelihood* we certainly had found the Vilas County highpoint even if we had no proof. If it was easy, it wouldn't be as much fun, right? Well that's not true either. Plenty of Wisconsin highpoints are easy to find. Rising Sun is one example. Rib Mountain at the top of Marathon County is another. Timm's Hill, which is the highest of Wisconsin highpoints in Price County, is another. They were all fun to locate. Easy is not always bad. Challenging can be overrated.

Highpointing is an unusual pastime and each bagged highpoint is different.

Take Observatory Hill, the boyhood highpoint — geographically speaking — of Wisconsin genius John Muir. It is a highpoint well worth climbing. Climb it today and the outcroppings on top, with their striations, will tell you of Wisconsin's Pleistocene past when mile-high glaciers flattened all but the most resistant topography in what is now Marquette County. Why Muir's father chose the land nearby to farm probably says more about harking from Scotland, than his agricultural acumen. Muir cared plenty about high places and arguably did more to preserve them in the United States than anyone.

"Climb the mountains and get their good tidings," he said. He wrote a book about California's mountains and once attributed his love for peaks to his boyhood near Observatory Hill, south of Montello.

Another Wisconsin highpoint of interest is Mount Whittlesey. I've tried twice to find the unambiguous highpoint there without satisfaction. But no matter. What I did find there one fire-hot July day was the largest flock of turkey vultures I'd ever seen. They circle the mount like something right out of a Western movie. They're scavengers looking for carrion.

Mount Whittlesey, located just outside of Mellen, I believe is named after the man (Charles Whittlesey) who first surveyed much of Wisconsin's north from 1847 to 1851 for the federal government. His life included duty in the Blackhawk War. Later, as a colonel in the Civil War, he fought at Shiloh. So you learn from highpointing Mount Whittlesey, and a modest amount of relevant research, that the country was much smaller in many ways back then. I wondered if Whittlesey met Lincoln, for instance, another soldier in the Blackhawk War. Well, he did! When Lincoln was elected president, Whittlesey was part of his escort to Washington, D. C. They knew each other! So whatever else it is, highpointing is also a portal to history.

Increase Lapham is more proof of that. Lapham Peak, 25 miles west of Milwaukee, was once at the receiving end of signals from Pike's Peak near Denver, Colo.

Those signals conveyed weather information for the maritime Great Lakes. Lapham was instrumental. He led one of those stunning lives that are no longer possible since technologies have required specialization. He built canals, warned of the disaster from clear cutting the white pine in Wisconsin and became known as the father of the National Weather Service. Today, picnics and cross-country skiing are found on Lapham Peak's modest slopes, but clearly there was a time when it had serious purpose as a highpoint.

You can highpoint a hill and get something from it. South Dakota has Harney Peak, highest point east of the Rocky Mountains. Minnesota's Eagle Mountain was first surveyed by Ulysses Grant II, son of the president. The highpoint of the Upper Peninsula is Mount Arvon. I've been to all of them. It's part hiking, part map reading, part historical research and part something else that might be no more than fun.

And it's a little odd, which you might like if you get drawn in. To find a list of Wisconsin highpoints visit the State Cartographer's Office webpage at sco.wisc.edu and search "High Points."

Jim Mortwedt lives in the city of Marine on St. Croix, Minn.

See something suspicious? Stop.

Meth lab site in Jefferson County.

COURTESY WISCONSIN DEPARTMENT OF JUSTICE

LAW ENFORCEMENT PARTNERS WARN ABOUT MOBILE METH LABS IN THE OUTDOORS.

Attorney General J.B.Van Hollen

Imagine camping at Peninsula State Park in Door County, hiking the Baraboo Bluffs near Devil's Lake State Park or hunting white-tailed deer in Vernon County. During one of these outings, you accidentally stumble upon an area containing what appear to be household cleaning supplies… plastic jugs, tubing, opened packages of cold tablets, peeled lithium batteries and maybe a small, 20-pound liquid propane cylinder with a bright blue valve.

Unfortunately, this imaginary scenario could become a reality. The scene described above is of a makeshift methamphetamine "lab" or dump site. It is a potentially dangerous place.

Chemicals used in the meth manufacturing process include acids, bases, organic solvents, anhydrous ammonia and other caustic, toxic, explosive or carcinogenic substances found in many household cleaners. Sadly, sometimes Wisconsin sportsmen and women, and outdoor enthusiasts discover these "labs" before law enforcement authorities.

If you discover a scene like this, don't approach it and don't touch anything. Call 9-1-1. Even a seemingly innocuous discarded plastic bottle may be filled with harmful chemicals from a "cook."

The result of such a "cook" is methamphetamine (or "meth"), that can be snorted, smoked, injected or ingested. Due to varying methods of manufacturing, meth can be "cooked" almost anywhere — a basement, shed, vehicle, ice fishing shack, public restroom or public lands. The process is highly mobile and can be done in stages at different locations.

The Wisconsin Department of Justice (DOJ) — Division of Criminal Investigation (DCI), through its clandestine laboratory certified special agents, is aggressive in combating the proliferation of meth throughout the state. Working closely with local law enforcement, the fire service, emergency medical, public health, and highway and utility workers, DCI's special agents support a multi-jurisdictional, multi-disciplinary approach to investigations, enforcement actions, training and outreach on the seriousness of meth labs.

When it comes to activities on public lands, DCI has a key partner with the Department of Natural Resources Bureau of Law Enforcement. Special agents and conservation wardens conduct investigations, identify suspects and make arrests. The partnership also is responsible for coordinating local, county and state responses to these incidents.

DNR FILE

Like clandestine (secretive) outdoor marijuana grows, meth labs pose a unique set of challenges. Beyond the obvious safety issues associated with exposure to toxic chemicals, there are other environmental impacts, such as soil and groundwater contamination. The Department of Natural Resources provides insight and resources to assist local governments with strategies to mitigate the effects of hazardous waste associated with a clandestine lab dump site.

DCI special agents receive specialized technical training to respond to, investigate and dismantle a suspected clandestine laboratory. This training is provided by the U.S. Drug Enforcement Administration (DEA). The DEA Basic Clandestine Laboratory Certification School is the most widely recognized law enforcement-sponsored clandestine laboratory training course that meets Occupational Safety and Health Administration (OSHA) standards.

DCI special agents learn how to use air purifying respirators, a self-contained breathing apparatus and other personal protective equipment when conducting activities near or in a suspected lab.

Clandestine meth labs pose a threat to individuals but also to our natural resources and the greater community. If you come across one of these labs, report what you see to local law enforcement immediately. Do not touch any of the materials and do not approach the site for inspection. If there are individuals near the site, do not attempt to approach them. Once reported to law enforcement, clandestine laboratory certified law enforcement will respond.

With your help and the partnership between DCI and the Department of Natural Resources, we can preserve the safety and beauty of Wisconsin lands for generations to come.

J.B. Van Hollen is Wisconsin's Attorney General.

Aerial views of Lake Belle View in Belleville show stark changes since restoration efforts began in 2008. Prior to 2008 (left photo), the lake was a shallow, silt-filled, algae-laden millpond fed by the Sugar River (upper left) and held back by a 150-year-old dam in the southeast corner of the lake. Today (right photo), a man-made berm separates the river from the lake, keeping nutrients out of the lake and providing bike and pedestrian access for village residents.

MICHAEL KAKUSKA

Herding carp

A RESTORATION PROJECT TRANSFORMS AN AGING LAKE INTO A COMMUNITY HUB AND REINS IN CARP.

Kathryn A. Kahler

"Here's hoping that herding carp is a lot like herding cattle. Then again, it could be more like herding cats."

That was Richard Wedepohl's observation and the hope of onlookers gathered with him on the shore of Lake Belle View in the village of Belleville on a cold, windy morning last November. A crew of commercial fishermen was circling the newly restored lake with boats, beating the surface with plungers to herd carp in the direction of seine nets waiting at the shore. After covering the backwaters and channels, they converged toward the shore, strung another stretch of net in a circle and slowly cinched it together, trapping carp, catfish and crappie.

The group of onlookers had varied credentials — environmental consultants, project managers, village personnel and taxpaying residents — but one common goal: to keep their lake from regressing to what it was five years before. They had seen the lake transform from a silt-filled, algae-laden millpond into a thriving lake and hub of recreational activity. They did not want the carp they thought had been eradicated to regain a foothold.

An old, shallow lake

The Lake Belle View restoration project was launched in 2008 after many public meetings and working sessions. Wedepohl and his business partner, Dave Marshall, both DNR retirees, worked with Montgomery Associates consulting engineers and village residents to develop a plan to restore the 150-year-old lake. Residents made it clear that they wanted a viable lake with beautiful views, better water quality and an improved fishery, while maintaining the dam that impounded the Sugar River at the lake.

Given the lake's history, these goals seemed to Wedepohl and Marshall to work against each other. The lake was created as a millpond and over the years had become increasingly shallow from silt deposited by the Sugar River flowing through it. The Sugar River is a phosphorus-laden river whose watershed north of Belleville includes southwest Madison, Verona and hundreds of acres of agricultural fields. Maintaining the dam would ensure that river water would continue to feed the lake with unwanted nutrients.

The lake is a hub of recreational and nature-based activities for village residents. A fenced enclosure on the lake side of the berm protects nesting turtles from predators.

A lake improvement project in La Valle, 60 miles to the northwest, provided a solution they thought worth trying — separate the lake from the river with a man-made berm to keep nutrients and silt out of the lake. Their restoration plan also called for drawing down the lake to

MICHAEL KAKUSKA

JEAN KRINGLE

help eradicate carp, modifying the millrace structure to act as the outlet control for the lake, and improving fishing by dredging the lake to a depth of 8 to 10 feet.

Dredge material was placed around the existing islands to enhance and create terrestrial habitat areas. Because the separation berm was predicted to increase the 100-year flood elevations on the Sugar River, they proposed to remove 9 inches from the dam sill to allow more river water to flow over the dam.

Steps toward improvement

As with any major project, there were skeptics. Some local residents thought that separating the river from the lake would dry up the lake. Planners assured them that the lake is spring-fed and that groundwater was sufficient to refill the lake.

"In fact, groundwater enters the lake at a rate of 2 cubic feet per second, which is pretty fast," Wedepohl explains.

Project partners built a half-mile long berm made of road-grade construction materials. It is 20 feet wide with a 10-foot-wide gravel bike and pedestrian path running the entire length, it is 4 to 5 ½ feet above normal lake and river water level, and it was designed to hold up to seasonal flooding. Flooding in excess of 25-year levels will overtop the berm through reinforced overflow sections to allow lake and river levels to equalize.

JOSEPH WARREN

The common carp disturbs sediments, increases lake turbidity and retards the growth of submerged plants.

Over two years, the lake was drawn down and dredging was completed on both sides of the berm to deepen the lake and enhance the wetland forest, upland buffer and restored wetlands. Twenty-nine species of fish that prefer backwater habitat were transferred from the Sugar River into the lake. These fish were supplemented with a hatchery stocking that included 200 bluegills, 200 black crappies, 75 largemouth bass, 40 walleyes, 40 northern pike and 50 pounds of golden shiners. Steps were taken to control invasive vegetation, specifically buckthorn, honeysuckle, cattail and reed canary grass. Ongoing projects include an enclosure that keeps predators away from nesting turtles, biological control of purple loosestrife, floodplain forest planting and lake level and water quality monitoring.

RICHARD WEDEPHOL

Commercial fishermen remove invasive carp from Lake Belle View to keep them from regaining a foothold in the lake.

A new, thriving resource

"What we have today is a resource that didn't exist five years ago," says Michael Parkin of the Community Development Authority for the village of Belleville, and one of the onlookers to last year's "carp-herding" session. "Every day you can come to this park in the heart of Belleville and see people walking their dogs on the path. Kids use it to ride their bikes to school. It connects the south side of town to the north side. It used to be that Highway 69 was the only route from north to south."

Plans are in the works to connect the pedestrian/bike path to the Badger State Trail that runs through Belleville to the east.

Another onlooker with a big stake in the project was Village President Howard Ward. A lifelong resident, he recalls what the lake used to be like in the 1960s.

"I can remember when I was in high school, we used to get a lot of bass and crappies out of this lake all the time. This was a really good fishing lake for years. I'm not blaming it all on the carp, it just filled in over the years. It never was a deep lake."

Ward and other residents have kept a close eye on the restoration activities since day one, and the day of the carp

A lake drawdown in the spring of 2014 was more successful in eradicating carp.

JOSEPH WARREN

The seine encircling the carp is being readied for pulling into shore for final removal.

RICHARD WEDEPOHL

eradication was no different. Pickup trucks and cars cruised the park road all morning. Pedestrians with dogs in tow stopped to watch.

Residents have perhaps the biggest stake. They paid almost $1 million toward the project in a special 10-year tax levy. Project construction costs totaled $2.3 million with funding coming from the village lake fund, the DNR's Stewardship and Lake Protection funds, Dane County and several private donations.

"What started as a lake restoration project has turned into more of a community restoration," observes Wedepohl. "It's just so much more comprehensive than we envisioned at first. People are here fishing all the time. There's a canoe and kayak loop that connects the north channel folks to the lake because that was really important to them. An Eagle Scout started a project that created a nature trail with benches for resting that loops through the wetland area on the north end of the property."

It's that sense of community that was

The lake is refilling and native plants returning, fueling hope that native fish will rebound.

JOSEPH WARREN

cause for concern when fish shocking surveys in the spring of 2013 found carp in the lake.

"We really thought that keeping the lake drawn down for six months and over winter would wipe out the carp population," recalls Marshall, a water quality expert specializing in riverine ecology in his days with the Department of Natural Resources. "When we found some big carp last spring, we realized there were still breeding stock that survived. We've since heard from fish biologists at Horicon that carp can overwinter in mud."

Not wanting the carp to get a foothold, the village contracted with commercial fishermen to remove them.

More like herding cats

As the fishermen started the final leg of their process, anticipation from the onlookers was keen. The men in their wind-shielding neoprene suits began pulling in the net strung along the shore. Fish caught in the nets were either thrown back into the lake (crappies, walleyes, bluegills and one huge catfish) or dropped in the bottom of the boat (carp).

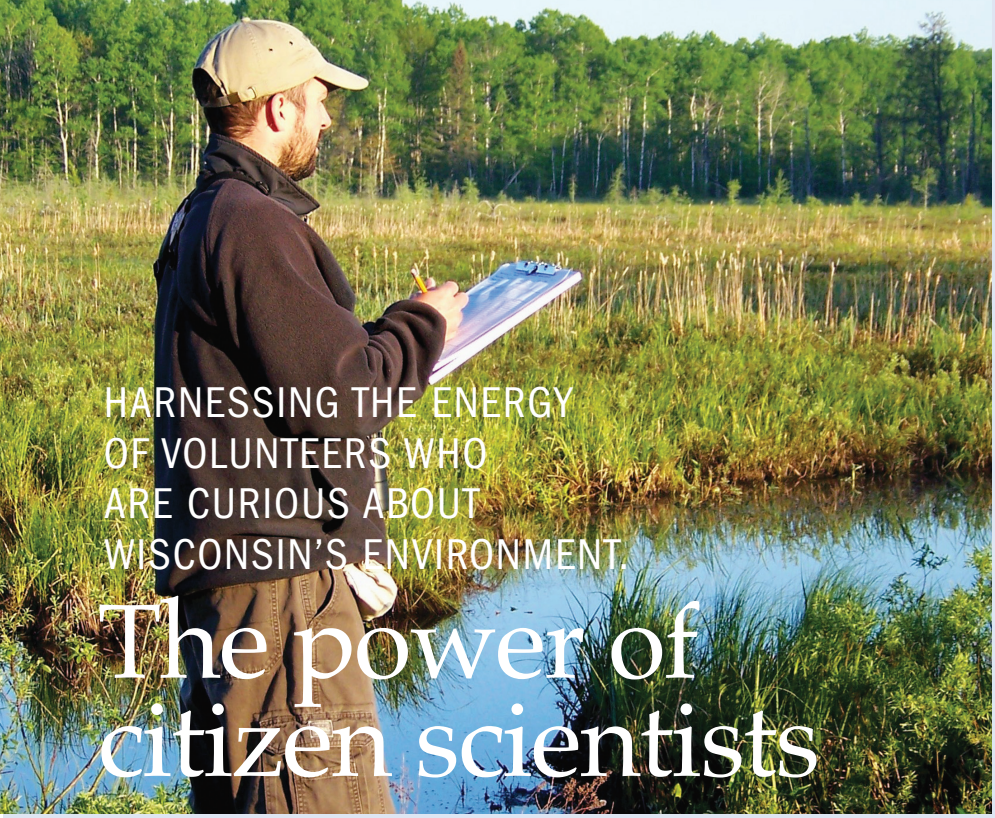
At the end of the day, a couple hundred pounds of foot-long carp lay in the bottom of the boat. They were estimated to be 1 or 2 years old, so somehow the big breeding stock they knew were there had been missed. According to Wedepohl's analogy, the carp had proven to be more like cats than cattle when it came to herding.

Undeterred, project partners drew down the lake in the spring of 2014 in a second effort to remove the carp. This time, with the earlier experience under their belts, they were much more successful, capturing a high percentage of the carp. Marshall also reports good news in that even after a very long hard winter, preferred fish species were plentiful in the lake. Just 30 minutes of shoreline shocking collected 105 bluegills, 163 green sunfish, six orange spotted sunfish, 12 hybrid sunfish, three yellow bullheads, one black bullhead, one bluntnose minnow and one largemouth bass.

"We'll now refill the lake, replant water lilies and other native plants and resurvey the fish community to see if additional controls will be needed. Carp are quite the worthy opponent," says Wedepohl. In the meantime, nature and humans alike took advantage of the situation.

"Shorebirds were everywhere on the freshly exposed mud flats," recalls Wedepohl. "The entire Belleville seventh-grade class came out for a field day and kicked around on the exposed lakebed, looked at aquatic insects and explored the plant community of the floodplain forest and prairie areas around the lake."

Kathryn A. Kahler is an editorial writer with Wisconsin Natural Resources *magazine.*



HARNESSING THE ENERGY OF VOLUNTEERS WHO ARE CURIOUS ABOUT WISCONSIN'S ENVIRONMENT.

The power of citizen scientists

TIM OKSIUTA

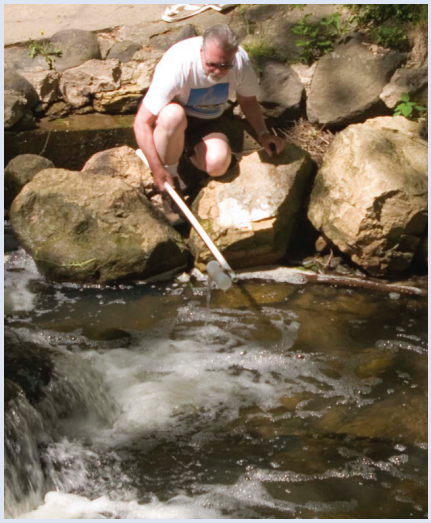
Erin Gordon

Have you ever wondered what the story is behind the dragonfly that boldly lands on your lap? Have you ever found a shiny shell in a shallow stream and wondered what kind of creature it came from? If you are this curious, you may have a calling. You may want to join The Wisconsin Citizen-Based Monitoring Network (CBM).

Thanks to the work of citizen scientists in the network, since 2002 over 10,000 records of dragonflies have been noted, six new species in the state have been identified and valuable survey data has been collected to help the state update Wisconsin's endangered species list. Rare native mussel species have been located, and monitoring has led to the discovery that some individual mussels can survive up to 100 years.

The common thread through scientific advances like these is that volunteer engagement and involvement allows us to do more together than one agency could ever do alone. The efforts of volunteers allow state and local leaders to make well-informed decisions when it comes to conservation of our natural heritage. Simply stated, without the help of engaged citizens volunteering their time, much of this data collection would be nearly impossible. The network is a partnership between the Department of Natural Resources, CBM project leaders (at universities, schools, nature centers, friends groups and other nonprofits) and citizen volunteers.

With many projects to get involved in, citizens can find a program that not only meets their interests, but their talents as well. Citizens can participate at various levels as their schedules allow. Here's a peek into four CBM projects that have made remarkable discoveries.



JIM BEECHER

Citizens throughout Wisconsin are using Water Action Volunteers' sampling protocols to monitor the health of their hometown streams and rivers. They monitor dissolved oxygen, temperature, transparency, flow, habitat and macroinvertebrates.

Left: Volunteers such as those involved in marshbird surveys (rails, bitterns, coots and grebes) are an integral part of Department of Natural Resources' approach to monitoring hundreds of species throughout the state.

Lisie Kitchel teaches field trip participants to identify freshwater mussels.

DNR FILE

Monitoring freshwater mussels

What started as a way to gather more up-to-date information on Wisconsin's native mussel populations has grown into both a wonderful educational opportunity and a monitoring project that works to take data and apply it to decisions made throughout the state. With observation locations in virtually every county, citizens, schools and other groups interested in exploring what's right in their own backyards can collect data on mussels with minimal training and equipment.

DNR Conservation Biologist Lisie Kitchel says citizen monitors gather information regarding population, reproduction, changes in distribution and abundance, and the presence of rare or exotic species, purely by collecting shells and photographing live specimens in wadeable streams. Eager volunteers can start at almost any age and dedicate as little or as much time as they wish.

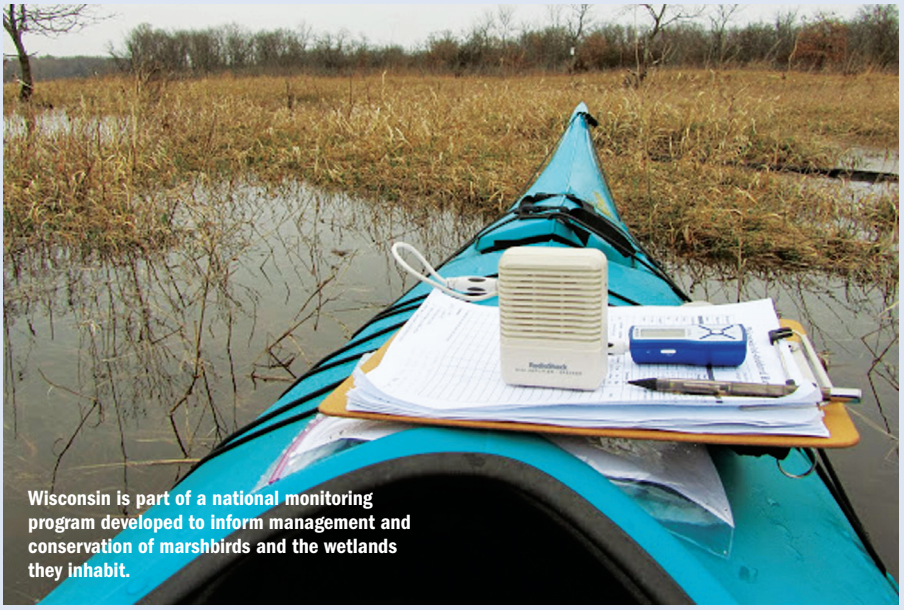
"This program is really nice because little kids as young as 3 years old can look for mussels," says Kitchel. "It's a treasure hunt for them."

Surveying dragonflies

Nearly 12 years ago, the Wisconsin Odonata Dragonfly Survey was formed to gather information on species distributions and habitats statewide and fill the void of knowledge about these majestic creatures. According to DNR Research Scientist Bob DuBois, after developing

The Wisconsin Marshbird Survey requires observers to know the target species by sight and sound. They must have good navigation skills, be physically fit for off-road hiking and eager to tackle some technical data recording duties.

JEFF BAHLS



Wisconsin is part of a national monitoring program developed to inform management and conservation of marshbirds and the wetlands they inhabit.

ANNE GERAGHTY

better identification guidelines, the Wisconsin Dragonfly Society's monitoring project grew and generated better ways for committed citizens to connect and share their findings as well as engage youth in nature.

Through the Society, surveyors are better equipped to stay involved and motivated to continue their monitoring. The project welcomes any level of commitment from volunteers and information can be collected in just one short outing. With the help of a field guide, citizens can learn about these invertebrates while enjoying themselves in the outdoors.

In working to create connections among citizens across the state, this project also aims to engage children in natural resources while teaching them about the different species.

"Dragonflies can be educational and serve as a social outlet for children," says DuBois. "This survey is just one way to pass on the legacy of being involved in nature that exists in our state."

Discovering marshbirds, nightjars and owls

The Wisconsin Bird Conservation Initiative's surveys for marshbirds, nightjars and owls were all created under the same principle that, unfortunately, some species fall through the cracks of traditional monitoring programs. This project aims to fill those gaps in information and data collection and to improve management and conservation of these bird species. Bird enthusiasts are welcomed to conduct surveys at predetermined routes throughout the state and receive training and direction on how and when to look for the target species.

The nightjars (nocturnal species including whip-poor-will and common nighthawk) are monitored on routes that cover almost every corner of the state. Survey volunteers travel a predetermined road on one night during the early summer months and stop to listen for the beautiful and distinctive calls of these birds.

For surveyors looking to go off-road and tackle more technical data recording, the Wisconsin Marshbird Survey allows volunteers the opportunity to explore wetlands and listen and look for secretive species such as rails, grebes and bitterns. Volunteers run two or three surveys on a predetermined route at dusk or dawn.

There are also over 90 routes for owl enthusiasts of all skill levels to assess population trends.

Data collected from these surveys is integrated into research projects and conservation programs across Wisconsin and the Midwest, says DNR Research Scientist Ryan Brady.

"The ability to incorporate data gathered through monitoring into the conservation work we do demonstrates the role of citizen scientists in a powerful way," says Brady. "We simply couldn't do it on our own."

Improving Wisconsin water quality

What began as an educational cleanup project in 1990 has transformed into a three-tiered statewide stream monitoring effort called Water Action Volunteers. In this program, citizens connect to one another and to their local communities through partnership and collaboration.

Volunteers, families, schools and other groups can get involved in any of the three levels depending on their time, availability and goals for their participation. Everyone begins with level one: looking at basic stream data such as flow and clarity. Those wishing to make a bigger commitment can move up to level two, which focuses on long-term trends. In level three, volunteers are involved in specialized research projects that address specific questions and often require greater time commitments.

"Without our partners, we simply would not exist," says Water Action Volunteers Stream Monitoring Program Coordinator Kris Stepenuck. "Collecting, understanding and sharing their data gives them a voice at the table and their voice is a part of the process. We want them to be able to connect with us and local management."

The echo of this important sentiment is the basic foundation for the Wisconsin Citizen-Based Monitoring Network. The engagement of citizen scientists and their integral role in collecting information that would otherwise be left largely unknown speaks to their powerful part in preserving and protecting Wisconsin's natural heritage.

Erin Gordon is a communications specialist in the DNR's Office of Communications.

NEW SEASON SPARKS REMINDER TO BRUSH UP ON DUCK IDENTIFICATION.

Try your hand at teal hunting

Blue-winged teal are an early migrating bird.

DAN PANCAMO

Natasha Kassulke

Waterfowl hunters have a new opportunity this fall. In June, the state Natural Resources Board approved a teal-only duck hunting season for Sept. 1 to 7 with a six-bird daily bag limit. Shooting hours on opening day begin at 9 a.m. and close at 7 p.m. Shooting hours from Sept. 2 through Sept. 7 begin at sunrise and close at 7 p.m.

Hunters may harvest only blue-winged and green-winged teal. Hunters also need the same authorizations required for the regular duck season, a state and federal waterfowl stamp, Harvest Inventory Program (HIP) certification and small game license or another license that provides the same privilege.

Green-winged teal in flight.

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This year launches a three-year experimental season. The United States Fish and Wildlife Service (USFWS) offered Wisconsin, Minnesota, Michigan and Iowa early teal seasons this fall. Those are the only four states in the 14-state Mississippi Flyway that did not have early teal seasons previously. The continental blue-winged teal population has been at record highs recently at around 8 million to 9 million birds, helping to prompt the hunt. Wisconsin must comply with federal regulations in establishing migratory bird hunting seasons and conditions. Wisconsin waterfowl hunters have been asking Wisconsin DNR staff to request a teal season from the USFWS for many years. Blue-winged teal nest in Wisconsin and adjacent states, but as early migrants, often leave Wisconsin before the regular duck season.

Wisconsin was not included in the hunt previously since it is a "production" state, meaning that it is a major breeding area for mallards and other ducks.

The Department of Natural Resources is asking hunters to review their waterfowl identification before venturing out for teal because some ducks may lack the more colorful distinguishing plumage in early September as they do later in the fall. Hunters can do that by visiting the DNR's waterfowl web page and brushing up on their duck identification skills or by making field visits and familiarizing themselves with how the ducks will appear in early fall.

Kent Van Horn, DNR waterfowl ecologist, says that it is very important to understand that this is an experimental season and that the results of the experiment will determine if a state is granted an operational early teal season.

The USFWS requires states to monitor hunter behavior in the field to observe

Visit the DNR website at dnr.wi.gov/topic/hunt/waterfowl.html to find a guide to waterfowl identification. Then take a quiz to see how good you are.

MAKING THE ID

The blue-winged teal is 16 inches long with a wingspan of 23 inches. The male call is a short whistle while the female's call is a soft quack.

U.S. FISH AND WILDLIFE SERVICE

Blue-winged teal

Their small size and twisting, turning flight gives the illusion of great speed. The small, compact flocks commonly fly low over the marshes, and often take the hunter by surprise. They are more vocal than most ducks – their high-pitched peeping and nasal quacking is commonly heard in spring and to a lesser extent in fall. These teal are among the first ducks to migrate each fall and one of the last in the spring.

Male blue-winged teal have a slate gray head and neck, a black-edged white crescent in front of the eyes and a blackish crown. The breast and sides are tan with dark brown speckles and there is a white spot on the side of the rump. Most of the upper wing coverts are blue-gray, the secondaries form an iridescent green patch and the underwing is whitish. The bill is black and the legs and feet are yellowish to orange. Female blue-winged teal have a brownish-gray head with a darker crown and eye stripe. The breast and sides are brown, the upper parts are olive brown, and the upper wing coverts are bluish, but less vibrant than the drake. The bill is gray-black and the legs and feet are dull yellow-brown.

Green-winged teal are the smallest of the North American ducks, with a short neck, small bill and an average length of only 14.7 inches. They are a noisy species. The male has a clear whistle, whereas the female has a feeble quack.

U.S. FISH AND WILDLIFE SERVICE

Green-winged teal

These birds are quite hardy and are the smallest and one of the most common ducks. Their tiny size gives the impression of great speed, but mallards can fly faster. Their flight is often low and erratic, with the entire flock twisting and turning as one unit.

Male green-winged teal have a chestnut head with an iridescent green to purple patch extending from the eyes to the nape of the neck. The chest is pinkish-brown with black speckles, and the back, sides and flanks are vermiculated gray, separated from the chest by a white bar. The wing coverts are brownish-gray with a green wing patch. The bill is dark slate and the legs and feet are dark gray. Males have a distinctive high-pitched "preep-preep." Female green-winged teal are mottled brown with a dark brown line that extends from the bill through the eye. The bill is dark gray and the legs and feet are olive-gray to brownish-gray. Females are relatively silent but have a sharp, high "quack" when disturbed.

Excerpted from "Ducks at a Distance" by Bob Hines, Department of the Interior/U.S. Fish and Wildlife Service and Ducks Unlimited (ducks.org/hunting/waterfowl-id)

whether they shoot at non-teal ducks during the teal-only season. If the number of attempts to shoot non-teal ducks is too high, then Wisconsin will fail the experimental season.

Teal pairs and small groups of this small dabbling duck inhabit shallow ponds and wetlands across much of North America.

In contrast to the two small teal species (about 14 – 16 inches long) that will be legal game during this special season, two other larger duck species will also be abundant in the state in early September.

The mallard is considerably larger, nearly twice the length and twice as heavy, making them appear slower and less maneuverable in flight. Hen mallards are mottled light brown in color and have an orange bill with an iridescent blue wing patch, whereas both blue- and green-winged teal have darker colored bills and have iridescent green wing patches.

In the early fall, drake mallards may not be in full plumage yet. Instead, they will have an eclipse plumage where they appear somewhat like a hen until their green head fills in.

The other duck that will be around during this season is the wood duck, which is slightly larger in both length and weight than teal. In flight, wood ducks are also highly maneuverable, however they appear blocky and are very vocal, producing a high pitch whistle. At this time of the year only the hen wood duck would appear similar, however they are a drab dark brown/grayish color with a prominent white ring around their eye.

As always, Van Horn encourages duck hunters to get out before opening day to scout the marshes, brush up on their identification skills and find the best hunting locations.

Natasha Kassulke is editor-in-chief of Wisconsin Natural Resources *magazine.*

Partnerships are critical to balancing economic and environmental needs.

DNR FILE

WISCONSIN'S PROUD HERITAGE.

Land and water conservation

Jim VandenBrook, Cate Harrington, Danielle Santry and Derek Kavanaugh

Wisconsin is its land, its waters and its people. The health of all three depends on one another. How Wisconsin citizens conserve and maintain the state's limited land base and soil productivity — as well as its lakes, streams and groundwater — will determine the future of the state's economy and quality of life.

It is the mission of county land and water conservation committees (LWCCs) and departments (LWCDs) to help landowners and users meet their objectives while protecting common economic and environmental infrastructure: land and water resources. The Wisconsin Land and Water Conservation Association (WLWCA) supports the efforts of LWCC supervisors and conservation staff in 72 county LWCD offices through training, conservation standards development, youth education, grants, partnership building and advocacy.

WLWCA works with a variety of state and federal agencies including the Department of Agriculture, Trade and Consumer Protection, the Department of Natural Resources, the USDA Natural Resources Conservation Service, the USDA Farm Service Agency and the University of Wisconsin Cooperative Extension Service. These agencies provide the LWCCs and LWCDs with technical assistance, recommendations and financial support for project implementation.

The following success stories highlight partnerships, grants and expertise that have been brought together to tackle some of the state's most pressing land and water resource concerns.

DNR FILE

To learn more about the Wisconsin Land and Water Conservation Association visit **wlwca.org/**.

Land, water and people: How conservation works

© MARK GODFREY/TNC

Left: U.S. Geological Survey researchers gather water quality and water flow information in the Pecatonica River.

Jim VandenBrook and Cate Harrington

For Mark Peterson, farming is a family affair. The land south of Mount Horeb where Peterson owns and operates a small dairy was homesteaded by his family in the late 1800s. His father, Paul, who farmed the land before him, still helps out, and Peterson's cousin, Steve, owns the farm next door, which he took over from his father.

"I think we've survived over the years," Peterson says, "because we're not afraid to try new things."

Peterson appears to be carrying on the family tradition of innovation. He's one of 22 farmers in the Pleasant Valley watershed taking part in an experiment to see if making changes to the way they farm can improve water quality in local streams that drain into the river.

The Pleasant Valley pilot watershed project, on a tributary to the Pecatonica River, combines a time-tested approach to conservation along with new planning tools to attempt to achieve improved water quality by reducing phosphorus runoff and soil erosion from agricultural lands.

Too much phosphorus leads to excessive algae growth, which can block sunlight from underwater plants, consume oxygen in the water and lead to fish kills, interfere with shellfish and other filter feeders and cause surface scum and bad odors.

Farmers have stepped up to install conservation practices that fit their operations in an efficient, science-based and targeted way. In just four years, water quality results have already shown promise. Through a process known as "locally-led conservation," farmers, scientists, agencies, private nonprofits and local conservationists are working together to achieve both increased farm profitability and environmental performance.

What is "locally-led conservation?"

Locally-led conservation is based on the principle that community members are the most capable to identify and resolve natural resource problems. In this case, the Dane County Land and Water Resources Department and Green County Land Conservation Department facilitate the work of a strong partnership including the University of Wisconsin, The Nature Conservancy, the Wisconsin Department of Natural Resources, USDA-Natural Resources Conservation Service (NRCS), U.S. Geological Survey (USGS) and, most importantly, farmers in the watershed. In 2010, this partnership began testing the idea that water quality in a watershed can be improved by focusing conservation practices on those fields and pastures with the greatest potential for contributing phosphorus to streams.

The Pleasant Valley project

Using a land management inventory conducted by a UW-Madison graduate student and Dane County conservation staff, the partners identified a small number of farms in the Pleasant Valley watershed that were contributing comparatively large amounts of phosphorus to the stream. They used a soil erosion estimate and the new Phosphorus Index model, which estimates the risk of phosphorus runoff from farm fields based on soil conditions and management decisions. Dane County conservation staff initially focused on working with just 10 farms to identify alternative management practices, including different types of tillage, crop rotations and manure handling that would reduce sediment and nutrient loss.

UW-Extension and UW-Madison College of Agriculture and Life Sciences researchers helped some of the farmers assess the financial costs associated with implementing various management practices on their farms to find the best fit. The USDA-NRCS provided most of the funding to implement the changes, with the additional funds provided by the farmers and The Nature Conservancy through grants from the Monsanto Company and the McKnight Foundation.

Early results

Starting in 2006, the USGS and the Department of Natural Resources set up monitoring gauges and gathered data on sediment deposition, bank erosion, water quality and fish and invertebrate populations in the Pleasant Valley watershed. They also gathered baseline data in a second watershed, where no action is being taken, so that differences between the two could be compared.

From 2010 to 2012, farmers converted about 1,500 acres of cropland to no-till (roughly one-third of watershed crop acres), installed eight barnyard runoff systems, wrote nutrient management plans covering 3,405 cropland and pasture acres, fenced livestock from more than four miles of streams, added 14 cattle crossings to the streams and installed four grade stabilization structures. These changes reduced estimated phosphorus delivery by 45 percent and estimated average erosion by 49 percent compared to baseline (2006-2009) on the targeted cropland and pasture acres.

Streambank stabilization was important because the project showed that stream sediments were coming from both upland and stream bank erosion. The county used voluntary, non-regulatory, incentive-based approaches with farmers in the watershed. While it is important that the models used to estimate phosphorus and sediment runoff are showing reductions, it is even more impressive that actual water quality monitoring data is showing a downward trend in phosphorus load to the streams.

"The positive water quality results we're already seeing are a testament to the farmers' willingness to take the risks associated with trying new things and to the incredible amount of science and expertise partners bring to the project that makes the risks farmers are taking calculated ones," says Steve Richter, The Nature Conservancy's director of conservation programs.

Respect works

"Locally-led conservation projects work because there is mutual respect among all the participants," explains Kevin Connors, director of the Dane County Land and Water Resources Department.

Peterson adds, "Working with the county was a good give-and-take situation. Neither of us got everything we wanted, but in the end, we made some good changes."

The project partners respect the land, the care it needs and the health of the waters that wise land management brings. They know that conservation is timeless, and has no finish line.

Jim VandenBrook is executive director of the Wisconsin Land and Water Conservation Association. Cate Harrington is a senior conservation writer with The Nature Conservancy.

Lower Fox River farmers make wise environmental choices

Danielle Santry

Southeast of Kaukauna lies the headwaters of Kankapot and Plum creeks, two impaired tributaries to the Lower Fox River. These watersheds account for approximately 10 percent of sediment and nutrients to the Lower Fox River and Green Bay. Dominated by agriculture, the watershed is comprised of rich clay soils that provide prime farmland for area farmers.

Kankapot Creek meanders past one of Ken and Paul Hoelzel's farmsteads. Ken and Paul have been working these soils for nearly 20 years. They started taking over their uncle's farm in the early 1990s. At that time, the farm housed 140 cows.

Today Hoelzel Dairy operates nearly 900 acres to feed over 500 cows and youngstock.

The majority of their farmsteads and croplands eventually drain into Kankapot and Plum creeks. Over the years, storm events have eroded the banks of Kankapot Creek near one farmstead and swept away precious soil from their fields. The Hoelzels tried to stabilize gullies and streambanks on their own. Unsuccessful, Ken and Paul turned to the Outagamie County Land Conservation Department (LCD) for help.

This waterway is lined with erosion control matting. The waterway controls the gully erosion from the farmstead before entering cropped fields.

QUINT KRUEGER/OUTAGAMIE COUNTY LCD

Feedpad leachate reception tank to manure storage.

QUINT KRUEGER/OUTAGAMIE COUNTY LCD

QUINT KRUEGER/OUTAGAMIE COUNTY LCD

Addition to an existing feed pad, which will divert leachate to a reception tank.

It seems the Hoelzels picked an opportune time to seek assistance. The Department of Natural Resources was finishing a study documenting the amount of pollutants running into the Fox River downstream of Lake Winnebago. This study, referred to as a Total Maximum Daily Load (TMDL), did not focus on just the river. It aimed at capturing the sediment and nutrient runoff impacts of the entire watershed including all smaller tributaries to the Fox River.

Hoelzel Dairy's location provided a great opportunity to begin targeting financial and technical assistance throughout the Lower Fox River watershed. Ken and Paul were interested in assistance with nutrient management and increasing manure storage capacity.

A nutrient management plan is like a checkbook; it helps farmers balance the amount of nutrients applied to a field based on crop needs. Benefits include reduced nutrient application rates, reduced commercial fertilizer costs and improved application timing to further reduce runoff risk during weather conditions. Reducing fertilizer costs and runoff risks provide a win-win scenario for both farmers and water quality.

Ken and Paul worked on plan development with their crop consultant to improve manure management and address soil erosion concerns.

"That plan indicated the need for more manure storage to eliminate applications during prime runoff conditions," notes Quint Krueger, conservation technician with the Outagamie County LCD. "Winter manure application near surface waters or on steep slopes increases the risk of manure runoff in the spring."

To add storage to the farm, Ken and Paul worked with the Outagamie County LCD to apply for a Targeted Runoff Management (TRM) Grant through the Department of Natural Resources. Large projects like Hoelzel Dairy are perfect for the TRM Grant program. The department is able to target resources to a TMDL watershed and local county staff is able to provide financial assistance to local operators beyond their limited annual budgets.

"Hoelzel Dairy had a number of resource concerns identified during a farm visit" says Krueger. "We worked with Ken and Paul to come up with a plan to meet both environmental concerns and management issues for the operation."

In addition, the Hoelzel's were interested in a collection system for cattle feed pad runoff and stabilizing the bank at their Kankapot Creek site.

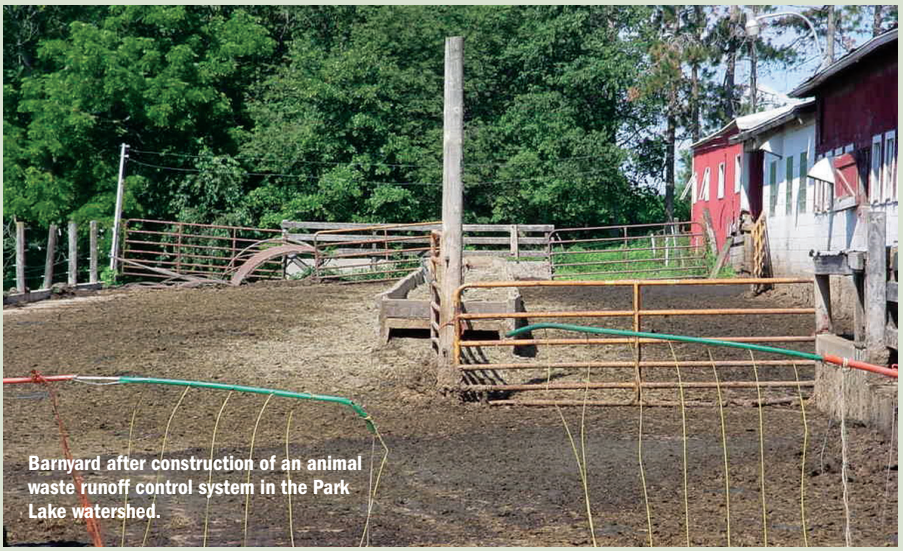
Addressing all these concerns, along with adding a larger manure storage system and abandoning the existing manure storage system, would have been cost-prohibitive for similar-sized operations. Thankfully, county conservation staff have strong partners.

The Natural Resource Conservation Service (NRCS) provided additional cost share funds through their Environmental Quality Incentive Program (EQIP) targeting Kanakpot and Plum creeks. EQIP funds provided additional resources, primarily to address stream bank erosion and cropland gullies.

"The additional manure storage is a huge benefit, especially during the spring," says Paul Hoelzel. "It allows us flexibility to haul manure at opportune times, and reduces our need to spread during wet spring conditions and on our hay ground."

In the end, a farmer's work is never done. Ken and Paul have future plans to add a wildlife wetland scrape through NRCS programs. Hoelzel Dairy's conservation efforts are a strong example of what can be done in the TMDL watersheds.

Danielle Santry is a water resource specialist with Calumet County and is a contributing author and member of the Wisconsin Land and Water Conservation Association.



Barnyard after construction of an animal waste runoff control system in the Park Lake watershed.

COLUMBIA COUNTY LWCD

COLUMBIA COUNTY LWCD

LWCD helps bring technical experts together to answer Park Lake community challenges

Native planting on Park Lake.

Derek Kavanaugh

Park Lake in Columbia County is a 312-acre impoundment near the headwaters of the Fox River, which, until recently, was well known to the locals for the bass, bluegills and pike that lurked amongst the weed-dominated shallows. Through years of declining water quality conditions, many plant species have been replaced by nuisance coontail and milfoil, and by 2001, the once plant-dominated clear-water lake had shifted to a turbid-water, algal-dominated one. Fish surveys conducted in 1996 and 2007 showed over a 70 percent reduction in bluegill, crappie and largemouth bass populations.

In 2001, the Park Lake Management District partnered with the Columbia County Land and Water Conservation Department (LWCD) and the Department of Natural Resources to help coordinate a multi-faceted planning and conservation effort among the various agencies and government bodies. The LWCD was uniquely positioned to address the overall issues. They had the environmental resource professionals and engineering staff available, and were eligible for and willing to use DNR grants to help address the problems. They were also familiar with the landowners and the local issues.

COLUMBIA COUNTY LWCD.

Stakeholders meet during a Park Lake Planning Meeting.

Columbia County LWCD completed an inventory of the 53.4 square miles of land that drain into Park Lake. They found that 78 percent of the watershed was agricultural land. They also found some of the 59 livestock operations needed updating to meet current agricultural performance standards.

The Columbia County LWCD applied for $108,000 in DNR Lake Planning Grants and Lake Protection Grants to work with UW–Stevens Point to collect water samples throughout the year on the Fox River to better understand when and where the phosphorus was coming from. What they discovered was high in-stream phosphorus levels, which were causing in-lake phosphorus levels to be three times higher than the target standard.

In 2007, armed with newly collected scientific data, the Columbia County LWCD initiated a lake management plan utilizing grant funding from the Department of Natural Resources. Public meetings were held to discuss concerns, management options and associated costs. One of the core principles established early in the planning process was that public participation in the decision making would be essential to the long-term success in restoring Park Lake.

Once a lake has flipped to a turbid, algal-dominated system, it is very hard to switch it back to a plant-dominated, clear water state.

The LWCD took a two-pronged approach to the lake management plan, including in-lake management and watershed management.

In-lake management includes manipulating fish populations, water quality and plants. In the case of Park Lake, one of the proposals was to conduct a drawdown to increase plant growth in the shallow areas of the lake. Rooted plants help tie up phosphorus, making it unavailable for algae, and reducing the number of severe algal blooms. The positive effect of clear water and more plants is an increase in bluegill and bass populations.

Watershed management includes various "Best Management Practices" (BMPs) to reduce the amount of sediment and nutrients that run off into the lake. BMPs include manure storage, barnyard treatment systems, nutrient management plans, detention ponds, no-till, grassed waterways and cover crops, among many others.

Installing BMPs across a 35,000-acre watershed on hundreds of private properties will take many years and cost hundreds of thousands of dollars. It takes years of literally going door-to-door and working voluntarily with each landowner. The LWCD has received over $700,000 from the Department of Natural Resources in Targeted Runoff Management Grants to reduce runoff into Park Lake by working with landowners in the watershed to install structural BMPs.

These efforts not only pay off in improved water quality for Park Lake, but also downstream through the entire Fox River to Green Bay. The community now has the information they need to move forward thanks to the cooperative efforts of many partners.

Derek Kavanaugh is a soil conservationist with Green Lake County and is a contributing author and member of the Wisconsin Land and Water Conservation Association.

Fueling the food of the future

SCRAP COMPOSTING IS CATCHING ON.

Story and photos by Dana Kampa

There is a growing trend in residential food composting in the United States, and now Wisconsin. Cities like Oshkosh and Madison are taking what experts call the "next logical step in organics recovery."

The University of Wisconsin-Oshkosh has started its own composting program, turning food scraps, yard materials and agricultural waste into renewable energy with its dry fermentation anaerobic biodigester of German design.

During a tour of the facility, UW-Oshkosh graduate student Brooke Koenig explained how the organic scraps are converted into gas and liquid materials. A dump truck mixes the scraps in the mixing bay to break them down, releasing methane gas. The facility receives materials weekly from local farms, restaurants and the campus.

"We're feeding the piles with healthy organisms and lots of nutrients," Koenig says. "I want people to understand that [residential food composting] is not a harmful process to the environment."

Koenig says the facility staff takes many measures to ensure environmental safety and encourages people to learn more about the composting process.

"This process is so powerful. It's really going to help this whole nation,"Koenig says.

More than 2.55 million households nationwide are served by curbside food scrap collection and 18 states have municipalities collecting residential food scraps, according to the Composting Council Research and Education Foundation's (CCREF) "Curb to Compost" website. A tool kit on the site (compostfoundation.org/curb-to-compost/) contains resources for getting started in food scrap collection. The kit also defines residential food scraps as household waste that used to be alive, such as produce, coffee grounds, food-soiled paper and plant trimmings.

Graduate student Brooke Koenig with a liquid product called percolate used in the composting process.

CCREF Executive Director Lori Scozzafava suggests that diverting food scraps is the next logical step in organics recovery.

"Only 2.5 percent of food scraps are recovered in the United States, so there is incredible room for growth in this area," Scozzafava says. "This is an opportunity for community leaders to improve local environmental conditions and waste management practices, and save taxpayer dollars simply by collecting residential food waste."

Left: UW-Oshkosh processes compostable materials in its anaerobic digester on a 28-day schedule, using some of the products to produce energy.

Some cities give residents a small kitchen compost pail and a larger outside bin, which the residents fill over the course of one or two weeks. The city then collects the scraps along with trash and recyclable materials.

Although Wisconsin cities are beginning pilot compost programs, they are only able to serve a limited number of households, explains DNR Recycling and Solid Waste Section Chief Brad Wolbert. Programs have to implement reliable and efficient ways of eliminating odors and sorting out non-degradable materials such as plastic bags. The Department of Natural Resources revamped its composting facility regulations a couple of years ago to make it easier to start a commercial food composting operation.

The city of Madison launched an organics collection pilot program in 2011 and diverted over 300 tons of material from the landfill over two years. The program has collected from 550 households and about six businesses since June of 2011 and plans to expand, adding 1,600 households and 25 to 30 businesses.

"I think the goal needs to be to divert as much organic material and organic waste as possible from the landfill," says Madison Recycling Coordinator George Dreckmann.

Madison also plans to build an anaerobic digester. Anaerobic digestion is a series of biological processes in which microorganisms break down biodegradable material in the absence of oxygen. One of the end products, biogas, can be turned into electricity and heat, or renewable natural gas and transportation fuels.

Other advantages of the digester include odor containment at the composting site and the city's ability to handle more and a broader spectrum of materials. Contaminated paper, such as greasy pizza boxes, can't be recycled, but could be composted in the new facility. The Department of Natural Resources and city of Madison have exchanged ideas while working on plans for the digester.

Dreckmann adds that he is intrigued by the prospect of agricultural digesters accepting food scraps as a feedstock to increase profitability for farmers and divert other materials.

"Food scrap composting makes a heck of a lot of sense and it's better than a landfill," Dreckmann says.

Dana Kampa is a communications specialist for the DNR's Office of Communications.

Burning solid waste materials, such as treated wood, plastic, household garbage and most other trash, is prohibited statewide, and local ordinances may be more stringent than statewide requirements.

DNR FILE

Illegal burning only stops with education

KNOW WISCONSIN'S OPEN BURNING LAWS.

Steven M. Miller

If you visited the small town of Augusta, Wis. a couple of years ago, you might have found Mark Karow burning yard debris, brush, leaves and household trash. Like many Wisconsin residents, Karow grew up during a time when burning these materials was commonplace.

Flash forward five years though, and you'll find that Karow is a leading voice in his community for alternatives to open burning of trash and waste. In fact, if you visit his community today, you'll find weekly garbage and recycling pickups, organized just a few years ago with the help of people like Karow.

Open burning has been illegal in Wisconsin for almost 30 years, but still some people don't know that. Education continues to be the best weapon in combating open burning.

Why ban open burning? Open burning, especially the torching of materials in traditional burn barrels, is a leading contributor to toxic air pollution. Residential burning is the number one source of dioxins in Wisconsin, and dioxins can bioaccumulate into crops and animals, and affect the food we eat, which is definitely a concern, explains David Hon, a DNR waste management specialist.

As more people learn about the health hazards and other dangers of open burning, they are speaking up. Last year, open burning complaints comprised 46 percent of all air quality complaints, up from 27 percent in 2010. The increase in complaints doesn't mean there are more people burning today. It likely means more people are aware of the dangers.

"Information and education are the best ways to curb open burning," emphasizes Jill Schoen, a DNR regional supervisor for the waste and materials program.

What is open burning?

The Department of Natural Resources defines open burning as any fire that produces pollutants that are emitted directly into the surrounding area, via a burn barrel, pile or unconfined area.

This includes burning treated wood, plastic, most types of trash and household garbage and other yard waste such as leaves, brush and clean wood. Some yard waste may be burned with a burn permit during appropriate times of the year.

For more information visit dnr.wi.gov and search keywords "burn permit."

Burn barrels

For many Wisconsin residents, having a burn barrel in the backyard has been a way of life. The Department of Natural Resources estimates there are about 500,000 burn barrels scattered throughout the state and upwards of 20 million barrels throughout the United States.

While it is legal to own a burn barrel, burning most waste materials in them is against state law. Local ordinances may be even more stringent than state laws, and in some local municipalities, open burning is prohibited entirely. Under state law, burning the following materials is prohibited under any conditions:

- wet, combustible garbage, including wet cardboard or paper
- treated or painted wood, not including campfire wood
- oily substances, including oily or greasy rags, oil filters, etc.
- plastics of any kind, including plastic bottles, packaging materials and plastic bags
- rubber products, including tires and hoses
- asphalt products, such as shingles or tar paper

Most household trash needs to be either recycled, disposed of properly in

landfills or dropped off at a licensed waste incinerator facility. Licensed facilities have emission controls and reach much hotter temperatures than the average burn barrel.

Typically, burn barrels operate at low temperatures, resulting in incomplete waste combustion and the formation of carcinogenic dioxins and furans, as well as other chemicals such as arsenic, formaldehyde and benzene.

In Wisconsin, burn barrels are the largest source of dioxins of any generator, including industry, according to the Environmental Protection Agency (EPA).

Dioxins are bad for air quality and accumulate in the soil. From there, dioxins can enter the food chain as they are absorbed by plants. Animals eat these plants and become contaminated. The dioxins then ultimately circle back to people as they harvest and eat wild game, or consume local dairy products.

Burning garbage

It's important to point out to people that it's not your grandfather's waste anymore, says Schoen.

"It's different," she adds. "The health impacts to individuals and neighbors are much more severe."

"The content of our garbage has changed over the years," says Hon. "It used to be a lot of paper, wood, cardboard and pigment-based paint, and if you burned it, it wasn't great, but at the same time, it wasn't as toxic either."

But that's no longer the case. Today, garbage includes a lot of plastics, rubbers, inks and synthetic chemicals — all of which are dangerous when burned and released into the air.

Burning structures

Another health concern is the burning of old structures. Some people choose to demolish old structures such as barns, sheds and other buildings by burning them. The fumes and ashes from these burns are often loaded with toxins, including asbestos.

DNR officials warn that this practice is illegal and dangerous.

"With the exception of authorized fire training burns conducted by fire departments, it is illegal to burn any structures in Wisconsin," notes Mark Davis, DNR statewide asbestos coordinator.

Most forms of asbestos burn at temperatures higher than the fires they are a part of, resulting in asbestos being redistributed with the ashes.

U.S. EPA

It is always better to use alternative disposal methods to burn barrels, including composting, recycling and landfilling. Burning most waste is against the law.

"Once asbestos is released into the air, it has a chance to unknowingly expose those who are downwind from these sites," explains Davis.

Demolition and recycling of old materials and structures is a much safer alternative to burning.

Open burning gone wrong

Open burning is also the number one cause of wildfires in Wisconsin, says Jed Kaurich, a DNR forester at the Augusta Ranger Station. During "fire season" in the spring, forest rangers may receive five to 10 complaints a day, often from neighbors or motorists reporting the burning of illegal materials or burning during dangerously windy and dry conditions. Sometimes, this illegal burning will lead to forest fires which the Department of Natural Resources and local fire departments respond to.

"We staff several fire towers here in Augusta, with staff looking for signs of smoke, caused either by forest fires or people burning illegally," Kaurich says.

The department has more than 75 towers statewide that are staffed throughout the spring and dedicated to looking for smoke and potential fires. DNR fire control personnel respond to fires throughout the state and the cost of fire suppression typically falls back on the source of the fire. Fire suppression costs range from hundreds to thousands of dollars.

Alternatives

Wisconsin is a national leader in recycling and composting, which are excellent alternatives to open burning.

Reduce and Reuse: Try to buy in bulk to reduce the amount of packaging materials that need to be disposed of. Using washable containers for storage over single-use counterparts makes a difference over time.

Recycle: You can put a dent in your trash stream by separating newspaper, magazines, cardboard, paper, glass, plastics, aluminum, steel and tin cans and recycling them.

Compost: Compost materials that will deteriorate. Many people compost their food already, but you can also mulch leaves and plant clippings, and create wood chips out of brush and clean wood. Garbage disposals are also one of the best ways to dispose of food scraps and other materials.

Proper Disposal: After eliminating a good chunk of your trash stream, properly disposing of the remainder is still vital. Discard non-recyclable waste materials at a licensed landfill or through a curb-side collection agency.

Enforcement

While most states in the Midwest have citation authority, Wisconsin does not, explains Hon. However, local municipalities can have more stringent laws, which can include citations for open burning.

Ultimately, ending the practice of open burning is going to come back to people like Mark Karow, who are willing to break away from bad habits.

"I couldn't stand the smell of what we were burning anyway, and I knew it wasn't good to be burning," says Karow. "So, we started recycling more and got on a bi-weekly dumpster service that is way easier and safer."

Steven M. Miller is a communications specialist for the DNR's Air, Waste and Remediation and Redevelopment Division.

Readers Write

SUBMITTED BY NANCY RUNNER

PARKING LOT SCREAMS

"What is that screaming sound coming from the parking lot?" I wondered.

I hurried from my apartment to meet my friend Joan, who had just arrived in Weston from Milwaukee. I planned to help carry in her belongings. In the parking lot, I was amazed to see a bird flying into the air about 10 feet above Joan's head, and then dive bomb straight as an arrow down toward her. There was that scream again! Now there were two birds flying at her. Then I spied the problem. Joan's car was parked next to a sapling, less than 7 feet tall. On a lower branch, easily within reach, was a cup-sized nest. The parents were defending their home.

"Joan, you are parked next to a nest!"

Joan handed me her suitcase, waving one arm to fend off the birds, and I scurried a short distance away, ducking my head.

"I'll move my car," she said, jumping hurriedly into the front seat as one of the parent birds soared high into the air, ready to dive bomb again. A safe distance away, Joan and I finished unloading, laughing about her shrieks in the parking lot.

"I can't believe I screamed like that!" Joan said.

We explored Janke Book Store later that afternoon. Joan picked up a copy of "Birds of Wisconsin," by Stan Tekiela. We thumbed through it, looking for a medium-sized gray bird with a white breast. Ah! The eastern kingbird. It can be found throughout Wisconsin during the summer. We read, "Perceived as having an attitude, acting unafraid of other birds and chasing larger birds. Bold behavior gives them their common nickname of 'king.'"

"It's got an attitude, all right," Joan chuckled, as she purchased the book, a nice souvenir of her central Wisconsin experience in an apartment parking lot.

Nancy Runner
Wausau

RICH PHALIN

GARY R. HESS

FLYING GHOSTS

In the "Readers Write" column of the February 2014 issue, two readers sent photographs of sphinx moths feeding on flowers. I just wanted to add a postscript to those letters and suggest another possibility for catching these interesting creatures in action.

In the summer, we maintain several sugar-water feeders for the ruby-throated hummingbirds that frequent our country property. One evening last summer, just as the last light of day was fading, we were sitting on our deck a short distance from the feeders. As I looked out at the feeders, I thought I saw shapes flitting around them. I knew the ruby throats were in bed by this time, so I thought my eyes were playing tricks on me in the low light.

I walked over to one of the feeders and was completely surprised to see that the flying "ghosts" were sphinx moths, and they were feeding on the sugar water, hovering with their proboscises extended into the plastic flowers on the feeder bases. The moths had figured out the feeders and were taking full advantage of this unnatural bounty.

Perhaps it was the darkness, but our presence did not bother the moths. We could stand a foot away and they continued to sip the sugar water, and I was able to get a few flash photos.

So, if you have both nectar-bearing flowers and hummingbird feeders, keep an eye on both of them at dusk and you might double your moth-viewing pleasure.

Gary R. Hess
Beloit

THE BUCK

We were coming back from a walk when we heard a noise. We looked up to see where the noise was coming from. To our astonishment, we saw a full grown buck leaping across the road. My mother yelled to my sister to stop walking as to not get trampled. This was an amazing event to be seen.

Olivia Scheibl, 8
Kiel

ARE TALL BUILDINGS A THREAT?

Love your magazine. I'm a long-time subscriber. When reading a column in the February issue (Readers Write, "Wildlife and wind turbines"), regarding the turbines being bad for flying birds, a question came to mind. Has anyone ever considered or commented on the devastating effect of the zillion tall buildings with all windows, extending into the sky? Millions of birds must die from flying into them. If they do, it's a wonder that any birds survive at all. I have a sliding glass door that a bird has flown into. Now I keep a sheer curtain closed over it to help.

Mrs. Carlton Peterson
West Allis

We have carried a couple of stories in the past about threats to songbirds from communication towers ("Battered by the airwaves," February 2000) and windows ("Threshold of pane," April 2006). The American Bird Conservancy estimates that 6.8 million birds are killed in North America each year from colliding with towers and perhaps up to a billion are killed when they fly into windows. Homeowners

COMMENT ON A STORY?

Send your letters to: Readers Write, WNR magazine, P.O. Box 7191, Madison, WI 53707. Or email letters to dnrmagazine@wisconsin.gov. Limit letters to 250 words and include your name and the community from which you are writing.

NO ACCESS TO THE WEB?
Don't have access to a link we mention in a story? Let us know when you want to follow a link we list. We'll do what we can to get you a copy of the material if it is available free of charge and is relatively short in length.

can take steps to prevent birds from flying into windows by taping, painting or applying decals to the outside. Visit the American Bird Conservancy website at abcbirds.org and search "windows."

BRULE IS "PRESIDENT'S RIVER"

I read your article ("Back in the day") in the April 2014 issue. Although I found the article of great interest, I was somewhat disappointed that you chose to only highlight the celebrities that fished the waters of the northeastern part of the state. I think that the region along the Brule River in Douglas County also contains an interesting story based on the celebrities that have fished this famous trout stream, including a sitting President! I hope you will follow up on not only the Northwestern part of the state, but on the entire state. I enjoy the magazine and I pass it on for others to read as well. Keep the stories interesting and diverse.

Thomas Bitner
Marshfield

We strive to find stories of interest for all our readers, so thanks for pointing out the significance of the Brule River. It has been called the "President's River" because it has drawn four presidents (Calvin Coolidge, Herbert Hoover, Grover Cleveland, and Dwight D. Eisenhower) to fly-fish the steelhead and other trout that love its clear, cold water.

REGULATE DEVELOPMENT TO PROTECT TURTLES

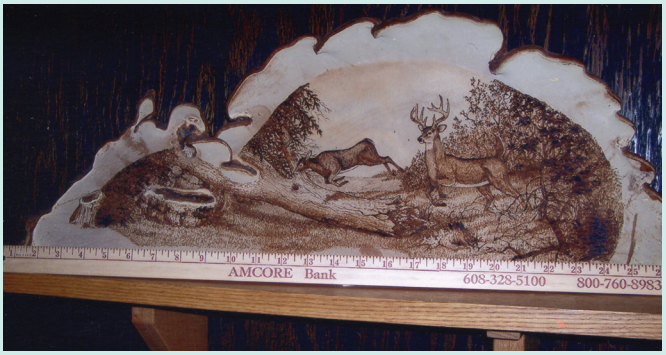
Interesting article about turtles ("Wisconsin turtle populations at a crossing," April 2014). We could do a lot to save our aquatic and other wildlife simply by changing building codes to require roadways and buildings to maintain a 100-200 meter distance from waterways. It would be easiest to implement by forbidding new buildings and development and prohibiting rebuilding destroyed buildings. Obviously it could not be done everywhere, but it would be a great help merely to prevent new construction.

Since Menomonie's downtown area and highway run adjacent to the lake (albeit quite some distance uphill, a factor which has prevented much lakeshore development, thankfully) it is not unusual for really large snappers to appear on the road attempting to get to nesting areas which don't exist because of the human developments. This is a fairly common situation in the state and I'm wondering what one should do with such turtles as moving them across the road doesn't get them to a nesting area, but rather into a web of streets and buildings where they are increasingly likely to be injured?

Charles Barnard
Menomonie

Conservation Biologist Andrew Badje replies: *Most female turtles will instinctively seek out their natal nesting grounds and can be quite persistent regardless of the obstacle. The best way to help counter this behavior is to construct fencing that prevents turtles from accessing dangerous areas and guides them into safer and more suitable nesting areas. If none exist, then construction of an underpass in conjunction with fencing can help turtles safely reach their historic nesting grounds. When coupled with fencing, strategically-located artificial nesting areas can serve as another nesting option. Usage of these areas, however, may require some time for turtles to adapt to them.*

TONY WAND



TONY WAND

ARTFUL FUNGUS

I really enjoy *Wisconsin Natural Resources* magazine. I have something that may be of interest to you. It is a red belt fungus that I found in northern Wisconsin when hunting some years ago. A book I have says they grow 2 to 16 inches wide. Mine measures 26 ½ inches wide and about 11 inches high when on edge. My nephew (Robbie Wand, Gratiot) drew a beautiful wildlife picture of two deer on the white underside with a wood burner. I have it mounted on a removable shelf and keep it covered most of the time.

Tony Wand
Monroe

FIRST FISH

I thought this was an adorably great picture to share. This is Grandpa Rick Feavel getting a chance to share a big moment with his grandson, Oliver Feavel. They caught the fish on Lake Butte des Morts. Grandma Peg McDaniel took the photo. Rick has fished and hunted since he was young so this was an amazing moment to share with his grandson. Rick has a cabin up north and has enjoyed living on the lake for 25 years. He and Peg are nature lovers through and through, which is why this picture is such a big moment for both of them.

Annie Feavel
Oshkosh

PEG McDANIEL

The door to Door County — Two Rivers is a real treat.

Story and photos by Mike McFadzen

I'm zipping up Highway 42 traveling to Door County, arguably one of Wisconsin's most popular vacation destinations. Views of Lake Michigan fill my windshield as we pass through small communities and farmland sprinkled with picturesque barns and cows grazing in green meadows.

Point Beach State Forest features miles of sandy beach and the beautiful Molash Creek.

My wife Karen and I decide to take a break in the village of Two Rivers. It's soon apparent this quaint little town is blessed with big-time natural resources. We are pleasantly surprised to find miles of beautiful sand beach and two rivers (get it?) that bisect the town. There are state and city parks that rival the big boys up north and two delightful biking trails with panoramic lake exposure. Throw in Point Beach State Forest, which is annually recognized as one of the top beach experiences in the Midwest, and you might be asking yourself, why travel further?

The scenic 6.5-mile Mariner Trail connects the cities of Two Rivers and Manitowoc alongside Lake Michigan. Don't have a bike? Local bike shops have rentals available.

Point Beach State Forest

Located 3 miles north of Two Rivers, Point Beach State Forest contains 6 miles of striking Lake Michigan shoreline, conifer and hardwood forests and a myriad of trail offerings. The 3,000-acre forest features a variety of natural features that are traversed by 17 miles of hiking and biking trails. Most visitors come for the day, but many take advantage of the 127 campsites the forest offers. From secluded camping to large outdoor group camps, the forest provides a wide range of camping opportunities as well as two reservable rustic cabins located on the Lake Michigan shoreline. Make reservations early, as summer and fall weekends fill up fast. Two kayak accessible walk-in sites are being added this summer as part of the Lake Michigan Water Trail. A handicap beach access ramp is located near the lodge.

Hundreds of visitors and a few canine friends were enjoying the cool air mass on the hot, steamy day we visited.

Even dogs deserve a break after a day at the beach. Much of Two Rivers' shoreline is dog-friendly.

As we walked over to the pet beach area, I waded into the lake and understood instantly why only little kids were in these bone-chilling waters. Yikes! Lake temperatures can be in the 50s until late summer or when warm water blows in on easterly winds.

Parks and trails abound

Want to hike, bike or ski nearby? Two Rivers has you covered. One favorite is a 5-mile segment of the Ice Age National Scenic Trail. Pick it up from Sandy Bay Road at Molash Creek and hike to the very picturesque Lake Michigan dunescape. The circuitous trail includes vistas of the stunning Molash Creek and a variety of unique ecosystems. Want more? Soak in beautiful fall foliage on the Ridges Hiking and Ski Trails where a loop system ranges from 3 to 7 miles. There are also excellent running trails, crossing the many swales, dunes and marsh areas. The Ridges Trails are groomed for classic skiing, while the 3.5-mile Red Pine Trail is groomed for skate skiing during the winter months.

Don't want to drive for your beach experience? Two Rivers offers miles of public beach within walking distance. Neshotah Park is the unofficial headquarters of the city beach scene with hundreds taking refuge when the temperature spikes. Kayaking the rivers and lakefront is a local pastime as the mercury climbs. The lake provides several surf-breaks due to the park's orientation to the lake. It's one of the few places on the Wisconsin side of Lake Michigan where westerly winds can whip up rollers big enough to surf. Good waves can be had throughout the year, but the best swells start building in September. The beach scene includes paddle and kite boarding.

Tale of two trails

The Rawley Point Trail winds east through town ending at Point Beach State Forest. This limestone trail travels 5.5 miles into the heart of the forest through swales, marshes, conifer stands and big canopied hardwoods. On the hot, sunny day that we visited, hundreds of inland refugees made the lakeside trip to chill-out on the beach or tackle the hiking and biking trails. The trail gets busier every year as

more people find out about it, according to Point Beach State Forest Property Manager Guy Willman.

"Lake Michigan and the Rawley Point Trail are the most popular features in the forest," he says. "We have visitors from across the Midwest visit our forest to bike the trail. You have to remember, this isn't a rail trail. It winds across a large portion of the forest utilizing natural features and some boardwalks."

Not many trails have a sister, but Rawley Point does. A well-marked connector guides cyclists to the 6.5-mile asphalt Mariner Trail that runs the lakeshore from Two Rivers to Manitowoc. The trail hugs Lake Michigan, with miles of panoramic vistas, glimpsing beaches, creeks, local art work, beautifully landscaped flower gardens and natural flora. Award yourself with a visit to West of the Lake Gardens for a unique botanical experience.

Both trails are distinctly different, with the Mariner Trail offering up a unique, urban Lake Michigan experience, while the Rawley Point Trail has an enveloping forest feel, almost wilderness-like. Combine both trails for a 13.5-mile one-way experience. The trails have become a major tourist destination for Two Rivers and Manitowoc, according to Manitowoc County Chamber Executive Director Karen Szyman.

"Many people travel here specifically for the bike trails," she says, "It's been an excellent boost for tourism. Many cyclists stay for the night and enjoy our many restaurants. And most of the shoreline is dog-friendly."

Our Two Rivers visit ended at Kurtz's Pub & Deli surrounded by colorful locals and owner Jimmy Christensen. This third generation owner offered up food and beer recommendations, while locals Kevin Patrick O'Hair and Tom Jones (not the famous singer), described why they settled in this lakeside community, and generally had fun at each other's expense. Kurtz's is a top-ranked Trip Advisor.com establishment and earned its mettle with great food and wonderful German beers.

Two Rivers has had its share of economic woes. Manufacturing giants such as Hamilton's, Mirro and Paragon provided good jobs for decades, but no longer. Still, this little town isn't giving up. Incredible natural resources, good restaurants and wonderful parks are making Two Rivers a happening place.

I'm considering a return visit this autumn for Kurtz's Oktoberfest Celebration. It's hard to pass up this cool little lakeside town with fun festivals and perhaps an Oktoberfest beer on draft. Count me in!

Two Rivers is located 50 miles south of Sturgeon Bay on Highway 42. Check this little gem out on your next trip to Door County.

Mike McFadzen writes from Greenbush, Wis.

Kites over Lake Michigan festival.

Things to do

- **The Rogers Street Fishing Village and Great Lakes Coast Guard Museum is located at 2102 Jackson St., Two Rivers. rogersstreet.com**
- **The world-renowned Hamilton Wood Type Museum is located on Highway 42 next to Lake Michigan and offers a glimpse into the history of print media. woodtype.org/.**
- **Woodland Dunes Nature Center and Preserve is a 1,300-acre nature preserve located on the West Twin River. woodlanddunes.org/.**
- **Wisconsin Maritime Museum is located in neighboring Manitowoc. Tour a real WWII submarine. wisconsinmaritime.org/.**
- **West of the Lake Gardens is an incredible garden experience on the Lake Michigan shoreline. westfoundation.us/garden-history.html.**

Upcoming events

- **Aug. 30 and 31: Kites over Lake Michigan features ground displays, professional kite flying teams, a bonfire, music and fireworks.**
- **Sept. 20: Ethnic Fest at Central Park features a parade, food and live entertainment.**
- **Oct. 11: Applefest at Central Park is a great place to load up on fresh apples, juice, fall and holiday crafts and bakery items.**
- **Oct. 18: Owlfest at Woodland Dunes Nature Center features migrating birds, owls and other animals at the riverfront-wetlands nature preserve.**
- **May through October: Visit the Farmers Market and Community Concert Series in Central Park, Wednesdays (1 to 5:30 p.m.) and Saturdays (8 a.m. to 1 p.m.)**

What's cooking?

ASIAN CARP FRITTERS

This recipe comes from invasivore.org (invasivore.org/2013/09/recipe-asian-carp-fritters/) and was originally shared by the Illinois-Indiana Sea Grant. Credit for this fish dish goes to famed chef and invasivore Philippe Parola.

Invasivore.org is a one-stop guide for devouring invasive species. The site suggests eating invasives is "reasonable revenge for the harm these species cause." If you like this recipe, check out the website's other recipes for Cajun rusty crayfish, deep fried earthworms and even Jamaican jerk carp.

Ingredients:
1 pound Asian carp fillets
1 Tbsp lemon juice
8 Tbsp unsalted butter, melted
2 Tbsp bread crumbs
1 Tbsp Dijon mustard
1 cup seasoned flour*
1 egg, beaten
4 Tbsp vegetable oil
***To make seasoned flour, add salt, pepper and your favorite spices (for example: dry mustard, dried basil, garlic powder, paprika, celery salt, etc.) to 1 cup of flour.**

Directions:
Poach or steam fillets until fully cooked, then break into pieces and remove all bones.

Place the meat into a mixing bowl. Add butter, mustard, half the egg and lemon juice; mix well.

Add bread crumbs and season to taste.

Form small cakes with the fish mixture. Coat with remaining egg and seasoned flour.

Pan fry in cooking oil over medium-high heat 4 to 5 minutes or until golden brown.

Makes four servings.

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Wisconsin, naturally

KANGAROO LAKE STATE NATURAL AREA

Thomas A. Meyer,
State Natural Areas Program

Notable: Kangaroo Lake rests in a trough-like depression of the Niagara Escarpment in what was once a bay of Lake Michigan when post-glacial lake levels were higher. The shallow, marl-bottom lake is fed by Piel Creek, which originates from a series of alkaline springs a few miles upstream. The stream and surrounding wetlands are haunts for the federally endangered Hine's emerald dragonfly (*Somatochlora hineana*). A dolomite plateau punctuated with bedrock exposures and forested with beech, sugar maple and red oak is found on the western flank of the preserve. Wet-mesic forest of white cedar, black ash, tamarack, black spruce and balsam fir surround the north and east sides of the lake. Floating, fen-like sedge mats and emergent marsh are found closest to the water, vegetated with twig-rush, sedges, cotton-grass, meadowsweet and bog willow. Beds of bulrush and yellow pond-lily are common in the shallows, providing cover for a diversity of fish, amphibians and other aquatic animals. The marshy wetlands also provide important breeding and migratory habitat for black terns, sandhill cranes and waterfowl. The Nature Conservancy and Door County Land Trust have worked in partnership to acquire lands at the Kangaroo Lake preserve with funding provided, in part, by grants from the Knowles-Nelson Stewardship Program.

How to get there: From the junction of Highways 57 and F in Baileys Harbor, go south on 57 for 1.4 miles, then west on County Highway E for 2.4 miles, then north on North Maple Road 100 feet to a parking area. The parking area and trailhead are on the east side of the road. The wetlands are best viewed by canoe. Put in at the west end of the Highway E causeway. Visit dnr.wi.gov and search "Kangaroo Lake" for a map and more information.