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MINNESOTA RIVER LIVING SYSTEMS PROJECT

"In every glass of water we drink, some of the water has already passed through fishes, trees, bacteria, worms in the soil, and many other organisms, including people . . . Living systems cleanse water and make it fit, among other things, for human consumption," William C. Clark, April 1988.



The Minnesota River at St Peter

This quote speaks to the value of water and how in the end we are all connected to it in some form or fashion. This is the reason the Minnesota River Watershed Alliance has chosen the "Minnesota River Living Systems Project" as our next Clean up the Minnesota River issue. We are excited to be

working with a diverse number of partners to continue focusing on how everyone has a role for improving water quality in the Minnesota River Watershed.

The goal of the "Minnesota River Living Systems Project" is to accelerate the progress already happening on the ground by focusing on these objectives:

- Understand the Valley as a living system, integrating both the physical and societal dimensions of life here.
- Articulate a shared vision of what needs to be done, based on developing a common agenda.

- Develop plans for action and implementation.
- Embed community capacity for leadership to make it happen.
- Create an environmental social movement to sustain progress.
- Disseminate the process created to other geographic areas.

The definition of a living system concept

Living Systems is a general theory about how all systems "work," how they maintain themselves, and how they develop and change. By definition, living systems are open, self-organizing systems that have the special characteristics of life and interact with their environment.

How this is going to happen

A steering committee of people from public agencies, private organizations and individuals has been working together with consultants to develop the concept behind this Living Systems Project, identify funding mechanisms and put together a three-year timeline.

One hundred community leaders will be identified from the various stakeholder groups including agriculture, business and government to work together by building a model of watershed to help identify ways for protecting, improving and restoring the Minnesota River Watershed.

Ultimately, each one of us is part of the problem and also part of the solution when it comes to the Minnesota River and providing a healthy environment for future generation. We have a stake in how this is done and the consequences of our individual actions.

TABLE OF CONTENTS:

• Minnesota River Living Systems Project	pg 1
• Did You Know	2
• Reflections	3
• Preserving the Seminary Fen of Carver County	4
• Working on the Minnesota River	5
• Paddling the Rush River	6
• Organization Spotlight	7
• Water Quality Issues	8
• Book Review	9
• River Ramblings	10
• What's Happening	11
• Conservation Thoughts	12

DID YOU KNOW?

"Green" is going to be a word heard quite a bit at the upcoming Republican National Convention. To be held in St Paul this September, the GOP is planning a more environmental conscious and less trash event than the 2004 convention in New York.

The overall goal of the nonpartisan Host Committee is to make this event carbon neutral and they hired the local company GreenMark, owned by Mark Andrew, a former DFL Party chair and Hennepin County commissioner for this effort.

Participants at the GOP convention will find non-plastic banners, soy-based inks, paper plates that bio-degrade in 30 to 90 days, more energy-efficient lighting at the Xcel Energy Center, water in petroleum-free bottles, less paper and more online communications with delegates.

The Republican Party isn't actually using the words "Global Warming" or "Climate Change," which can still cause outrage by some of the party faithful. Instead they are saying, "A greener convention will use fewer resources and leave a smaller footprint . . . and underscore the Republican Party's commitment to responsible stewardship of the environment."

In addition, Republicans will discover these eco-friendly practices at the convention:

- Recycled-fiber carpet,
- Booths and stages constructed of local, sustainably harvested wood,
- An opportunity to ride environmentally friendly bicycles from their hotel to the convention center,
- Use of flexible-fuel vehicles

River Talk is published quarterly in conjunction with the Minnesota River Watershed Alliance (Watershed Alliance) and partners. Thanks to the McKnight Foundation for funding this effort.

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<http://watershedalliance.blogspot.com>

Join the Watershed Alliance's bulletin board to receive regular updates on what is happening in the Minnesota River Watershed at
<http://mail.mnsu.edu/mailman/listinfo/mrwa>





Dave Craigmile grew up on a farm near Boyd and became interested in science as a young boy, including the study of geology, water and other physical properties in the environment around him. Dave taught physical and earth science for a number of years before going back into farming. Today he raises traditional crops like wheat, soybeans and corn while being involved in a variety water-related activities, everything from paddling to serving on the Lac qui Parle – Yellow Bank Watershed District board and volunteering as a citizen monitor.



What is the biggest issue affecting quality of life in the Minnesota River Watershed?

Quality of life exists only in the soul of the beholder. Individuals cannot define quality of life for one another. That being said humans historically have been impacted (issue) or forced by population density, climate (change) and resource allocation, all of which are in play today within the Minnesota River basin.

How do we connect the river to the public?

Cause & Effect linkages which express meaningful impact. Being “on” and /or “in” the river introduces a realization of and appreciation for the diversity and dynamics of riverine systems versus other water bodies. Lakes are boring!!

How do we get youth involved in MN River issues?

Fostering a love of learning and understanding! “Hands On” robust earth science education at home and in the educational institution of choice.

How do we get the different competing interests to listen to each other in a safe environment?

There will always be assumed and some real COMPETING interests whether stated openly or otherwise. However there will also always be MUTUAL interests which surely can be explored and expanded for cooperative gain. Look for MUTUAL interests and the COMPETING interests will diminish.

What would you like to see as your legacy when it comes to your work with the Minnesota River?

Promoted and enabled a more complete or higher order of riverine science and understanding among the public.

What are the positive aspects of working with a group like Lac qui Parle – Yellow Bank CWP?

Cooperative and coordinated activities based on sound understanding of riverine science that enables synergistic productivity for mutually beneficial outcomes.

What do you see as the role of the Minnesota River Watershed Alliance when it comes to improving, protecting, and restoring the MN River Watershed?

Creating and nurturing an atmosphere of understanding, innovation, cooperation, coordination and balance among watershed citizens & stakeholders for the protection and improvement of water resources within the Minnesota River basin.

Dave is always looking to learn something new or share his knowledge of the natural environment with others. You can see this in Dave’s participation with groups like the Lac qui Parle – Yellow Bank Clean Water Partnership and as a member of the planning committee for the Minnesota River Summit. He has also been involved with the Minnesota River Turbidity TMDL project and working on the new initiative – “MN River Living Systems Program.”

I was able to enjoy Dave’s curiosity last spring while paddling the Little Minnesota River. Before even getting on the water, Dave had us running around Browns Valley examining potential causes of the devastating flooding this community experienced only two months earlier. For me it was one of the most enjoyable paddles of the year.

PRESERVING THE SEMINARY FEN OF CARVER COUNTY

The Seminary Fen is part of a large wetland complex located in Carver County that has been on the Department of Natural Resources' (DNR) wish list to preserve for over a decade. After numerous futile attempts to purchase this property they received good news in March when the Carver County Board approved their request to buy 106 acres of the fen.

The calcareous fen is considered one of most endangered ecosystems in the world. According to wetland experts, there are less than 500 of these types on earth and the rarest wetlands found in Minnesota – only 1,200 acres exist in the entire state and of that there are 250 acres in the Metro Area. In addition, the Seminary Fen is considered one of the last remaining fens of this quality.

Calcareous fens are only found where cool mineral-rich water bubble out of the ground as springs or small pools at the base of a slope or bluff. Plants don't decompose as quickly due to low oxygen levels, creating a layer of spongy and moist moss or peat. Here you will find some of the state's rarest and most endangered plants – sterile sedge, beaked spike rush and small white lady's slipper – growing because of the alkaline water.

The Lower Minnesota Watershed District (LMWD) along with other organizations including the Friends of the Minnesota Valley and Sierra Club also recognized the value of the Seminary Fen. Terry Schwalbe, District Manager of the LMWD says "We became involved in this effort because of how unique this calcareous fen is, one of the highest quality in Minnesota." The LMWD worked closely with the DNR and the land owners to put the land purchase together.

While there is a sigh of relief among all the partners working to preserve this wetland complex, they also recognize more needs to be done. The Seminary Fen is about 160 acres with the other part owned by the City of Chaska and private landowners. At this time the DNR hopes to purchase more land.

In the future the Lower Minnesota Watershed District plans to hold neighborhood meetings to promote conservation easements by setting aside buffers around the fen.

Located in the Minnesota River Valley there are more threats to the Seminary Fen including development of privately owned land and the construction of a new bridge across the Minnesota River. The Minnesota Department of Transportation has identified it as one of a half-dozen options for the bridge crossing. At this time the decision is up in the air until a new MN DOT commissioner can be appointed by the governor.

On the other side of the Minnesota River at Savage another wetland – the Savage Fen – is also threaten. A proposed residential subdivision would be built near the main body of the Savage Fen to be called Dan Patch Trail. This has gone to court as neighbors fight the proposal with help of an environmental law professor from the University of Minnesota.



***Facts by the Sierra
Club – North Star
Chapter:***

***The Seminary Fen is
named for a historic
seminary once located
on the fen's south side.***

***This fen also includes
Assumption Creek, the
last remaining trout
streams in Carver
County.***

***"It takes months or
maybe even years to
construct a building. It
took 8,000 to 10,000
years to build a
calcareous fen," Bob
Djupstrom, DNR***

You can view sections of the Seminary Fen from the southwest LRT (this has been set aside for future light rail transit) trail section. To see the fen:

- Take 494 west to Eden Prairie Exit (old Highway 212). Head southwest on 212 into the Minnesota River Valley. Turn right on Bluff Creek Drive.
- Alternatively, from 212 turn right on Pioneer Trail and go west for approximately 3 miles. Turn left onto Bluff Creek Drive and go south until you come to the LRT trail.
- A small parking area is located across the trail access at Bluff Creek Drive. (Sierra Club)

Remember access is limited at this time due to the wetland still being in private ownership. The fen is ecologically sensitive – please stay on the trail.



"RUSH RIVER EXPLORED"

Gaylord Sportsmen have exciting trip over, on and under water.

In May of 1919, members of the Gaylord Game Protective League floated down the Rush River from Lake Titloe to a few miles shy of the outlet into the Minnesota River. The following article appeared in the Gaylord Hub on May 16, 1919.

Last Sunday the long planned trip down the Rush River was made by the official exploring party of the Gaylord Branch of the Game Protective League. Two boats, each carrying two explorers, constituted the flotilla that left the municipal wharf at the Park at the break of dawn. The two miles across Lake Titloe was negotiated in record time, the boats were hauled over the dam and started on the long trip down the winding course of the river. This was not the only dam. They grew numerous before the day was over, but of that later. No obstacles except low hanging barb wire fences, over flowed farm bridges and schools of upward carp were encountered until the party got down into Kelso. There the stream drops rapidly down into a deep valley flanked by cut banks and high bluffs. Then the real pleasure began. The warmer atmosphere was evidenced by the greater advanced stage of vegetation on the banks, flowers, leaves and grasses being a week ahead of those on the upper level places. As the trip progressed the scenery became truly magnificent. Here the river ran along a sheer wall of perhaps 60 or 80 feet in height, there it would flow through low banks of a second bench with overhanging trees and vines; again would sweep in a wide curve through some park like amphitheatre to emerge upon a plunging course over rapids between



great boulders and over shining gravel bars. The rapids were especially pretty, the white water and the flying spray making a fit subject for a movie scene. At frequent intervals a giant tree uprooted had fallen across the stream, sometimes allowing space enough for the boats to go underneath the trunk, and again effectively barring passage so that it was necessary to either lift the boat over or land and portage around. These portages were frequent through the east half of Kelso and Henderson townships so were the gravel bars. And in exactly the same proportion, - the dams (verbal). But no matter what the difficulties there was compensating enjoyable phases to make up. At one particular difficult place where the river plunged down a steep series of rapids, just at the foot an enormous tree blocked the passage. The boats negotiated the rapids, plunging straight through, but one of them was turned sideways and carried up against the tree under which the water had washed a hole about ten feet deep. The water plunged over the side of the boat, which filled and sank in less time it takes to tell. Two sweaters, two coats, two canteens, three boat racks, a camera and corn cob pipe parted company from the boat and started on the down stream course on their own. All were corralled by quick work except one sweater which never did come up out of the depths. The occupants of the boat had leaped into the tree and congratulated

themselves on not getting wet, but to get the boat out it was necessary to get into the water waist deep, use an axe and a rope and the combined muscles of the party, as the current had wedged the craft down solid.

The river winds and turns so frequently that in many places a loop of a mile or more brought the party back to nearly the same place. The day waned all too fast and approaching

darkness found the party still a few miles from the Minnesota river. As the valley filled with shadows and twilight melted into night the party landed, climbed the great bluffs until a farm house was reached on the Henderson - LeSueur road, and the gentleman was persuaded to transport the weary, wet and by now chilly explorers to the city of Henderson. At the latter place a

Continued on next page

Rush River Explored continued

reception committee headed by Chief Toastmaster Joe Enkhaus had been waiting all afternoon to entertain the travelers. When they arrived the committee had disbanded, all but Joe. He thawed out the part at the city power house, and as Booney Herman crowded on an extra fire, all were soon in normal condition. Fritz Schauer then personally escorted the party to Gaylord in his big Ford, where they arrived at 2:02 a.m.

It was a fine trip, but a tough one, and if someone will only straighten the river out, remove the log jams, and take out about ten thousand large troublesome boulders the explorers will try it again. Until then they will content themselves with boating between the park dock and Maass' Island. Those composing the party were Irving Koch, Edwin Schmidt, Deputy Sheriff Louis Fenske and Atty. C.H. MacKenzie.

Editors Note: Fortunately the Rush River still flows through its natural channel especially in the lower section of the watershed. Today it is a favorite stretch to paddle for some.



The Rush River near the outlet with the Minnesota River

The Gaylord Game Protective League is still an active organization, although exploring parties have not been utilized for many years. The club owns and operates a beautiful park on the east shore of Lake Titloe, which is used for trap-shooting, camping and community events. The club also owns 64 acres of shoreland on Lake Titloe and 18 acres of shoreland on Mud Lake; both properties are devoted to wildlife habitat. The Gaylord Game Protective League is an active sponsor and partner with other local sportsmen's groups.

Paddling the Rush River

Introduction

Two stretches of the Rush River are featured in the book: Paddling Southern Minnesota - 85 Great Trips By Canoe and Kayak by Lynne and Robert Diebel (to order a book www.trailsbooks.com). The Diebel's paddled the river with members of the Mankato Paddling and Outing Club. In their book the couple talks about the Rush being a rushing river with fast flows due to excessive drainage from the surrounding landscape. The name Rush River comes from the Dakota translation of "Wanyecha Oju," meaning rushes in wetlands along the river. Both segments feature Class I rapids, demand for good boat-control skills and eye out for deadfalls.

Segments:

- Rush River, North Branch 1 - 9.6 miles (401st Avenue to 300th Street)
- Rush River, North Branch 2 - 9.3 miles (300th Street to Highway 93)

Water Levels:

The Rush River is like the High Island Creek with water levels rising and falling at a fairly fast rate due to the influence of an extensive drainage system in the watershed. For paddling both stretches the optimal water level is 1.5 to 3.0 feet. Anything below 0.5 will be tough to paddle. According the Diebel's, the stretch from Rush River Park to Highway 93 can be paddled at most levels. To get an idea of water levels check out two USGS gage sites. One gage site is located on the South Branch.

Put In Points:

- 1st Segment: 401st Avenue at the Kelso Township Hall. This gravel road can be reached by going west out of Henderson on State Highway 19 to County Road 62. Turn left and go west to 401st Avenue.
- 2nd Segment: 300th Street on the upstream side - right - of the bridge. From Henderson go south on State Highway 93 to Ridge Road. Turn right on Ridge Road as it goes west to South Street. Take another right to 300th Street and turn left as it heads west to the put-in point.

Take Out Points:

- 1st Segment: at the 300th Street Bridge (upstream right). The Mankato Paddling & Outing Club affectionately refer to it as Poison Ivy Bridge.
- 2nd Segment: Highway 93 Bridge (upstream left). The Rush River Park upstream from Highway 93 is favorite take-out site for members of the Mankato Paddling & Outing Club.

Hazards:

Deadfalls are common along with boulders on the lower section. Beware of a electric wire fence near the take-out point at 300th Street. Look out for a cable-car crossing (mile 8) and a low rope strung across the river under the cable. Keep an eye out for poison ivy.



In the early 1970s citizens came together to preserve and restore the threatened Minnesota River Valley starting at the conjunction with the Mississippi River and heading upstream. This sensitive riparian ecosystem had become a dumping ground for garbage ranging from refrigerators to cars and much more. Citizens of all backgrounds recognized the value of the Minnesota River and wanted to do something about it.

Under the leadership of people like Dick Duerre and Ed Crozier, the Minnesota River Valley National Wildlife Refuge was created in 1976. Six years later came the formation of the citizens group - "Friends of the Minnesota Valley."

Today, Friends are the primary private support group for the Refuge and Lower Minnesota River Watershed. Their vision calls for "A Healthy, Sustainable Minnesota River Valley" by maintaining a "core Refuge and River constituency of citizens, elected officials and landowners who are educated on the importance of the River and Refuge." The Friends of the Minnesota Valley "envision partnerships that promote habitat conservation, improved water quality of the Minnesota River and its Watershed, and sustainable land use."

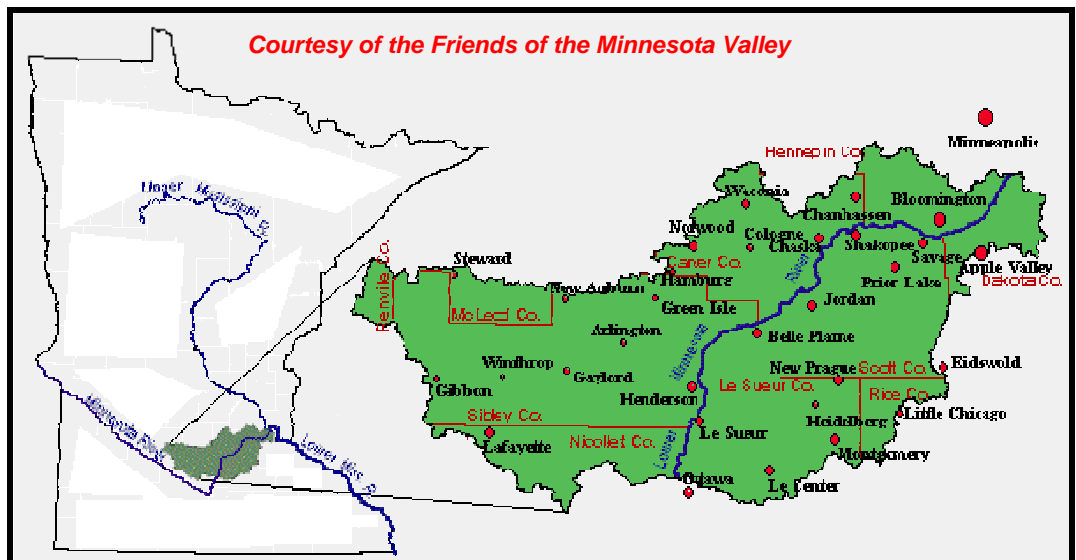
In essence the Friends of the Minnesota Valley focus on:

- programs and activities aimed at protecting and promoting the Minnesota Valley National Wildlife Refuge,
- conservation programs directed at developing partnerships, promoting citizen engagement, and cultivating conservation leaders within the Lower Minnesota Watershed.

To engage citizens, community leaders and others in the Lower Minnesota Watershed, the Friends have developed a number of programs including the very successful community clean-ups. After starting out with a few participating groups it now has expanded to over twenty clean-ups in the watershed.

This is a great way for any individual, organization or group of people to do something for the Minnesota River. To improve water quality and river aesthetics people are keeping leaves, dirt and other junk from getting into storm water systems. All of this material whether organic or man-made can be composed, recycled or properly disposed.

Success of the community clean-up program can be measured by the following numbers. Nearly 30 clean-ups in 16 communities have been held in the first five years. This has meant 24,000 plus pounds of



trash and close to 2,4000 pounds of phosphorus were taken out of the natural environment. According to the Friends staff, "This prevented 2,359,000 pounds of algae and aquatic growth in the Minnesota River" because of over 1,000 volunteers saw the need to clean up and protect their rivers.



Continued on page 9



Minnesota River Project Addresses Turbidity

Turbidity in water is a measurement of how cloudy or murky it is. In your espresso or latte' you want high turbidity. In your lake or stream, probably not. In either case, the substances resulting in high turbidity may not be intrinsically harmful, but their effects can be. Too much caffeine in the evening can affect sleep. Too much algae or sediment in lakes and streams can make them unsuitable for recreation and aquatic life.

Turbidity is caused by particles suspended or dissolved in water that scatter light making the water appear cloudy or murky. Particulate matter can include sediment -especially clay and silt, fine organic and inorganic matter, soluble colored organic compounds, algae, and other microscopic organisms. In the Minnesota River, sediment is the primary contributor to turbidity. Algae can also cause turbidity, especially during times of low flow.



When heavy rains fall on unprotected soils, there can be a dramatic increase in turbidity. Upon impact, raindrops dislodge soil particles while runoff waters easily transport fine particles of silt and clay across fields or through drainage systems to ditches and tributary streams throughout the MN River Basin

Courtesy of MPCA

High turbidity can significantly reduce the aesthetic quality of lakes and streams, having a harmful impact on recreation and tourism. It can increase the cost of water treatment for drinking and food processing. It can harm fish and other aquatic life by

reducing food supplies, degrading spawning beds, and affecting gill function.

Based on the federal Clean Water Act, waters that do not meet water quality standards are "impaired." The Clean Water Act requires states to develop a clean up plan for each impairment affecting a water body. The clean up plan and the process used to create it is a Total Maximum Daily Load (TMDL). A TMDL must identify the sources of the pollutant, in this case turbidity, causing a water body to violate standards. The TMDL also determines the amount by which each source must reduce its contribution to ensure a water body meets applicable water quality standards.



Water quality data have been collected throughout the Minnesota the Minnesota River Basin during the past thirty years and studies have shown excessive nutrient and sediment concentrations. Large portions of the basin do not meet state water quality standards for bacteria, turbidity, dissolved oxygen, ammonia, and biota. – State of the Minnesota River Report

This particular project includes 18 stream reaches. Some are located on the Minnesota River while others are the lower reaches of the following tributaries: Chippewa, Redwood, Cottonwood, Blue Earth, Yellow Medicine, Watonwan, and Le Sueur Rivers as well as Hawk Creek. This project will set turbidity and sediment reduction goals for each of the tributaries. It will also identify practices to reduce sediment in the river. A stakeholder advisory committee has been meeting to provide input on the project. Sediment reduction goals will be developed this summer and a TMDL report drafted by December 2008. This is one of several TMDL projects underway in the Minnesota River Basin.

Friends of the Minnesota Valley continued from page 7

The Friends staff offers both assistance and ideas for people looking to organize a community clean-up. April is traditionally a good month with the days getting both longer and warmer as the ice on rivers, lakes and other water bodies disappear until next winter. Keep an eye on the local newspaper for information on the community clean-ups or go to the web site:

www.friendsofmnvalley.org You can contact the Friends office by calling 952-881-9065 or sending an email to info@friendsofmnvalley.org

Here are a number of suggestions from the Friends staff:

- "Join with friends, a neighborhood group or an organization to sponsor a Community Clean-Up for Water Quality. All you need are gloves, rakes, brooms, shovels, and bags to clean up the debris." Friends will provide supplies if needed.
- "You can also work individually, cleaning up the area around your street. Let us know how many bags of compost you collect and you'll receive a free thank you gift."

Another way to assist the community clean-ups is by donating money to pay for materials and advertising. Donations of plastic bags, gloves and shovels will also help with this effort.



Five garbage of debris contain one pound of phosphorus. A pound of phosphorus produces 1,000 pounds of algae.

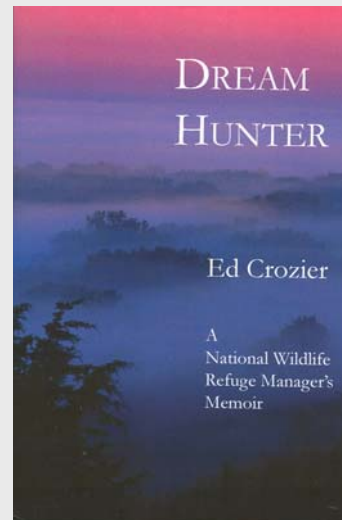
In addition the Friends of the Minnesota Valley partner with local organizations and citizens to complete wetland restoration projects and work with landowners to incorporate conservation measures in their land-use decisions under the Watershed Initiative program. Currently the staff is assisting the Friends of High Island and Rush River to improve water quality in the lake at New Auburn.

Finally, there is the Community Partners Program. Under this effort the staff, "communicates the importance of conservation to elected officials, city and county planning staff, builders, and developers." This is accomplished by recruiting local residents to be active in community planning and zoning decisions whether in stormwater management, recreational trail development, agricultural practices, urban sprawl and much more.

Book Review: "Dream Hunter – A National Wildlife Refuge Manager's Memoir" by Ed Crozier

Dream Hunter is a series of recollections that roam from the author's days as a youth through his nearly fifty years of working coast to coast with the National Wildlife Refuge System. The recollections are about his personal outdoor adventures and his experiences as a professional manager of several national wildlife refuges.

The book includes stories about growing up in a small town on the Minnesota prairie, working as a Forest Service fire-tower lookout, a Park Service fire fighter, a wilderness guide and as wildlife manager in the Fish & Wildlife Service. Other stories are about his escapades in the army, grass-roots environmental activism, owning a hunting camp, living with bird-hunting dogs, saving a valley, wildlife management, game-law enforcement and the politics of managing a national wildlife refuge.



Today, MN Valley NWR is a charmed place, carefully watched over by the River Spirits. The refuge has its ups and downs but, in the big picture and over the years, it has been remarkably successful.

Saving A Valley – In 1970, we built a new home south of the Minnesota River in the suburb of Burnsville, which was just across the river from Bloomington. My route to work at the new Federal Office Building at Fort Snelling crossed the Minnesota River Valley on the old – Cedar Ave. Bridge or the Mendota Bridge. Both crossings provided a good view of the Minnesota River and the adjoining backwater marsh areas. Every day on the way to work I would think that the floodplain marsh areas in the valley should be part of a national wildlife refuge.

The, Old Cedar Avenue as it crossed the river was a dirty; busy commuter road with plenty of unsavory people shooting things up, abandoning cars, dumping refrigerators and other discarded household items and generally doing things not tolerated elsewhere.

RIVER RAMBLINGS

by Scott Kudelka



Spring seems to be taking its old sweet time arriving this year, especially if you live farther north than the Minnesota River Watershed. Even with the late heavy snowfall I don't think anyone minds the additional moisture. Warmer temperatures will arrive eventually along with mosquitoes, wood ticks and other annoyances of spring.

Last month I helped out with the annual Water Festival sponsored by the Brown Nicollet Cottonwood Health Board. This means you are a speck on this living mass of 4th graders running from one environmental-related presentation to another. My expertise happens to be teaching about the water cycle by using a dice game developed under the Project WET program.

Let me say if the kids I had in my six classes are going to be our future leaders, I feel pretty good we will have a bright one. Even though they were enjoying a day out of the classroom, most of them were excited to learn and continually offering thoughtful answers to my questions without much prompting. They understood the basic concepts of how water moves around the earth and why we need to protect this valuable resource.



On April 5th I had the privilege to help Art and Barb Straub with a Minnesota River presentation to the League of Women Voters at

the Gustavus Adolphus arboretum to over 40 people. If you want to see excitement for the Minnesota River and what it has to offer you only need to give the Straub's a call. They showed off amazing artifacts from the river including large bison bones and strange fish. The Straub's don't just talk about their amazing collection, they include the entire audience in the presentation. We are fortunate to have them living along the Minnesota River.

Later that evening I attended the annual Minnesota River Banquet sponsored by the Coalition for a Clean Minnesota River. Thanks to Scott Sparlin and all the volunteers we got to enjoy local favorite beverages from Schells and Morgan Creek - for free! This is what it is all about - sustainable living. For the evening entertainment people had a chance to talk about various river issues with a number of experts.



Tom Fischer of BWSR and I took on General River Issues as we tried to answer people's questions concerning the great floodwall of Mankato, recreational opportunities and conservation measures. Thanks to Senator Dennis Fredrickson for taking all the legislative questions. We are fortunate to have such a dedicated public servant who uses his valuable free time to be part of the ongoing effort to improve water quality in Minnesota River.

As you read on the front page, the Watershed Alliance has chosen to concentrate on the new initiative - The Living Systems Project - as our "Clean up the Minnesota River" issue for the next couple of years. This project will only work if all of us recognize how we contribute to water quality problems and what each person can do to improve, protect and restore our water resources.



Big Stone II concerns Native Americans

"Wind energy is a far better option for the new millennium rather than building a new coal-fired generation plant," said Winona LaDuke at an energy forum held in Fergus Falls concerning the proposed Big Stone II coal-fired generation plant. "We live in an area that many people refer to as the Saudia Arabia of wind." According to Myrna Thompson, Native Americans are concerned about the long-term effects of building a new coal-fired plant, and also the effects on the environment.

No Child Left Indoors

This new initiative has been launched by Pheasants Forever (PF) and Quail Forever (QF) as part of a national effort to get youth unplugged from electronics and involved with the outdoors, nature and wildlife. "It's imperative that we reconnect youth to the outdoors," said Shirley Riley, PF/QF's vice president of education and outreach. "If we don't engage youth in the outdoors, then they don't understand nature and won't care about it. And if they don't care about wildlife and wild places, they won't care about conserving them."

Gustavus Adolphus participates in National Campus Energy Contest

After being a longtime leader with green causes, Gustavus Adolphus College is competing against campuses across the country for the biggest energy usage drop. The college is using an online energy counter to give hourly updates for each campus building's energy consumption. In the process they discovered the administration and academic buildings were responsible for almost 75 percent of the campus' total energy consumption.

"We're hoping by giving people realistic tips they'll think about (energy conservation) more in their daily lives," explained Gustavus Junior Lauren Sulner. "Overall, we're trying to make both concrete changes across the campus but also changing people's mindsets about conservation."



Douglas County earns national award

Douglas County encouraged residents to replace their regular light bulbs with compact fluorescent light bulbs and won a national award for promoting energy efficiency. This County Energy Star "Change a Light" campaign is in its second year and sponsored by the National Association of Counties, U.S. EPA, Office Depot and Wal-Mart.

More than 14,700 county employees and residents throughout the country pledged to replace one or more incandescent bulbs or fixtures in their homes with one that has earned the government's Energy Star Label. This effort will help prevent more than 6.1 million pounds of greenhouse gas emissions, and save more than 4 million kilowatts per hour in energy and more than \$300,000 in energy costs.



"Renewable Energy and Sustainability Initiatives" major at the Morris University

In the fall of 2008, students at the University of Minnesota, Morris (UMM) will be able to enroll in a new environmental studies major focusing on renewable energy and sustainability initiatives. "[The environmental studies major] is a major that draws heavily from existing and newly developed courses in the social sciences and the sciences," said Pete Wyckoff, UMM associate professor of biology and coordinator of the new major. "In addition, students will be exposed to humanist perspectives on the environment through a required core class. We also look forward to development of new environmentally-themed humanities classes."

Cool use for wastewater

The City of Mankato and Calpine Corp., an independent power producer focusing on clean natural gas and geothermal electricity generation worked together to build a wastewater treatment plant that fit both of their needs. Mankato needed to reduce phosphorus from its wastewater effluent discharges to the Minnesota River and Calpine was looking for up to 6.2-million-gallons-per-day to meet its cooling needs.

As a result, Calpine built a \$20 million water reclamation facility to turn the effluent into water suitable for use in the power plant and meet the state's impending phosphorus restrictions. In addition to Mankato reducing the amount of phosphorus discharged into the Minnesota River, nearly 679 million gallons of potable water per year wouldn't be withdrawn from the Mankato aquifer.



BARRY LOPEZ

"What wolves do excites men and precipitates strong emotions, especially if men feel their lives or the lives of their domestic animals are threatened. Explanations for the wolf's behavior are rampant. Biologists turn to data. Eskimos and Indians accept natural explanations but also take a wider view, that some things are inexplicable except through the metaphorical language of legend. The owner of a dog team is more righteously concerned with the safety of his animals than with understanding what motivates wolves. And everyone believes to some degree that wolves howl at the moon, or weigh two hundred pounds, or travel in packs of fifty, or are driven crazy by the smell of blood,"
– Of Wolves and Men.

Barry Lopez is the author of the classic books: "Arctic Dreams" and "Of Wolves and Men," and considered the nation's premier nature writer. Lopez writes often about the relationship between the physical landscape and human culture. His work is best known for its ecological concerns.

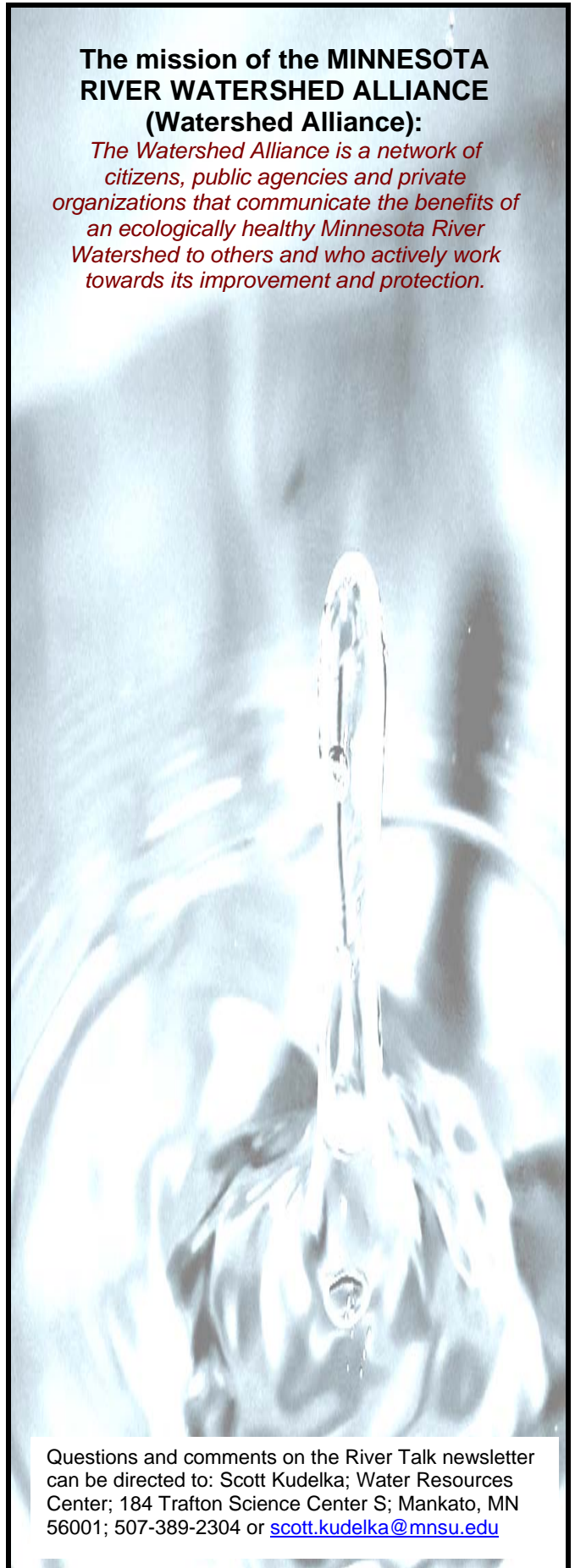


"On a winter afternoon – a day without a sunrise, under a moon that had not set for six days – I stand on the frozen ocean 20 miles off Cape Mamen, Mackenzie King Island. The sea ice of Hazen Strait is not completely featureless, but its surface does not show, either, any evidence of severe torture, such as one would find, for example in the Lincoln Sea. The currents are relatively calm here. During the nine or ten months the water is frozen, this platform hardly moves," – Arctic Dreams

TO KNOW A PHYSICAL place you must become intimate with it. You must open yourself to its textures, its colors in varying day and night lights, its sonic dimensions. You must in some way become vulnerable to it. In the end, there's little difference between growing into the love of a place and growing into the love of a person. Love matures through intimacy and vulnerability, and it grows most vigorously in an atmosphere of trust. You learn, with regard to the land, the ways in which it is dependable. Where it has no strength to offer you, you do not insist on its support. When you yourself do not understand something, you trust the land might, and you defer. – The Language of Animals

The mission of the MINNESOTA RIVER WATERSHED ALLIANCE (Watershed Alliance):

The Watershed Alliance is a network of citizens, public agencies and private organizations that communicate the benefits of an ecologically healthy Minnesota River Watershed to others and who actively work towards its improvement and protection.



Questions and comments on the River Talk newsletter can be directed to: Scott Kudelka; Water Resources Center; 184 Trafton Science Center S; Mankato, MN 56001; 507-389-2304 or scott.kudelka@mnsu.edu